

NATIONAL ENVIRONMENTAL POLICY
AND HOUSING DEVELOPMENT
The Effect Of Federal Noise Standards
On Inner City Rehabilitation

by

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TABLE OF CONTENTS

	PAGE
LIST OF FIGURES	iv
LIST OF TABLES	v
ABSTRACT	1
INTRODUCTION	2
I. THE EVOLUTION OF ENVIRONMENTAL GOALS	5
II. THE EVOLUTION OF FEDERAL HOUSING GOALS	39
III. URBAN AND SUBURBAN USE OF THE ENVIRONMENTAL IMPACT STATEMENT: THE EFFECT ON LOW-INCOME HOUSING	59
IV. NOISE STANDARDS AND INNER CITY REHABILITATION	66
V. NON-ENVIRONMENTAL INDICIES OF VIABILITY	85
VI. THE SOUTH END OF BOSTON: A CASE STUDY	96
CONCLUSION	121
APPENDIX A	126
APPENDIX B	128
APPENDIX C	130
APPENDIX D	135
APPENDIX E	137
REFERENCES	143

LIST OF FIGURES

FIGURE	PAGE
I-1 Environmental Network	27
I-2 Environmental Impact Statement Components	34
II-1 Housing Policy Influences	44
IV-1 Noise Levels	69
IV-2 Department of Housing and Urban Development Noise Exposure Classification	75
VI-1 Comparison of Average Mortgages in Prime Beacon Hill and South End Locations	113
VI-2 Price Trends in the Market Value of Residential Property in Boston and the South End 1946-1972	118
A-1 Flow of Environmental Planning, Assessments, and Impact Statement	127
C-1 Department of Transportation-- Bureau of Occupational Health Noise Response Scale	131
C-2 External Noise Exposure Standards for New Construction Sites	132
C-3 Interior Noise Exposures	133
C-4 Truck Traffic: A Hypothetical Example	134
D-1 Housing Information System	136

LIST OF TABLES

TABLE		PAGE
VI-1	South End Units By Condition	110
VI-2	Approximate Expenditures in the South End	115
VI-3	Residential Market Value Price Trends in the South End and Boston	116
B-1	Housing Activity, 1968+	129
E-1	South End Population Changes	138
E-2	Changes in Non-White Popluation: Boston and the South End	139
E-3	South End Family Income	140

ABSTRACT
NATIONAL ENVIRONMENTAL POLICY
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Submitted to the Department of Urban Studies and Planning
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The environmental noise standards, the outgrowth of the 1970 National Environmental Policy Act, have posed a problem of constraint for inner city rehabilitation. The standards are stringent and recourse is limited because the standards, geared for use on a national level, do not allow for individualization by recognizing the peculiarities among locales. For example, inner city neighborhoods are interlaced by transportation routes. Transportation oftentimes generates amounts of sound which are not consistent with the "acceptable" ratings provided in federal environmental noise standards, and as such have served to discourage inner city rehabilitation. Presently, the environmental standards alone are utilized to determine the extent of housing possibilities. In this thesis a procedure is proposed which could supplement the decision making process regarding the rehabilitation of inner city housing. Neighborhoods do differ in that they may be stable, or experiencing upward transition, or perhaps even undergoing a period of downward transition. Thus, indicies need be devised and implemented which reflect the state of the neighborhood from a social and economic standpoint as well as an environmental perspective. Specifically, the social fabric and housing market trends of neighborhoods are suggested as a means of modifying environmental considerations. In order to determine the degree of social stability and cohesion which may, or may not, exist Herbert Gans', Meier and Bell's, and Leo Srole's models are among those presented as examples of social study techniques and objectives. In addition to an examination of the social fabric of neighborhoods, an analysis of housing market trends is cited as a means of tempering environmental considerations. Among the indicies suggested which reflect market trends are property value changes, rates of investment and disinvestment, as well as home ownership trends.

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INTRODUCTION

A conflict has surfaced between two ideologies, both of which are aimed toward serving the public good. The purpose of this thesis will be to examine the conflict between environmental policy and housing policy where urban rehabilitation is involved.

The conflict is based on a clash between two distinct sets of ideals and traditions which gave rise to the environmental and housing policies.

The environmental policy, based on the National Environmental Policy Act of 1970, is rooted in a concern for natural resource depletion created by "the unprecedented impact of a dual explosion of population and technology upon the limited resources of air, water, land, and living space." Convinced of man's imminent extinction, Congress determinedly set upon the course of establishing environmental quality as a top priority goal. The environmental impact statement was viewed as the means of achieving that goal. The statement, as an evaluation and planning process, was looked upon as the mechanism to insure order to the chaotic planning, waste, and mismanagement of earlier years.

