ABSTRACT

PHYSICAL AND SOCIAL IMPLICATIONS OF STREET NAMING AND HOUSE NUMBERING SYSTEMS IN TODAY'S URBAN ENVIRONMENT

by Joel Peter Morbito

Practically every person in the United States can claim two means of personal identification: name and address. For many rural residents address consists of merely the names of community and state, but for many others and for urban residents, who make up the majority of the population, the address consists of something more. This something more is a street name and house number. Street names have been a part of urban America since the first settlers built more than half a dozen houses side by side to form the nucleus of a village. House numbers since the time when it was no longer possible to see all the houses in that village with a single glance.

The street name and the house number are still the chief means of identifying any location in an urban area. As such they play an important role in the vital communication flows which make it possible for men to live in cities. The growth and development of street naming and house numbering systems has coincided with the growth and development of cities. Without a means of easily locating the

destinations of all the goods and services being moved, the distances traveled could not be very great.

In addition to their physical role of making it possible to find a destination within the city, the street name and house number play another role. The street naming and house numbering systems are verbal descriptions of the city's physical dimensions and they are verbal descriptions of the city's cultural dimensions. The street naming and house numbering systems of any community reflect the history of the cultural, political and social values of that community and the nation.

This study is basically a review of all the systems of house numbering developed and in use in the United States. Street naming and house numbering are by no means unique to the United States, but Americans have produced several distinct systems based on local culture, local geography and city plan. The major features of the most important systems in use will be discussed in light of their relationship to these factors. Most of the systems discussed and illustrated are outgrowths of the prototype systems developed in the major cities of the eastern seaboard during the early years of our country's urbanization. Other systems have been developed since to meet newer conditions.

A few general policies for street naming and house numbering are formulated in sections following the descriptions of the principal systems in use. These policies are intended to suggest ways of clarifying the street naming and house numbering systems to make them work as efficiently as possible. In light of these policies, we will conclude with a series of recommendations for improving the house numbering and street naming systems in two major metropolitan areas which currently have very inadequate ones. The two areas, Manhattan Borough in New York City and Allegheny County, Pennsylvania, were chosen because between them they have practically every problem of house numbering and street naming found in the United States.

Proposals for changing house numbering and street naming systems must consider not only physical deficiencies, but the social effects of change as well. Any proposal which does not consider both aspects is likely to be rejected by the residents of the local community. Every community needs adequate and efficient systems of house numbering and street naming if it is to meet the demands of modern communication in today's urban environment.

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INTRODUCTION

The city is a complex combination of physical objects molded and created by the action of social forces. It is men acting and reacting with each other and with nature. At first men were helpless before nature, but eventually they began to learn to control it. Control over nature, even the smallest amount, meant an opportunity for greater social interaction between a man and his neighbors. This interaction produced civilizations and in time led to the establishment of centers, cities, where the social interaction between men could be increased.

As men developed civilization they developed symbols to explain their civilization. Men had symbolized important objects and events in their lives even before they had begun to conquer nature, but now with more time to devote to activities other than merely staying alive the development of symbols increased. Symbols visual and pictorial as well as audial proliferated. Symbols standardized and became language and writing. Other symbols were used for artistic expression in music, sculpture, and painting. Still other symbols became associated with religious rites or rites connected with being born, initiated, or dying.

The earliest symbols attempted to imitate or reproduce nature. Gradually, these symbols became more stylized until, in many cases, they lost their original meaning. They then either acquired a new and deeper meaning or were discarded. Symbols soon did not need to wait to be stylized, they were made so from the beginning. As time passed, symbols became more abstract and more representative.

The city, since it was such an important phenomenon of civilization, was symbolized in many ways. Its social activities and interactions were symbolized in dances, songs, and paintings. The city's physical dimensions are symbolized in maps. The city's physical reality is also symbolized in another way. The street naming and house numbering systems are verbal representations of the city's physical form. Being verbal and therefore more abstract, the street naming and house numbering systems can often establish a truer image of the city's social reality, than can any other purely physical description such as a map.

The street naming and house numbering systems provide many other important services in the urban community in addition to or while describing its physical or social conditions. These systems, when combined with community title, form that singular method of personal and locational identification, the address. Today, the name of a community is part of everyone's address, but house numbers and street

names are distinctly urban creations. Their development in the United States has coincided with the development of the communication processes that have made the growth of the cities possible.

Our purpose here will be to trace the creation and development of American systems of street naming and house numbering from their beginning as simple descriptions of the physical surroundings to their present role as symbols of social attainment. All house numbering and street naming systems are a composite, but in varying proportions, of both the physical and the social aspects of urban culture.

Many patterns and styles in street naming and house numbering have been developed. Some of these are more suitable for certain street patterns than others. Some fulfill their function of providing an efficient means of locational identification and some do not. The problem of determining a workable street naming and house numbering system for an area will be considered after the whole range of American street naming and house numbering systems in use has been explored. This study will conclude with a set of recommendations for improvements in street naming and house numbering for two major metropolitan areas which presently have systems inadequate for today's communication needs.

Responsibility for the creation of systems of urban street naming and house numbering can be laid on many

shoulders including those of the planner. Street names were often an integral part of many prototype city plans. Gradually, however, streets came to be named and buildings numbered more and more by surveyors, civil engineers, linguists and real estate entrepreneurs. As city growth became more chaotic and the role of planning in it decreased, street naming passed from those who planned before doing to those who merely did.

Today, planning is assuming a primary place in urban development. It now becomes vital that the planner participate in shaping these important cultural manifestations of the city, the street naming and house numbering systems. The planner performs a function of forecasting human needs and giving form to an environment in which these needs can be met. He must, therefore, be involved with any system, including the street naming and house numbering systems, which give order and rationality to the urban complex.

CHAPTER I

THE HISTORICAL PROGRESSION

To the Nineteenth Century

Street naming and house numbering in the United States can be traced to some very old traditions. Americans, however, have also been responsible for quite a few innovations in methods of street naming and house numbering. The present forms of systems of place identification throughout the country are a composite of what has gone before and what was invented at the moment of need.

The earliest and most continually favored methods of street identification were descriptive ones, but even the idea of house numbering was not unknown. In Biblical times, such titles as "the street called straight"[1] or the street of the silversmiths were not uncommon. These two types of description: description of physical characteristics of the street or a description of its social characteristics have continued in use up to the present. Historically, street and building identification has been used, as it is today, as a means for locating people, services, or goods, the major

[1] The New Testament, Acts of the Apostles 9:11.

components of the urban whole. But motives, other than purely utilitarian ones, exist behind many street names.

In ancient times, roads which existed primarily to serve residents or purely local trade were generally named by custom according to one of the two descriptive methods named above. Sometimes, however, a particular road transcended purely local significance. In such cases a name befitting this importance had to be given. Many of these names have continued to be used even up to the present. The most famous road of antiquity, the Appian Way, built in 312 B.C. by Appius Claudius Caecus was named for the Roman Dictator who built it not only because he was the country's ruler, but also because the road was of national and not local significance. Its name needed to show that although the road started in Rome and ended in Brundisium it also connected many places in between. Naming it the "Rome-Brundisium Road" just would not do.

For very similar reasons two thousand years later, America's first transcontinental highway, begun in 1913, was called the Lincoln Highway rather than the "New York-San Francisco Road." There are now quite a few roads between New York and San Francisco; but the name, Lincoln Highway, although the road is no longer unique, is memorialized in dozens of towns along the old route. Another name used to show a road's significance in what is now the United States is found on the highway which runs

along the California coast, El Camino Real. This road could have been called something like "San Francisco Mission-San Diego Mission Road," but by calling it the King's Highway a much greater impact was made on the people of the area. The conquered natives would realize the great power of the king and the Spanish colonialists would feel a little closer to home. The term, the King's Highway, was by no means unique to colonial California. It was used throughout Europe and even continues in the United States in such outposts of European culture as St. Louis (French) or Brooklyn (Dutch-English). Although the United States is indebted to many nations for its present street names many currently existing are traceable, as so many other American social customs, to the British.

The form of British street names, for the most part, dates back to Roman days. As the Romans conquered the island they named the roads, generally in three categories: after people, animals, or local conditions. These old Latin names persisted and were eventually translated into English words, remaining in use up to the present time. We owe our greatest debt to Roman-British culture not for any particular names, but for our most common thoroughfare designation, street. The English word street comes from the Latin word strata which meant a road in a town. In towns "streets" were distinguished from "lanes" by virtue of the greater width of a "street". Different classes of

city thoroughfares were distinguished even in the Bible, "Then the master of the house was angry and said to his servant, 'Go out quickly into the streets and lanes of the city and bring in here the poor, and the crippled, and the blind, and the lame.'"[2] The very earliest street naming in the United States did, to some extent, preserve this distinction between a street and a lane. Gradually, however, Americans were content to call any sort of thoroughfare in a town a "street."

This usage followed the general trend away from British styles in street naming which began in the United States just a few years after it was first settled and populous enough to need such things as street names. Actually, it took quite awhile for the settlers to get around to naming streets for there were so many other things which needed names. Names had to be given to rivers, streams, mountains and valleys. At first the colonists used variations of Indian names, but the Indians did not name natural features the way Europeans did. One large river or lake might be called several different things by the different tribes which adjoined it. Since Indians were nomads the names of various natural features would change as the tribes moved. The names that the Indians did give were almost always descriptive ones. The Spanish settlers in the early days also followed this practice, but later they

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[2]The New Testament, Luke 14:21-22.

began to name physical features of the land as well as towns and settlements after saints.

The English settlers felt very strongly that rivers should be named in their entirety and they proceeded to do so. Generally they named such physical features after noble families. This was particularly true in Virginia where the royalist traditions persisted longer than in other areas. While it was inconceivable to the Europeans that a river, a natural flow channel, should have more than one name throughout its length; it never occurred to them that the street, a man-made flow channel, should have only one name for its entire length. The European settlers in American gradually changed this pattern and streets like rivers were given one name for their entire length.

This change was, no doubt, an indication of the beginning of development of a distinctively American culture. Street naming patterns are a very good indication of cultural patterns. A noted anthropologist, Edward T. Hall, observing differences in our manner of street identification and the European manner felt the differences had great significance simply as a manifestation of cultural differences. Hall states:

> Using roads for cross-cultural contrast, the reader will recall that Paris, being an old city as well as a French city, has a street-naming system that puzzles most Americans. Street names shift as one progresses. Take Rue St.Honoré, for example, which

> becomes Rue du Faubourg St. Honoré, Avenue des Ternes, and Avenue du Roule. A child growing up in Paris, however, has no more difficulty learning his system than one of our children learning ours.[3]

In the United States, however, a different view has prevailed. New York did in the earliest days follow the European system of having a street change name at almost every intersection. This had a certain convenience, if one had an address on, say, Green Street, one would be able to locate the house easily by locating in just what section Green Street occurred. Toward the end of the eighteenth century the idea of numbering houses developed and brought with it new possibilities of street naming. Then some people began to question whether the old methods of street naming were really as easy to learn and become familiar with as any others. According to George Stewart, "The Americans, less bound by tradition than the Europeans, quickly say that a multiplicity of short streets had suddenly became an inconvenience."[4] The relative location of a house could now be given by a number. The same name could be continued for miles as long as one street actually seemed to be a continuous thoroughfare. This change in address identification was accompanied by a change in spatial

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[3]Edward Hall, The Silent Language (New York: Premier Books, 1959), p. 153.

[4]George R. Stewart, Names on the Land (Boston: Houghton-Mifflin Company, 1958), p. 205.

identification. "At the same time, a street lost its two-dimensionality, and came to be imagined as a line."[5] From this time on it became common to say on Green Street rather than in Green Street.

The way in which a street or system of streets is spatially perceived is very closely related to how it will be identified. Edward Hall's discussion of how children in different countries learn the respective methods of street naming in those countries shows this relationship between spatial perception and name identification.

> We teach (our children) to watch the intersections and the directions and that when something happens - that is, when there is a change of course at one of these points - you can expect the name to change. In Paris the child learns that as he passes certain landmarks - like buildings that are well known, or statues - the name of the street changes.[6]

In other words the Parisians and most other Europeans perceive streets as a series of spaces related in a system of spatial geometry while we perceive streets as a series of two dimensional paths in a linear geometric system.

The reasons for this difference in perception are many and varied. Primarily they may be related to the time in which this change in orientation took place--the end of the eighteenth century. At this time science and scientific methods were emerging as the ideals of the

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[5] Ibid., p. 204.

[6] Hall, op. cit., p. 153.

intellectual and to a lesser extent all society. The logic and rationality of Locke and Rousseau prevailed in the leading thought of the day. At this time our newly developing country needed towns laid out and streets planned. Property rights were paramount, but property rights are of little value unless you can accurately tell just where your property begins and ends. To meet these needs the newly developing nation (and culture) needed surveyors. It is not surprising then that many of our early political leaders and thinkers, like Washington and Jefferson, had knowledge of surveying. Surveying, like the other sciences and semi-sciences of the day was not very sophisticated by today's standards. Simple linear geometrical relationships were the ones most clearly understood. Simplicity was not considered a detraction but a virtue; the ultimate aim was to be able to explain everything in its simplest terms. This desire for simplicity, rationality and logic was, at least in part, responsible for the changes that took place in the street identification patterns in late eighteenth century America. The Americans were looking for a simpler, more logical and more rational way of locating addresses and eventually they found them.

Hall was wrong when he said it is as easy for the Parisian child to learn the street layout of Paris as it is for an American child to learn, say, the street layout of Chicago. The difference is the system; American street

layouts usually have a system while European ones do not. Once you have learned how the system works you can locate any address within it. In European cities without any sort of system the method of finding an address in one section of the city may be very different from the method needed to find an address in another part of the city.

The significance of this difference can be marked by a European's reaction to an American street naming system. Le Corbusier, the famous architect and urban designer, when he first arrived in New York City found its gridiron pattern of numbered streets a delight. He said he felt a wonderful feeling of freedom for simple arithmetic made it possible for him to locate, without question, any point on the island.[7]

> This offers freedom for the mind, Le Corbusier asserted; freedom to concern itself with other matters of greater interest than pathfinding. An easily perspicuous city plan turns orientation, for the city dweller, into a matter of simple routine and makes it possible for him to focus his attention on social relationships.[8]

That this was achieved in America was not an accident. It resulted from the spirit of the times. Although it may seem somewhat an over-exaggeration we can say that the same spirit which eventually lead to the Declaration of Independence and the United States Constitution also helped

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[7]Le Corbusier, When the Cathedrals Were White (New York: Reynal and Hitchcock, 1947), p. 47.

[8]Svend Riemer, The Modern City (New York: Prentice-Hall, Inc., 1952), p. 436.

cause the European settlers to reject European methods of street naming. Simply stated, the early settlers, particularly the British, did not bring strong traditions either political or street naming with them. They brought ideas of freedom which were molded by the harsh realities of the wilderness. Institutions and expressions were created or modified to meet the new needs. If an old custom would work they would use it, if not it was discarded. The old English custom of naming the two principal thoroughfares "High Street" (in the sense of altitude) and "Broad Street" (in the sence of physical width) never caught on and was used in only a few New England towns and Columbus, Ohio. Here in the United States a custom developed calling the principal thoroughfare the main street and eventually this solidified into "Main Street."[9]

In briefly tracing the history of street names in what is now the United States our first stop would be Boston. As early as 1645 Boston had names for some streets, but these were entirely unofficial and just as many streets were unnamed. The Dutch in New Amsterdam were the ones who really got things going in street naming. Today many of the names which they gave survive either in translation or anglicized form. "De Bouweiry (the farm), became the Bowery. Breede Wegh came over easily into Broadway. Waal,

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[9]Stewart, op. cit., p. 125.

inevitably was absorbed to a common English word, and ended as Wall Street."[10] New York, however, was not the only place in which foreign language words found their way into English. In New Orleans, after French influence subsided, Bon Enfants became "Good Children" and Champs Elysees became "Elysian Fields."[11]

When street names finally were officially established in U. S. cities, they usually retained the age-old custom of giving names which had a direct connection with the physical conditions of the street. Bridge Street, Fort Street, Marketfield Street, Frog Lane, Dock Street, Church Lane were the types of names first given. New streets in Boston and New York were given names such as King, Queen, Prince, Marlborough and names of other English heroes. Old London street names such as Whitehall, Cheapside, and Chelsea were also used.

Then in 1682 an amazing thing happened. William Penn laid out the city of Philadelphia and gave numbers for names to the north-south streets. Penn was a Quaker and numbers were of religious significance to the Quakers. They even spoke of Sunday as "first day." The rest of Penn's naming was rather commonplace. He called the two

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[10] Ibid., p. 11.

[11] H. L. Mencken, The American Language abridged by Raven I. McDavid, Jr. (New York: Alfred A. Knopf, 1963), p. 667.

principal streets Broad and High (later High became Market) and he named the east-west streets after trees indigenous to the area.

The idea of numbering remained dormant for about a hundred years until 1791 when Pierre Charles L'Enfant, a French surveyor caught up in the socio-politico ideological revolution of the day, made his plan for The Federal City and gave numbers to the north-south streets and letters to the east-west ones. This plan, reflecting the logic and order of the age of reason, graphically portrayed the social and philosophical ideas of the day in man's fullest expression of social organization, the city.

Later the idea of numbering streets spread until even Europeans who at first scoffed finally adopted the idea. Even conservative London in its Queens Park section has avenues numbered First through Sixth.[12] Americans, in the meantime, were continuing to develop their idea of organization and system in street naming and house numbering. Beginning with the first significant street naming in America, the early steps in the progressive development of American street names are listed below:

Chronology of Street Naming in the United States, 1658-1822

1658 New Amsterdam council established official street names. This is the first city in the present United States to have streets officially named.

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[12]Mencken, op. cit., p. 667.

1682 William Penn lays out and names Philadelphia streets. This is the first city with numbered streets.

1708 Boston officially established street names although some names date to 1645.

1791 L'Enfant designs Washington, D. C. and numbers north-south streets. This was the second city in the United States to have streets with numbers as names.

1807 New York adopts a plan with numbered streets. (These streets were later given names.)

1822 New York adopts its famous plan of numbered north-south "Avenues" and numbered east-west "Streets."

This brief chronology relates the historical progress of street naming from its earliest days up through the establishment of the first distinctly American system of street naming. This chapter has been devoted to a very brief review of the whole history of street naming in Western European culture up through the creation of the present United States. The next chapter will trace, in greater detail, the reasons behind most of our present day naming patterns and how they got that way.

CHAPTER II

THE DEVELOPMENT OF STREET NAMES IN THE UNITED STATES

The Nineteenth Century to the Present

The street name was originally just a description based on the street's physical or social characteristics. In time as culture progressed and became more sophisticated, more abstract ways of describing physical or social characteristics were developed. Characteristics of certain streets came to be used to describe any street with similar conditions. As years passed, these descriptions evolved into abstract names expressing physical or social values which had no connection with the street itself.

William Penn's famous and much copied plan for Philadelphia named east-west streets for trees indigenous to the area, but not necessarily growing on the street bearing their name. Penn's tree names were carried across the country by town builders and planted in areas which had never seen a native mulberry or sassafrass. Tree names have become so abstract as street names that no one would be surprised to find a whole forest of Elm, Maple, and Oak Streets in the middle of a treeless prairie.

Although names of eastern tree species have been widely used they are not the only physical feature street names in use throughout the country. There are regional preferences. Cactus, eucalyptus and other exotic plants of the south and west rarely have their names used on eastern city streets. Street names in any one part of the country generally will reflect the cultural background of that area. Alta Vista, Laguna Honda, Palma and Yerba Buena are all commonly found street names in the San Francisco Bay and throughout the rest of California. In addition to such descriptive names, the names of early settlers, rulers and saints given to physical features, such as lakes or rivers, have in turn been given to streets connected with those features.

As cultural complexity increases so does the complexity of street naming. Every urban area has street names which express the nature of the region's physical environment and street names which express the cultural values of its society. Sometimes the emphasis is on one category and at other times on the other. There are many naming patterns, the numerical ones, for example which are really a combination of both categories. Naming patterns describing physical features not actually existing in the area, but which the inhabitants remember or long for provide examples of how a naming pattern may be a combination of the two major types. Just as naming patterns based on physical

features of a particular area trace the inhabitant's reactions to and interactions with their physical environment so the socio-political naming patterns show the inhabitant's interaction with their cultural environment. Since cultural environment is apt to change more rapidly and more frequently than the natural physical environment or even the man-made physical environment, we can assume the street names which most closely relate to abstract social or political ideas will give the most clear-cut picture of the life values of the urban society at the time the streets were named. Most streets retain their names for their entire period of existence. When there is a change it is because the social philosophy expressed in the street's name has been superseded by a newer one which the urban community feels needs expression.

Sometimes the social values which are expressed in the street name patterns are local and sometimes they are national. Social patterns invariably include political patterns because streets are, by and large, creatures of governments and governments are political. As a result, social values and political values easily become intertwined in the naming of streets. In some ways, perhaps, this is shown more clearly in countries other than the United States. In Italy, for example, almost every city has a Piazza dell' Unita' Italiana as well as a number of streets named after the towns along the Yugoslav coast, as Trieste, Zara, etc.,

which have been traded back and forth between Italy and Yugoslavia.

In the United States, it has generally been personalities rather than places or events which have been commemorated. On the local levels, practically every town of any significance has streets names after its early mayors and civic leaders. There are, however, names which have achieved national importance and can be found in cities and towns in every part of the United States. Undoubtedly, the first ranking name in this category is Washington. There are streets named in honor of the first President from Bangor to Beverly Hills and from Seattle to Surfside. Washington in closely followed in popularity by Lincoln as a street name. The death of a famous person often causes a rash of, not only streets, but everything else to be named after him. We have just experienced this following the death of President Kennedy. Philadelphia lost no time in renaming Pennsylvania Boulevard (in honor of the Railroad) John F. Kennedy Boulevard. The Hudson County Boulevard Commission followed by renaming Hudson Boulevard, John F. Kennedy Boulevard. The late President's name soon began appearing on streets all over the country from a Maryland toll road to a Chicago expressway. Chicago, in a generous display of bipartisan feeling, renamed the Congress Street Expressway after former President Eisenhower at the same time they renamed the Northwest Expressway after President Kennedy.

Wars have provided excellent excuses for changing street names, although their effect in producing changes has varied in intensity through the years. Our Revolutionary War was far more dynamic politically than socially. The Revolution itself produced no immediate rush of changes in street names. Avenue July 4, 1776, did not suddenly appear all over the new country as has became the custom in European and Latin American countries. Today every major Latin American city has at least one street named for a significant date in its history, while we still have none.

The social reactions of the American Revolution were not really manifested until after the French Revolution of 1789. Even New York, capital of the country from 1785 to 1790, did not consider changing its royal names until 1794. In that year a letter in Democrat called for the abolishment of King, Queen, Duke and Prince Streets on that grounds that they were not consistent with our new status as a republic. Others argued that they should be preserved as a reminder of the city's heritage. The City Council finally solved the problem by combining a number of the old royally named streets with new streets that were being constructed.

From this time on, however, New York City has been very responsive to the social reactions following wars and has renamed streets accordingly. In 1817 four numbered New York streets were renamed after War of 1812 heroes,

Chrystie, Forsythe, Eldridge and Allen. World War I with its atmosphere of idealism and noble purpose brought a number of exotic proposals for street names. It was suggested that Fifth Avenue become the Avenue of the Allies, Greely Square becomes Ypres Square, and the Grand Concourse, Woodrow Wilson Parkway. These and many other such proposals never were carried out. About all we have to show for this time are a number of Pershings and Pittsburgh's Boulevard of the Allies.

At this same time, however, it was popular to rename streets which had connections with the enemy. In Baltimore, a group agitated for the renaming of German Street in the city's downtown.

> After professional patriots had insisted on the substitution of "Redwood Street" local historians discovered that it was not named originally after the Germans, but after a distinguished early resident named German. . . this imbecility did not reappear in World War II; as a result, those streets that had escaped in World War I continued to retain their old names. Thus, Baltimore still has a Berlin Street and Avenue.[1]

Indeed, World War II produced very little in the way of street name changes. This war was far too grim and far too horrible for people to want to commemorate it. A few communities named streets and squares after local heroes, but that was the extent of World War II renaming.

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[1]H. L. Mencken, "American Street Names," American Speech, XXIII, No. 2, (April, 1948), p. 88.

Revolutions, war, or great men have not proved to be inspirational sources for developments of colorful or picturesque street names in American cities. Bountiful natural resources and local scenery of magnificant variation have not produced many more. By and large, American Street names have tended to be rather dull and prosaic from the beginning of the country right up to the present. In 1917 one writer made the following rather profound observations on the subject.

> The custom of naming streets and avenues by numbers, while of certain convenience. . .is monotanous and uninteresting. Naming streets by letters of the alphabet is even worse. American cities have even acquired almost a habit in the use of certain names for streets. Perhaps the worse is Main Street, a name which abounds in great numbers. Market Street is a close competitor, while Springs, Broads, Broadways, and High Streets flourish. Some cities name their streets after various states in the Union, which may be complimentary but is certainly without much other meaning.[2]

Criticizing the lack of aesthetic quality in American street names was very popular in the period from about 1890 to World War I. Most aesthetes of the period felt that native American cultural manifestations were inferior to European forms and anything remotely connected with art, architecture, and city planning had to be of European origin to be any good. Reluctantly, however, some writers such as

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[2]Frank Koester, Modern City Planning and Maintenance (New York: McBride, Nest and Co., 1914), p. 120.

W. W. Crane, in an 1897 article, "Our Street Names"[3] had to admit that numbering streets had a high degree of rationality and utility. Furthermore, any alternative method might easily prove to be completely unworkable. In New York City it would be almost completely impossible for native or stranger to find his way around were the streets not numbered.

Such names may be functional, still very few writers on the subject have considered American street names picturesque. Most have deplored the fact that American cities have tended to name streets by following established patterns of other cities rather than developing names unique to the community. "Analysis of street names and their derivations brings forth much local history-or lack of it. The practice of letting real estate developers name streets is not good. It gives rise to too many personal names which have no historical significance."[4]

Although many of our picturesque street names, Sepulveda Boulevard and Topanga Canyon Avenue in Los Angeles for example, do come from cultural backgrounds other than native American, the United States has produced its share of interesting street names. Sometimes picturesque names

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[3]W. W. Crane, "Our Street Names," Lippencott's Magazine (August, 1897), p. 264.

[4]Nathan Nelson Wolpert, "Observations on the Naming and Marking of Streets," The American City, 33, No. 6 (December, 1925), p. 620.

will turn up in very unlikely places. Dreary Akron, Ohio has a Portage Path following a primeval Indian trail and a White Pond Drive leading to the largest of a group of small lakes, White Pond, Black Pond, and Yellow Pond, each named for the predominant color if its water. A naturally scenic Ohio city, Cincinnati, virtually abounds in picturesque names. Blue Ash Road, Mount Airy Avenue, and Indian Hill Road are major thoroughfares leading to such streets as Hoffman Farm Lane, High Meadows Drive, or Yonder Hill Lane. These names could be imitated and probably have been, but nowhere would they have the meaning they have the meaning they do in Cincinnati.

We can expect that as our culture matures and becomes more sophisticated, our street names will become more expressive of their physical and historical backgrounds. Cities will stop copying names which may be colorful and quaint in their original surroundings, but are just foolish and pretentious somewhere else. Any city's street names which accurately reflect the physical and cultural milieu in which they were given will acquire a picturesqueness with use if they don't already have it from the beginning.

A street's name is made up of two parts: its own proper name and a designation indicating some general qualities of the thoroughfare such as its width, location or direction. In contrast to European cities, the old towns on the East coast designated all throughfares as

"Streets." City growth and growth of European influences brought increasing use of other designations such as lane, road, place, avenue, and boulevard. Originally these designations were closely related to the actual physical construction of the thoroughfare, but in time their original meanings have faded. In some places the use of the designation itself has even faded. The average Detroiter and the local newspaper will always give an address as 2802 Woodward and never 2802 Woodward Avenue. Streets with uncommon designation may have them used, but street or avenue is simply ignored. Some cities use a designation to distinguish one thoroughfare from another. In New York City an address 300 Fifth would have no meaning for you would not know whether it was Fifth Avenue or Fifth Street which was meant.

The history of the use of designations is, in many ways, as interesting as the history of the proper street name itself. Often the designations can be more informative and more imaginative than the actual street name. A Boston newspaper editor in refuting an European argument that Americans had over standardized their street names had this to say about thoroughfares in Boston bearing a rather common name, but with some uncommon designations.

> Take Washington, for example. We find Washington street, avenue, court, heights, park, place, square, and terrace. In other cases we have road, circle, parkway, path, way, crest, alley, hill, boulevard,

> esplanade, mall, row, wharf, pier, grove, driveway, green, circuit, block, speedway and others.
>
> It is all confusing to postmen and the public, but it is at least picturesque, and probably inevitable in an expanding city. Certain streets, squares or parks dominate certain sections because of their age or importance and the new streets are likely to take names which indicate in a general way their relation to the well known main stems, parks, hills, corners, etc. Real estate promoters, not satisfied with the age-old manner of indicating highways, search for synonyms which give a touch of novelty and style to their tracts.[5]

This article written about forty years ago accurately described not only what was happening at the time, but what had started to happen forty years before and what is still happening today. City growth means more and more streets and the need for more and more street names. This need can be met in either of two basic ways. Either streets can be named according to some sort of system which can be extended indefinitely or they can be named according to the particular fancy of the person developing the street at the time of its construction. American cities have used both methods interchangeably. Cities which started out with organized systems of naming often abandoned them after their first few years of existence. Cities which originally had no patterns to their street names later tried to organize their street's names into one.

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[5]"Boston Street Names," Boston Herald, August 22, 1926.

Although some of America's oldest cities, like Philadelphia, had a street naming pattern as early as the seventeenth century, most cities did not really bother with the matter until the great nineteenth century immigrations multiplied their populations and the number of their streets. Increases in commerce and industry made it imperative to get raw materials, workers and finished products to various parts of the city. If the terminal location of these movements could not easily be found, then much time and money would be wasted and no one wanted that to happen. The rapid growth of the cities created the need for dozens of new streets. To satisfy this need, cities turned to professional engineers who could lay out the streets simply and accurately. The engineers laid out the streets in simple gridiron patterns because this made it possible to design and build them quickly. Real estate developers liked the gridiron pattern too, because it made it easy for them to build simple and cheap dwelling units.

Since the engineer had been concerned with all other phases of the street's existence, it was only natural that he would be concerned with its naming too. It was logical that streets laid out with mathematical exactness be named that way too. New York had used numbers as street names since it first began to expand and every city wanted to grow and expand just like New York. Soon engineers all over the country were developing numerical patterns for

naming city streets. These patterns could be extended indefinitely as the city grew and grew. The real estate sellers liked the numbered straight, mathematically exact streets. They visually demonstrated that America's future was build on engineering technology and everybody was going to get richer and richer. The city was the paragon of science and technology and that was the way everybody liked it--for awhile.

Engineering and technology meant progress and riches, but they also meant dirt and squalor. Soon the wealthy, and the social thinkers began to long for the country. Regular streets with numerical names meant regimentation and a loss of personal identification. Real estate developers, quickly sensing that you could not treat the rich in the same way as the poor, began to promote the country life as the way to progress. Still, the city had many conveniences which would be hard to give up. Something had to be done to combine the city and the country. A solution was created in England with the Garden City movement of Sir Ebenezer Howard and it quickely spread to the United States. Here, such men as Frederick Law Olmsted had already began introducing the country back into the city and laying out housing tracts which were based on the laws of Nature rather than on the laws of Euclid. Irregularly curving streets just could not be named in an regular numerical pattern. Or if they could,

the idea was to suggest country not city, so names suggestive of the natural beauty everyone was looking for seemed far more appropriate. Picturesque descriptive names were now used for the streets of the rich while numbers named the streets of the poor.