The environmental standards, as currently implemented, are a system of rigid absolutes based on off-site physical determinants, particularly the noise standards where urban developers are concerned. The criteria is broad-based in

nature and designed for nation-wide use on any number of projects. As such, the criteria and standards are not intended to account for differentiation among communities nor the probable impact on the equally important social and economic fabric of existent, viable urban neighborhoods.

Meanwhile, federal housing policy, as reflected in the 1949 Housing Act and re-emphasized in 1968, originated from a very different set of traditions. Federal involvement in housing dates back to the early 1900's. Housing has been viewed as a means of economic leverage; as an alleviator of social--welfare costs; as a foundation for moral enhancement; as a method of imposing planned order and preserving neighborhoods; and as a means of providing shelter to the nations' ill-housed.

The area where housing-environmental conflict is apparent is in recent, post-1970, urban rehabilitation efforts. While housing advocates pursue a policy of preserving inner city housing through rehabilitation, environmental laws are stifling those efforts through strict enforcement of environmental standards, particularly the noise standards.

Without regard for the problems unique to the city the environmental standards have been rigidly implemented in the urban environment. Rigid standard implementation prohibits rehabilitation. There are cases, however, which

warrant consideration beyond just an environmental evaluation. It is suggested that social and housing market indicators be utilized to determine if a neighborhood is stable, or experiencing downward or upward transitional movement. Consequently, the inflexible evaluation process might be altered to account for differentiations among environments, depending on which of the movements is being experienced.

CHAPTER I

THE EVOLUTION OF ENVIRONMENTAL GOALS

In late 1969 the National Environmental Policy Act (NEPA) was enacted then signed into law (Public Law 91-190) by Richard Nixon. The Act became effective January 1, 1970. It signified a new approach toward dealing with environmental problems on a preventative and anticipatory basis.

The Act reflected a decade of Congressional concern on issues related to the environment. The 1960's represent a decade of intertwining environmental approaches, themes, laws, and ideals. The various strands reflected in NEPA originated in traditions consistent with evolving American values.

The focus on and unification of environmental strands, which culminated in the Act, was the result of a decade of research, and policy formulation undertaken by the U.S. Senate Committee on Interior and Insular Affairs. The Committee reviewed environment-related testimony, reports, and legislation prior to formulating Senate bill 1075 (S. 1075), which was introduced to the Congress on February 18, 1969 and became law in December of that year. To get some sense of the goals and concerns implicit in NEPA it is important to look at the individual strands which interlaced pre-NEPA hearings.

Senator Jackson, Chairman of the Committee on Interior and Insular Affairs and author of S. 1075, cited the well being of mankind as the compelling "reason for bringing man's impact on his environment under informed and responsible control" (1). The necessity for an environmental policy stemmed from Congressional concern over unprecedented population growth and unharnessed technological impacts. Overpopulation, the ill-effects created by technology, and poor planning were considered responsible for the depletion and degradation of the Nation's natural resources.

Congressional concensus, as reflected in pre-NEPA hearings, was that the elimination of environmental depletion and degradation would be achieved only as the result of future resource planning and management.

The key pre-NEPA Congressional discussions which reflected the development of environmental goals occurred in 1968 and 1969 (2). Those hearings included the testimony and communications of Cabinet Secretaries, scholars, scientists and other professionals interested in a national environmental policy.

The following section will consider the population and land planning themes (and their historical roots) which had bearing on the Congressional environmental hearings of the 60's and, secondly, focus on federal environmental policy as the outgrowth of Senate bill 1075.

Population Growth

The Evolution of an Overpopulation Consciousness:

Federal recognition of natural resource depletion and environmental pollution brought about by man has been slow in evolving. The federal role toward the environment at the turn of the century was one of acting as a "referee among competing resource users," as compared to the 60's when that role changed to one of "trustee of the environment for all the people" (3).

In a statement before the joint House-Senate environmental colloquium Laurance Rockefeller suggested that the evolution of federal regard for the environment was partially due to the conservation movement.

"All across the country there seemed to be a new awareness, a new spirit of involvement with the environment. It was related to the traditional conservation and park movements. . ." (4)

Briefly, the seemingly endless frontier reinforced the impression of limitless resources; but with the closing of the frontier in the 1890's, some people began to take stock of the nation's natural resources.

Environmental preservation, as a political movement, began with the administration of Theodore Roosevelt, who initiated the first national conservation movement (conservation being the care of and protection of natural resources). Under Roosevelt, approximately a million and a half acres

were set aside in the newly created National Park System (5).

Later, in the post-depression years of the 1930's, the Civilian Conservation Corps (CCC) was established to provide jobs for thousands of unemployed men. The CCC undertook tasks of reforestation, recreation site development, and park construction programs. During the decades that followed the conservation movement reacted to problems on an incremental basis.

Not until the late 50's and early 60's did environmental legislation gain momentum and thus pave the road of transition from that of an incremental conservation movement to a broader based ecological perspective (ecology referring to the relations between living organisms and their environment).

Federal air and water legislation during the late 40's through 60's reflected the conservation approach of earlier years. Air and water quality bills were the focus of concern until the late 60's, when the scope of environmental interest expanded to include land-use control and, ultimately, development -- growth planning.

The federal water-air ecology approach has its beginnings in the 1948 Federal Water Pollution Control Act. Prior to 1948 the States had sole control over water pollution. Then, some eight years later, amendments to that Act established pollution enforcement procedures. Those

amendments remained unaltered for the next fourteen years. Water quality standards were not developed until 1965. The federal role expanded with the passage of the 1966 Clean Water Restoration Act and the 1970 Water Quality Improvement Act (6).

Meanwhile, air pollution control did not become a federal concern until the mid-50's. Then, in 1963, following London's 1962 "killer smog" in which 700 died, Congress passed a Clean Air Act (7). Not until the 1965 passage of Motor Vehicle Air Pollution Control Act did the government officially recognize the need to control automobile pollution. Far-reaching changes in the Federal air quality role, have been associated with the Clean Air Act of 1967 and the Clean Air Amendments of 1970. Those acts provided for the establishment of air quality control regions and the establishment of national air quality standards, respectively.

Meanwhile, recognition of land-use and natural resource conservation measures during the 60's signified the transition from a water-air conservation concern to a more encompassing federal responsibility. The land-use, natural resource conservation approach is rooted in previous Congressional action on wildlife, wilderness, and recreational planning, a review of public land policies, the establishment of a system of scenic rivers and trails, and urban planning for open space (8).

During the 60's it became increasingly apparent that ecology and conservation had evolved into serious issues in the American political arena. Those issues, coupled with population increases, carried negative implications for future development. Indeed, by 1970 the nation had grown to be well over 200 million strong and faced a rude awakening to the problems of growth, use of resources, and the fate of man's future (9).

"In recent years we have come to view our land as a limited and irreplaceable resource. No longer do we imagine that there will always be more of it over the horizon--more woodlands and shorelands and wetlands--if we neglect, or overdevelop the land in view. . .We must create the administrative and regulatory mechanisms necessary to assure wise land use and stop haphazard, wasteful, or environmentally damaging development." (10)

As the inevitable consequence, growth strategies, space allocation, and resource conservation planning, replaced the traditional illusions of endless wealth and unrestricted open space.

In fact, land-use and community development seem to be evolving into a federal policy goal (11). Shortly after NEPA's enactment the Senate Interior Committee introduced preliminary legislation referred to as the National Land Use Policy Act of 1970 (i.e., S. 3354). In his introduction of S. 3354 Senator Jackson noted,

"A national land-use policy is the next logical step in our national effort to provide a quality life in a quality environment." (12)

The realization of land-use and development planning is just now being recognized by Congress. The decade of the 70's may see post-NEPA consciousness evolve to include comprehensive land-use and community development planning.

Consequences of Population Growth:

In a letter introduced to the 1968 joint House-Senate environmental colloquium Dr. LaMont Cole reiterated the concern of numerous politicians and scientists who concluded that there is a direct relationship between environmental degradation and population growth.

" . . .underlying all of the problems of environmental deterioration is the problem of population growth." (13)

Repeatedly, during the course of environmental hearings, population growth was regarded as 50 per cent of the root of all evil (environmental mismanagement and planning being the source of the other 50 per cent). Population growth was attributed as the primary cause of (a) resource depletion and, (b) violence and other social ills brought about by population concentration. As a solution to the latter, legislators surmized that minimizing and diffusing population concentrations would alleviate violence and other social ills. Though left unanswered, the question of population control was discussed as the means of solving environmental problems. Through careful population and land use planning

the legislators concluded that the problems plaguing the urban and natural environments could be minimized, if not solved.

Resource Depletion:

One set of consequences resulting from the nation's high standards of living and technical ingenuity has been the steady depletion of natural resources. In a special report to the Senate Committee on Interior and Insular Affairs, Senator Jackson calculated that the stress which man has placed on the environment has increased 100 times over since the American Revolution (14). Although technology has alleviated some forms of stress (wildlife is no longer the sole source of food), it has greatly increased the amount of environmental stress in general. While utilizing vast amounts of natural resources and creating the world's highest standard of living, the nation now faces the grim side effects created by technological innovation.