As the middle class developed they were no longer content to live as they had done in poorer days. They desired to emulate the wealthy. At first a few minor concessions were made to them. In New York City, for example, several numbered north-south avenues were given names in the developing west side. Eighth Avenue became Central Park West, Ninth became Columbus, Tenth became Amsterdam and Eleventh became West End. It is interesting to note that no one suggested that these names revert back to numbers as the area declined in fashion.

With the central city built up, the real estate developers moved to its outskirts to set up homes for the new middle class. Occasionally his housing developments would have a few of the amenities of the upper class developments, but mostly the developers relied on the suggestion of country implied in the street's name to do the job. If the name sounded rustic, picturesque, and expensive, people would assume it was and that was enough. By the twenties, however, the middle class had grown to make up the bulk of the population and more residential streets had to be given over to them than to the other

groups. Once again, the problem of finding location emerged and some sort of system had to be devised to arrange street names pleasing to a social conscious Babbit and his friends. The problem arose again in the early fifties as the United States began its second great suburban building boom.

The problem of identifying and finding geographic locations in urban areas has grown more serious each year as communication flows and transportation movements of all kinds increase at dizzying speeds. We have traced the growth of this problem, from its beginning on the eastern seaboard of the developing nation to the present. The next chapter will suggest some of the ways, both old and new, street names have been used to solve the problem by attempting to verbally describe and clarify the city's physical form.

CHAPTER III

SOME BASIC AMERICAN STREET NAMING PATTERNS

A street naming pattern is a deliberate arrangement of names to establish a regular and predictable relationship between the name of any one street and any other. The street name pattern is always related, either directly or indirectly, to the two dimensional plan of the streets.

America's street naming patterns are based on what was done in the major eastern cities as they began their own street naming. Many of these cities have had no substantial changes in street names since this time. Philadelphia's Center City streets legally assumed their present names on December 8, 1853. "They had already been changed by popular usage and the necessity of keeping up the old fiction (in official papers and on street name signs) was burdensome. The reorganization was extended still further on September 1, 1858, when an ordinance was passed changing the names of between 900 and 1,000 streets, lanes, courts and alleys, with a view to introducing greater simplicity and uniformity into the system of nomenclature."[1]

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[1]Ellis P. Oberhottzer, Philadelphia-A History of the City and Its People II (1912), pp. 317-18.

The patterns established by Philadelphia and other eastern cities became the models for settlers as they moved west across the continent. "No city passed any laws about naming streets, or even published a book of advice. The town planners tended to repeat traditionally, with slight variation, what was already familiar."[2]

Four distinct patterns each based on an eastern city, were used in naming streets in the developing towns of the mid-west and frontier beyond. To the four basic patterns a fifth has been added, a pattern produced by today's irregular street layout. Every major metropolitan area and even some large cities have a combination of each of the patterns. The examples given are concerned with the major pattern in use in the area and may not consider some of the others also being used.

The No-Pattern Pattern

Although this title might sound like a paradox it is a valid one. A no-pattern pattern simply means that there was no one dominant idea behind the naming of the streets. Street names were simply given as needed. A no-pattern pattern city might have parts of all the basic patterns in it.

Three cities were chosen to demonstrate the no-pattern pattern. These cities, Boston, Massachusetts;

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[2]Stewart, Names on the Land, op. cit., p. 244.

Lansing, Michigan; and San Francisco, California, geographically span the United States and represent a wide variety in street layout.

Boston has an almost medieval street pattern in the oldest part of the city. Other sections have fragments of patterns begun and then abandoned. Over-all there is no apparent order or plan.

Lansing has comparatively regular gridiron plan with a few diagonal and curving streets. Despite the regularity of street plan no attempt was made to introduce any order into the street naming pattern except for the simple act of naming a few downtown streets near the State Capitol after Michigan counties.

San Francisco has a street plan which is basically a north-south, east-west gridiron pattern meeting another gridiron pattern at a 45 degree angle along the Market Street spine. Here again, no naming pattern is apparant.

The Numerical or New York Pattern

Numerical patterns for street names have turned up in dozens of forms since they first began in Philadelphia almost three hundred years ago. The New York plan of 1822 has been the most widely copied. This plan had all thoroughfares numbered and distinguished them by a designation. North-south thoroughfares were designated Avenues and east-west thoroughfares, Streets.

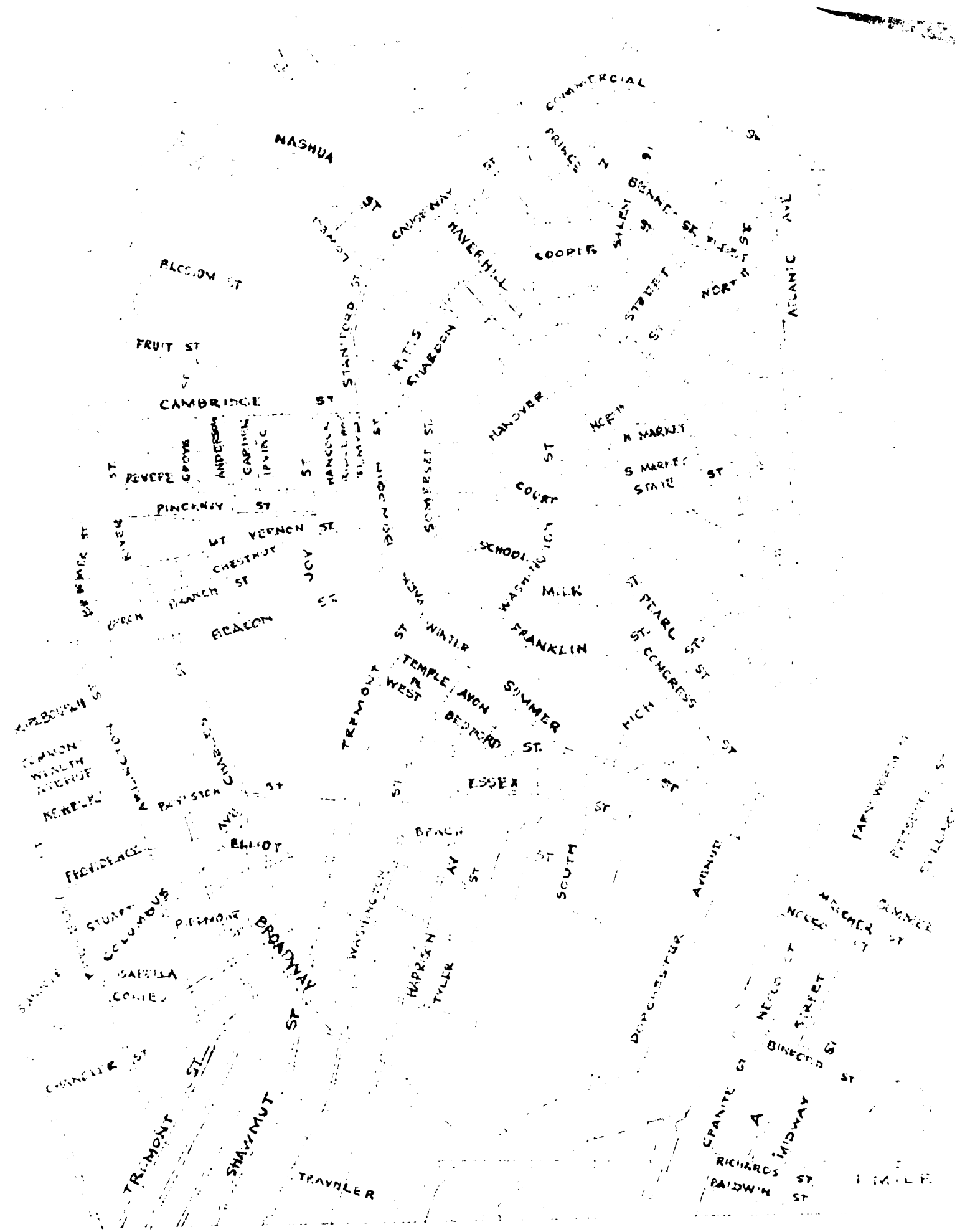

Figure 1. Street Naming - Boston, Massachusetts

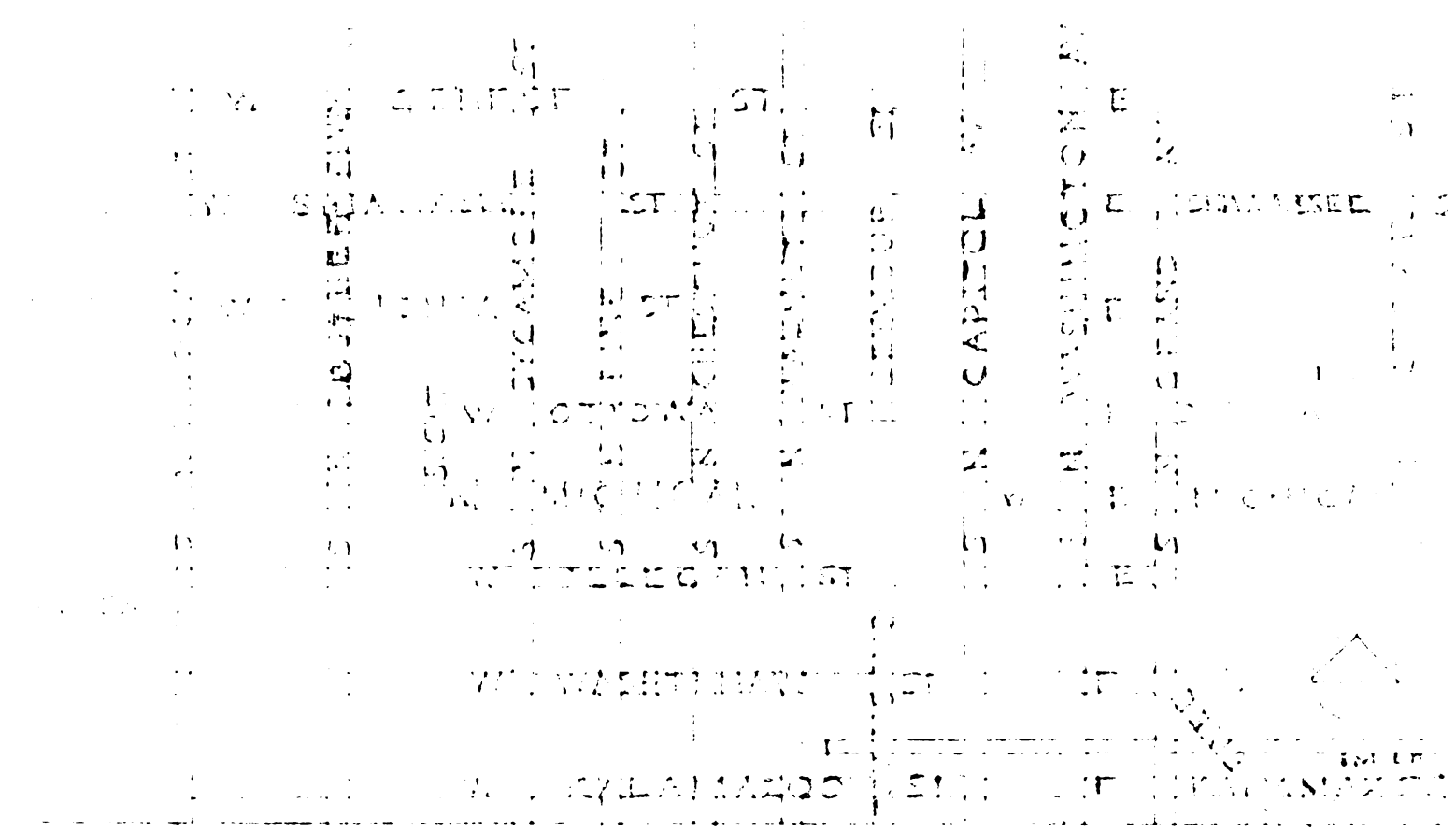

Figure 2. Street Pattern - Lansing, Michigan

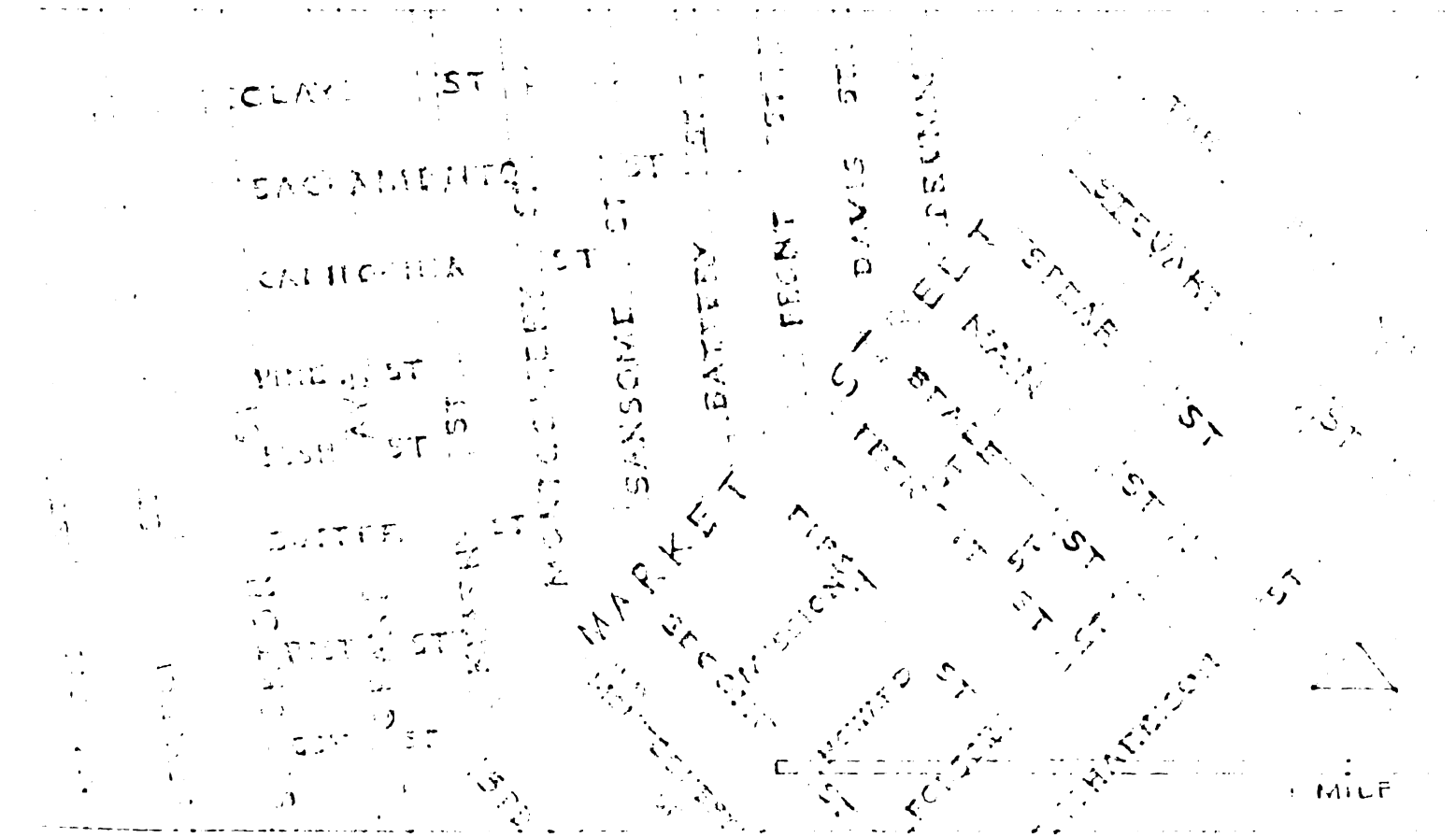

Figure 3. Street Pattern - San Francisco, California

Today, most of the all number systems depend on variety of designations to make them workable. Nebraska City, Nebraska is unique in the use of the Italian word, Corso, and the French word, Rue, for street designations.

Allegan County, Michigan not only uses designations to distinguish between east-west and north-south thoroughfares, but also distinguishes by size of the number. Thoroughfares with numbers above 100 are east-west Avenues while those with numbers below 100 are north-south Streets. The use of numbers as street names in rural areas may seem rather incongruous. To most people the intersections of 75th Street and 110th Avenue would suggest a bustling metropolis, yet such an intersection could easily be found in the middle of rolling wheat fields in such a place as Allegan County which has used a naming system originally intended for dense urban centers.

The Combination or Philadelphia Pattern

The oldest of the regular naming systems is found in Philadelphia. This pattern gives names to east-west streets and numbers to the north-south ones. It thus has the advantages of a numerical system and a system using names. The named streets can provide color and interest for a dull gridiron pattern. The Philadelphia pattern has proven to be the most popular of all the major street naming patterns. The following examples show two of the countless variations of the combination pattern.

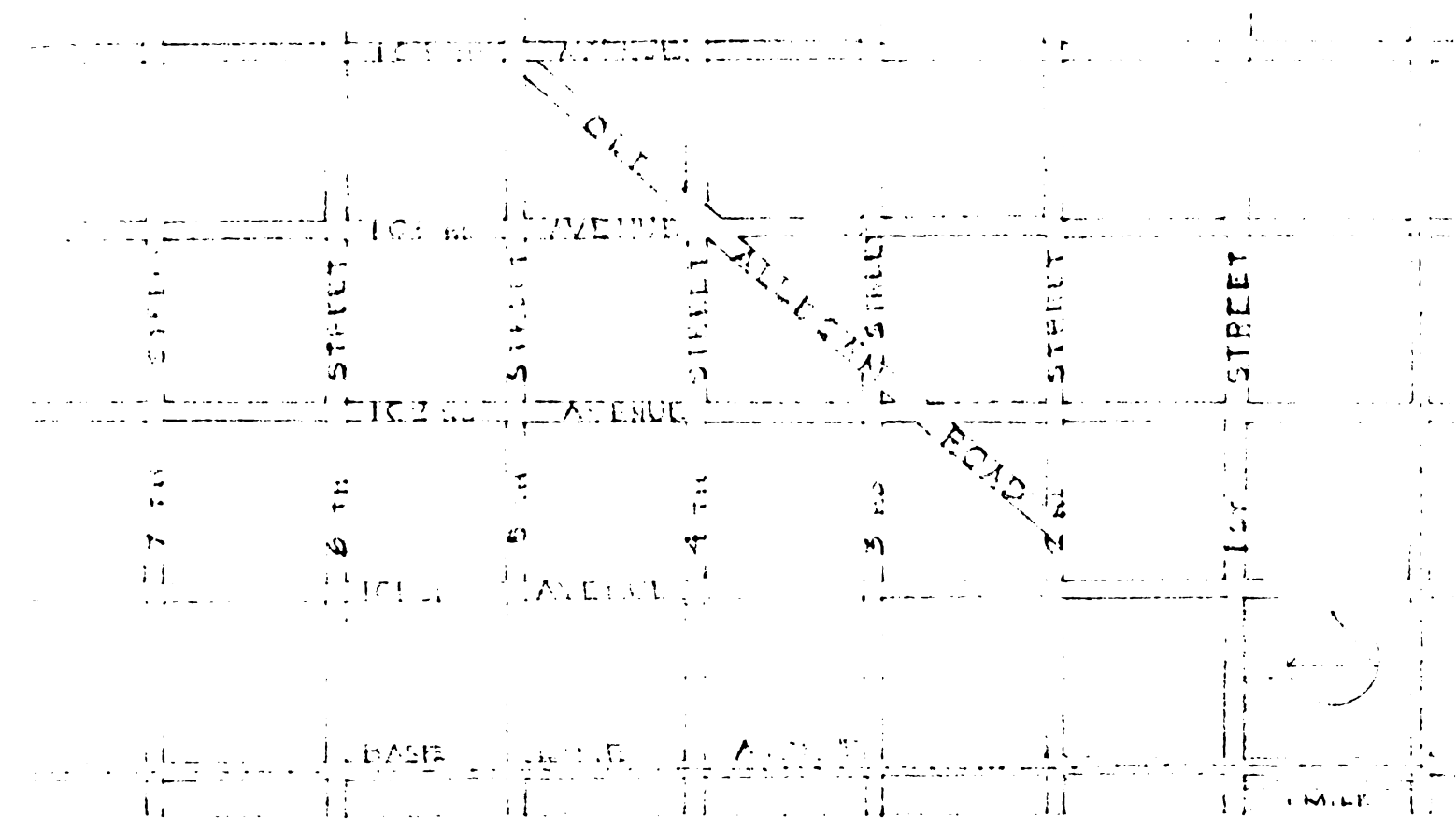

Figure 4. Street Naming - Alleman County, Michigan

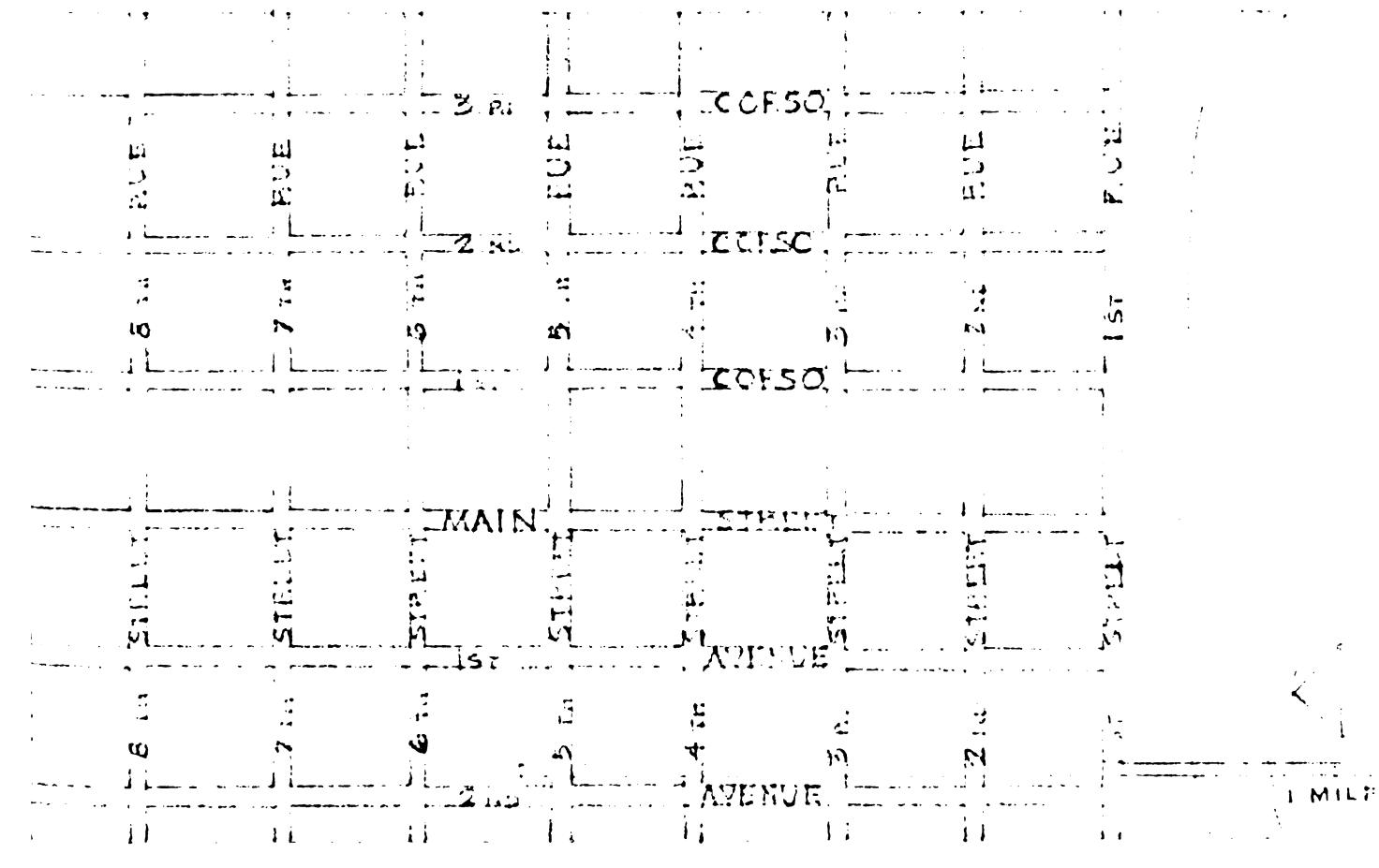

Figure 5. Street Naming - Lourmand City, Nebraska

Cleveland, Ohio.--This city has east-west thoroughfares named and designated Avenues. North-south thoroughfares are numbered, but numbered east and west of a central base line (Ontario Street) so that East Fourth Street is eight blocks from West Fourth Street and parallel to it. Diagonal thoroughfares are named and designated as Roads.

Tulsa, Oklahoma.--Major street names east of the north-south base line are named after eastern cities of the United States. West of the north-south base line, they are named after western cities. Major streets are alphabetically arranged and the minor street names fit into the sequence of alphabetical listings. At this particular time, it takes approximately five complete alphabetical listings to cover the area east of the base line.

In the area south of the north-south base line all streets are numbered with the major streets carrying the designations, First Street, Eleventh Street, Twenty-first Street, Thirty-First Street, etc. East of the city north-south thoroughfares are numbered "East Avenues."

The name and number pattern of street naming has proved so popular that in a survey of seventy-four of the major post offices in the United States only nine did not have numbered streets. And many of those which did not were southern California cities which have grown large

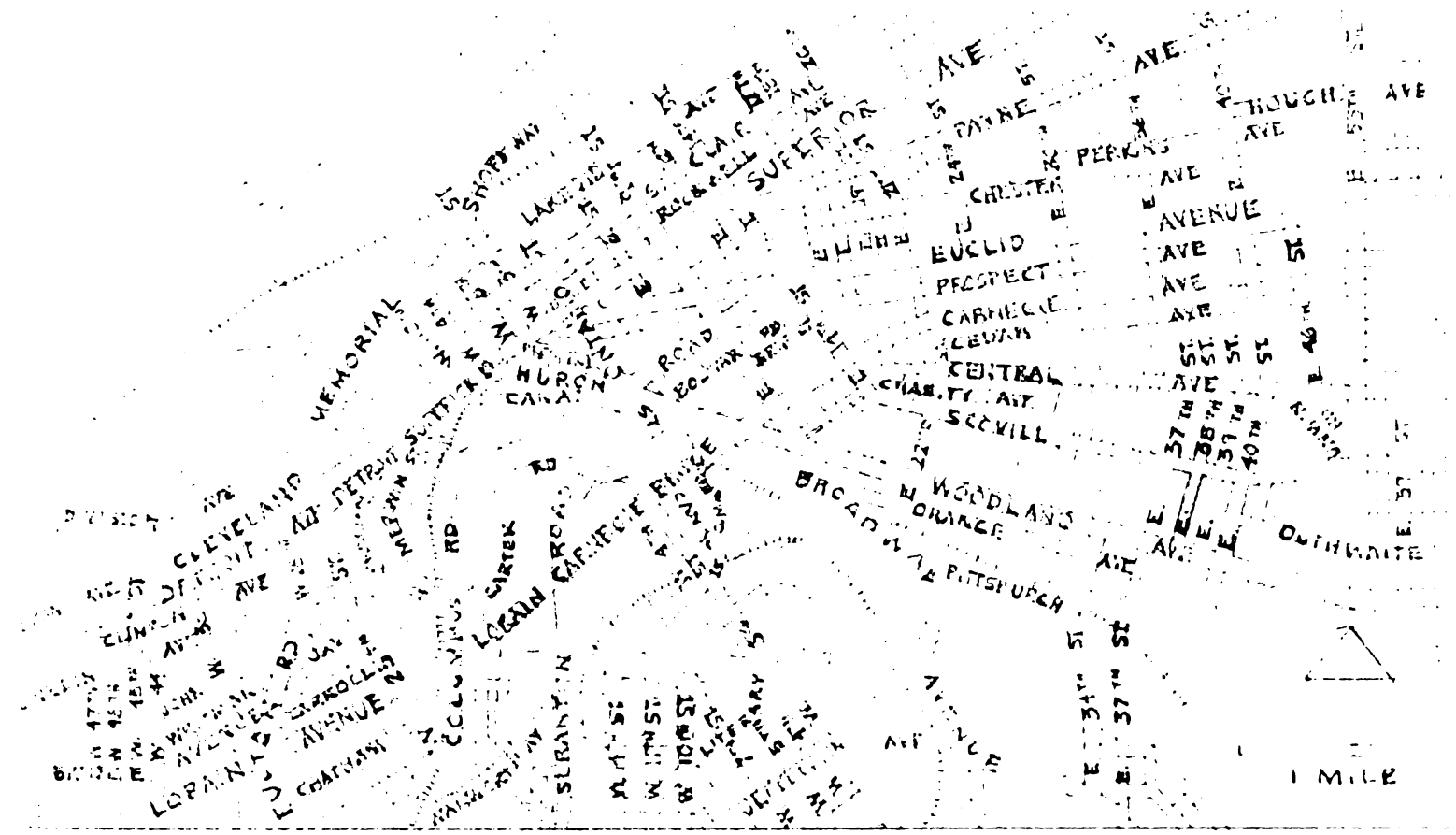

Figure 6. Street Naming - Cleveland, Ohio

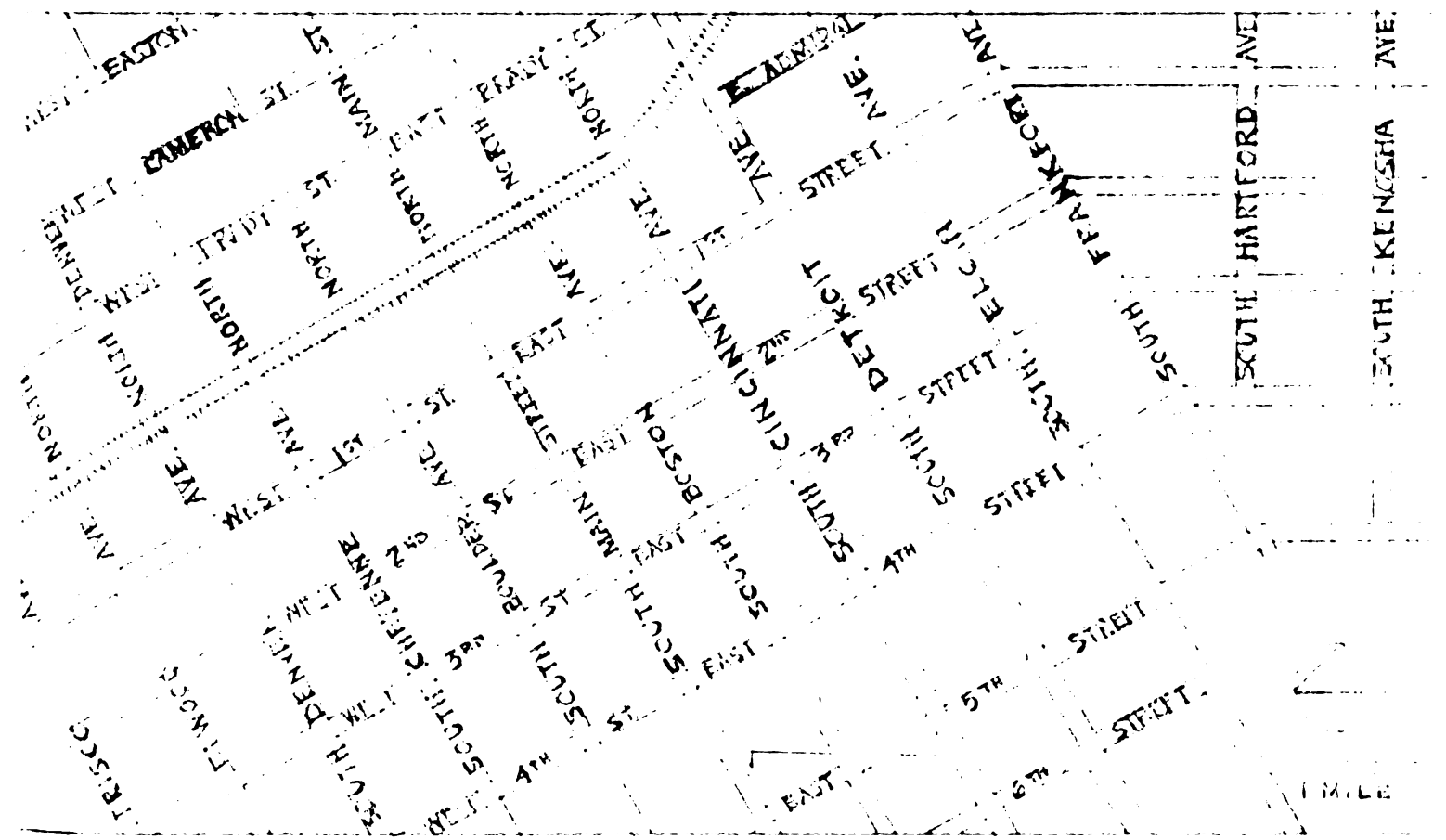

Figure 7. Street Naming - Tulsa, Oklahoma

only in the last ten years. Youngstown, Ohio was the only major independent metropolitan center which did not have a single street with a number for a name.