Consequences of Density:

Beyond the problems of resource depletion and pollution, the cause-and-effect relation of congestion and violence-impersonalness was attributed to population density and poor planning. The influences of density were pointed out by Senator Jackson in the House-Senate colloquium,

"I'm convinced that there is a direct relationship between congestion and violence. I am further convinced that the mere fact that we may rebuild a given area, if we rebuild it, does not resolve the problems caused by congestion." (15)

Naturally, the embodiment of congestion is the city. The urban environment, considered the epitome of density's social ills, was singled out by Laurance Rockefeller at the House-Senate colloquium as an important setting where environmental control need be centralized (the natural biota coming first).

". . .the focal point of this concern is increasingly urban. We are familiar with the figures that indicate how much of our population lives in the cities and suburbs, and here environmental problems are the most difficult." (16)

Senator Hansen of Wyoming suggested that the "toughest and most perplexing" of the nation's problems were the result of concentrations of people. His solution was one of creating optimum population concentrations by dispersing the urban masses into smaller communities whereby they could be identified (17).

In an October, 1968 Congressional White Paper on the environment, Dr. Paul Weiss raised the question of optimum population density and issued the following caveat:

"A stress free environment offering maximum comfort and minimum challenge is not only not optimal but is detrimental...lacking the opportunity for such exercise, man loses that faculty [adaptability] and becomes a potential victim of any unforeseen, but inevitable, stressful occurrences," (18)

Dr. Weiss continued by defining the ideal:

"The optimum environment consists of a broad band of conditions bounded by an upper limit far short of the stress limit and by a lower limit considerably above the ideal zone of zero stress." (19)

Dr. Weiss' ideal raises the questions of standards of quality and subjective judgments, issues which will be discussed in a later chapter on noise and the validity of standards.

The negative consequences of density were commented upon by a large body of sociologists and psychologists long before the legislative realization of the 1960's. Having hypothesized that dehumanization and impersonalness affect man's behavior (20) and that a breakdown of cultural norms (21) is inevitable in the city, the majority of social theorists have long contended that density does not breed a quality environment. In addition to the social-psychological degradation theories, numerous animal studies conducted in the 60's have also lead psychologists to hypothesize on the physiological effects of crowding (22). Thus, the implication of social-psychological thought is one of moderation of population density. Meanwhile, a second school of thought counters this position.

Herbert Gans and Jane Jacobs, urban planner/sociologists, regard the city as an affirmation of American life. Jacobs found that there are areas where kinship, the primary group, and individuation are all fostered within the heart of the metropolis. Similarly, Gans contends that economic condition, residential instability, etc., are more important factors than

density, and heterogeneity. Gans pointed out that a significant proportion of the city's residents are isolated from any negative consequences of the city. Isolation was attributed to social structures and cultural patterns which residents have brought to the city, or developed by living in it. Thus, in spite of popular disregard for the city, advocates of the urban environment still exist. Meanwhile, legislators disregarded the pro-urban point of view.

Despite legislative desires to bring the country to the city via environmental standards, Representative John Dingell commented that such action would be an ineffectual, artificial gesture:

"But no matter how much we do to make our cities more liveable, they will remain cities. . .they will still be crowded centers of activity. Cities will still have more culture than rural areas--more diversity, more dissension--more people, and more pressure." (23)

Representative Dingell's comments aired during a 1969 House discussion suggest that regardless of environmental policy, cities will remain cities. Residence in the city is subject to choice. People are attracted to the city because of the lifestyle and other features which it offers. Tradeoffs must be expected where urban and non-urban settings are involved.

Thus, though a pro-urban position exists, the environmental discussions reflected a historical tradition of aversion to population concentration. The ultimate question, however, was left unanswered: at what threshold level does

density deprive individuals of a quality environment? One must recognize, of course, the ambiguity as to what constitutes an optimum density or a good environment. The legislators never directly confronted optimum density or good environment issues in terms other than abstractions. The need for population control was introduced as one means of attaining "the good life," whatever that might be.

Population Control:

In response to the problems attributed to population growth and concentration, the 1968 House-Senate colloquium discussion focused on the question of population controls. In a statement presented before that Colloquium, Secretary Stewart Udall cited the following as one of his primary reasons for supporting a national environmental policy,

" . . . we must establish as a principle of national policy that the relationship between our population and our finite resources is a major concern of the Federal Government. . . . The Federal Government has for too long resisted involvement in this central issue." (24)

Traditionally, the government has assumed a laissez-faire position where "the family" is concerned. However, private interest in population control movements dates back several decades (25).