The Alphabetical Pattern

Pierre L' Enfant's original plan for the city of Washington featured a combination system for naming streets; north-south streets were given numbers, east-west streets were given letters and diagonals were given states' names and designated Avenues. The L'Enfant plan was the first use of letters to name streets and although other features of the plan, i.e. the use of the designation avenue and the use of quadrant indications, achieved great popularity, the use of letters for street names did not.

Several state capitals, no doubt desiring to emulate the federal capital, have lettered and numbered street name combinations. Lincoln, Nebraska adopted such a system around 1870 when it was laid out. As in Washington D.C. numbered streets were north-south thoroughfares, and lettered streets were east-west ones. O Street, the principal business street, was made the north-south base line. The use of O Street as base line for house numbering could have the disadvantage of being confused with 0 (zero) Street.

Sacramento, California has adopted a system similar to one in use in Lincoln. Many other places have given letters to streets, but have not given them in any sort of pattern. The letters were used only because no one could think of a better name.

Washington, D. C.--The street naming and house numbering systems of Washington, D. C. were extended throughout neighboring Montgomery and Prince Georges Counties, Maryland, in the early 1940's. Prior to this time there was absolute confusion in the street naming in the area. The system used was an extension of D. C.'s numberical and alphabetical system. (See Figure 8). Base lines are extensions of D. C.'s North, South and East Capitol Streets. The numbered north-south streets of the District continue through, but are designated Avenues in Maryland. They are numbered consecutively to 95th Avenue.

The east-west thoroughfares are designated Streets and they proceed through five alphabetical groups north of East Capitol Street:

a. Letters of the alphabet (A Street, B Street, etc.)

b. Two syllable names of famous Americans (Adams Street, Bryant Street, etc.)

c. Three syllable names of famous Americans (Allison Street, Buchanan Street, etc.)

d. Alphabetized names of colleges (Austin Road, Clemson Road, etc.)

e. Alphabetized Indian names (Berwyn, Branchville, etc.)

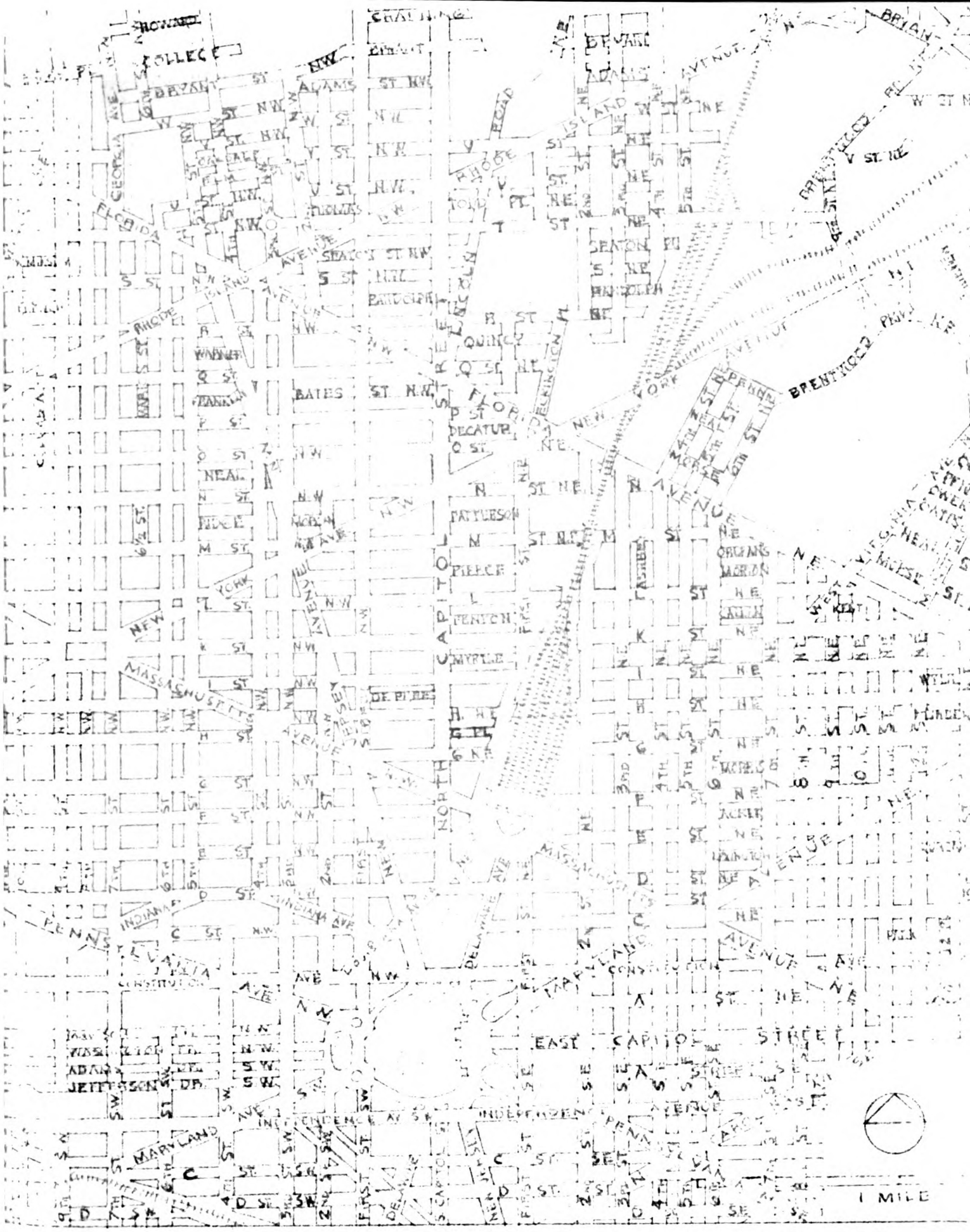

Figure 8. Street Naming - Washington, D.C.

The last two groups of names are found in Maryland only. Names on diagonal thoroughfares were either continued from Washington, D. C. (Georgia Avenue, New Hampshire Avenue, etc.) or were historic names in the area. The directional indications of the District were not continued into Maryland, even on streets with continuous names

Kalamazoo County, Michigan.--This semi-urbanized county has developed an interesting alphabetical pattern for its section and half-section line roads. The east-west roads are designated Avenues and are lettered on the section lines. Half-section line roads have a combination of the letters on the preceeding and following section line roads. Like most systems using alphabetical names this is one in a combination system which gives numbers to north-south roads and designates them Streets.

Alphabetical naming has been used quite frequently to provide an easy way to assure a supply of names as streets are laid out. The most common way is to pick a topic and then name streets alphabetically for items covered in the topic. The Point Loma section of San Diego has streets named alphabetically for authors. The first set contains: Addison, Byron, Carleton, Dickens, Emerson, Fenelon, Garrison, Hugo, Ingelow, Jarrio, Keats, Lowell, Macculay, Newell, Oliphant, Poe, Quimby, Russell, Sterne, Tennyson, Udall, Voltaire, Whittier, Xenophon, Yonge and Zola.

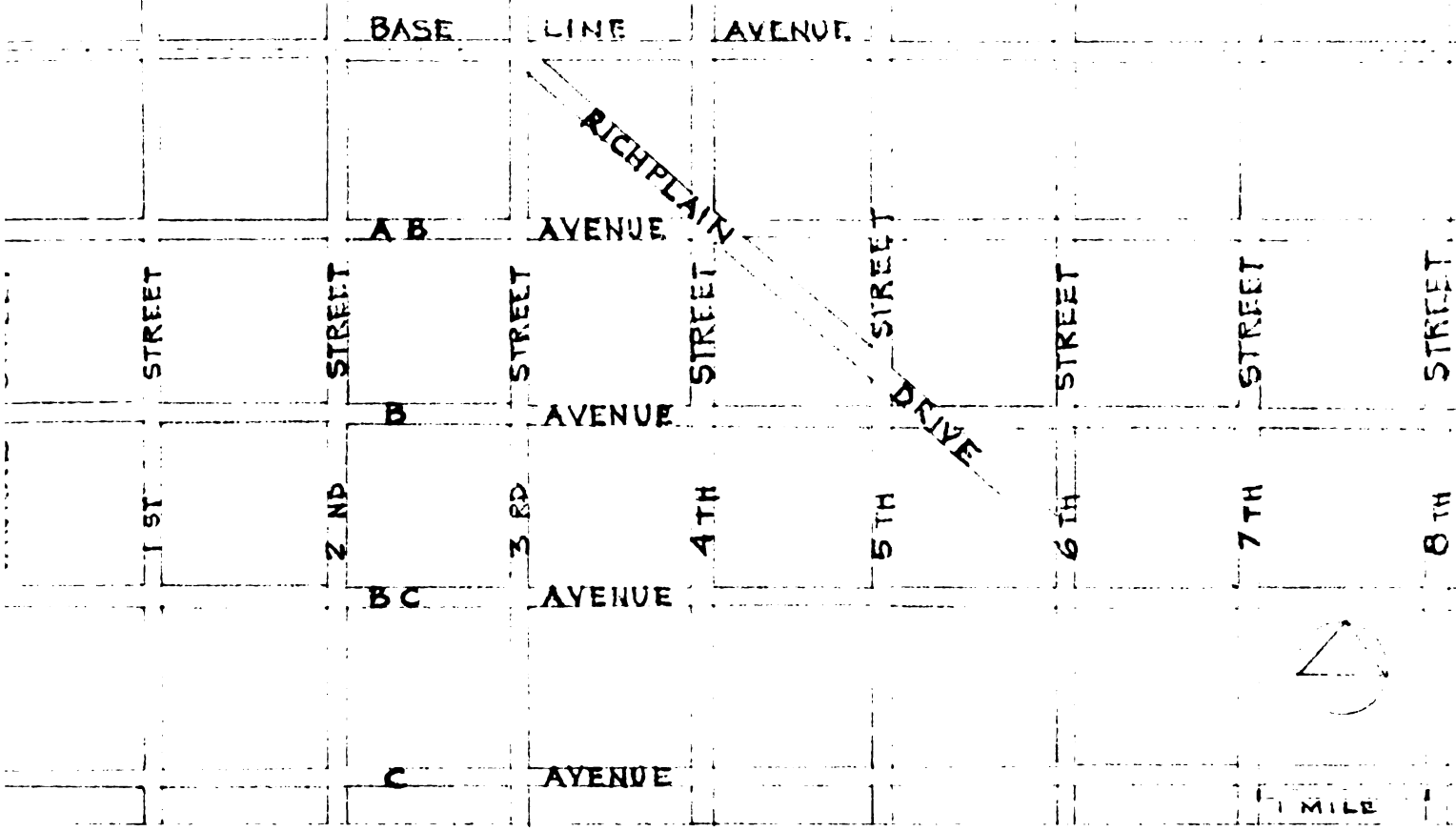

Figure 8. Street Naming - Kalamazoo County, Michigan

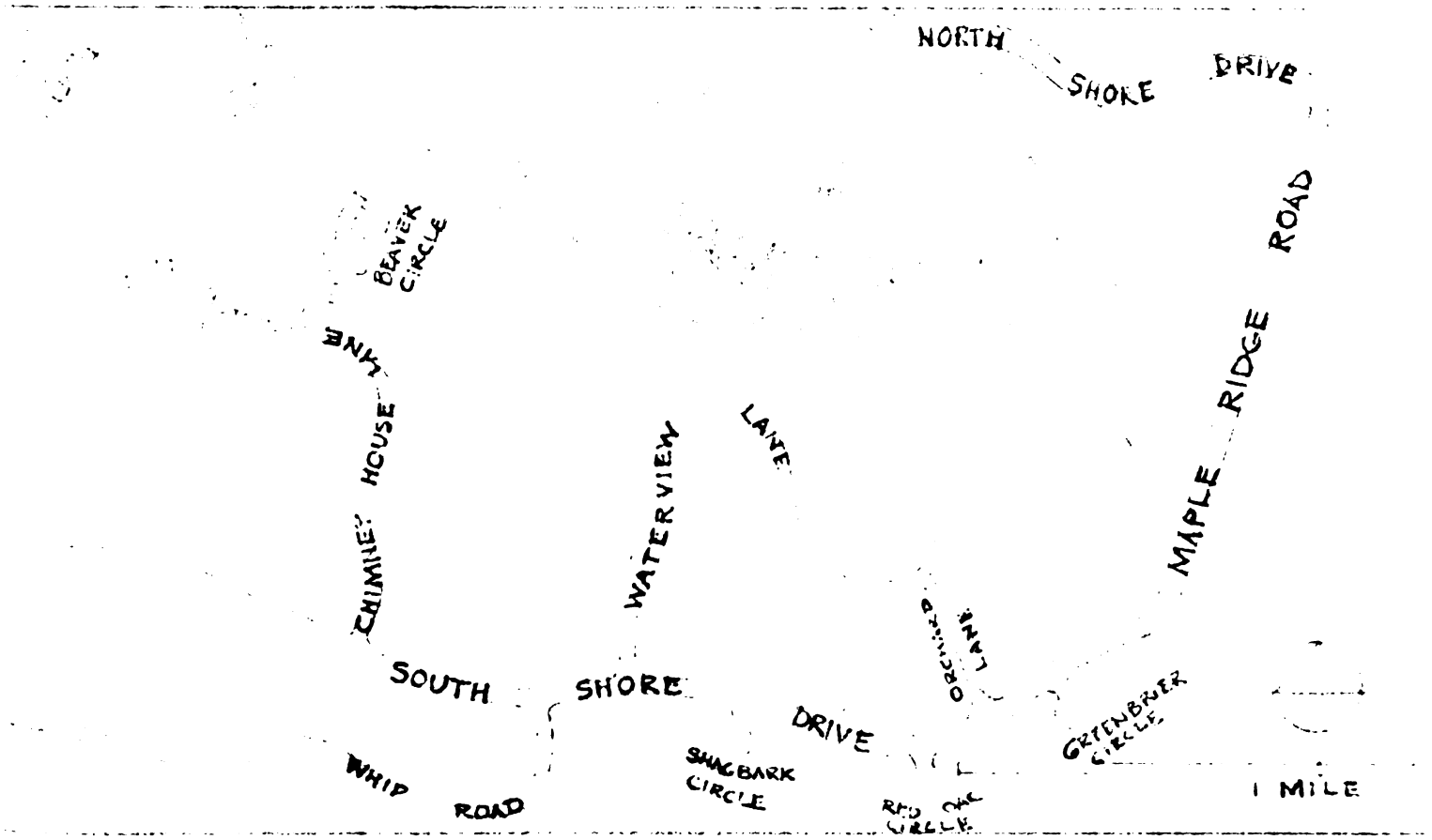

Figure 10. Street Naming - Reston, Virginia

The second set is still incomplete containing: Alcott, Browning, Curtis, Dumas, Elliott, Freeman, Goldsmith, Homer, Ibsen, James, Kingsley and Lytton.

The Sectional Pattern

The curvilinear street patterns being developed in cities today cannot be named in the same way as the gridiron patterns of the past. A number of patterns have been devised to meet today's requirements. These patterns can all be described under the general heading of sectional patterns. All streets in a certain section have names which are related to each other under certain categories.

Palo Alto, California, developed since the turn of the century, has four sections of related street names. The first has streets named after authors. This section has most of the names already described in the similar section in San Diego. A second area has names involving trees, including Acacia, Ash, Birch, Cedar, Chestnut, Encino, Forest, Greenwood, Maple, Olive, Palm, Palo Alto, Park, Pepper, Pine and Sequoia.

A third section pays respects to the city's cultural heritage with names like Castilleja Avenue, El Carmelon Road, El Dorado Road, Fernando Road, Madrono Avenue, Marzanita, Margarita, Mariposa, Matadero, Miramonte, Orimba, Portola, Rinconda, San Carlos, Santa Clara, Santa Rita, and Santa Ynez.

One of the most interesting sectional naming patterns developed in the United States resulted from a competition held in 1918 by Bethlehem Steel Company for street names for Dundalk, Maryland. Dundalk was laid out as a community of worker's houses for Bethelehem Steel's Sparrows Point steel mills in Baltimore. The winning entry divided the area into five sections. In each section the street names have the same ending and are arranged in alphabetical order. East-west thoroughfares are designated Avenues and north-south thoroughfares are Streets in all sections. The five section endings were Dale, Ton, Mont, Wood and Moor.

The Dale section consists of Streets: Avondale, Bondale, Cedardale, Dundale, Esterdale, Fairdale, Grovedale, Hopedale, Ivandale, Junedale and Kendale. The Avenues carried out the rest of the alphabet starting with Lonsdale continuing on Marsdale, Norsedale, Oakdale, Parkdale, Queensdale, Rosedale and Swansdale. Some of the other sections needed complete alphabets for both the Streets and the Avenues.

Although all the names have different spellings many sound very much alike. Another minor fault with some of the names is that they are too contrived and sound too made-up. These minor faults do not really detract from the qualities of the system and could easily be overcome with more study.

Proposed System of Street Naming

One of the newest proposals for street naming for a large area are those prepared for Reston, Virginia, the new town near Washington, D.C. In Reston there is little attempt to give an order to the street names to help clarify the street pattern. Street names were chosen to preserve local history and to suggest the rustic woodland atmosphere to which the community aspires. In this sense, Reston is no different from hundreds of other suburban communities developed across the United States in the last twenty years. The only difference is that in Reston there is natural scenic beauty which can be used as a basis for names.

Reston is free to develop its own street naming system isolated from the rest of the Washington D.C. metropolitan area because it is an isolated community. The town plan has the community separated from the rest of the urban area by a wide green belt, but most towns are not so lucky. Those in the midst of the urban sprawl of contiguous communities cannot ignore what their neighbors are doing.

Systems of highway identification are becoming more important as interactions increase between communities once thought to be completely independent. More and more inter-community highways are being created to unite urban areas and these highways must be identifiable. The development of the Interstate Highways has brought another system

of highway identification into the already confused pattern of local, state, and federal highways. Although the situation is not critical now, in time these highway identification problems will have to be solved.

Presently, intracommunity routes are being developed and named at a much faster rate than intercommunity routes and it is in this area that problems are most severe. Many areas have no naming systems or incomplete ones. The street naming system is vital to all urban communication and must always function to aid the communication process. Old patterns may not meet the future needs of urban communication. Patterns which are developed must recognize that the primary role of the address identification system in the urban communications process is to provide the means to locate and identify the communicators. The street name is one component in the urban identification system. A second component is the house number.

CHAPTER IV

HOUSE NUMBERING IN THE UNITED STATES

From the very beginning, most American towns named their streets. This was true regardless of the national origins of the settlers who founded them. Few cities carried the process of locational identification much further. Many sizable American cities got along for years without any sort of specific or uniform method of building identification. Philadelphia, at one time the largest American city and capital until 1800, did not number houses until 1790.

> Prior to that year, the description could go no closer than the square (block), as between Second and Third Streets, (on) Market Street. Many of the houses of business had their peculiar signs, such as bee hives, a spinning wheel, a sheaf of wheat, etc. . . again others who had no signs of their own would describe their place of business as being so many doors from some tavern sign, such as the 'King of Prussia,' the 'Indian Queen,' the 'Sorrel Horse,' etc.[1]

Philadelphia was not the first city in the United States to adopt a system of house numbering, but it was one of the first to adopt what was considered a distinctly American system. New York followed by adopting it in 1793.

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[1]"Local Affairs," Philadelphia Public Ledger (September 16, 1856), p. 1 col. 4.

New York had had house numbering prior to this, but it followed the traditional European pattern. The first house on the street was numbered one, the house next to it numbered two and so on to the end of the street. When this point was reached the numbering was continued getting consecutively higher on the houses across the street until the starting point was reached. The numbering plan Philadelphia and New York and subsequently all other American cities followed assigned one side of the street odd numbers and the other side even numbers. House one was across the street from house two and next to house three and so on. The primary advantage to this system was that it enabled the street to be extended indefinitely without having to renumber all buildings on it each time it was extended. At about the same time this change in patterns of numbering took place a change in the style of naming streets was also taking place. From this time on streets were thought of as continuous ribbons rather than as isolated segments. Streets became endless, in theory if not always in practice. As they did it became impossible to number along one side, stop, turn, and then continue to number along the other because there was no place to stop and turn.

There is some question whether the system of using odd house numbers on one side of a street and even on the other is an American invention. A writer in "Notes and

Queries," quoted in 1861 by the Ladies Repository of Cincinnati stated that the system had originated in Aberdeen, Scotland about fifty years previously.[2] If Aberdeen did start the system the "Notes and Queries" article would have had to be written about twenty years before it was quoted or Philadelphia would have at least a twenty year lead over it. Americans may not have originated the system, but they quickly saw its advantage and today there is not a city in the United States which is not using this system.

Except for the idea of assigning odd house numbers to one side of a street and even to the other, no uniform system of house numbering is found in universal use in the United States. In the approximately one hundred ninety years since house numbering was first introduced in the United States about six different general methods, with at least as many variations for each general method have come into use. Some of these methods have been developed only recently, while others are more than one hundred years old.

All systems of house numbering in use in the United States today may be divided into two general groups based on the relationship between the house numbering system and

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[2]H. L. Mencken, "American Street Names," American Speech, XXIII, No. 2 (April, 1948), p. 83.

and the street naming system. In this study and the street naming study, Group A will consist of all those systems of house numbering which are completely independent of the street naming system. Group B will consist of those methods of house numbering which are directly related either to the proper name of the street or any of its locational components such as directional indications or thoroughfare designation. There are a few systems which can be used either in conjunction with a naming system or independent of one.

Group A. House Numbering Systems Independent of the Street Naming Systems

The Per House System

This the oldest of house numbering systems has virtually passed out of existence. It was first done in urban areas in which streets were composed of tightly built row houses. There were no gaps between the buildings and each building could be given one consecutive number higher than its neighbor. When two buildings were not immediately adjacent a problem arose. Should a number be reserved for the vacant space or should the space just be ignored? This problem eventually caused the per house system to be changed into the unit of linear measurement system.

The Unit of Linear Measurement System

This system is the basis for all other systems. In its simplest form a number is alloted for a certain section, say ten feet, of street frontage. The buildings on each street may be numbered from the beginning of each street or from a common base line. Often this numbering system is used in areas which have the "no-pattern" pattern of street naming.

Akron, Ohio.--In the typical midwestern fashion this city is divided by two base lines which serve as starting points for the house numbers and street names. The city doesn't have typical midwestern topography so that there are many breaks in the street pattern. The old chief business street, Howard Street, is the east-west base line (a north-south line which divides the east half of the numbering district from the west half) for its entire length. Main Street is the east-west base line from its junction with Howard Street to the south county line. It is interesting to note that Howard Street remained the base line in the northern part of the city even after it was over shadowed in importance by the parallel Main Street.

The north-south base line (an east-west line dividing the north half of the numbering district from the south half) is Market Street to its junction with Mogadore Road

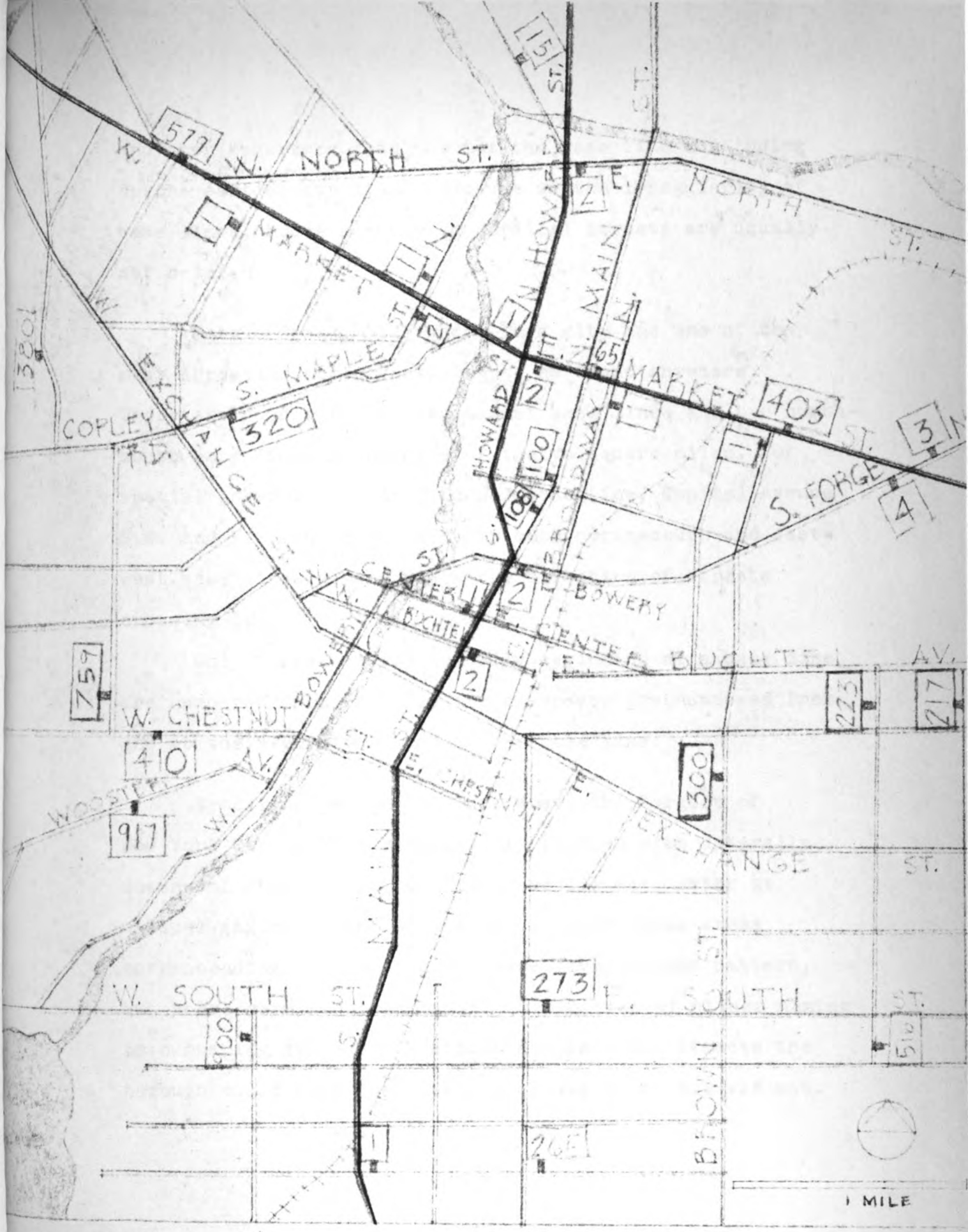

Figure 11. House Numbering - Akron, Ohio

and then Mogardore Road becomes the base line continuing to the east county line. Because of the irregularity of base lines, house numbers on parallel streets are usually not related.

Battle Creek, Michigan.--This city has one of the most irregular naming patterns to be found anywhere. There are four different east-west base lines and two north-south base lines in an area of twelve square miles. Of special interest is the diagonal base line, Capital Avenue S.W. and N.E. which is used for both north-south and east-west base lines depending on the direction of streets crossing it.

Only those streets actually beginning at a base line are numbered from it. All other streets are numbered from one at their point closest to the base line.

Brooklyn, New York.--This area, the largest of New York City's five Boroughs, is covered with literally dozens of street gridirons intersecting each other at unusual angles. Many of the little individual areas corresponding to one gridiron were given a name pattern, but there were no attempts at coordination of either naming or numbering systems. Flatbush Avenue which bisects the borough could have been used as a base line, but was not.

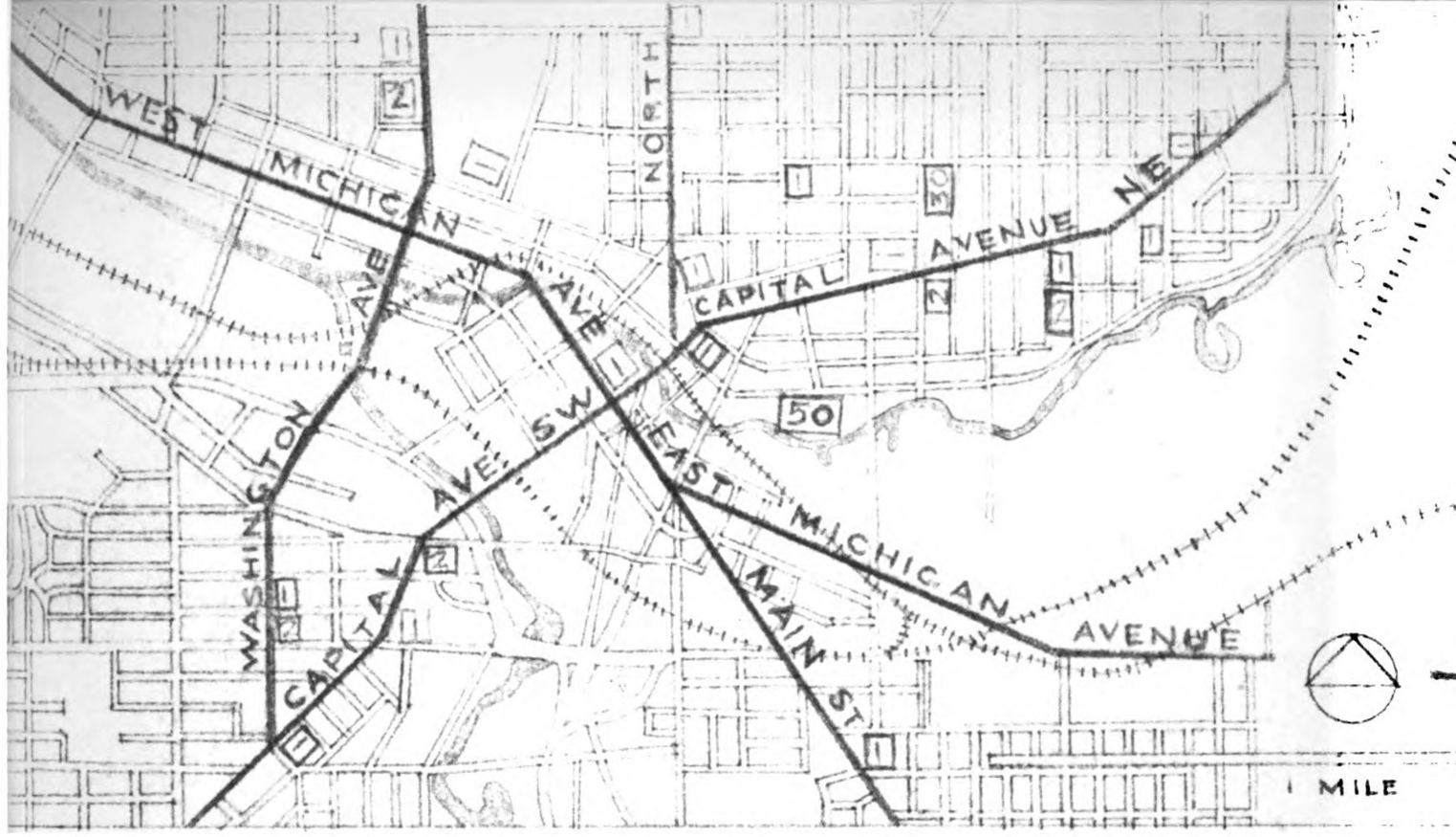

Figure 12. House Numbering - Battle Creek, Michigan

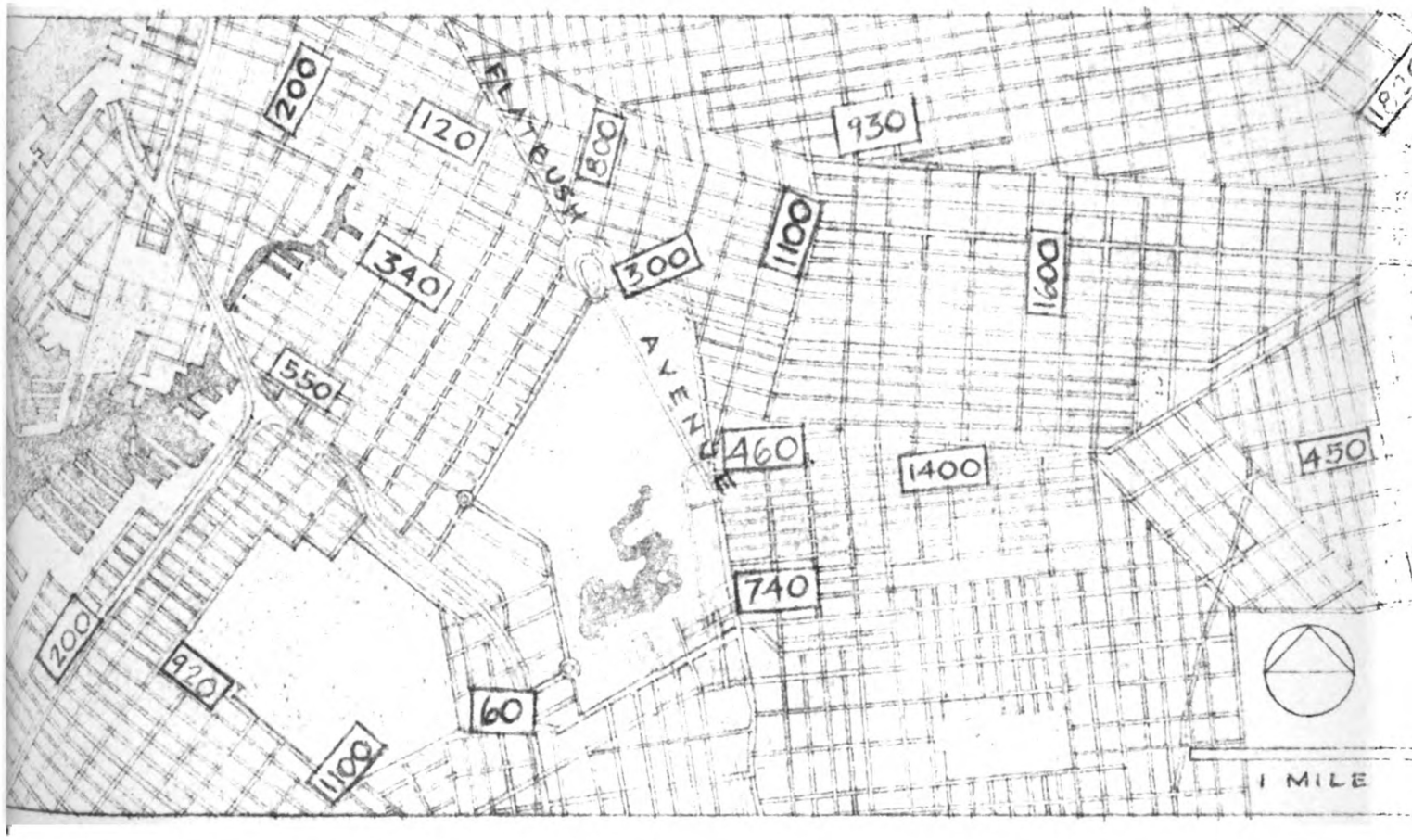

Figure 13. House Numbering - Brooklyn, New York

The Coordinate System

This system uses two base lines divided into equal units to which numbers are assigned. In some cases the base lines and the units of measurement may be slightly adjusted to conform to local conditions. This system may be used either in combination with a street naming system or independent of one. It is independent in each of the systems described below.

Ingham County, Michigan.--The survey lines which divide the county into one mile square sections are used as the units of measurement. Each mile between section lines is given 500 numbers.

Montgomery County, Ohio.--The section lines do not run in true east-west or north-south directions as they do in level Michigan. The irregularity of the numbering which has been made to conform to the section lines. In this example 1000 numbers are alloted to a mile.

Portage County, Ohio.--This Connecticut Western Reserve County was not divided into one mile square sections and roads were not laid out with the regularity found in the other two examples. The house numbering system allots 10 feet per number, approximately 1000 per mile, along two base lines which are the west and south county lines. Putting the base lines on the edge rather than in the center

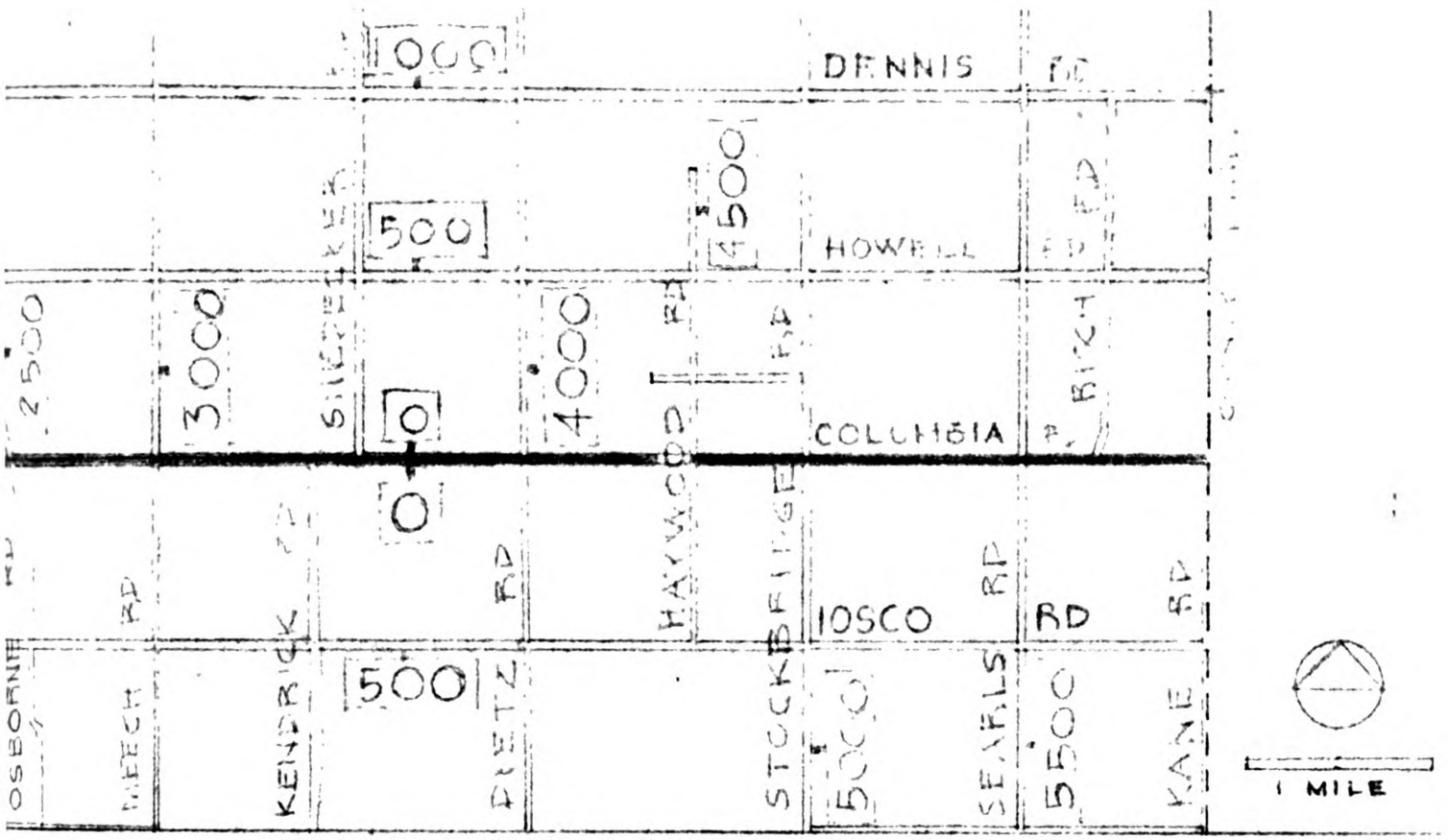

Figure 14. House Numbering - Ingham County, Michigan

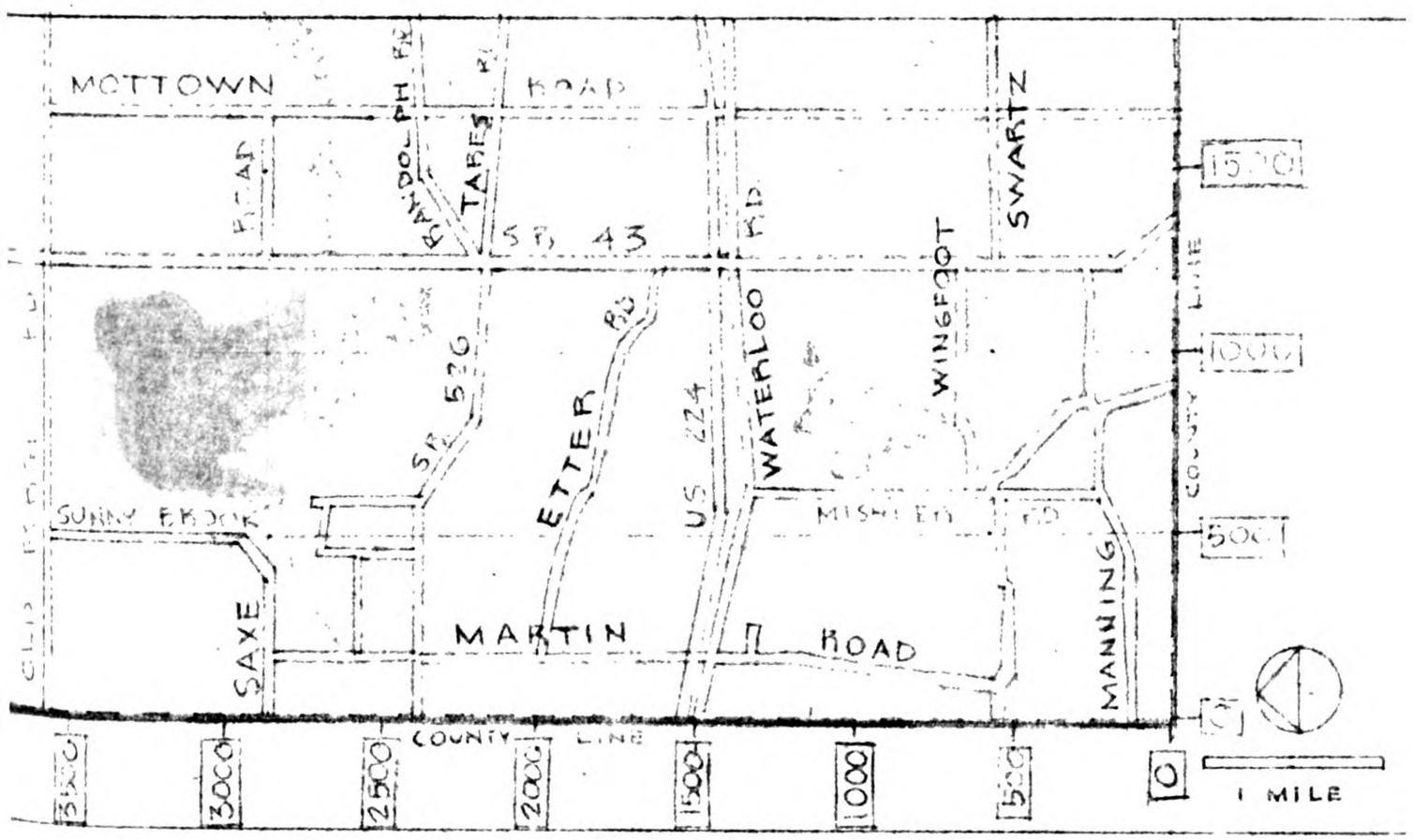

Figure 15. House Numbering - Portage County, Ohio

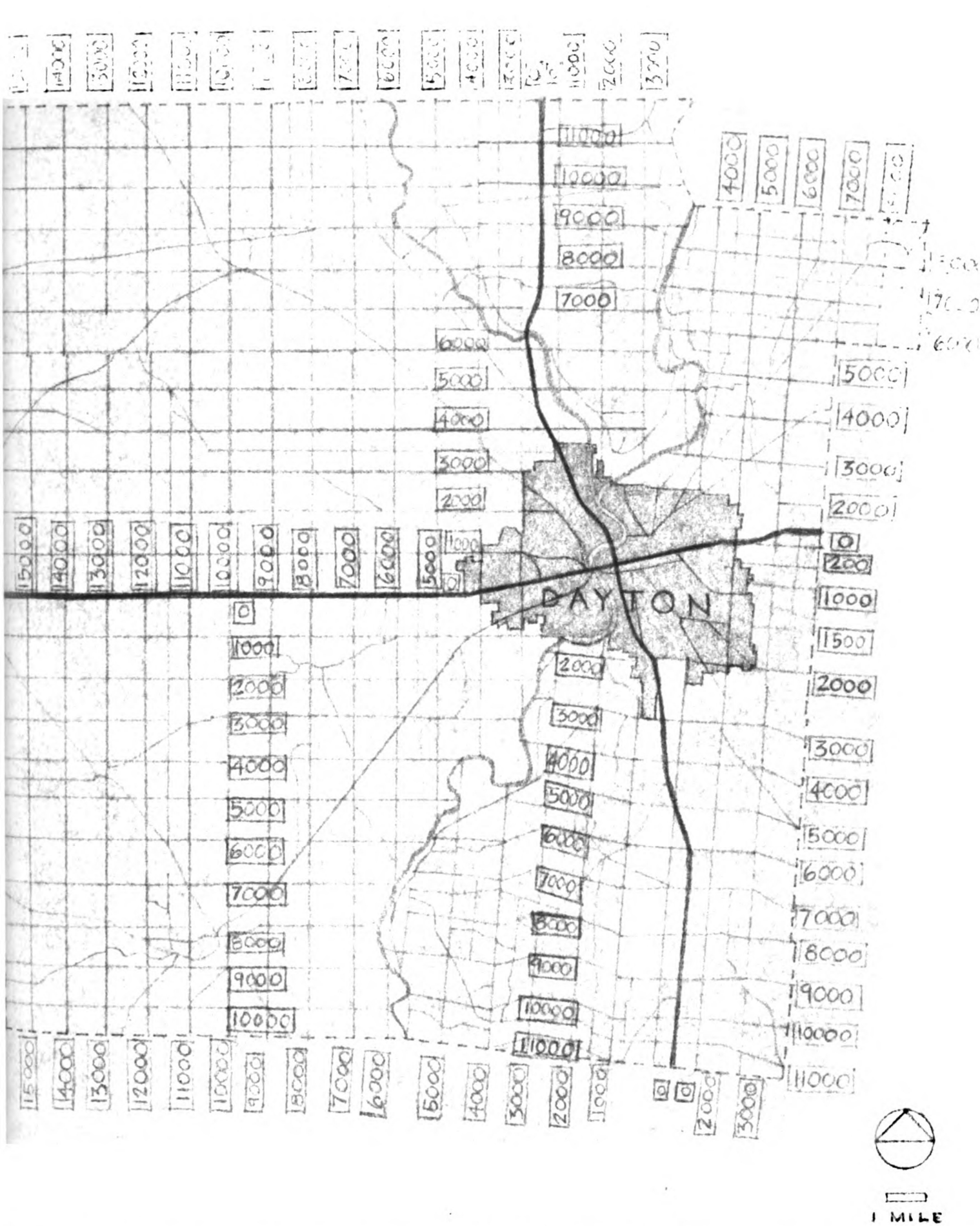

Figure 16. House Numbering - Montgomery County, Ohio

of the numbering area eliminates the need for a directional indication in connection with the street's name. Using the county lines as base lines also assured that parallel streets would have corresponding numbers. This would not have been possible had any streets been used as base lines.

Group B. House Numbering Systems Related to the Street Naming System

The Philadelphia System

Philadelphia more than any other city in the United States is responsible for the form of our street naming and house numbering systems. Its impact on street naming has already been discussed and now we shall see how it has influenced American house numbering.

In 1856 Philadelphia city council adopted an ordinance providing for a uniform system of house numbering for the city. No one is certain who was responsible for the idea. It is variously attributed to three men, John McAllister, John P. Mascher, or Thomas Marsh. The first two are the most likely condidates for the honor of inventing the system, but there is no conclusive proof for either of them.

The idea behind the Philadelphia system is so simple that it is amazing that no one had thought of it before. Basically, the system provided for relating house numbers to street number. Prior to 1856 Philadelphia's house

numbers began at the Delaware River and proceeded westward alloting one number for every house or lot. Philadelphia's north-south streets also began at the Delaware River with Front Street and were numbered consecutively going westward. Then in 1856 either Mr. McAllister, Mr. Mascher,or Mr. Marsh got the idea of allowing 100 numbers to each block starting at the Delaware River. The block numbers would then have the same number series as the street closest to the river which intersects it. (See Figure 17). Market Street was chosen as the north-south base line and streets crossing it were numbered in the same way. The first block was given numbers 1-99 and the second numbers 100-199, and so on out. At one time it was suggested that east-west streets parallel and north of Market Street be renamed First Avenue, North; Second Avenue, North; etc. and those south of Market be renamed First Avenue, South; etc. This idea was never carried out in Philadelphia, but it was later in many other places.

Within ten years of Philadelphia's adoption of the block numbering system four other cities, Wilmington, Delaware; Reading and Harrisburg, Pennsylvania, and St. Louis, Missouri had adopted it. Today thousands of American cities are using it. Philadelphia itself never has completely adopted the system it developed. To the two original base lines, Market Street and the Delaware River and its northward extension,Delaware Avenue, several

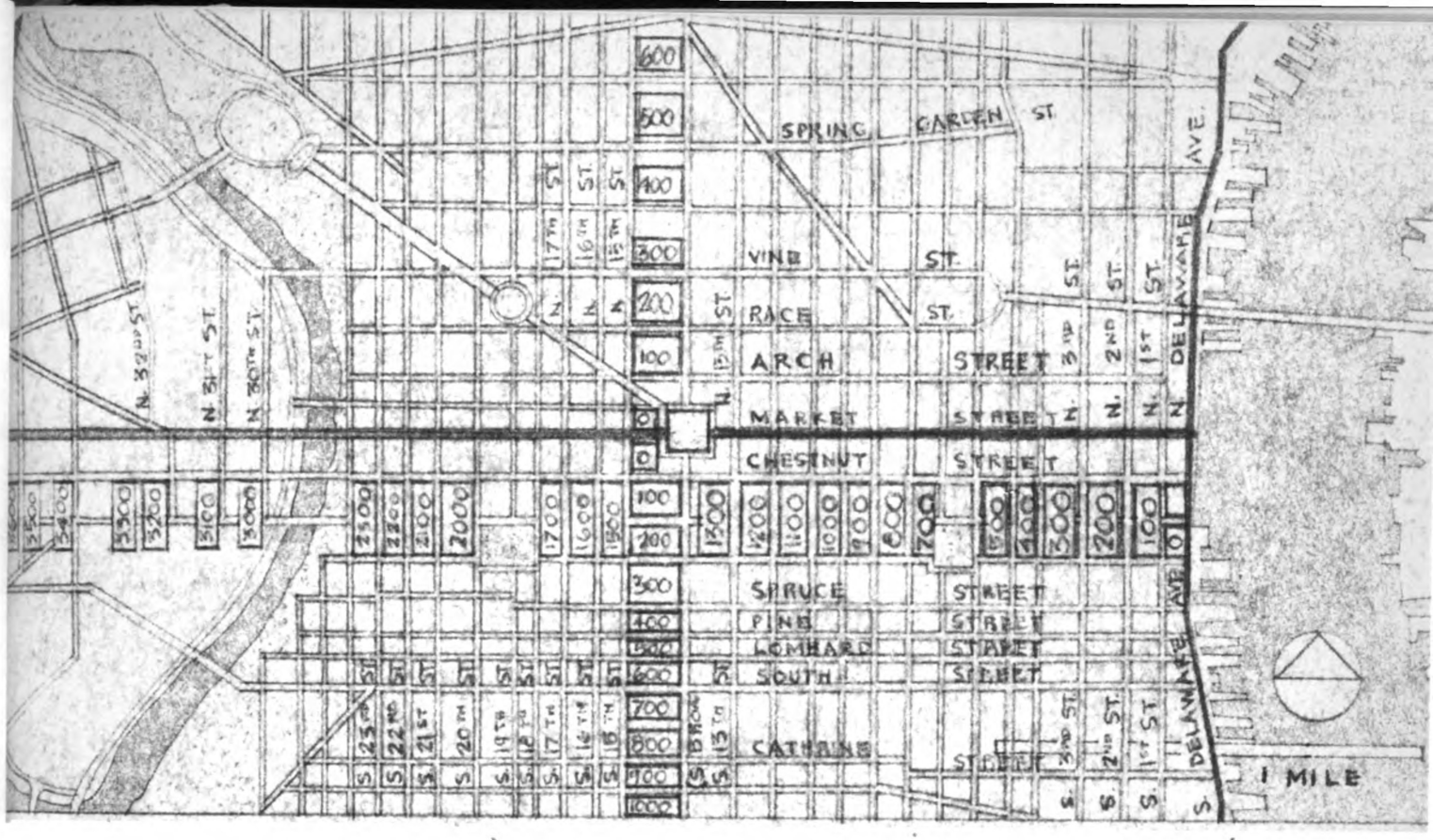

Figure 17. House Numbering - Philadelphia, Pennsylvania

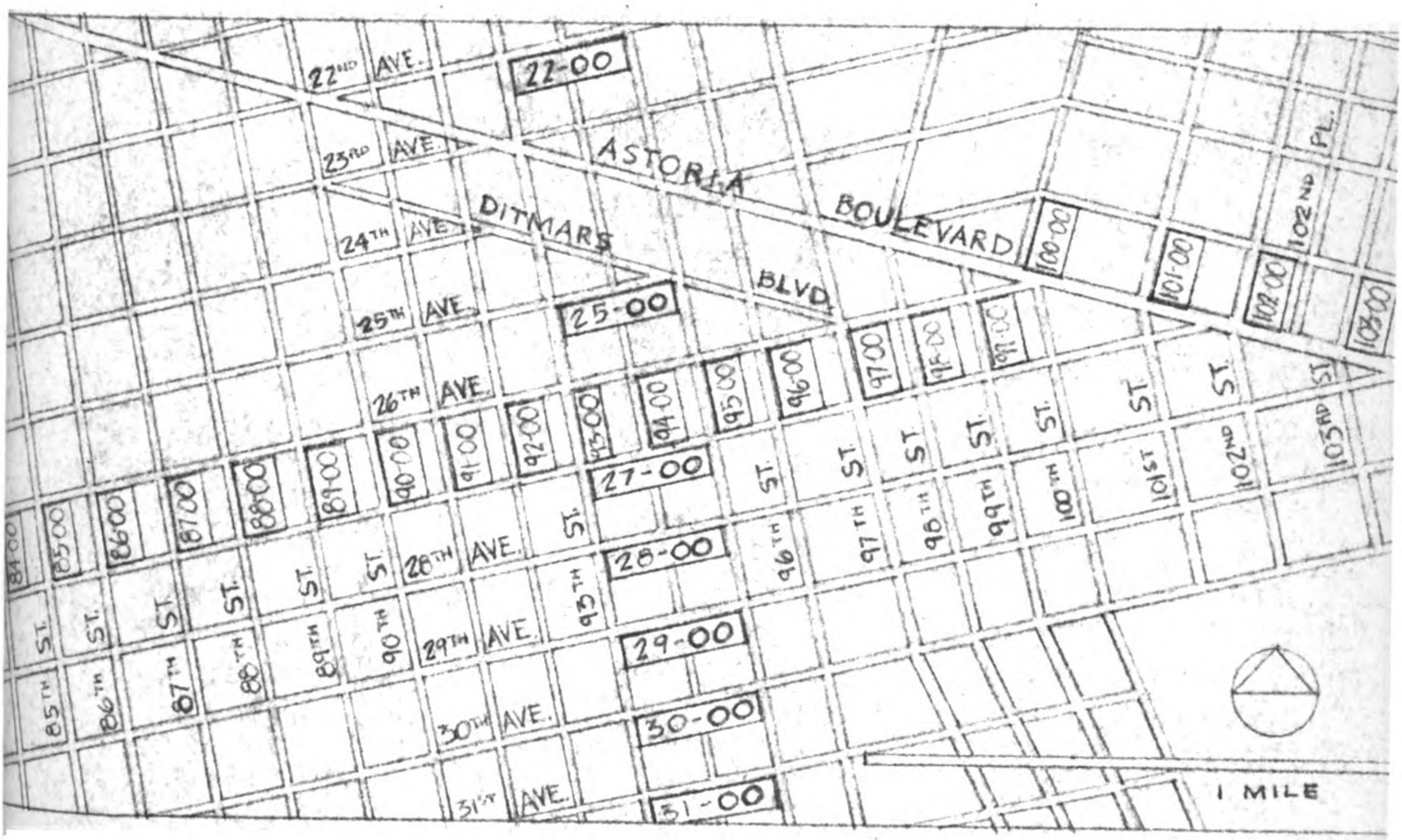

Figure 18. House Numbering - Queens County, New York

other base lines have been added as the city annexed neighboring communities. This has dimmed the clarity of the system in Philadelphia itself, but it has not dimmed the impact of the Philadelphia system on American house numbering. All the remaining examples in some way or another use the ideas in street naming and house numbering which were developed in Philadelphia.

The Queens Coordinate System

Charles U. Powell, the developer of the systems of street naming and house numbering used in Queens Borough, New York City, describes his system as defining the exact geographical position of any particular house. The Queens system adopted in 1912 was the first and is still the largest of the completely integrated street naming and house numbering systems developed with deadly mathematical accuracy by the civil engineers who were also laying out the street systems of the day. Mr. Powell felt his biggest job was the laying out of the Queens street pattern which is made up of many gridirons parallel to the old major streets. Since he developed the naming and numbering system before most of the streets were laid out it is interesting to wonder whether he laid out the streets to conform to his naming pattern or whether he named (numbered) the streets to conform to his image of the ideal street pattern.

Despite its dullness, it would be difficult to develop a system for finding locations other than by using numbers for the street's name and relating them to house numbers. Before its consolidation with New York City in 1898, Queens County had sixty separate villages each with its own naming and numbering systems. In all 100 per cent of the house numbers were changed and about 75 per cent of all street names. Most of the major thoroughfares such as Merrick Road, Jericho Turnpike and Jamaica Avenue kept their historic names. Streets are north-south thoroughfares and are consecutively numbered from 1 at the East River to 271 at the Nassau County line. Short streets parallel to and between consecutively numbered streets are called by the lower number and are consecutively Place and Lane. Avenues are east-west thoroughfares numbered beginning at the north end of Queens County on Long Island Sound from 1 on through 162 at Jamaica Bay at the south end. Numbered Roads and Drives fill in between the Avenues. Short curved streets are designated as Terraces or Crescents. In the Rockaway section north-south thoroughfares are designated Streets, but are consecutively numbered from east to west. Each numerical name is preceded by the word, Beach, as Beach 29th Street.

The Philadelphia system of house numbering has been carried out to a logical conclusion in Queens. "In order that a house number may be of greatest value in indicating

the location of the premises, the number is divided into two parts, separated by a dash, in which the first part of the number is the same as that of the nearest cross street or avenue, intersecting the thoroughfare at the west or north, and the second part of the number represents the distance between such corner and the house, a number being assigned for each twenty feet of space."[3]

If a house had the address, 125-42 221st Street, it would be between 125th and 126th Avenues on 221st Street. It would be on the west side of the street (odd numbers are on west and north sides) approximately 420 feet from 125th Avenue 42 ÷ 2, only one half of the total numbers are available for one side, = 21 x 20, distance per number = 420 feet from the intersection.

The Lyman Coordinate System

This system is nothing more than the Queens system made as cumbersome and as awkward to use as possible. The system was devised around 1930 by Richard Lyman, a consulting civil engineer. It was first used in Salt Lake City and County in 1936. The Sons of Utah Pioneers attempted to have every Utah city adopt it by 1947 in time for the state's semi-centennial. Because of its complexity those Utah and other cities which have adopted it are not

[3]Charles U. Powell, "Bringing Order Out of Chaos in Street Naming and House Numbering," The American City, 40 No. 2 (February, 1928), p. 93.

generally extending it as new streets, especially curvilinear ones, are developed.

> Numbers (names) for Streets, like numbers for Houses, run North, South, East and West from two streets which are at right angles to each other. In Salt Lake City one number covers the distance of approximately one rod or 16 1/2 feet of frontage along a street. To the larger or standard blocks one hundred numbers are assigned to each block, that is fifty numbers to each side of the street. The odd numbers are on the left and the even numbers are on the right, when going outward from the reference streets. To the smaller blocks fifty numbers are assigned to each block, that is twenty-five numbers to each side of the street.
>
> '100 East Street' is one block east of the north-south reference street.
>
> '200 East Street' is two blocks east of the north-south reference street.
>
> '250 East Street' is two and one half blocks east of the north-south reference street.
>
> '375 East Street' is three and three quarters blocks east of the north-south reference street. And the streets in the other three directions are numbered in the same way. The number of each street telling how far that street is from the reference line to which it is parallel.[4]

Other Coordinate Systems

Despite its complexity, the Lyman system has been proposed for a number of rural areas laid out on the rectangular system of land measurement which is based on the mile square section.

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[4]Richard R. Lyman, Letter to the Town Journal (February 9, 1955).