Not until the mid-60's did the federal government acknowledge official concern regarding population growth. In his 1965 State of the Union message Lyndon Johnson declared a

promise to,

"seek new ways to use our knowledge to help deal with the explosion in world population and the growing scarcity of world resources."

Statements by the Surgeon General of the Public Health Service (26) and by the Administrator of the Agency for International Development (27) followed Johnson's message, however, specific growth policies were avoided.

During the House-Senate environmental policy hearings, Senator Hansen responded to the lack of population growth goals when he commented,

". . .the area which needs more public debate and discussion, is the question of a population policy. Should we have in this country zero population growth? Is that an ideal that we should strive for?" (28)

The issue of zero population growth (29) was raised and contemplated during the environmental hearings, however, legislative action designed to curb population growth was deferred in favor of a focus on land planning.

Land Planning and the Urban Environment:

In response to a history of "neglect, mismanagement, poor planning, and a piecemeal approach to the problem" (30), an April 1969 Senate Committee on Interior and Insular Affairs hearing once again called attention to the need for conservation, preservation, and management of the Nation's natural resources. During the House-Senate 1968 colloquium and the

April 1969 Committee sessions, discussion focused on the planning elements which might improve the national environment, particularly the quality of urban life.

The mainstream of discussion pertaining to the improvement of urban life was the degree to which considerations of anti-urbanism and the integration of rural elements (e.g., open space usage) could best be utilized in the planning of America's cities.

As a means of diminishing the ill effects of density, legislators who participated in the 1968 colloquium and 1969 Committee hearing pondered the forces which might sensitize the urban environment. Secretary Robert Weaver's statement before the colloquium summarized Congress' dilemma:

"Herein lies the problem: How can we preserve the amenities we remember and want--clean air, sparkling brooks, nearby fields and woods, and a sense of identity with a community--against the forces of urbanization." (31)

The question, as expressed by Dr. Harvey Brooks, became that of how one creates a sense of ruralism, given the popular desire to live in small towns and open countryside.

"In view of the apparently well-documented popular preference for rural and small community life, is there any way that national planning for land use and for categorical aid to cities can be responsive to this preference?" (32)

The objectives of a successful land policy were discussed at length. In essence, the legislators concluded that some means of bringing some of the country to the city was the

solution to urban ills.

In addition to creating "open spaces in the city," consensus was that new communities should be molded around the Garden City ideal of green space. As mentioned earlier, discussion focused on breaking down the population concentration of established urban environments, thereby creating identifiable smaller entities.

Secretary Weaver noted the differences between new community versus existing urban potential for a diffused environment when he noted:

"I'm so high on developing new communities in this country, because starting fresh, you can get new institutional arrangements. But you can never get these kinds of innovations within any established environment, and certainly this is true in the urban area." (33)

Thus, in line with Colloquium discussion, given that man must reside in cities, a desired consequence of a land planning policy would be the conversion of cities to more tolerable settings by utilizing techniques such as infusing greenery, providing for open space, and minimizing population density. In reality, the National Environmental Policy is an attempt to bring the country to the city through the use of country-oriented standards.

Apparently, the historical traditions of anti-urbanism and a longing for the rural, pioneer paragon have had substantial impact on the present-day environmental philosophy. As Louis Wirth points out, Americans have traditionally enjoyed

a love affair with the rural ideal.

". . .to a greater or lesser degree, our social life bears the imprint of an earlier folk society, the characteristic modes of settlement of which were the farm, the manor, and the village." (34)

The rural ideal possesses elements of control and completeness, clearly a contradistinction to the disorder of the city.

". . .a moral dichotomy [exists] between the city as artificial, incomplete, and temporal, and the country as simple, full, and timeless." (35)

The quest for the countryside (Senator Jackson: "[we must] move out into open spaces as much as we can."), has been abetted by an anti-urban tradition.

In *The Intellectual Versus The City* Morton and Lucia White propose that the American intellectual has been alienated from the city because of a historical literary inclination to "denigrate" the city.

"Of course there were some like Walt Whitman and William James who could at times speak affectionately about New York, but. . .The volume of their voices did not compare with the anti-urban roar produced in the national literary pantheon by Jefferson, Emerson, Thoreau, Hawthorne, Melville, Poe, Henry Adams, Henry James, and William Dean Howells." (36)

While the city may have been a magnetic force to the likes of Gans, Whitman, and Jacobs, the "good life" was obviously elsewhere for others.