One of the simpler proposals was that for Tulare County, California. This is a simple quadrant system in which 800 numbers are alloted per mile. East-west thoroughfares are designated Avenues and are numbered consecutively from the south base line from 1 to 480. North-south thoroughfares are designated Roads and are numbered from the west base line consecutively from 1 to 300. The designation preceeds the numerical name, as Road 160 or Avenue 225. Curving or diagonal thoroughfares are given names and the designation Drive, as Millwood Drive. All house numbers on north and east sides of streets are even.

Two extremely complex versions of the Lyman system were suggested for adoption in rural Illinois and rural Indiana.

The Illinois system (see Figure 20) divided a rural county into quadrants and numbered each mile section line road in hundredths according to its distance from the base line. The first section line road west of the east-west base line and north of the north-south base line was N 100 W. To this was added the house number so that a typical address came out N 100 W 120.

The simpler Indiana system put the house number in its usual position, but was little better in any other respect. A typical address in this system would read: 125 E Road 100 N. This proposal went so far as to suggest that diagonal or curved streets be named, but then cancelled

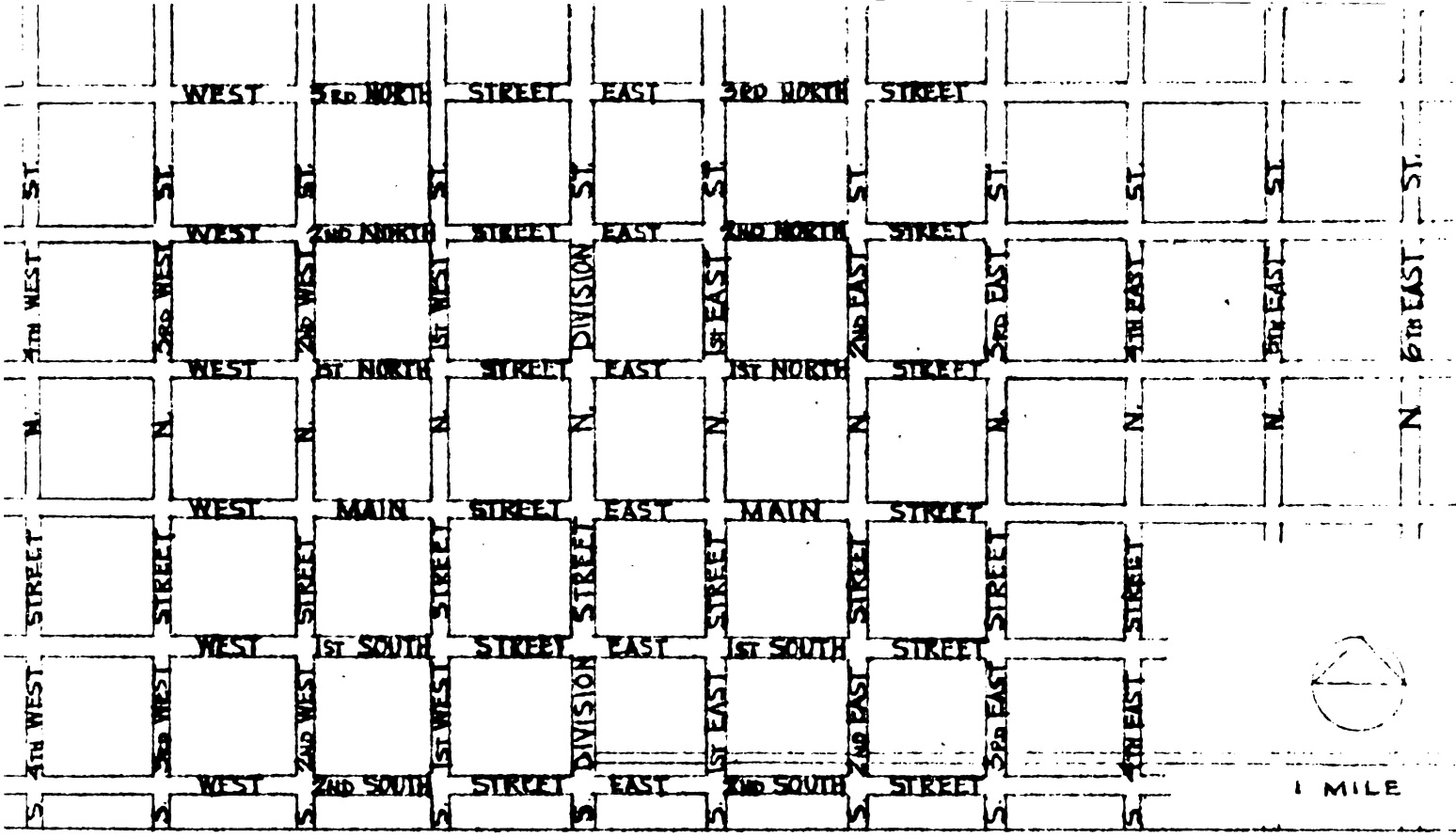

Figure 19. House Numbering - According to the Lyman System

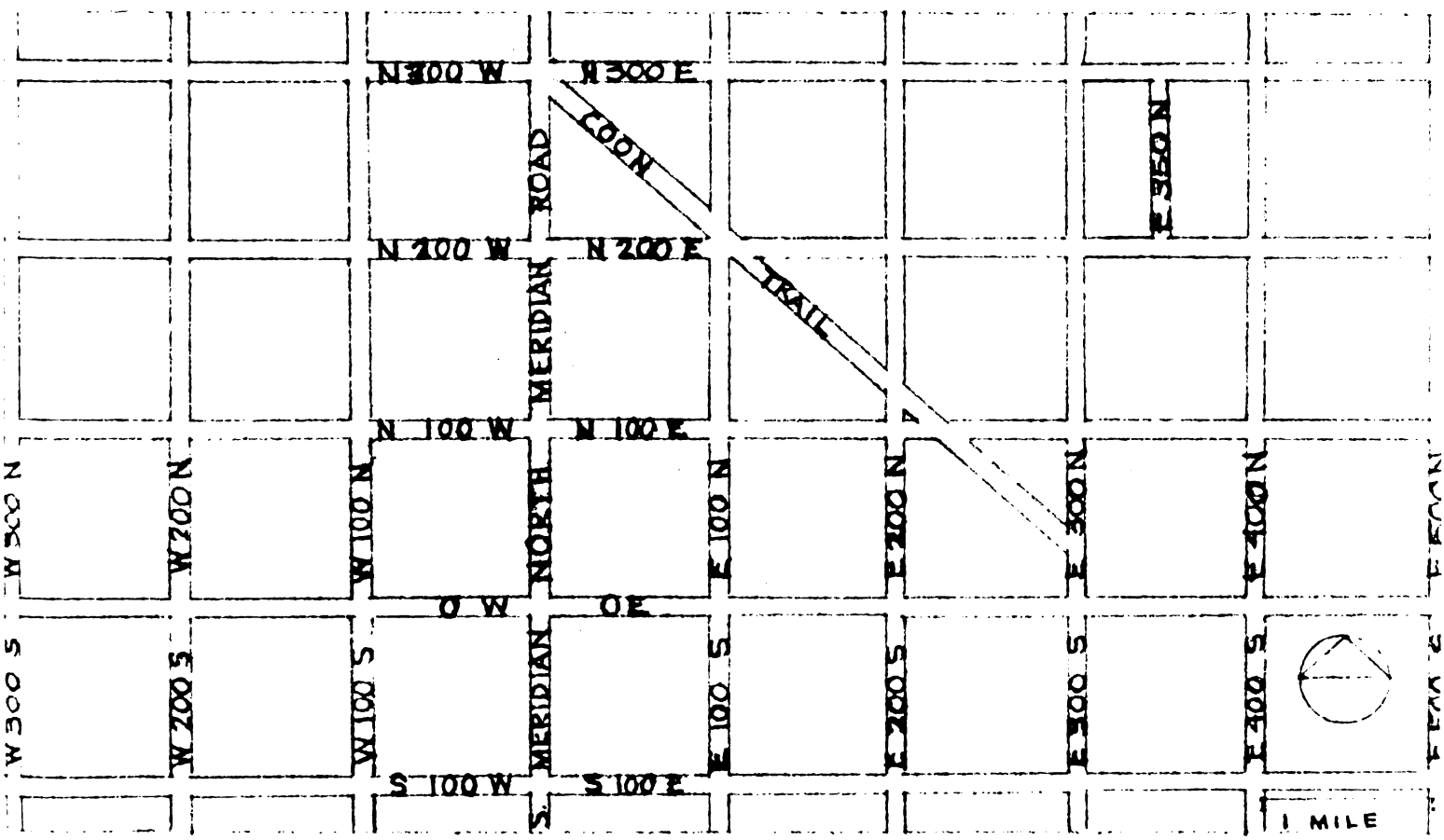

Figure 20. House Numbering - A Rural Illinois Proposal

out this lead by suggesting that the house number on these roads be given by both coordinate points such as 285 S 232 E Coon Trail Road.

The Quadrant Version

The Lyman System and its elaborate variations are all based on a quadrant system of naming and numbering, but they do their best to disguise the fact. Many far more successful systems clearly indicate the quadrant N.W., N.E., S.W., S.E., in a simple, straightforward manner that makes it a far more positive locational indication. The original gradrant system of naming was developed in Washington, D. C. and is discussed on page 43. Several variations of that original plan may be found in use in major and minor cities across the United States.

The largest city outside Washington using the system is Atlanta, Georgia, but a number of middle size cities and a few small ones also use it. Two examples of the system have been illustrated (Figures 21 and 22). Canton, Ohio and Grand Rapids, Michigan are strikingly similar in their use of the system and both have used designations to indicate a street's direction. Canton uses numbers for all east-west streets, while Grand Rapids uses them only for east-west streets in the south quadrants. Canton begins numbering at 100 from the base lines and Grand Rapids begins at 1. Both cities follow the Philadelphia plan of 100 numbers to a block.

Figure 21. House Numbering - Canton, Ohio

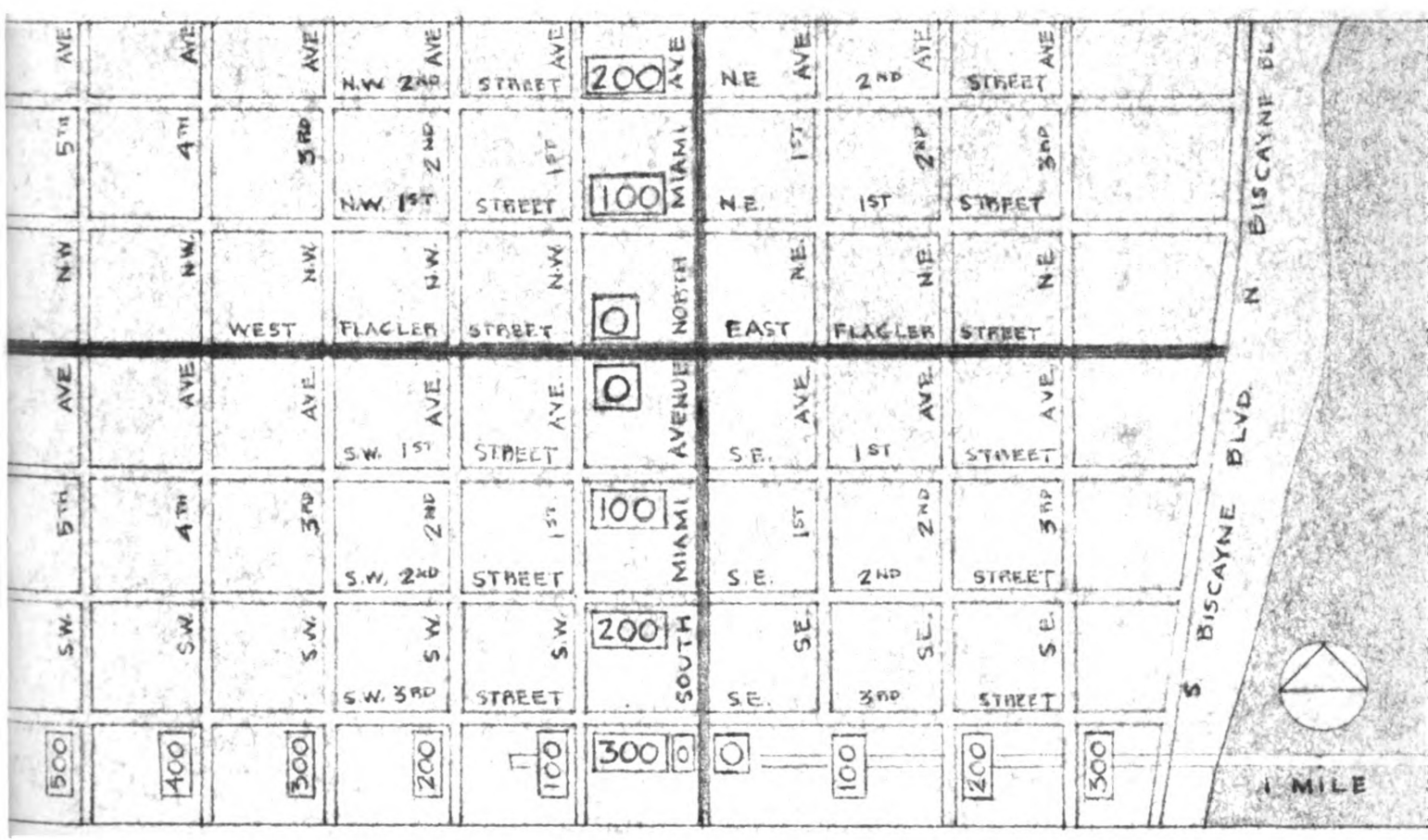

Figure 22. House Numbering - Miami, Florida

Miami, Florida has a few marked variations on the plan. Unlike the other two examples it uses numbers exclusively for main thoroughfares, but as the others it uses designations to indicate direction. Numbers begin at one and are assigned on a block basis. Because two main business thoroughfares were selected as base lines the quadrants are very unequal in size. An interesting item of note is the fact that the quadrant indication is used as a prefix in Miami rather than as a suffix as in most other places. Every Miami address includes the quadrant indication as do addresses in Canton, Grand Rapids and all other places using a quadrant system. In all three example areas the naming and numbering systems of the central city have been extended to the entire county.

The Modified Quadrant System

This numbering plan is used in Chicago, Illinois and Milwaukee, Wisconsin. These cities are divided into four quadrants, but they are not designated as such. Every thoroughfare receives a designation indicating whether it is east, west, north, or south of the base line.

Chicago uses a coordinate numbering system which has 800 numbers per mile. Generally speaking, the Philadelphia block system is not used, but there are certain exceptions to this. Main thoroughfares which are at quarter, half or one mile distances from the base lines do begin with even hundred block numbers.

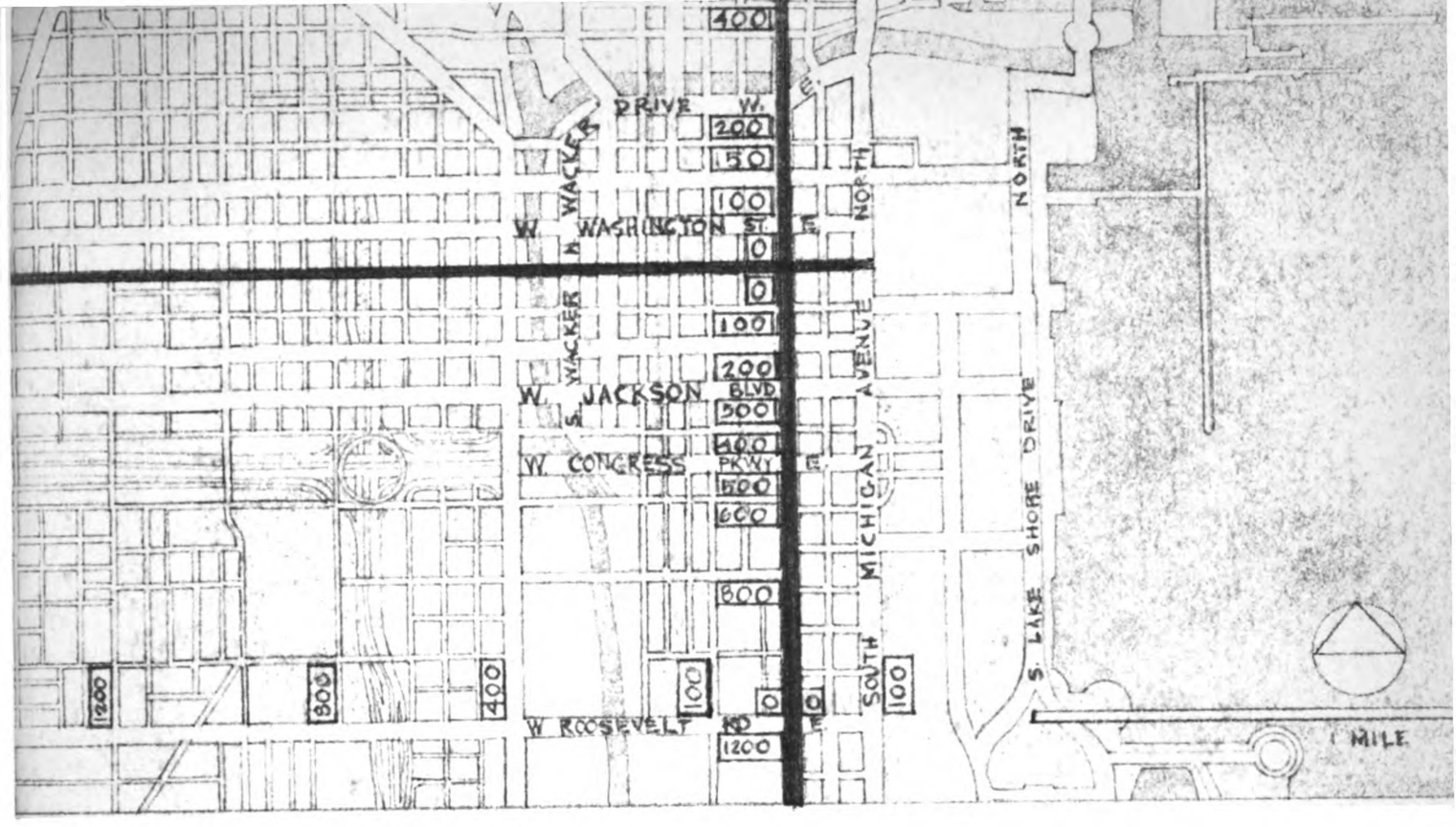

Figure 23. House Numbering - Chicago, Illinois

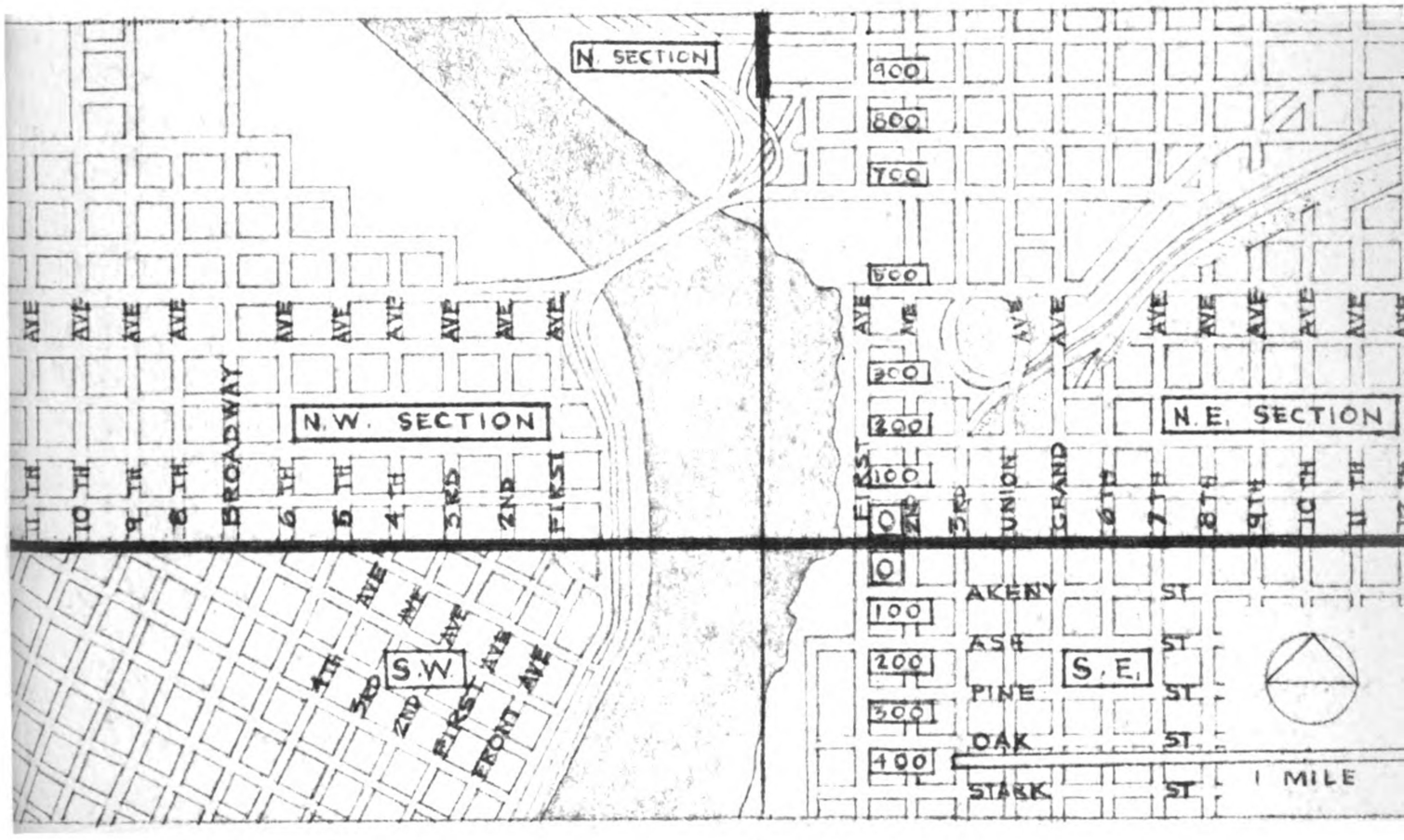

Figure 24. House Numbering - Portland, Oregon

East-west thoroughfare south of Roosevelt Road (Twelfth Street) are designated streets and numbered. A block numbering system is used on streets which intersect them.

Milwaukee does not have the regular base lines which Chicago does, and it has a few other variations as well. The numbers run at 600 per mile and 100 per block. The numbers at the base line begin at 100 rather than 1 as in Chicago. In Milwaukee, as in Chicago, a directional indication is given to all streets and east-west streets on the south side of the city are numbered.

Quadrant Variations

There are a number of cities with unusual geographic conditions which have modified the quadrant plan to suit their local conditions.

Portland, Oregon.--Prior to 1930, the city had a very confused situation in its house numbering and street naming system. There were several different systems each with its own base lines. Some blocks were allotted 20 numbers others 100. Some streets had direction prefixes, some directional suffixes and some both! Then in 1930 Portland adopted the plan shown in Figure 24. Because of the angle of the Willamette River it was decided to divide the city into five rather than four quadrants. Each of the five district indications was to be used in a prefix

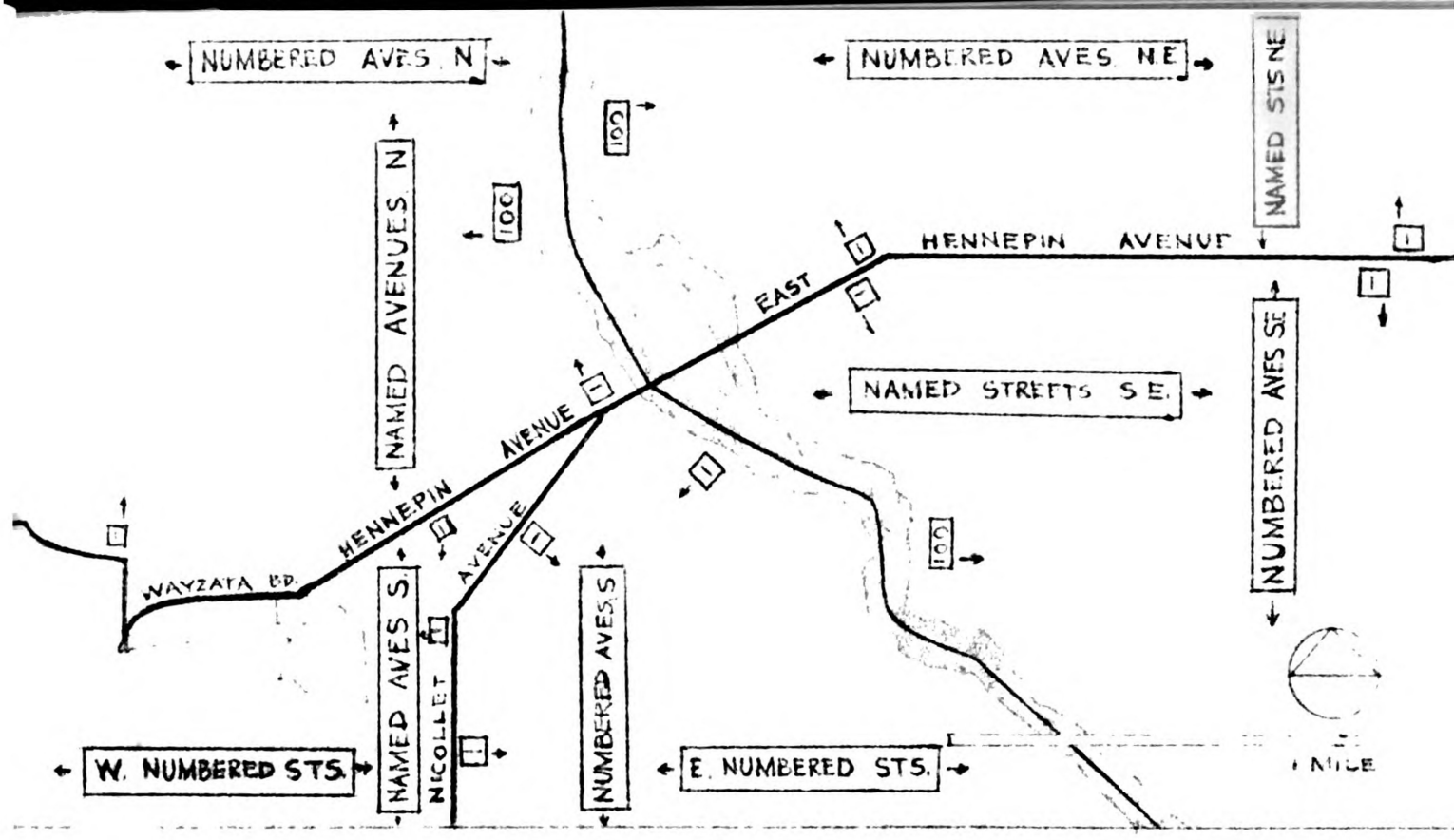

Figure 25. House Numbering - Minneapolis, Minnesota

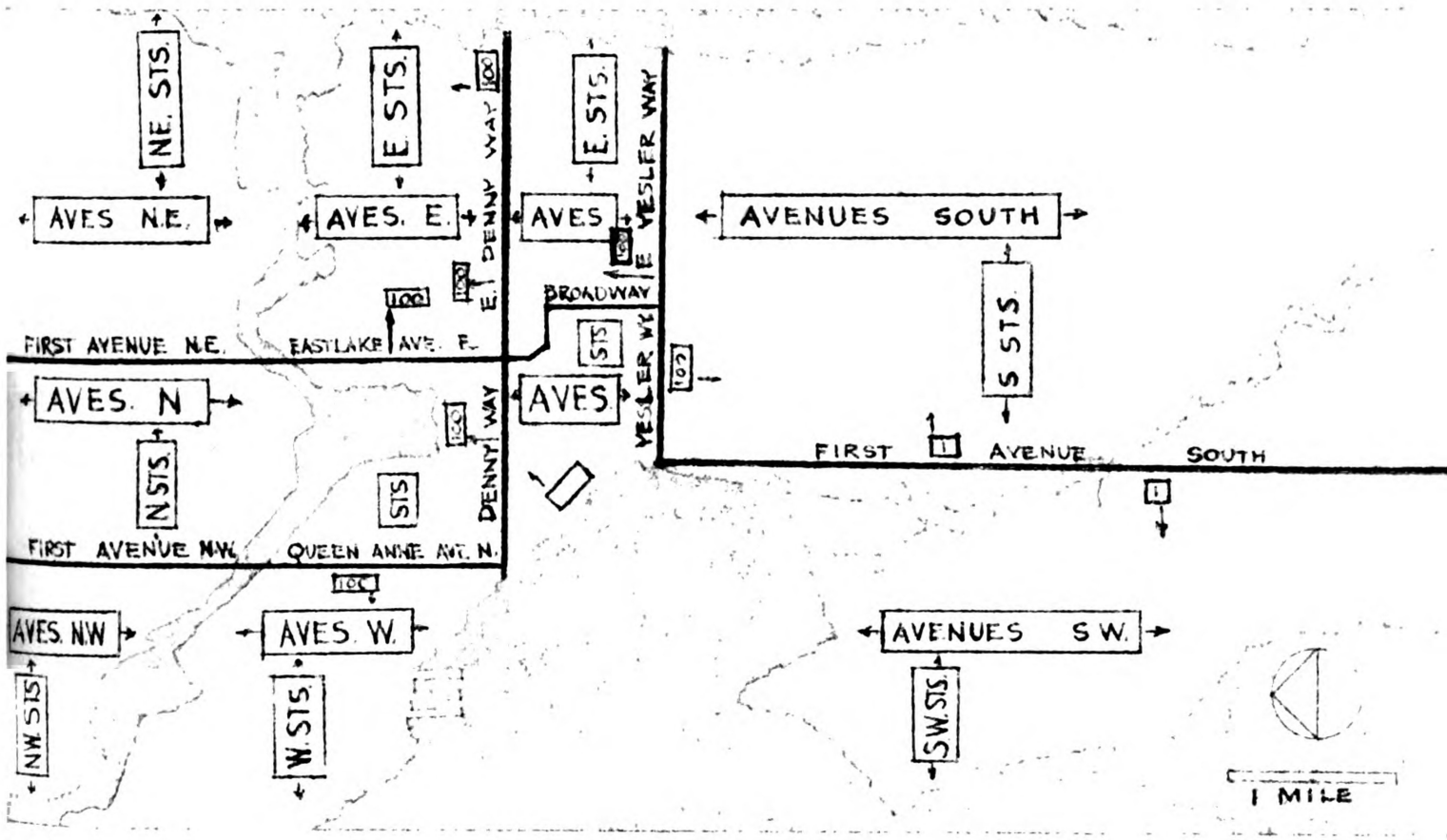

Figure 26. House Numbering - Seattle, Washington

for all streets in that district. All east-west thoroughfares were designated Avenues. All north-south thoroughfares were designated Streets. Wide, important streets were designated Boulevard or Drive. The Philadelphia style of allowing 100 numbers to a block was used with the numbers beginning with 1 at the base lines.

Minneapolis, Minnesota.--The best way to describe their system is simply quote a description in "Notes and Queries."

> In Minneapolis there are both numbered Streets and numbered Avenues. Some of the Streets, and some of the Avenues, run north and south, some east and west, and some in miscellaneous directions. This situation is further complicated by division of the city into districts known as North, Northeast, Southeast, East, South and West each of which may have its own Avenues and Streets, all numbered the same, and indistinguishable except by the appended N, N.E., S, etc. Worst of all, S.E. Minneapolis is quite misplaced, being north of East Minneapolis.[5]

Seattle, Washington.--The house numbering and street naming systems of Seattle and King County have what is probably the most finely differentiated directional indications in the country. While the system is complex, it is not as bewilderingly so as the rural Illinois or Indiana schemes. House number series correspond to the streets' numberical names. The systems are best to be seen to be believed. Figure 26 shows their major features.

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[5]Arthur M. Cox, Notes and Queries (April 20, 1940), p. 786.

CHAPTER V

THE PHYSICAL ROLE OF STREET NAMING AND HOUSE NUMBERING SYSTEMS IN THE URBAN COMMUNITY

Why Names and Numbers?

> To one who is a stranger in any of our American cities, with street names as the only guiding beacons, it is a wonder that city planners and municipal officials have not devoted more thought to the naming of streets. . . .A city whose guiding beacons fail in this purpose impresses the traveler as an unfriendly place or one in which it is difficult to orient oneself. With cities vying with one another for the transient and the visitor, attention to the naming of the streets and the proper numbering of the houses will be effort well repaid.[1]

This statement written in 1925 is as true today as it was then. Street naming and house numbering have become vital needs in today's urban communities. It would be almost as difficult to live with streets without names as it would be to live without the streets themselves. Every city is a composite of a hierarchy of many centers of activity. In a very small place, there will be only a few centers. There is no problem in finding one or getting to it because they are all close together. As the city grows these centers of activity multiply and become spatially more distant.

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[1]Nathan Nelson Wolpert, "Observations on the Naming and Marking of Streets," The American City 33 No. 6 (December, 1925), p. 620.

In order for any one person to travel to any center of activity other than his own he must have a means of identifying it. One method of locational identification has proved itself in almost universal use. This is the method of giving a name to each unit of space, either linear as a street or compact as a square or circle, and a number to each building or unit of spatial distance.

We have already discussed what systems have been developed to meet the needs of locational identification and later we will discuss the best ways to apply those systems. For the present, let us continue to look at the reasons why we need good street naming and house numbering systems.

"Many cities have not always appreciated the fact that a poor system of street naming contributes to traffic congestion as well as to delay and inconvenience of motorists and pedestrians."[2] Poor systems of street naming or house numbering or both can not only be costly in terms of convenience, but also in terms of dollars and even in terms of lives. Consider the case of the fire department or an ambulance rushing to the scene of an emergency and then not being able to find the emergency because streets were confusingly named or houses poorly numbered. Confusion is a by-product of any emergency. If confusion already exists,

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[2]Donald H. Webster, Urban Planning and Municipal Public Policy (New York: Harper and Brothers, 1958), p. 179.

as in a street naming and house numbering system, before an emergency occurs the result of confusion added to confusion is likely to be tragedy.

> The value of the numerical system (or any other good system) of street and house numbers, like that of the Weather Bureau, cannot readily be estimated in terms of dollars and cents. In expediting and preventing mistakes in the delivery of mail and merchandise, the system has an economic value which is obvious.[3]

A Toronto, Ontario, taxi firm estimated that fares were 20 cents higher in areas without a good system of house numbering.

An estimate of the total amount of money lost each year due to poor street naming and house numbering methods would be impossible to make. Who would even know the value of time wasted in searching for addresses of businesses much less the value of time wasted in looking for addresses for purely social purposes. To the value of time lost must be added the wastes in the transportation media, the costs of traffic congestion, the personal costs of late mail or late services and finally the costs of dozens of hidden expenses applicable in only special cases. Whatever the total cost is it is enormous. Furthermore, it is a price which must be paid constantly as long as the inadequate systems are in use.

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[3]Charles U. Powell, "Bringing Order Out of Chaos in Street Naming and House Numbering," The American City, 40 No. 3 (February, 1928), p. 93.

In 1950 the American Society of Planning Officials made a study of street naming and house numbering systems. A summary of their reasons on the necessity of good systems follows.[4]

1. An unfavorable impression of the community is made on visitors if they have difficulty in finding places of interest and businesses and persons they wish to see.

2. Delivery services must incur greater expenses in routing and then rerouting packages.

3. Mail delivery may be delayed.

4. Many letters and goods may be lost if improperly addressed.

5. Motorists more intent on searching for a correct address rather than on driving may increase the traffic accident potential.

6. Poor naming and numbering systems may make it more difficult to train civic employees in a knowledge of the city and this in turn may result in disappointment by residents and visitors in the caliber of these employees and government officials in general.

7. Maitaining correct legal addresses such as those needed for licenses, vital statistics, and deeds will be more difficult.

8. The problem of getting emergency police, fire, and ambulance and medical services to the right location can often be impossible without a good house numbering and street naming system.

9. Residents and visitors may have subconscious feelings of estrangement toward the community if they are not easily able to orient themselves within it.

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[4]"Street Naming and House Numbering Systems," Planning Advisory Service, Information Report, Number 13 (Chicago: American Society of Planning Officials, 1950), pp. 6-7.

Almost everyone, whether directly involved with local urban government or not, is in favor of having good systems of house numbering and street naming to prevent the difficulties listed above from becoming serious. Since in most places these difficulties have not become serious enough to cause a major breakdown in the flows of interpersonal communications, goods or services few people give street naming and house numbering systems reform a high priority in the list of urban problems.

The planner, however, should be concerned with preventing such problems before this occurs. Planning is an attempt to provide order and rationality in community life and to make the community more efficient and convenient. Clarity of meaning and form in the street naming and house numbering system can only come as the result of deliberate actions taken by the planner in cooperation with other local officials. There are a number of governmental agencies and civic organizations who would be interested in helping promote improved street naming and house numbering systems for their community:

1. The local post office
2. The local police and fire departments
3. Retailer's associations or large department stores
4. Chamber of Commerce
5. Business men's association such as Kiwanis or Rotary
6. Railway Express and other delivery companies
7. Real estate boards, home builder's associations or title firms
8. Local newspapers

9. HHFA regional office
10. Local civic improvement groups
11. Utility companies
12. Local health department and medical society
13. Local and state highway departments, departments of public works, city or county engineer.

In some cases, particularly rural ones, non-governmental organizations like the utility companies have assumed responsibility for devising, instituting, and maintaining systems of street naming and house numbering. They have done this because the savings resulting from being able to find locations easily more than covers the costs connected with the program. If this is true for just one major institution involved in the urban communications process think of the total savings to all.

The question of why have a good system of house numbering and street naming is relatively easy one to answer. The questions of how to develop a system and what to use as a basis are far more difficult questions to answer. These questions relate to one of man's most personal possessions, his address, and as such are heavily ladden with many emotional reactions.

> In the last analysis, the public would like street systems that will enable those who need to find their homes to do so without trouble. And for privacy's sake, they would just as soon have it sufficiently complicated to create some difficulty to those who do not need to come.[5]

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[5]"The Science of Street Names," The American City, 75 No. 11 (November, 1960), p. 7.

How to Choose the Street Naming and House Numbering Systems

Many methods have been developed for giving names to streets. Most of the important ones have already been described in preceding chapters and a few more will be described in the pages that follow. What method to use is not really the important question for today's urban areas. It does not matter so much which method is picked, the important points are how it is picked, how it is used and how useful it is.

How to give street names has been a matter open to dispute for a very long time--ever since names have been consciously given rather than just acquired. One inventive writer suggests to modern cities, "Let the street be numbered and remain numbered until the collective life that is lived in it asserts itself in some significant way, or until some notable person or event appears in strict relation to it."[6]

How is the right name picked for a street? A street's name should be picked as a part of a total system of street names. Some systems do, of course, present the opportunity for greater choice in the name to be given to any particular thoroughfare. Other systems, such as the numerical ones, rigidly predetermine the name any one particular street will have. Either type of system has its advantages and

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[6]Albert J. Nock, "Streets-Why not let them name themselves-they could do no worse," Century Magazine, 116, No. 5 (September, 1928), p. 601.

disadvantages. There are dozens of both types of systems which would meet the basic requirements for any street naming or house numbering system. Yet, most places name streets hapharzardly with no thought for the role of the street's name in the entire urban community.

"Why should any town in the United States continue to leave this extremely interesting, highly delicate and most significant expression of our civilization to the perfervid imagination of the real-estater?"[7] What ever the reasons of the past they are no longer valid for the future. The demands of communication in the urban environment are so complex that they must be aided in every way possible. We cannot permit a vital component of the urban communication network to remain cumbersome and confusing and subject to every whim of unimaginative developers.

Every urban area needs a set of policies to determine how their street naming and house numbering systems will be organized. The determination and use of these policies are properly functions of local planning and local government, and not a matter to be left to chance. By adopting these general and specific policies for street naming and house numbering every community should be able to determine how to establish the systems best suited to its needs.

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[7]Nock, op. cit., p. 597.

Guiding Policies for a Street Naming System

Base Lines

In any street naming or house numbering system, other than a no-pattern one, street names and house numbers will have a common point of origin along some linear course, namely a base line. It has been common practice to use principal business streets as base lines, but this has been criticized on the grounds that the close proximity of similar house numbers in this section may create confusion. In Chicago, business interests succeeded in getting State and Madison Streets made base lines even though it meant vastly unequal quandrants.

The base line can be a street, a series of connecting streets or an imaginary line through a river, stream, lake or valley. It does not matter what is chosen as long as it is fairly straight, relatively permanent and easily recognizable as a base line. Generally, there should be no more than two base lines in any one urban area unless unusual topography dictates the need for more.

Directional Indicators

If no streets cross the base lines, there is no need for directional indicators. In most systems, at least some streets will be crossing a base line and some way must be found to distinguish the two sections. The simplest way is to give the street two different names. To indicate the

close relationship between the two sections, names suggestive of each other as Boston's Summer and Winter Streets, might be used.

Streets which cross the base line are usually given an indication, North, South, East or West showing the street's directional relationship to the base line. This directional indicator may be extended to all streets to show their direction and not necessarily exclusively reserved for those streets which actually cross the base line. Directional relationships may also be expressed in terms of quadrants, Northwest, Northeast, Southwest, or Southeast, in which the street is located.

> A thoroughfare name either on mail matter, or on a sign, or in speeches, without anything about it to tell at which point of the compass the end of the thoroughfare is situated is purely an arbitrary name and cannot be used for a guide either in speech or writing, except by a prodigious memory or knowledge.[8]

The Prefix vs. the Suffix

The most common place for putting the directional indicator has been as a prefix to the street's name. Some places, particularly those using a quadrant system have used the directional indicators as a suffix. The Post Office reportedly likes prefixes because they feel the public accepts them as a part of the actual name. People are likely to drop a suffix or consider it unimportant. A directional prefix or suffix should not be used to distinguish two completely different streets with the same name.

[8] Ibid., p. 599.

The Designations

One part of a street's name should be clearly defined and closely related to the thoroughfare itself and not permitted indiscriminate use. This part is the designation. In some systems the designation is determined by the street's direction, in others it is not. In either case there are many exceptional situations which need to have precedents established for them.

Every metropolitan area should develop a set of standard definitions for street designations which will equate the physical characteristics of a street to a particular designation. Only those streets meeting the criteria for any one particular designation would be allowed to use it. More than any other measure control over the use of designations can provide both an ordered system of naming and a framework in which variety is possible. There is certainly no need to limit the choice of designations to the usual alley, street, road, lane, avenue, or boulevard. New street patterns might easily permit more exotic designations such as crescent, walk, yard, green, mews, trail, or terrace.

Duplications and Confusions

In no case should one name be used for more than one street regardless of the directional indicators or designations used to modify the name. There is but one exception to this that should be considered permissable. This is:

very short streets which are branches of or adjacent to a more important street may be given the same name as the more important street but with a different designation. Amberson Place is a short cul-de-sac off Amberson Avenue. Tenth Place is a short street between Tenth and Eleventh Streets.

It is an equally strict rule that one thoroughfare should have one and only one name for its entire length. If the street is extended the name should be extended with it. Designations may be changed to fit the character of the thoroughfare, but the name never should be.

Names which are similar either in spelling or pronunciation to other names can be as much a source of confusion as duplicate names. Names such as Park and Clark, Peach or Beach can be tragically misunderstood in an emergency. St. Louis once had a street called Wash which people would constantly mistake as an abbreviation for Washington. Names including east, west, north or south can also be confusing. Westmoreland Street may, under certain circumstances, be confused with a West Moreland Street. Such names should be used only if their use will not result in confusion.

Irregular Patterns

Most American cities are laid out in some sort of gridiron pattern. However, every urban area has many breaks and irregularities in its gridiron pattern that require special naming policies. Policies for handling some of these special conditions are suggested next.

a. Discontinuous streets following continuous alignment. There are two ways of naming for this situation: Treat each section as a separate street and give it a different name or treat the street as if it were continuous naming each section the same. The latter treatment may be preferred if there is any chance of the segments ever being connected. Since the arguments for one treatment are strong and plentiful as those for the other it really does not matter which is selected. It is only important that the same policy be followed each time the situation occurs.

b. Loop streets.

Whether semi-circular or rectangular this pattern is usually difficult to integrate into the total naming system. One naming method commonly used is to give the entire loop one name and then divide it with directional indications that are not related to the base lines but only to the street itself. This is not a recommended practice.

If the loop street is semi-circular it should be given one name and a special designation such as crescent to indicate its form. On a loop formed by three streets at right angles to each other each street should be given a different name.

c. Streets with close but non-continuous alignment. Occasionally one street will be formed from a number of sections which are in close but not continuous alignment with each other. It is permissible to give this one

continuous name as long as no section has an alignment difference of more than one hundred feet from the next section.

Specific Qualities of Street Names

a. Street names should be original, distinctive and characteristic of the area either physically or socially.

b. Streets should not be named after people unless the person is truely important either locally or nationally. "Unless a person or event is worthy of more substantial memorial than the quick naming of a street, the name itself will soon lose significance and the street per se serves in no sense as a historical monument."[9]

c. A street name should not be affected or sentimentally exaggerated, but should be attractive, interesting, appealing to the imagination,and representative of good taste, high character, and dignity. It should be a name in which every resident can take pride.

Guiding Policies for a House Numbering System

Relationship to the Base Lines

The house number should show the relationship of the building to the base line and not merely to the beginning

[9]George Burnap, "Street Nomenclature in City Planning," Architectural Record, 51 (January, 1922), p. 536.

of the street. For this reason all house numbering should begin at the base line and proceed out with each street being numbered as if it actually began at the base line whether it does or not. This will assure that the numbering on any one street will always be approximately comparable to the numbering on parallel streets.

The Unit of Measure

The most commonly used systems of house numbering are thouse that allot between 500 and 1000 numbers per mile. The system of 1000 numbers per mile is the best all round system because it allows approximately 10 feet per number and can easily be followed by counting tenths of a mile on a car's speedometer. The system thus has a small enough unit to allow for urban lots and is simple enough to be usable in rural locations where lots are widely spaced. The Philadelphia system of one hundred numbers to a block may still be used especially if the blocks are tenths of a mile in length. Although it is desirable to have back blocks begin at an even hundred, this may not always be possible if the street pattern is irregular and to attempt force this requirement on the street pattern may result in a very confused pattern of numbers with many numbers skipped. The house numbering system should always run in a steady progression with numbers increasing consecutively away from the base line.

The First Number

According to regional preference, house numbering has begun at the base line with the first number either 1 or 100 or 1000 or even 10000. The high numbers have often been used in cases where there was a desire to avoid duplication of numbers in two adjacent numbering systems. It is recommended that the first number at the base line always be 1. Beginning at 100 can sometimes have confusing side affects. In Lansing, Michigan, Eighth Avenue begins the 900 block rather than the 800 because the base line in 100 rather than 1.

Block numbering should be used in any system with numbered streets so that the street's number and block number will be related. Again the rule to remember is that the house number is the building's relation to the base line.

Multiple Unit Buildings

Simply stated every building or unit with a direct entrance to the street should have its own number. The unit of numbering should always be small enough to take care of these buildings. Fractions should never be used. Buildings arranged around a small court may be numbered as if located on the major street. If there are so many buildings on a court that when numbering on the major street is resumed, the numbers are very different from

their counterparts across the street, then the court should be given its own name and numbered accordingly.

Odd and Even

The most systematic way of asigning odd and even numbers is to select, say the north side of east-west streets and west side of north-south streets for odd numbers and the opposite for the even numbers. Some places assign odd numbers so that they will always be on your left when looking away from the point of origin. This can be very confusing to strangers and residents alike and is, therefore, not a recommended practice.

New York City has a very unusual system whereby they assign both odd and even numbers to streets which are one sided. Fifth Avenue, Riverside Drive and other streets bordering parks or the water front have odd and even numbered buildings side by side. This is not an acceptable variation to the rule that odd numbers belong on one side of the street and even numbers on the other.

Special Situations

Every city has many streets which do not neatly fit into the gridiron pattern. Diagonal streets should be numbered according to the direction they most nearly follow. If the diagonal is exactly 45 degrees from the base line it may be arbitrarily numbered as either a north-south or east-west street, but the same decision should be followed in each case.

Semi-circular loop streets should be numbered as if parallel to the major street from which they branch. Curvilinear streets should be numbered according to their dominant direction. Sharp curves may necessitate new names and a change in orientation of numbering. As long as the linear unit of measurement per number is small enough it should be able to accomodate any situation.

In suggesting policies for street naming and house numbering no attempt was made to select one system as being superior to any other under general circumstances. Many systems have been described in the previous chapter and in general all have equal merits. There are, of course, special local conditions which will make one system of house numbering and street naming more suitable for that area than another. The process of selecting a suitable system for a particular area will be discussed in the last chapter after a few more general conditions and requirements have been covered.

CHAPTER VI

PRACTICAL PROBLEMS: ADMINISTERING THE STREET NAMING AND HOUSE NUMBERING SYSTEMS IN THE URBAN COMMUNITY

Problems of Organization

Deciding on a system and adapting it to meet all conditions imposed by local geography will not solve all the problems of house numbering and street naming in today's urban or rural areas. There will still be other basic questions to be answered including the question of the extent of the system.

> While some of the older and larger centers have had numbering problems for some time, the greatest confusion has arisen since the end of World War II in situations where a large city has grown together with its suburbs, and then spread over into surrounding areas. Each municipality still retains its own numbering system and rural areas either go without numbering, tie in with the nearest built-up community, or each new subdivision scattered here and there starts its own numbering with no over-all plan.[1]

Determination of the area any one system of house numbering should cover is not a new problem. It was noted as early as 1886 in a news report in the Baltimore Sun.

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[1]L. S. Mannell, "House Numbering for Growing Communities," The American City, 70 No. 9 (September, 1955), pp. 200-201.

> We at last have a prospect of having the decimal (Philadelphia) system of house enumeration applied to the city, and as the district referred to (a section of Baltimore County adjacent to the city) is positively a part of and extension of the latter, (in spite of what the 'county fathers' may think,) it is therefore absolutely necessary that the county's numbering should conform to the city's. . . .[2]

Although a few people with foresight recognized the problems of confusion that could result if adjacent areas had different house numbering systems, most places did nothing about the problem until the 1920's. What was done at this time was mostly to extend city numbering systems into the country. One of the very first places to do this was Wayne County, Michigan. In 1923 the Wayne County Road Commission developed and carried out a plan for extending the Detroit numbering system into the unincorporated area of Wayne County. This meant that already incorporated areas using different systems could continue to use them causing a good deal of confusion in the areas where the two systems met. Today most of Wayne County, Macomb County, and parts of Oakland County are all numbered on the same house numbering system. And although this system has two major faults: house numbers have no direct relationship to the mile road numerical names and allotting almost 2000 numbers per mile has caused very high house numbers to predominate, Detroiters would find it very difficult to get around the metropolitan area without it.

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[2]"Numbering Houses in the Belt," Baltimore Sun (June 7, 1886), p. 6, Col. 3.

Another very large metropolitan area which has attempted to establish a county wide system of house numbering and street naming is Los Angeles County. Los Angeles County has many intercommunity thoroughfares and with fifty different systems of house numbering it was virtually impossible to tell where you were. In 1933 plans were made for a unified system of house numbering for use throughout the county. Although considerable improvement has been made Los Angelinos still are not able to locate a particular destination without difficulty.

Few of the more than two-hundred standard metropolitan statistical areas in the United States have just one system of street naming and house numbering in use. Those that have only one or at least only a few may enjoy a competitive advantage over other metropolitan areas in which finding a location for business or pleasure is a difficult task. It may not always be possible for one metropolitan area to have just one house numbering or street naming system in operation throughout. But in no case should any unit of government smaller than the county be considered as a sufficient area for a system of street naming and house numbering. Geographic conditions may make it desirable for the county-wide system to be composed of smaller sub-systems, but these should always be related to each other and, if possible, to systems in neighboring counties. These guides are as applicable to a

rural county as they are to an urban one and farsighted rural counties are preparing for the day when they will need up to date communication processes as much as urban ones.

A county-wide system of house numbering and street naming cannot be developed and then carried out unless some group or agency is officially given this function to perform. There are various agencies which can do the job, but it is best if the agency is one which will have a direct interest in seeing that the systems are carried out to further their own objectives as well as those of the area as a whole. With a county-wide system the county engineer or planning commission is probably the best authority to do the job. The administering agency should be backed up by a complete set of local ordinances and should have a staff adequate to do the job. Even after the system has been established any county of more than 50,000 people will need to have one person devoting full time to the administration of the numbering system. A county-wide naming system will also need a staff to enforce it.

Naming and numbering systems cannot be set up and then forgotten. They need day to day attention in any area that is growing and changing. Because the maintenance of such systems is expensive, many county governments have not wanted to be saddled with this additional burden.

Nevertheless, those counties, both large and small, which have established systems of naming and numbering have found it well worth the effort.

The ideal is to have street naming and house numbering done on a county-wide basis, but in practice, the ideal is far from a reality. Those counties which do have nearly county-wide systems are generally either rural counties or counties which established the system before wide spread suburbanization. Counties which are broken up into a number of equally independent and powerful communities are likely to have a number of equally different and confusing systems of house numbering.

Establishing a unified system of house numbering and street naming in areas of multiple political jurisdiction is likely to be a difficult task as Los Angeles County has discovered. Although they began their program over thirty years ago there is still no uniform system throughout the county. Individual muncipalities often guard their right to their own system with fierce determination to avoid the imagined evils of metropolitan government. Just as often communities maintain existing systems because of the trouble and expense of changing over to new systems. In the typical American way, no one wants to prevent a problem from happening; they would rather let it happen and then solve it. Those places which have made attempts at solving the problem have often

had some difficulties, but these are insignificant compared to the difficulties which have been thereby avoided.

The need for systems of street naming and house numbering which aid rather than hinder the communications process will be felt as more and more inadequate systems break down and need revitalizing. As this happens more emphasis will be placed on methods and procedures of administrating the systems of street naming and house numbering which have been chosen to meet the community's needs.

Administration for Perpetuating The System

While the county may be the optimum unit for a total house numbering and street naming system, many states have not given the county the authority to create such systems. In some states it may be possible for the county to set up such systems under their general power. In Ohio counties may adopt plans for the development of better community living under the regional planning powers given in Section 4366-15 of the Ohio General Code.[3] It is possible to construe these powers to permit plans for house numbering and street naming as necessary to the welfare and improvement of county residents.

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[3] House Numbering (Dayton, Ohio: Montgomery County Planning Commission, 1950), p. 11.

Counties desiring to establish county-wide systems of house numbering and street naming could develop such plans with the cooperation of the constituent communities and then have each individual community adopt officially its section of the plan. Every state has empowered cities and most states have empowered townships (if they have them) to adopt such plans so the problem would be merely getting them to cooperate.

The right of those units of government which have been empowered, either explicitly or implicitly, to create and promote systems of house numbering and street naming for the general welfare has been recognized and upheld in court as some of the following examples show.

In Hagerty v. Chicago 195 N.E. 652 (Ill.) the court held that an ordinance changing the name of a street under statutory authority is not unreasonable. The property owner was found to have no property right in the name of the street which would prevent the municipality from changing its name. A New York court in Bacon v. Miller 160 N.E. 381 (N.Y.) also held that a property owner had no vested right in the name of the street or house number originally assigned to his property.

In more general cases as Brown v. Topeka 74P. (2d) 142 the court held that the city had implied authority to change names of streets. In Darling v. Jersey City 78A. 10 (New Jersey) it was decided that naming streets is a

legislative act not subject to review or interference from the courts. Eldridge v. Fawcett 223P 1040 (Wash.) found that the right to change the name of a street is a legislative right which is not exhausted by previous exercise thereof.

Some court decisions have restricted street naming power but only slightly. Belden v. Niagara Falls 136 Misc. 406 . 241 N.Y. s 5 held that if a street is deeded to a municipality the deed may restrict the right to change the street's name. In Miller v. Cincinnati 10 Ohio Dec. 423, 21 Cin. Law Bul. 121, it was held that if no good reason existed for changing the name of a street, the municipality couldn't change it except on petition of the street's property owners. This decision should not present any trouble to the city or county that is changing a name to bring the street into conformity with a plan of naming or changing the name to eliminate a dangerous duplication that exists within its borders.

The fact that the operation of a street naming or a house numbering system requires the development of efficient legal and administrative procedures has already been established. Examination of these procedures in a detailed manner is not the purpose of this study, but we do need a cursory knowledge of them. Once a house numbering or street naming plan has been devised for a particular area it will never be of significance unless

an ordinance or at least a resolution requiring its adoption is passed by the appropriate legislative body.

Very briefly an ordinance providing for the adoption of a system of house numbering should include:

Title.--An Ordinance to Provide for the Uniform Numbering of Properties. . . .

Declaration of Purpose.--In order to promote the convenience, safety and general welfare. . . .

Extent of Systems.--This section would simply describe the area covered and its boundries.

Operation of the System.--This is intended to describe the components, base lines, unit of measurement, etc. and how they work.

Assignment of Numbers.--This section would state the exact method of determining the number of each property.

Issuing Agency.--The number shall be assigned by. . . .

Record of Numbers.--Some provisions must be made for recording the number assigned to each property. This information can be very useful to all government agencies. No property owner should be able to get services or a building permit until he has his correct house number.

Violations.--Unfortunately, unless there is a penalty for noncompliance some people never will.

Official Maps.--As in a zoning ordinance, an official map is an important part of a house numbering ordinance.

An ordinance establishing street names would be essentially the same as one establishing house numbers, but with one important difference--provisions for additions and change. A house numbering system is essentially constructed so as to be infinitely extendible. Not so with a street naming system unless it is a numerical one. New street names will constantly be added to the city, some old ones are removed and some procedures need to be established to handle these changes.

Los Angeles County has set up clear methods for assuring that new street names will conform to the overall system of street naming. Three steps are necessary for investigating and verifying street names:

1. Maps showing proposed street names will be submitted to the Los Angeles County Engineer for checking.
2. The County Engineer will check the maps and then make any recommendations for changes necessary to have the proposed names fit the official system.
3. No plat maps are recorded until the street names shown agree with the approved names in the Engineer's report.

Use of complementary regulations in other ordinances is also an important way of maintaining the street naming pattern. The most important of these, as mentioned above,

is the subdivision ordinance which controls the laying out of new streets and their official plat recording. Street naming requirements might read: "No street names may be used which will duplicate, or be confused with, the names of existing streets. Existing street names must be projected wherever possible."[4]

Valuable as it is, the subdivision ordinance only has an effect on the naming of new streets and very often it is the old street names that cause confusion. It may not always be possible or even desirable to enact an ordinance that will provide for a totally new system of street naming. An area may have the foundations already existing for a suitable system of street naming and need only to change selected names to complete the pattern or avoid confusing situations or duplications. The Los Angeles County procedures for changing street names are simple and straight forward. A change in a street's name can be requested by either the County Board of Supervisors, the County Engineer, the Director of the County Planning Department, a local property owner or civic groups. The County Board of Supervisors will hold a hearing on the change following a ten day period during

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[4]Chicago Plan Commission, Building New Neighborhoods (Chicago: City of Chicago, 1943), p. 41.

which public notices on the change have been posted. The Board of Supervisors, after hearing the evidence will make the final decision.

The prime reason for changing a street's name is generally because some other street also has the same name. The confusion and trouble this can cause a community has already been discussed in Chapter V and need not be repeated, however, the urgency of the problem is not to be underestimated. Getting rid of street name duplications can be difficult enough in a single jurisdiction naming district, but when names are duplicated in adjacent communities of separate political jurisdiction the problem is practically unsolvable. Of the agencies which have made attempts to solve this problem one, Tri-County Regional Planning Commission, Lansing, Michigan, has a particularly ingenious approach.

This agency has developed a rating scale on which the two or more streets with the same name are compared. This scale measures such items as history, period of time the street has had the name, length of the street and number of buildings on it. Each item is worth a certain number of points and the street getting the highest number of points is presumably the street that retains the disputed name while the others are given new names. Such a method is very good for it prevents the name change from being arbitrary or capricious.

Except for new towns, any existing urban area which adopts a new or revised system of street naming and house numbering will have to make changes in existing names and numbers. This is at best a delicate operation no matter how desirable the new system might be or how equitable the process for deciding changes.

House numbers or street names can be effectively changed only after an extensive educational program has been conducted to familiarize all citizens with the changes. Government agencies, utility companies, department stores, and other large service organizations who rely on personal addresses as being accurate locational indicators for directing their services should be the first to know of the proposed changes. These organizations can then aid in publicizing the changes and in using them in all transactions with their customers.

The change over period from one system of house numbering or street naming to another can be almost any length of time. Some places have allowed up to a year others only two weeks. Both are probably extremes. If the property owner is given too long he will probably forget about making the change over. If the time period is too short he will feel he has not enough time and may resent the change. Above all it is important that the public and the news media be properly disposed to a change and understand what it is and why it is taking

place. Philadelphia's radical house numbering changes of 1856 were accompanied by hostile feelings on the part of many who did not understand the changes and felt that what was good enough for grandma is good enough for me. One of the Philadelphia citizens expressed his feelings thusly:

> The ordinance requiring houses in the City to be renumbered is universally condemned by our citizens. Much inconvenience will result from carrying the law into effect. Besides the expense to the individual the aggregate cost of renumbering will be enormous. All this, however, would have been willingly submitted to, provided there was any necessity for renumbering the houses. The plan of renumbering is ridiculous and nonsensical (no doubt because numbers were skipped), and calculated to produce confusion. No one has ever attempted to vindicate the ordinance, or to show its utility; and the only reason given to the public to justify its imposition upon the people, is the silly and senseless one, that numbers are suggestive of distance.[5]

Apparently the whole point of the change was missed by this man, especially the desirability of having street names coincide with house numbers.

Perhaps one should not get too upset that this writer failed to understand an idea that is still not universally understood here more than one hundred years later. The relationship between a house number and a street name and the physical reality of the city is understood in a hazy way, if at all, by many urban residents.

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[5]One of the People, "The New Numbering Ordinance," The Philadelphia Daily News (April 20, 1857), p. 1, Col. 5.

It might behoove local governments, the post office department, utility companies and others to carry out an educational campaign about the meaning and usefulness of an urban area's house numbering and street naming systems at periodic intervals and not just when a change is taking place. If people were more aware of what their address meant and how much more useful it could be if part of a rational over-all system they might be more receptive to changes which would result in more easily usable system.

Despite the mystery which occasionally surrounds it, the address has some sort of meaning for most people especially when a change is threatened. One city found one old man violently opposed to changing of the house numbers on his street. The reason: his house number was the date on which he began fighting in World War I and he wanted to remember it.