Thus, the discussions revealed a legislative desire to preserve natural resources and also improve the "quality of life" for all. Improvement of the urban environment was

deemed attainable through carefully planned space allocation. Having determined the desired by-products of environmental legislation (open space, greenery, clean air, water, etc.) the task then became one of devising a national environmental policy.

S. 1075: The National Environmental Policy Act

The Senate Committee on Interior and Insular Affairs, chaired by Senator Henry Jackson, was instrumental in the development of the 1970 National Environmental Policy Act. The Committee has legislative responsibility for the Nation's publicly owned lands and jurisdiction over conservation and development of most of the Nation's natural resources. In line with their responsibility the Committee began research on the scope and components of a national environmental policy during the early 60's.

The hearings, studies, reports, and testimony initiated by the Committee, coupled with a review of environment-oriented bills and legislation of the decade, nurtured the development of the Act.

NEPA's parent bill, S. 1075 (referred to as the "National Environmental Policy Act), was introduced in the 91st Congress on February 18, 1969 by Senator Jackson. However, the objectives and concerns which motivated its author were not novel. S. 1075 was essentially the same bill as S. 2805 which was

introduced by Senators Jackson and Kuchel in the previous Congress. Many of the concepts and ideas incorporated in S. 1075 were drawn from ambitious measures introduced in earlier Congresses, particularly S. 2549 (the Resources and Conservation Act), introduced in the 86th and 87th Congresses, and S. 2282, introduced in the 89th Congress (37). Other concepts and ideas incorporated into Senator Jackson's bill were drawn primarily from the proceedings of the July 1968 joint House-Senate environmental colloquium, reports, conferences, and other sources dealing with environmental problems (38).

The joint House-Senate colloquium proceedings best summarize the convergence of environmental strands which occurred in the 60's. As mentioned previously, Congressional assessment of the state of the environment during the 60's reflected the emerging federal concern for a broadly defined environment and a recognition of environmental depletion and degradation which grew out of previous federal "default and inaction" (39). Environmental abuse was compounded by the effects of population growth.

In order to counter a previous legislative incremental approach to the environment, Congress of the 60's recognized the need for an environmental policy which would essentially "reorder national goals and priorities" (40). Consequently, the 60's bore witness to a host of environment-related bills.

"[Environmental] Goals and objectives have been spelled out in laws which have passed both Houses of Congress in recent years by overwhelming margins-- often without a single dissenting vote." (41)

As Representative Emilio Daddardio points out, environmental legislation encountered little resistance. The range of environment-related bills that became law during the 60's are numerous. The Legislative Reference Service tabulated over one hundred bills in the 90th Congress which directly related to environmental issues. The 91st Congress prepared even more.

Colloquium discussion illuminated an overriding concern for the health, well-being, and survival of mankind.

"The success of our effort as a nation to adopt and implement a national policy for the environment may well determine the survival of man as a species. . ." (42)

". . .the most important reason for exercising wisdom, constraint, and caution in our uses and abuses of the environment is people's health. . .and indeed their survival." (43)

In addition to the element of survival, a growing private concern for conservation (44) provided a climate which fueled legislative determination to establish an environmental policy, as Representative David Obey confirmed:

"For too long we have given economic considerations greater weight than environmental considerations and the result is. . .a tasteless environment and an injured one." (45)

In 1969 Representative Goodling of Pennsylvania summarized the direction of Congress when he said,

"Conserving our natural resources is becoming our No. 1 domestic problem. If we destroy our environment, we destroy everything." (46)

Ironically, Senator Frank Church once commented that were pollution not so obvious, "We would not be considering environmental quality today. . ." (47). The concerns and receptiveness of Congress were ripe for environmental action. The 1960's ushered in a new federal priority: environmental management.

Thus, when S. 1075 was introduced to the 91st Congress the stage had been set and previous bills, particularly S. 2805, had paved the way. Senator Jackson summarized S. 1075's five factors which he felt were essential to a national environmental policy (48):

Firstly, there appeared to be a need to improve and coordinate federal management of the environment. Senator Jackson elaborated,

"the President and officials in the executive branch share the belief of many of us in Congress that some reorganization is necessary. The President apparently agrees that the existing administrative establishment is inadequate for the task we face, and that a focal point for the environmental considerations of government should be designated." (49)

Indeed, a 1969 Senate Interior Committee analysis noted that environmental programs were being administered by sixty three federal agencies located within ten of the thirteen Cabinet departments as well as sixteen independent agencies of the Executive branch (50). Also, statements by various Cabinet

representatives before the 1968 House-Senate Colloquium provide some sense of the fragmented, individual Department approach toward the environment.

Secondly, the development of a national environmental policy would be "in large measure concerned with principle rather than detail."