The personal and social implications of a man's address are many and varied. No system of house numbering and especially no system of street naming can be judged on its purely physical merits alone. Evaluating existing systems or developing new ones without considering the social role played by the address is vain and meaningless.

CHAPTER VII

THE SOCIAL ROLE OF STREET NAMING AND HOUSE NUMBERING SYSTEMS

> The naming of a street is of much more importance than is usually understood, as it has a considerable psychological effect. A street name full of dignity or of a unique character often makes a street famous. A street of prominence, however, may often overcome the handicap of its name and cause the name to have a meaning far greater than the words impart. Thus Fifth Avenue in New York, though possessing a name in itself of the most commonplace nature, has given to its name a considerable significance.[1]

This view was magnified and given more down to earth expression twenty years later by a writer wishing to get the maximum profit return from a street's name.

> The selection of an attractive name has a direct commercial value. Just as we are consciously or unconsciously affected by first impressions of people, including their names, so we are influenced by the names of places we have never seen, but in which we are considering realty purchases.
>
> Of course, the name is not everything, but it plays its part in attracting new residents and keeping those already there. We easily recall places with attractive names. . .whereas others with unfortunate names suffer through ridicule and decreased property values.[2]

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[1]Frank Koester, Modern City Planning and Maintenance (New York: McBride, Nast and Company, 1914), p. 120.

[2]Henry Winslow, Brooks, "Place Names for New Suburbs, Streets and Parks," The American City, 52 No. 9, (September, 1939), pp. 97-99.

In the first article the street's name was seen as a function of the street's role. It was recognized that a pleasant sounding, euphonious street name could leave its mark on the world, but it was also recognized that a handsome, active street could make its name world famous. By the time the second article was written shrewd real estate enterpreneurs had realized that if the street sounded as if it had certain quantities, people would believe it did.

Now, in the study of street names we are beginning to realize what the names really stand for and use them accordingly. An article written in 1962 shows this more clearly.

> The map of the contemporary urban area is a dramatic example of a complex and enormous network of activity, separated into component parts and carried on at different spatial locations. The results are all coordinated. . .It is probably true that no fact about a person will tell you as much about him, his general place in the world and his behavior as the single fact of his job. . . After the job, however, the residential address is a strong candidate for second place. Where you live tells those persons with information about a city such things as your general income level, the kind of people you live among, your probable prestige or social honor, and any number of less basic matters.[3]

The address is as much a part of a person as his name, his appearance or his personality. It helps to determine and is determined by the latter two and is a part of him for his entire life. An address, at least for an American or European, is his link with the world. Without an address

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[3]Scott Greer, Governing the Metropolis (New York: John Wiley and Sons, Inc., 1962), p. 31.

you cannot enter into the main stream of the community's life. Consider the Skid Row bum who spends one night on a park bench, the next night in a fifty cent flop house, the next night in the gutter, the next night in the Salvation Army hostel and so on. He has no address and is not part of the community, he lives within the community, but not in it. His social alientation is manifested in his lack of address. Lack of a personal address is by no means the only indication of social alienation, for there are many possessing very old addresses who are quite alientated from society. The residents of central city slums, for example, may be living on streets with the most historic names in the city, but it is not the name that is important. What is important is what the name represents to those who possess it in their address and what the name means to those who use it in the daily life of the community.

More than any other aspect of address its use for personal identification is most significant. The opposite of the addressless Skid Row bum is the resident of a tightly knit ethnic community in which everyone knows everyone's address and follows his activities through it.

> I remember in the early fifties when I moved into a Jewish slum on the Lower East Side of New York. The first day in my new apartment, I went into a store on my block. After I had paid for my purchase, the man behind the counter said, "You live in 740, don't you?" The community was self-enclosed, it

> knew everyone, and could figure out the house number of a stranger within twenty-four hours.[4]

This is the kind of person address--community-relationship that appeals to Jane Jacobs and other advocates of central city living, but it is not what appeals to the typical suburban householder.

For many suburbanites an address is only a transitory possession. He will move many times and change addresses quite frequently in his life. But while he has any one address it is important that it be the proper sort of one. The suburbanite does not achieve nor does he care to achieve the permanent relationship between himself and his address as the resident of an ethnic ghetto might. He wants his address to change and increase in prestige as he increases in rank and prestige.

The idea that a certain address or one of its components, the street name or the house number, is an indicator of social prestige is not new. When Philadelphia made its monumental change in house numbering in 1856, there were those who complained over the loss of the prestigeous small house number. There were also those who felt that the loss of prestige was a small price to pay for convenience.

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[4]Michael Harrington, The Other America (Baltimore: Penquin Books, 1962), p. 31.

> There can be no valid objection to the increase of the numerical value of the (house) number incident upon the adoption of this system (the Philadelphis block system). What can possibly be the objection against a large over a small number, especially when it is born in mind that by the employment of the former, we reap incalcuable advantages, impossible to obtain by the use of the latter? Why are houses numbered at all? It is done for the purposes of enabling them to be readily found.[5]

Today, however, most people would feel that prestige factors come before anything else even if it means difficulty in locating a particular location. Saint Paul, Minnesota residents rejected a numerical system of street naming in 1932 much to the dismay of the civil engineer who had proposed it. He just could not understand why residents living on streets with established names did not want them changed to efficient, easy to find numbers. Edmonton, Ontario replaced its confused street names with in numbers in 1917, but only after two court battles with irate residents. The numerical system remained the only system in use until the 1950's when the universal trend for fancy street names overpowered the local municipal desires for efficiency.

Street names and house numbers arouse varied reactions from local residents in different parts of the United States. In Scranton, Pennsylvania the street designation, even in casual conversation, is never dropped. No one would ever say anything but "Main Avenue" even though there is no Main

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[5]John Mascher, "Local Affairs," Philadelphia Ledger and Transcript (September 16, 1856), p. 1, col. 4.

Street with which it could be confused. This seems even more unusual considering that Scranton streets have nothing but the most common designations.[6] In Denver the street designations appear on signs, but in practice they are omitted in the newspaper and conversation. In Detroit where designations do not appear on the street signs, they are never used in speaking of writing except for certain major thoroughfares like Grand Boulevard, Outer Drive, or Seven Mile Road, which have unusual designations. New Yorkers might say they were going from "Fifth To Fourth," but they would never given an address as "435 Madison."

It is important for the designers of street naming and house numbering systems to keep these local habits and customs in mind. No matter how simple, clear and advantageous a system seems to its designer, if it does not seem this way to the public, it is of little value.

Richard Lyman, the inventor of the particular coordinate system in use in Salt Lake City and a few other places, constantly urged the elimination of all street names. He wanted all addresses given only by their coordinate points such as 372 E 296 S. He felt that this system and this system only would make it possible for a stranger to find any address "without a map or other help."[7] Presumably he

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[6]G. Thomas Fairclough, "The Style of Street Names," American Speech, XXXII No. 3. (October, 1957), pp. 233-239.

[7]Richard R. Lyman, "Letter to Solomon Goodman," (January 3, 1956).

didn't count the help needed to learn the system, because in spite of how easy and obvious it seemed to him the system was practically incomprehensible to many others.

Lyman, in his own words, describes some of the difficulties encountered in the use of his system. "Some women have had difficulty learning that numbers are assigned to distances along the street even where no houses have yet been built and no streets have been opened."[8] In another situation he recalls the problems with the street signs which were supposed to guide the mapless stranger to his destination without trace or difficulty. The Salt Lake City street signs read: 600 W, 3100 S, 2350 N, etc.

> Time soon demonstrated that the abbreviation "St." should have been added to the numbers on all these signs. Nearly twenty years have passed since (they were first installed) and many have not yet learned that the numbers installed are the numbers (names) of the streets.[9]

Later Lyman suggests that he hopes that the names on the few remaining Salt Lake City streets would fall into disuse. Of course, the reverse has happendd, new streets which are being opened are being named rather than numbered. We should remember that Lyman's numerical proposals were made long before the days of the ten digit telephone number or the five digit Zip Code number when people might have been more receptive to the idea of all number house addresses, but they were not.

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[8]Richard R. Lyman, "Street Names May be Eliminated," Civil Engineering, 2 No. 7 (July, 1932), p. 455.

[9]Lyman, "Letter to Solomon Goodman," op. cit.

Totally new systems of street naming and house numbering can be introduced over social objections, and introduced successfully if the ideas of the people who are going to use the systems rather than whims of the people who invented them are given first consideration. Charles Powell, the designer of the naming and numbering systems used in Queens Borough, New York City, was much more successful in dealing with the social problem of use than was Richard Lyman.

Mr. Powell in reminiscing over the beginning of the Queens system wrote:

> I found that under our proposed system we would have 270th Street at the east end of Borough, and the house numbers would be 27,000, which no one would remember and would mean nothing. So I decided to write that number 270-00. At first this was called a hyphen. It came out before the public during World War I, when hyphenated Americans were being publicly condemned. At a public meeting in the Flushing Town Hall after I had explained the system, the venerable ex-Governor of New Mexico, L. Bradford Prince rose up and stated, "We do not want anymore hyphens in America." I felt as though the system was ruined. That so-called hyphen was absolutely necessary in a city of large area. Fortunately I saw a way out. I immediately stated that I agreed entirely with the Governor, but this was not a hyphen. It was a dash and Americans are noted for their dash.[10]

The Powell system was adopted and despite the fact that it is basically an all-number system it has proven to be quite easy to use - dash and all.

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[10]Charles U. Powell, "Letter to Solomon Goodman" (March, 1955).

The Total Address--Its Social Implications

The basic purpose of any street naming and house numbering system is to identify the location of a particular point on the face of the earth. This location is given in the address, that personal possession of man which makes him a part of society. The address is made up of elements describing particular location, the house number and the street name, and elements describing general location, the community and the post office names. The modern American attempts to use his address to his best possible advantage. The address is for him a symbol of attainment, of his place in the world. The particular way in which the address is expressed is an indication of a man's feeling of his relationship to his community.

To demonstrate the social implications of the total address a case study was made of four urban areas and methods of expressing address in each. A great deal about the feelings of the people of a community toward the community can be learned by studying the way people express their relationship to the community through their address.

The four urban areas chosen for study are Allegheny County, Pennsylvania; Cuyahoga County, Ohio; Hamilton County, Ohio; and Queens County, New York. More specifically the areas chosen are the areas served by the Post Offices at Pittsburgh, Pennsylvania; Cleveland, Ohio; Cincinnati, Ohio; and Long Island City, Jamaica, Flushing and Far Rockaway,

New York. The Pittsburgh, Cleveland, and Cincinnati areas were chosen because in all cases the central city post office serves a very large area outside the central city and officially formed a part of the address of many suburban residents. (See Figures 27, 28, and 29). Queens County was chosen because, although it is part of New York City, it has a semi-suburban character and is served by four separate but interconnected post offices. (See Figure 30)

The principal reason for choosing these particular areas is that the method of expressing address in two of the places correspond with each other, but differ markedly from the other two. The reasons for the difference in total address expression are the result of the differences in local address identification, house numbering and street naming systems and their relationship to the total address.

The differences in the methods of expressing local address in the four study areas have been observed over the last five years prior to writing this paper and certain intuitive conclusions had been reached. To give specific examples of the styles of address in these study areas a random sample of addresses was taken from student directories of Carnegie Institute of Technology, Kent State University, and Michigan State University. While this has given far more Cleveland and Pittsburgh examples than Cincinnati or Queens examples there is enough of each to give an adequate indication of the previously observed patterns.

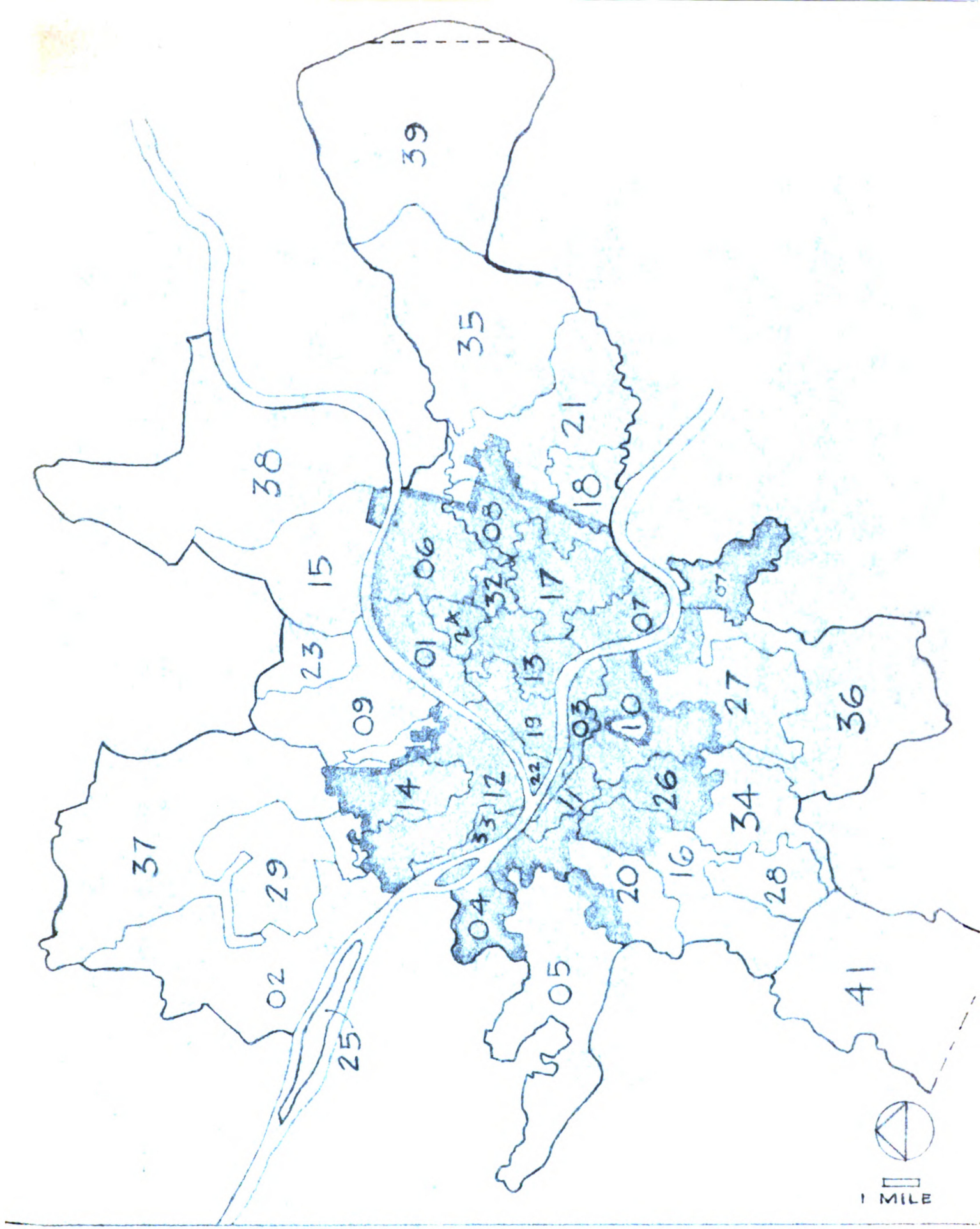

Figure 27. Pittsburgh, Pennsylvania Postal District

Figure 28. Cleveland, Ohio Postal District

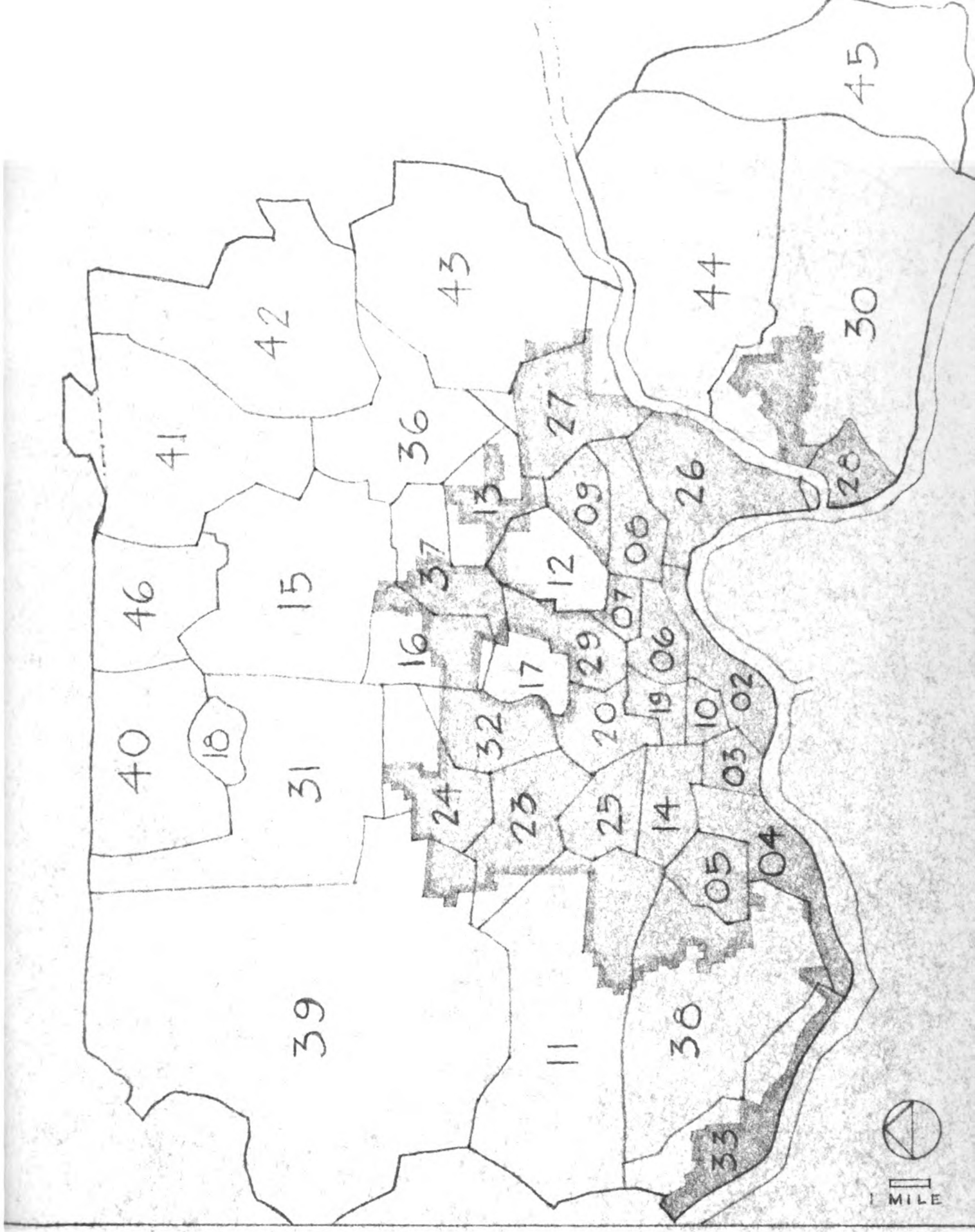

Figure 29. Cincinnati, Ohio Postal District

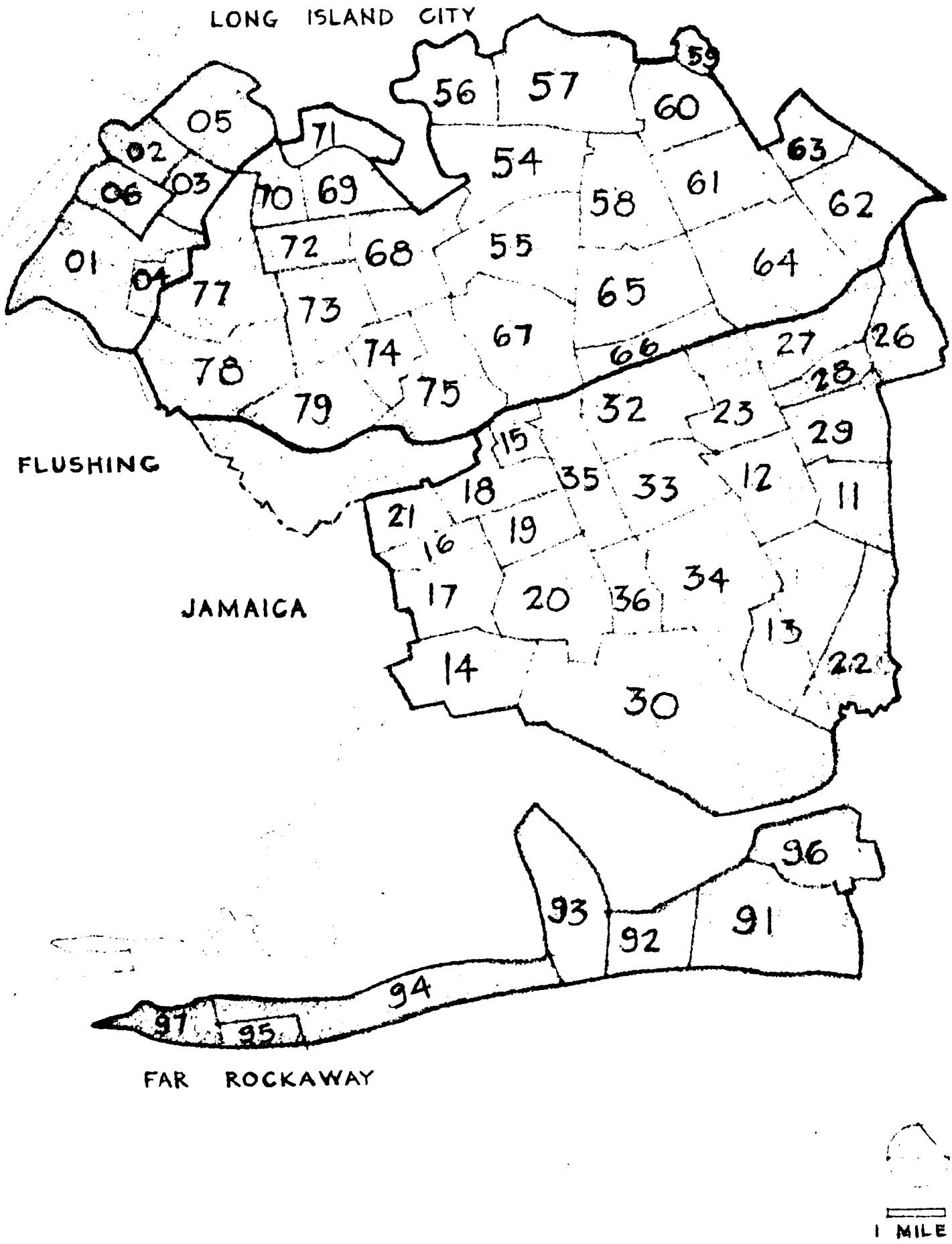

Figure 30. Queens County, New York Postal Districts

Those unfamiliar with the study areas may wonder how it is possible to write one address in more than one way discounting abbreviations, of course. The street name and house number are always constant, but the last element is changeable. The last element is usually the post office name. In most places the post office name is the name of the community, but in the study areas and in many other metropolitan areas the post office name is the name of the central city not the local suburb. This is true even though the suburbs are entirely politically independent of the central city. These large metropolitan post offices are divided into districts, zones, to facilitate the delivery of mail.[10] The districts generally correspond to community political boundaries and each zone is given a number to be used with the post office name. The interesting thing that happened was that the residents of some of the communities began to use the zone number with the community name rather than with the post office name when giving their address. In other cases, ostensibly similar, this did not happen. Before deciding why, it will be worthwhile to examine examples in the study areas where this is and is not done.

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[10]The Post Office no longer uses the two digit zone number in large metropolitan post offices. The zone number has been incorporated into the five digit Zip Code number as the last two digits and Zip Codes have been assigned to all post offices large and small. For the purpose of this study, the differences between the zone number and the Zip Code are immaterial.

Pittsburgh, Pennsylvania.--Residents of this urban area have a strong sense of community identification. Even residents of the city rarely refer to themselves as such. Everyone will generally refer to themselves as living in a community such as Oakland, Shadyside, or East Liberty even though these are all within the Pittsburgh corporate limits. If one said he lived in "Pittsburgh" local residents would assume this meant downtown Pittsburgh.

86 Pittsburgh student addresses were noted
20 or 23.2% gave their address as Pittsburgh only
10 or 50.0% of whom lived outside the city
64 or 74.5% gave their address as Pittsburgh and zone number
39 or 61.0% of whom lived outside the city
1 or 1.2% gave their address as community and zone number
1 or 1.2% gave their address as community alone

Cleveland, Ohio.--There are few strongly defined communities in this metropolitan area. Practically any Cuyahoga County resident if asked where he lived would get no more specific than "East Side" or "West Side" (of the Cuyahoga River). The Cleveland suburbanite will substitute his own suburb's name for Cleveland in his post office address far more frequently than his Pittsburgh counterpart. In the study sample this was 68.2 per cent for the former versus 2.4 per cent for the latter.

104 Cleveland student addresses were noted
16 or 15.5% gave their address as Cleveland only
7 or 43.7% of whom lived outside the city
17 or 16.3% gave their address as Cleveland and zone number

11 or 64.6% of whom lived outside the city
41 or 39.4% gave their address as community and zone number
30 or 28.8% gave their address as community alone

Cincinnati, Ohio.--The tenure of community feeling in this southern Ohio urban complex seems stronger than in Cleveland, but not as strong as in Pittsburgh. Address patterns, however, more nearly follow those of Pittsburgh to which this city bears a striking resemblance. Here only 5.5 per cent of the students gave their address as something other than Cincinnati.

61 Cincinnati student addresses were noted
22 or 36.1 % gave their address as Cincinnati only
17 or 77.4% of whom lived outside the city
36 or 59.0% gave their address as Cincinnati and zone number
26 or 71.3% of whom lived outside the city
2 or 3.9% gave their address as community and zone number
1 or 1.6% gave their address as community alone

Queens, New York.--This area is considerably different from the others in that it is all within the central city, but its residents tend to think of themselves as suburban. It is also different in that it is served by four post offices rather than one. An amazing number of the students actually listed their address as New York, New York which is totally inaccurate from the point of view of address. Yet this term was rejected by many Bronx residents when their address was officially New York, New York.

61 Queens student addresses were noted
3 or 4.9% gave their address with proper Post Office
12 or 19.7% gave their address with proper Post Office and zone
25 or 41.8% gave their address as community name and zone
15 or 24.6% gave their address as community name alone
6 or 9.8% gave their address as New York, New York.

Now the question is what does it all mean? Well, it probably means lots of things, but the main idea which becomes apparent is this: The individual generally desires to express his own community in his address. The metropolitan whole is too big for him to grasp and comprehend, although he may not want to completely shut himself off from it.

In Pittsburgh practically every community has its own house numbering and street naming systems and community identification is given in this part of the address. The residents still do feel themselves a part of Pittsburgh and since they have already expressed their individuality don't mind being all grouped under the address Pittsburgh. The use of the zone gives a final touch of community, but in an almost mystic way.

Clevelanders, that is residents of the Cleveland postal district, appear to be more status conscious than Pittsburghers in their use of community name in place of the central city post office name when giving an address. The primary reason for this is probably the fact that a county-wide system of house numbering and street naming is in use in Cleveland and little or no community individuality is expressed in this part of the address.

Cincinnati address forms are really a compromise between those in Cleveland and Pittsburgh. The house numbering and street naming systems are not as community oriented as in Pittsburgh nor quite so regional as in Cleveland. Here again, the zone number provides a clue to community for those who know the key.

Queens has a county-wide naming and numbering system which allows little room for community identification. There is, however, a strong sense of community identification in the area especially since many of the communities were, at one time, independent municipalities. This independence is preserved in the address through the almost universal use of the community name rather than the post office name. Like Cleveland the zone numbers are a unifying element in the address. It was through these as well as the house number and street name that one expressed the fact that he was part of a much larger urban unit than his local community. This is less obvious with the Zip Code, but it is still true.

In planning for systems of street naming and house numbering the importance of the social expression of the total address must not be overlooked. Any system devised must consider this problem: It must be possible to express the idea of the local community in the house number and the street name as well as in the post office name. It is equally important that the idea of the role of the community

in the metropolitan whole be conveyed. Each of the above study areas do this to some degree and each has certain advantages and disadvantages not possessed by the others. The Pittsburgh area has certain problems resulting from a lack of overall systems of house numbering and street naming which will be discussed along with some suggestions for solutions in the final two chapters. In any attempt to solve these problems in any metropolitan area, the social role of the address must always be considered along with the physical role.

CHAPTER VIII

NEW YORK, NEW YORK AND ALLEGHENY COUNTY, PENNSYLVANIA--THEIR INADEQUATE STREET NAMING AND HOUSE NUMBERING SYSTEMS

The street naming pattern of New York, New York (Manhattan) is world famous. As we know, New York was not the first American city to use numbers to name streets, but it is the city that made the numbered street an American cultural institution. New York's gridiron of numbered streets and avenues has aroused world-wide controversy among students of the urban situation. Some find it boring, oppressive and confining while others, like the late French architect, Le Corbusier, find it marvelous for the freedom it gives. No matter what other opinions they have, strangers to New York will all agree that the systems must be wonderfully convenient since they rely on numbers which are rational, logical and simple. Nothing could be further from the truth.

It is true that a large part of Manhattan does have streets laid out in numerical sequence, but Manhattan also has a very large area in which the street pattern is little better than a maze. In this labyrinthine section the street names only add to the confusion. Sometimes a single name

will follow a street around corners or jogs, while in other places street names will purposelessly change at intersections.

If confusion in street names were the only problem in New York City the situation would be tolerable. But the house numbering system is so completely mixed up that finding an address on Manhattan Island could easily take days. Native taxi drivers must carry around little guide books to be able to locate such addresses as 2695 Broadway, 1485 Madison Avenue,or 95 Cabrini Avenue. Dozens of little address finding guides have been invented, many even patented. The purpose of one such device was "to provide an improved means to facilitate the location of house numbers relative to streets intersecting the streets on which said numbers appear."[1] None of the address finding devices, however, is able to determine any address and all have a limited range.

In a city as big, complex and active as New York it is completely unreasonable to expect people, especially the millions of tourists who visit the city, to carry around little cards to tell them how to find an address. The New York Times on April 17, 1965 featured an article entitled "Way of the Stranger on 5th Avenue is Hard," which described the sorry plight of Fifth Avenue bus riders, both native

[1]Clarence B. Fowler, Patent for a Computing Device, No. 1, 486, 082, March 4, 1924.

and foreign, who could not tell when to get off the bus because the street name signs had been removed for the installation of new poles.

Simply stated the problem with street names and house numbers in New York City is that they do not have any relationship to each other. In a system in which there are numbered streets one usually expects the house number to be related to the block number, but this is not the case in New York. Each north-south street whether one of the numbered avenues or a named street in lower Manhattan is numbered from the southern end of the street proceeding northward. Fifth Avenue is used as a base line for numbering east-west streets north of Sixth Street, but below Sixth Street any method numbering can and should be expected on an east-west street.

Manhattan house numbering largely assumed its present form around 1850 and has changed little since although the city and its communication needs have. Around 1940 the New York, New York Postmaster, Albert Goldman, and Manhattan Borough President, Stanley Isaacs, proposed a new house numbering system for all north-south avenues north of Eighth Street. The system proposed used the Queens decimal system of separating the block number from the house number by a dash. The first building on Fifth Avenue at Eighth Street would be 8-00, the first at Ninth Street 9-00,and so the system would continue. The chief advantage to the

proposed system was that it would keep house numbers on parallel avenues approximately the same. With the present system it is not uncommon to find house numbers differing by as much as 700 on buildings only a block apart.