"A statement of environmental policy is more than a statement of what we believe as a people and as a nation. It established priorities and gives expression to our national goals and aspiration." (51)

Similarly, Secretary of the Interior Stewart Udall contended that a national policy could "set forth some basic principles to guide the attitude and conduct of the Federal Government toward our environment" (52)

Thirdly, a policy should require greater amounts of information on the ecological impact of an action which would be made available to the public.

Fourthly, a policy should call for the establishment of environmental advisors in the Executive Office of the President.

Finally, a policy should require the President to report to Congress annually on the state of environmental quality.

In late 1969 S. 1075 was signed into law and became the National Environmental Policy Act. The Act became effective January 1, 1970. NEPA created and empowered a Council On Environmental Quality, a new agency specifically designed to

deal solely with environmental matters. The Act also presented a mandate before individuals and agencies thus designating the environment as everyone's responsibility. The Policy requires consideration of the environmental consequences of one's actions. An examination of the goals, procedures, and administration of NEPA will follow.

NEPA's Environmental Standards

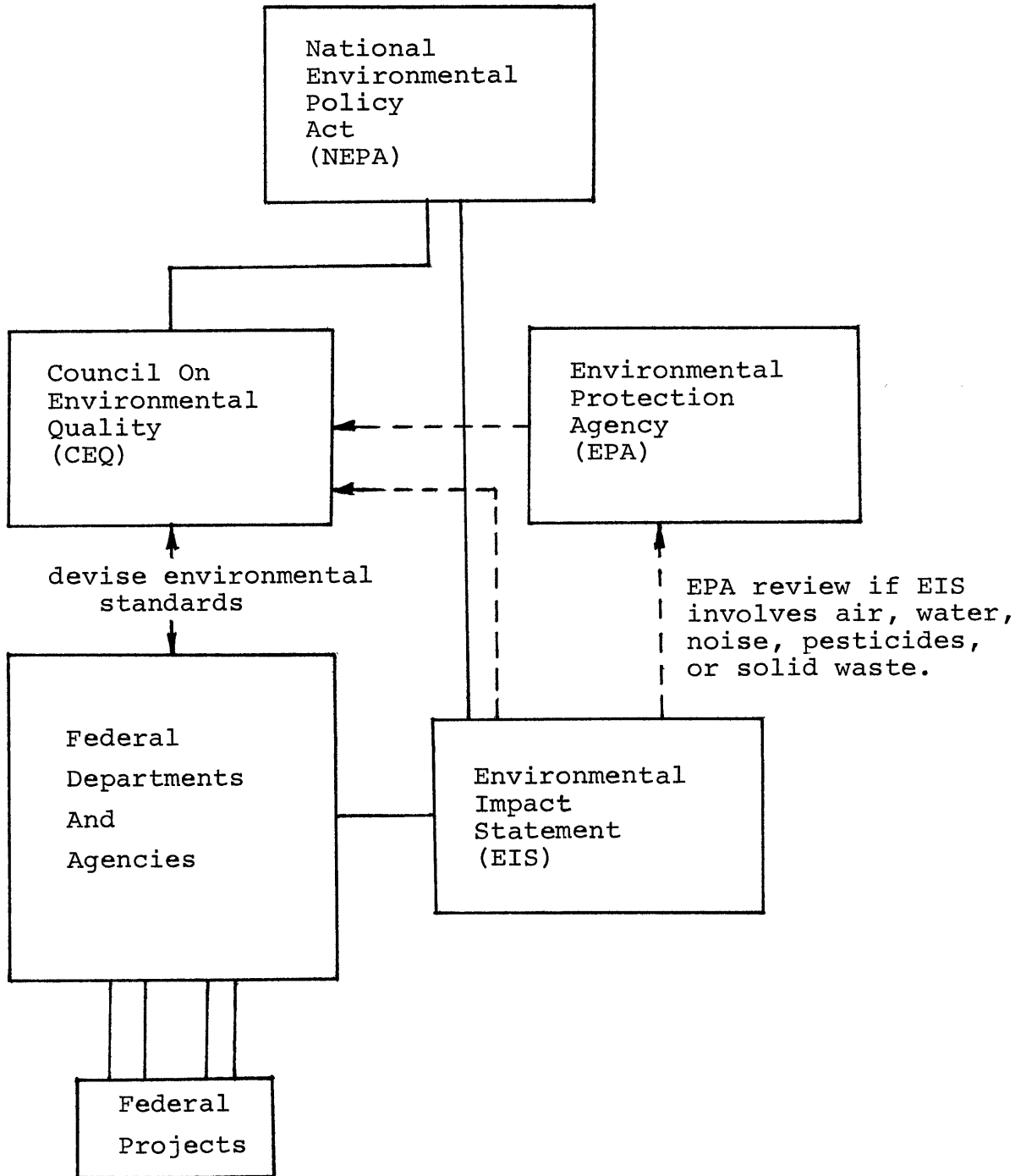
The National Environmental Policy Act broadly defined the scope of governmental concern and responsibility as follows:

"to create and maintain conditions under which man and nature can exist in productive harmony and fulfill the social, economic, and other requirements of. . .Americans." (53)

Beyond the establishment of broad environmental objectives, NEPA called for the requirement of impact statements, and the development of a Council on Environmental Quality, as the means of insuring environmental policy compliance.