The 1940 proposal made no attempt to correct any of the other glaring faults in Manhattan house numbering or street naming and it had one rather serious fault of its own. Numbers on Fifth Avenue, for example, would jump suddenly from about 90 to 800 once Eighth Street had been crossed. A similar situation would have occurred on every street except Broadway where the numbers naturally reach 800 at Eighth Street. Except for sections of Riverside and East River Drives which were being developed at this time, the 1940 house numbering proposal was never put into effect.

Charles Powell, creator of the Queens coordinate system of naming and numbering, doubts if any change could be made.

> If an attempt were made to change the existing system of numbering on Manhattan to conform with the Philadelphia system, the task would be tremendous and almost impossible, because of opposition from the residents.[2]

He went on to relate, however, the opposition which greeted the introduction of his system in Queens. The opposition died down once the people discovered how much easier the system made local communication.

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[2]Charles U. Powell, "Street Naming Systems for the Borough of Queens," Civil Engineering, 2 No. 6 (June, 1932), 1 p. 388.

Controversy over street names is not new in Manhattan. Mayor Fiorello La Guardia caused quite a bit when he renamed Sixth Avenue, Avenue of the Americas.

> If any considerable number of people, including the Mayor and those members of City Council who have not changed their minds, wish to call Sixth Avenue, the Avenue of the Founding Fathers, the Avenue of the Atomic Bomb, the Avenue of Great Expectations, the Avenue Where the Elevated Doesn't Run Any More, The Avenue Lying Between Fifth Avenue and Seventh Avenue, or, a seems to be the case, the Avenue of the Americas, no grave principle will be imperiled, no one will suffer more than a passing pang.
>
> But we hope that this precedent will not be carried too far. We dread a renaming enthusiasm that would rechristen all the numbered cross streets after members of the U. N., or after famous generals, administrators, or book characters, or trees, flowers, Presidents, minerals, elements, vegetables, Governors of New York, or principal products listed in the Census of Manufacturing. . . Let us keep some of the names we have and not call Broadway, Good Times Boulevard.[3]

While no such change is contemplated the street naming and especially the house numbering systems of New York City need some revisions to make them easily usable for the communication demands of today's complex world.

Before the proposals for changes in New York are developed we will look at the problems which need solved in a different sort of metropolitan area. Allegheny County, Pennsylvania's population of 1,600,000 is almost exactly that of Manhattan Borough's, but Allegheny County has 745 square miles to Manhattan's 22. Allegheny County has 125

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[3]"On Renaming Streets and Schools," The American City, 60 No. 2 (December, 1945), p. 116.

separate municipalities and is cut by rivers, streams, hills and valleys. Its street naming problem can't be solved in the same way as Manhattan's but in both cases the same general principles apply. Some different principles apply as well.

> Attention should be called to the fact that, in cities of rough topography, the rectangular street pattern may be the exception rather than the rule; and in new developments there is generally a well defined trend away from the ractangular systems, and this is likely to continue. A modern conception of the city includes conveniently located centers for residence and recreation, for business and industry, suitably connected by radial and circumferential thoroughfares, but with minor streets designed primarily for access rather than the movement of traffic. In order to function successfully in such a plan, a street system may depart far from the rectangular pattern; and it seems doubtful if any naming and numbering system, based on the principles of coordination, could readily be applied to it.
>
> Perhaps, neighborhood names will come again into general use, as they have in some cities today, and will be considered a necessary part of the official address. Houses, of course, will continue to be numbered and there will be the same need which now exists of avoiding duplication in street naming. Perhaps, however, the neighborhood name will furnish more accurate and more readily understood information than could be hoped for in even the most carefully devised systems.[4]

Unquestionably, this is true in the Pittsburgh area where the use of the community name is a long established custom. The naming and numbering plans for the area will be developed on an area-wide basis and no attempt will be made to develop the plans to the detail of the New York City proposal.

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[4]Wilfred Jupenlaz, "Progress in Street Naming," Civil Engineering, 2 no. 8 (August, 1932), p. 509.

The major problems to be solved in the Pittsburgh area are the duplication of street names and house numbers in adjacent municipalities and inconsistencies in street naming among many of the communities in the county. The most critical duplications in the county are those among communities served by the Pittsburgh Post Office and many of these duplications are within the city of Pittsburgh itself. There are eight different numerical street naming systems in use in the area of the Pittsburgh Post Office alone and when the whole county is considered there are dozens. Not all these duplications present problems, but many do. The irregular topography of the county has prevented the development of any sort of a coherent street pattern. The street naming and house number system are, however, even more confusing than the street patterns.

Because of the semi-rural character remaining in much of Allegheny County many sections still have no house numbers and roads named only by the names of the two places the road connects. This is extremely awkward for signs, in speech and on mail.

The metropolitan area of Allegheny County is faced with many problems, both social and physical. Some of them are unique to the area and others are not. Particularly pressing are problems of unemployment caused by the shifting of the economic base away from heavy industry. This creates the need for more social services and the

attraction of new sources of employment. The county must face problems of stream polution, flooding, refuse disposal, transit and urban renewal.

All these problems need the best in communications systems to aid in their solution. The present house numbering and street naming systems in use in Allegheny County do very little to aid internal or external communications and very much to hinder it. There is no need for the County to continue to perpetuate this problem when there are so many others which also need solving.

CHAPTER IX

CONCLUSION

Meeting the Inadequacies in House Numbering and Street Naming of the Two Study Areas

The two study areas, Allegheny County, Pennsylvania and New York, New York, have many common faults and inadequacies in their house numbering and street naming systems. Their common faults they share with every other system in use in the United States for there is no place in the entire country with a perfect system. Each area has many unique faults which make address location particularly difficult in its own environment. Some of these faults are the result of physical factors such as size of the area, topography, and street patterns. Others are the result of social forces of history, custom, and time period of development.

It is not possible to solve the problems of both areas in the same way although most of the same principles apply to both. Because of their differences each study area must be considered separately and its particular problem solutions given in terms suitable to that local area. All of the principles of house numbering and street naming used in making the recommendations have been discussed in the preceding pages, but they are brought

together here to show how they might be used in areas where they must be modified and tempered by local tradition and custom.

Recommendations are given first for Allegheny County because it provides us with a broader vehicle in which to study problems of street naming and house numbering. New York City provides a set of problems less general in nature and more uniquely its own. Together they need recommendations for improvement in house numbering and street naming systems covering the whole range of the detail scale.

Recommendations for Allegheny County, Pennsylvania

Since the street naming and house numbering systems of any area are related to community name in the total address this relationship must be considered before the development of improved naming and numbering systems in Allegheny County. The established pattern of community identification and address expression in those parts of Allegheny County served by the Pittsburgh Post Office has already been discussed. It is now proposed to provide improved methods of locational identification for all residents of the county. The first step should be a reorganization of post offices to make their service areas more closely coincide with community boundaries. The importance of planning for postal services on an area-wide basis is certainly as important as planning for other public services on an area-wide basis.

The fact that they usually are not. . .

> is rather surprising because the postal services are utilized by all members of any community on an almost daily basis. One might say that the taken-for-granted attitude is a left handed compliment to the postal service; however, I do feel that Planning Commissions and Postmasters must work in closer cooperation to avoid operational problems that are at cross purposes to the two areas of public service.[1]

Presently there are seventy post offices within Allegheny County and several outside the County which serve county residents. Many of these post offices carry the names of once thriving settlements that have since passed out of existence. The Post Office Department has already discontinued many such post offices, but many more should be eliminated. The proposed reorganization of Allegheny County post offices, will extend the area of the Pittsburgh Post Office and reorganize others to better represent in name the community they serve.

The basic policy established for post office reorganization is that no municipality should be served by more than two post offices (not including stations or branches) and no township by more than three. Three present and final distributions of Allegheny County post offices are shown in Figures 31 and 32. After the reorganization the county would then have only fifty post offices and

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[1]Robert T. Reifel, Postmaster and Planning Commissioner, Willows, California. "Readers Write," A.S.P.O. Newsletter, 30 No. 10 (November, 1964), p. 118.

Figure 31. Post Offices in Allegheny County, Pennsylvania

Figure 32. Post Office Reorganization in Allegheny County

and post office names would be more clearly representative of the community than at present. The elimination of post offices in no way means that mail service would detrimentally be affected. While the number of actual post offices is reduced the number of branches and stations of those post offices could be increased to meet any demands.

The reorganization of post offices is the first step in the program of devising address, street naming, and house numbering systems to make locational identification in Allegheny County much easier than at present. The second step is the creation of policies for the new naming and numbering systems. For the purpose of creating improved house numbering and street naming systems in Allegheny County, the county will be divided into three sections. These sections will follow the natural divisions of the county made by the rivers and will be the North River section, north of the Ohio-Allegheny Rivers; the South River section, south of the Ohio-Monongahela-Youghiogheny Rivers; and the Inter-River section between the Allegheny and Monongahela Rivers.

House Numbering-General Policies

House numbering should be extended to include the entire county, but the total number of individual house numbering systems should be reduced.

The Philadelphia system of block numbering should be continued where practical especially in areas having

numerical street names. Block numbers should be established for major thoroughfares and the house numbers on the minor streets adjusted accordingly. In areas where the use of block numbering is not feasible house numbers should be assigned on the basis of one number per ten to fifteen feet.

All policies for house numbering listed in Chapter V should apply in all parts of the county regardless of the particular system variation in use.

House Numbering-Sectional Policies

In the North River Section house numbers will begin at the river line and proceed northward on north-south thoroughfares. East-west thoroughfares shall be numbered east and west from the Federal Street-Perrysville Avenue-Perry Highway base line. Butler Street-William Flynn Highway will form a secondary east-west base line. Any thoroughfare crossing both base lines will be numbered from the Perry base line.

In the South River section house numbers will begin at the river line and proceed southward on north-south thoroughfares. East-west thoroughfares shall be numbered from two primary and two secondary base lines. The first primary base line follows the alignment of Smithfield Street-Wyoming Street-Boggs Avenue-West Liberty Avenue-Washington Road. The second follows the Monongahela River.

The first secondary base line is Greentree Road and its extensions from the Ohio River to the Washington County line. The second secondary base line is Brownsville Road from its intersection with Amanda Street to the Washington County line.

In the Inter-River section house numbers will be arranged in two general areas: river plain and central plateau. House numbering in the Allegheny River plain will proceed from the south bank of the Allegheny River and on southward on north-south streets. House numbering in the Monongahela River plain will begin at the north bank and proceed northward on north-south streets. North-south streets in the central plateau area will be numbered from the Penn Avenue-William Penn Highway axis. East-west thoroughfares will be numbered from the Point, the confluence of the Allegheny and Monongahela Rivers.

The topographic conditions of Allegheny County cause some communities to be quite isolated from their neighbors. In such cases and in the case of very old communities with established numbering systems it may be desirable for these communities to have their own numbering systems. In no case should their numbering systems differ from the general and sectional policies already described. No base lines other than those established in the preceeding paragraphs or the community's boundary lines nearest the established base lines should be used.

Street Naming-General Policies

If the house numbering systems in Allegheny County were revised to follow the policies described problems in finding locations would be lessened remarkably. But the street naming systems also need some revising to bring them into a clearer and more easily usable pattern. As with house numbering, the policies described in Chapter V should be applied for local street naming. There are a few policies which because of the particular conditions in Allegheny County, need special emphasis.

Continuous thoroughfares should have but one name for their entire length. Every major community should have a thoroughfare named for it, but the practice of naming outlying roads after the two terminal points of the thoroughfares should be discontinued and existing roads so named should be given new names.

Some of the duplication in numbered streets could be eliminated by renumbering the streets to conform to the new block numbers assigned under the revised house numbering systems. Other numbered streets could be distinguished by directional indications or designations. While this is generally not recommended it has been used successfully in Pittsburgh for many years.

Street Naming-Sectional Policies

Most of the policies presented here are intended primarily to clarify the existing situations. Historical

continuity in street names has been shown by previous experience to be desirable. In the North River section north-south thoroughfares should be designated Streets. East-west thoroughfares should be designated Avenues or Roads. This same policy should be followed in the Inter-River section as well. In the South River section north-south thoroughfares should have the designation Avenue or Road while the east-west ones should be designated Streets. It will not be possible to carry these policies out for every street, but if they are followed for major intercommunity thoroughfares the overall aims will have been accomplished.

The street naming and house numbering recommendations for Allegheny County given here were purposely kept rather vague and general. To develop specific recommendations for so vast an area would require more extensive research and more detailed knowledge of the area than was available within the limits of this study. The Allegheny County proposals are intended only to establish a prototype framework upon which a more detailed study could be built. An example of such a more detailed study is given in the next section which suggests some very specific solutions to the problem of street naming and house numbering in Manhattan. Because of the comparatively small size of Manhattan it is possible to consider such things as the names of individual streets and their historical origins

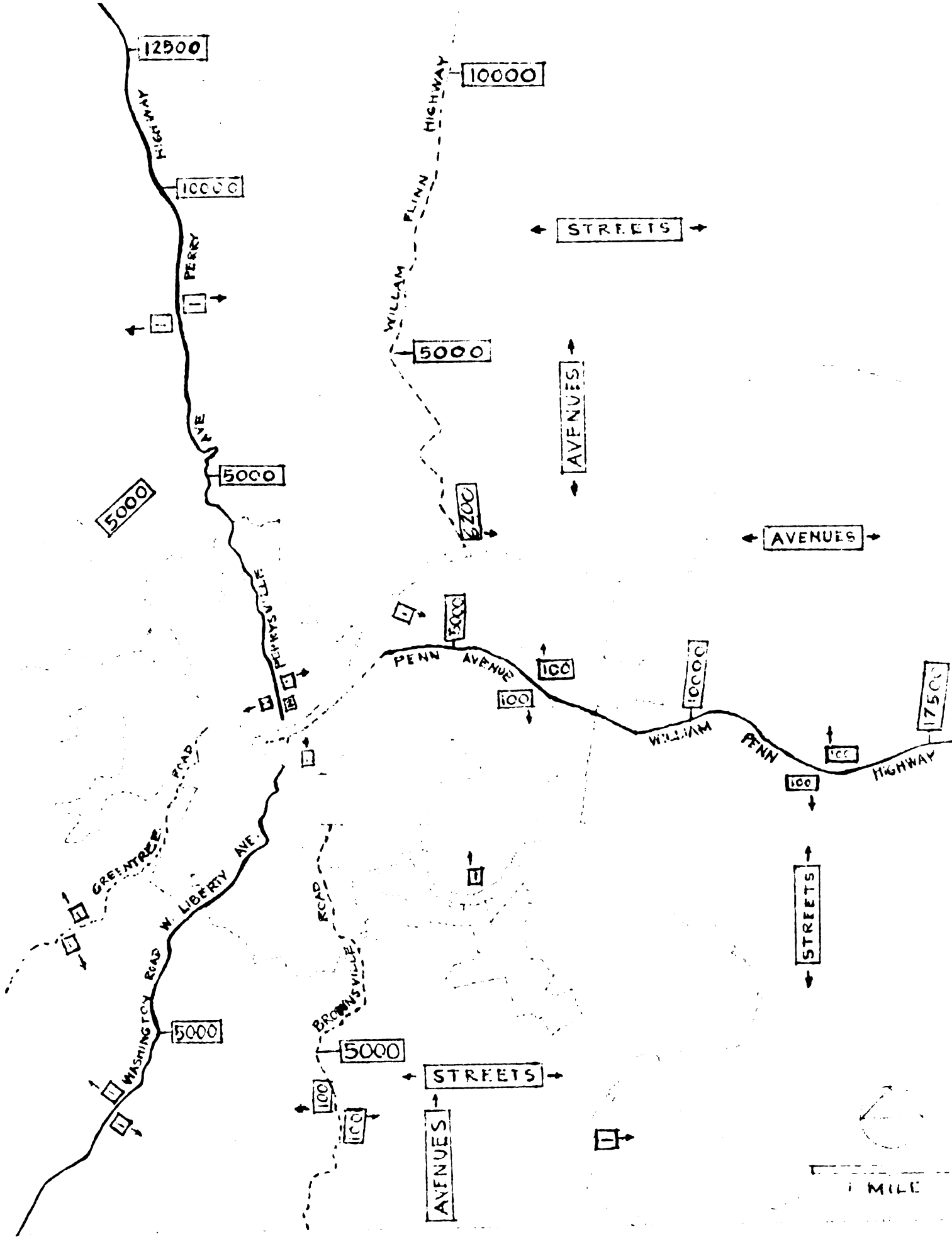

Figure 33. Proposed House Numbering and Street Naming Systems for Allegheny County, Pennsylvania

in some detail. Thus, a detailed approach was taken in the study of New York, New York street names and house numbers.

Recommendations for Manhattan Borough, New York, New York

As we have seen, street names and house numbers in Manhattan are endowed with a rich tradition and a long history and any attempt at change can be expected to arouse hostile feelings. This has happened in other places including Queens Borough in New York City and in Manhattan itself. In order to make any changes the old must be respected and adapted to the new needs. One of the basic ideas behind the proposals for Manhattan given here has been to retain as much as possible of the old system and keep the new improvements totally in harmony with the old. If this is done one can expect that the local residents will be much more willing to make the change.

In New York City the new, the efficient, the modern ideas and styles are venerated fully as much as the old. The following proposals for Manhattan house numbering and street naming attempt to take a new approach to these local problems while keeping the historic values intact. These proposals should clarify the existing gridiron pattern of numbered streets and give a new sense of order to the old pattern of named downtown streets. No longer

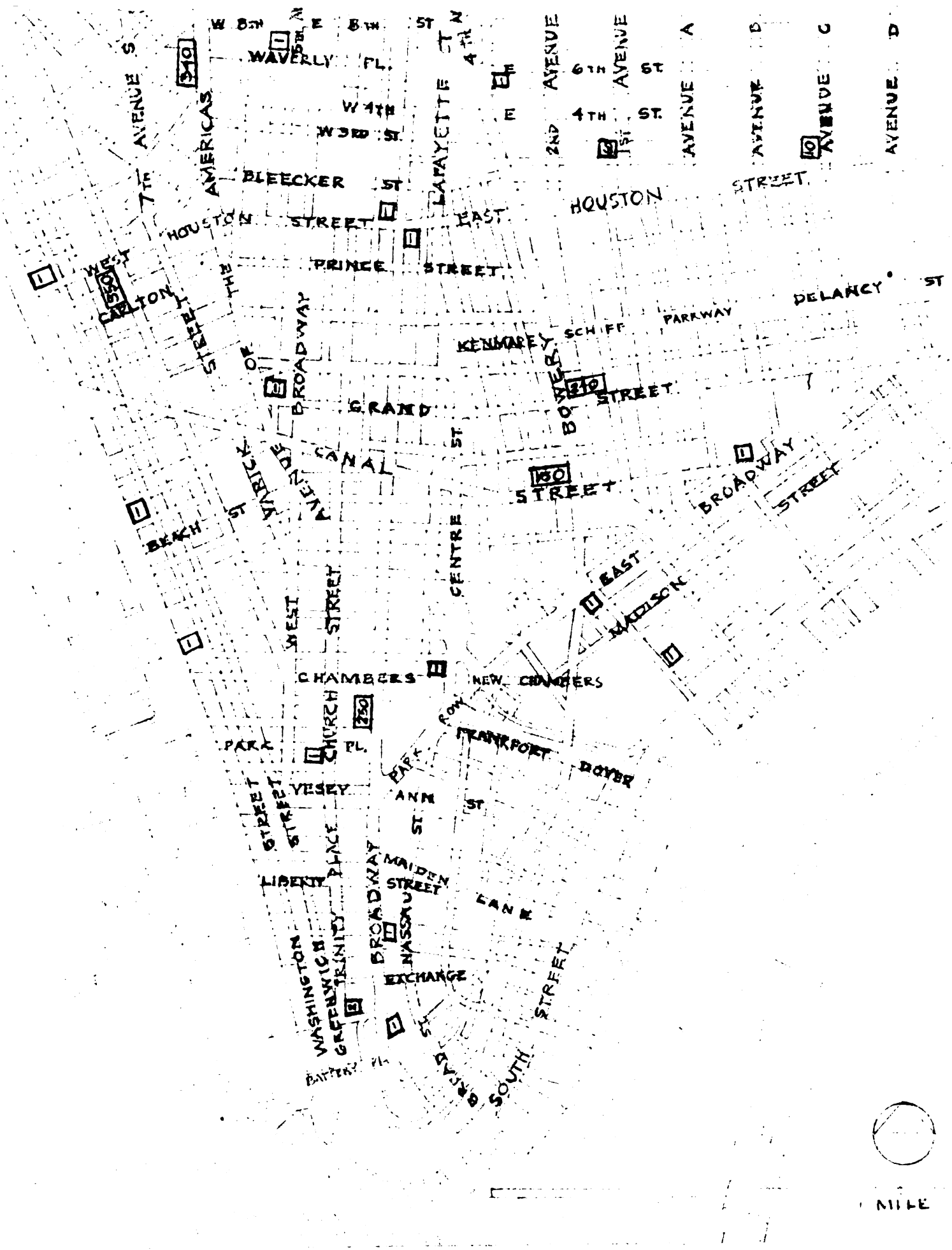

Figure 34. Existing Manhattan House Numbering and Street Name

should Manhattan's millions of residents, workers and visitors have to endlessly search for a single address.

House Numbering Policies

House numbering will change only on those streets indicated either by name or general catagory. See Figures 34 and 35 for examples of before and after house numbering.

Base lines: The east-west base line will be Broadway from its beginning at the Battery to Waverly Place (Sixth Street). North of Waverly Place Fifth Avenue will be the east-west base line, Battery Place-State Street will be the north-south base line for all north-south streets south of Houston Street. Houston Street will be the north-south base line for all thoroughfares north of it.

Numbering east-west: House numbering will begin at the Broadway or Fifth Avenue base lines at 1 and increase consecutively eastward or westward at the rate of one number per fifteen feet of frontage. All streets south of Fourteenth Street running in a generally east-west direction including those in the West Greenwich Village area will be numbered as if they began at the base line.

Numbering north-south, south of Houston Street: All streets in this area running generally north and south will retain their present house numbers.

Numbering north-south, north of Houston Street: All north-south thoroughfares will be numbered beginning at 1

at Houston Street and increasing consecutively going northward at the rate of fifty numbers per block or approximately fifteen feet per number. Block house numbers will be one half the numerical value of the cross street at the southern end of the block. House numbers at First Street will begin at 50, Second Street at 100, Tenth Street at 500 and so on out to the Harlem River. All north-south thoroughfares north of Houston Street will be numbered as if they began at Houston Street except Broadway which will retain its present numbers. All other streets which cross Houston will be renamed and renumbered northward.

Additional requirements: Even numbers will be on the west sides of north-south thoroughfares and the north sides of east-west thoroughfares. No half numbers will be used and each separate street entrance to a building should receive its own number. The Bronx extensions of Third and Park Avenues should be renumbered with continuations of their Manhattan numbers.

Street Naming Policies

Street names will change only on those streets specifically named. Even on many of these the name will not be changed only the directional indication or the designation. See Figures 34 and 35 for examples of before and after street naming.

Designations: All thoroughfares south of Houston Street will keep their present designations. All east-west thoroughfares north of Houston Street will be designated Streets. All north-south thoroughfares north of Houston Street will be designated Avenues except those thoroughfares which historically have had other designations. Any thoroughfare north of Houston Street not roughly following a north-south or east-west direction and less than five blocks in length may have any designation except Street or Avenue.

Directional indications: All east-west numbered Streets (north of Houston) shall have a directional indicator whether they cross the base line or not. All east-west named streets (south of Houston) crossing the base line shall have a directional indicator as a prefix to the street's name or shall change names in crossing the base line. No other thoroughfares shall have a directional indication unless they border a park or square such as Central Park West or Union Square North.

Street Names to be Changed

These specific name changes are listed in four groups according to their direction and relationship to Houston Street. Broadway is the base line for all of the streets having new directional indicators. For all other name changes the name is being changed to an older name of the

street. No streets have been arbitrarily named and no names were changed for any reason other than to have the name fit the proposed pattern.

South of Houston Street, east-west thoroughfares:

Prince St. to East and West Prince Street
Spring St. to East and West Spring Street
Broome St. to East and West Broome Street
Grand St. to East and West Grand Street
Canal St. to East and West Canal Street
Walker St. to East and West Walker Street
White St. to East and West White Street
Franklin St. to East and West Franklin Street
Leonard St. to East and West Leonard Street
Worth St. to East and West Worth Street
Thomas and Pearl Sts. to East and West Thomas Street
Duane St. to East and West Duane Street
Reade St. to East and West Reade Street
Chambers and New Chambers Sts. to East and West Chambers Street
Fulton St. to East and West Fulton Street
John St. to East and West John Street
Liberty St. to East and West Liberty Street
Cedar St. to East and West Cedar Street

South of Houston Street, north-south thoroughfares:

Broad St. to Nassau Street
Madison St. to High Street
Park St. to Cross Street
S. William St. to William Street
Avenue of the Americas to (this section of the street was new with the name, but La Guardia Avenue might be an appropriate renaming.)
Franklin D. Roosevelt Drive to South Street

North of Houston Street, east-west thoroughfares.

Bleeker St. to East and West Bleeker Street
W. 10th St. (from Avenue of the Americas to West Side Highway) to Belvedere Place.
W. 11th St. (from 7th Avenue to West Side Highway) to Hammond Street
W. 12th St. (from Greenwich Avenue to West Side Highway) to Abington Place

North of Houston Street, north-south thoroughfares

Miller Highway to West Side Highway
West St. to Western Avenue
Washington St. to Washington Avenue
Hudson St. to Hudson Avenue
7th Avenue, S. to 7th Avenue
Greenwich St. to 9th Avenue
Lafayette St. to 4th Avenue
4th Avenue and Park Avenue, S. to Park Avenue
Bowery to 3rd Avenue
W. Broadway to College Place
Mercer St. to Mercer Avenue
Crosby St. to Crosby Place
Thompson St. to Prospect Avenue
Sullivan St. to Sullivan Avenue
MacDougal St. to MacDougal Avenue
Elizabeth St. to Elizabeth Place
Mott St. to Mott Place
Bedford St. to Bedford Avenue
Greene St. (from W. 4th St. to W. 8th St.) to Greene Place
Bleeker St. (from Avenue of the Americas to 8th Avenue) to St. David Place
W. 4th St. (from Washington Square W. to 8th Avenue) to Asylum Place

The final step in the New York proposal would be the creation of maps showing the exact number to be given to each building. Before this step the proposed plan would have to be approved by City Council. At this time public hearings in which interested persons could make suggestions on the plan would be held. After incorporating the views expressed and assuming the proposal is passed a date would be established on which the use of the new names and numbers would begin. This date should be approximately six months after the ordinance is passed. This will assure enough time for everyone to be given a number, for street signs and stationery to be changed, and for the public to get acquainted with the new systems.

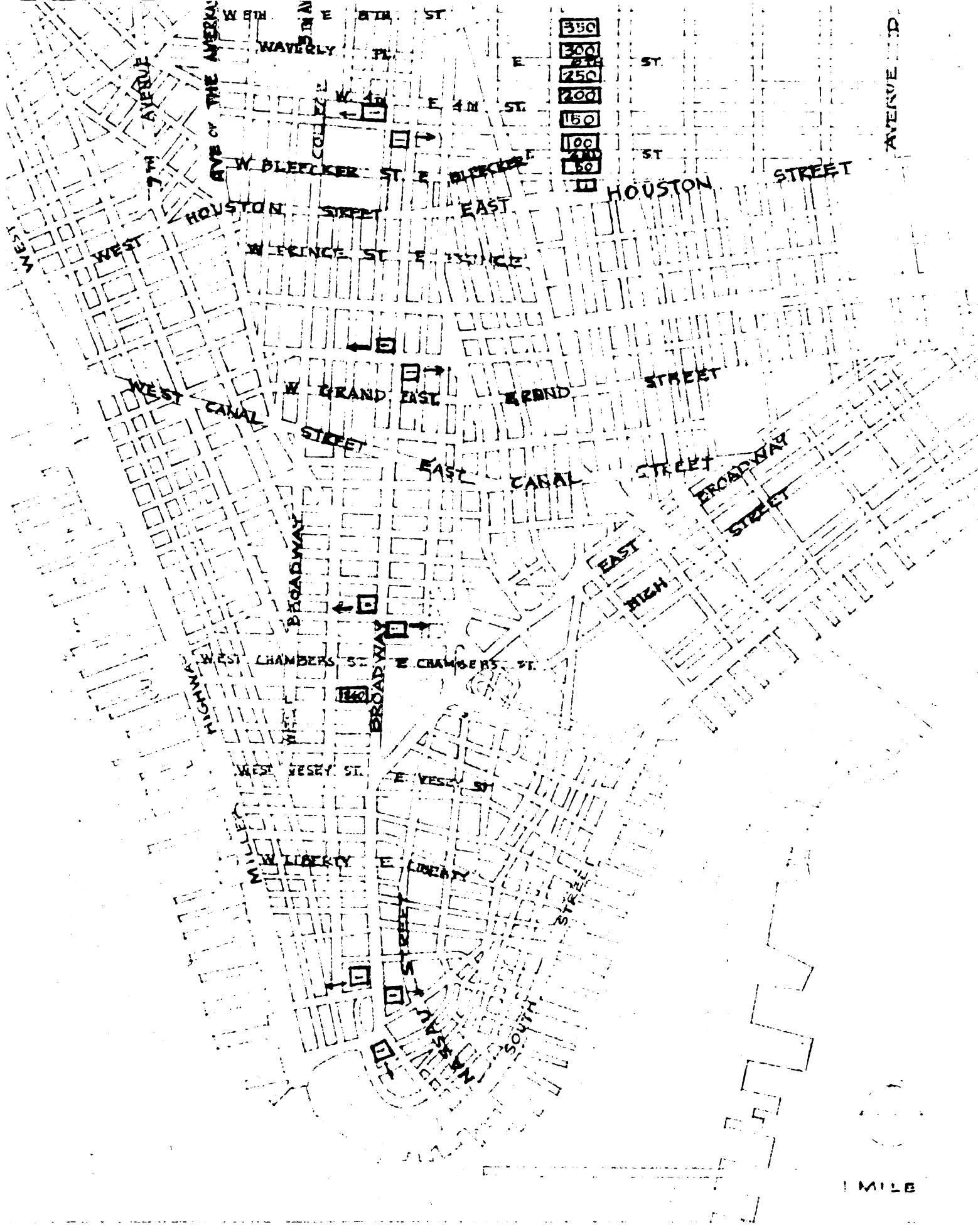

Figure 35. Proposed Manhattan House Numbering and Street Names

Since the Allegheny County proposals were not developed as specifically as those for Manhattan this would have to be done before the next steps could be carried out. It is suggested that the County Planning Commission make a detailed plan and then have it approved by the County Commissioners. The development of specific plans should be carried out in close cooperation with all local municipalities since they would have to individually approve them after the County Commissioners before they could legally take effect.

Street naming and house numbering systems tell the whole history of a community's geographic location, its spatial development and current form, its social and political values, and even its goals for the future. This study has tried to present a complete picture of the way in which these factors of urban environment are presented in both physical and social aspects of street naming and house numbering systems.

Finally, a series of proposals for street naming and house numbering in Allegheny County and Manhattan were made which attempted to reflect today's environment to meet the expanded needs of urban communication while at the same time providing for the future mindful of the past. Any proposals for systems of street naming and house numbering must always recognize the fact that these systems are a complex combination of the many physical and social

forces which interact in the urban environment and must be used to make the clearest presentation of its form.

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