This section will provide an overview of (1) NEPA goals, (2) the role of the Council on Environmental Quality and the Environmental Protection Agency as environmental evaluators and administrators, and (3) the environmental impact statement procedure and the problems which surround it. Figure I-1 illustrates the NEPA system which will be discussed in the following pages.

Figure I-1
Environmental Network



The Goal:

The goal of NEPA is best conveyed in the opening statement of the Act:

"The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality." (54)

NEPA signified the development of a federal environmental ethic.

CEQ and EPA -- NEPA's Administrative Apparatus:

The Council on Environmental Quality (CEQ) was provided for in Title II of the Act. CEQ is an advisory body within the Executive Office of the President that has the responsibility of studying the condition of the Nation's environment, developing new environmental programs and policies, coordinating federal efforts, and seeing that all federal activities take environmental considerations into account.

The Council on Environmental Quality requires each federal agency, in consultation with CEQ, to establish its own formal procedures to implement the objectives and the "spirit" of NEPA (55). Because each federal agency devises its own environmental criteria, standards differ from one agency to another. However, each agency's environmental

standards are generally concerned with possible public controversy, the uniqueness of resources, and the degree of disturbance of the ecological system.

Not until April of 1971 was CEQ prepared to begin implementation of NEPA's environmental report system. The system required environmental impact statements of all "projects supported in whole or in part through Federal contracts, grants, subsidies, loans or other funding assistance" (56). CEQ is responsible for reviewing each agency's impact statements.

The Council on Environmental Quality relates to NEPA's objectives in that it supervises and ultimately determines which projects accommodate environmental policy objectives. CEQ is the primary administrative apparatus, however, input on environmental impacts is received from the Environmental Protection Agency and weighed by CEQ before a decision on the project is made.

The Environmental Protection Agency (EPA) is independent of the National Environmental Policy Act and the Council on Environmental Quality in both function and organization. The idea of establishing an environmental protection agency is attributed to President Nixon's 1969 Advisory Council on Executive Organization (i.e., the Ash Council).

The Ash Council recognized the fragmentation of regulatory agencies concerned with air and water pollution control.

The purpose of an environmental protection agency was to concentrate the regulatory authority in one agency. EPA professes expertise in six specific subjects: water, air, noise, pesticides, radiation, and solid waste. The Clean Air Amendments of 1970 (57) require EPA to review and comment in writing on the environmental impact of any agency action relating to these six areas. These comments are then passed on to the Council on Environmental Quality.

EPA's list of actions which require environmental review is more encompassing than CEQ's. Whereas CEQ contended that major federal actions that "significantly" effect the environment and directly or indirectly receive federal funds are to be evaluated, EPA broadened the liability to include (58):

- (a) Actions whose impact is significant and highly controversial on environmental grounds.
- (b) Actions which are precedents for much larger actions which may have considerable environmental impact.
- (c) Actions which are decisions in principle about major future courses of action.
- (d) Actions which are major because of the involvement of several Federal agencies, even though a particular agency's individual action is not major.
- (e) Actions whose impact includes environmentally beneficial as well as environmentally detrimental effects.

Thus, it appears that virtually all actions are subject to environmental scrutiny. Never before has there been a law such as NEPA which mandates all agencies of the federal government, with respect to all of their activities, to comprehensively consider all significant impact on the environment (59).

EIS--Procedure and Problems:

During pre-NEPA Congressional environmental hearings, discussion focused on a means which would implement a national environmental policy. The solution, as foreseen by the Senate Subcommittee on Interior and Insular Affairs, was the design of an all-encompassing impact mechanism:

". . .a comprehensive system is required for the assembly and reporting of relevant knowledge. . ."

The environmental impact statement format introduced in Senator Jackson's bill, S. 1075, eventually became Section 102 of NEPA. Section 102 requires that detailed impact statements include:

- (a) the environmental impact of the proposed action,
- (b) information on the adverse environmental effects which cannot be avoided in the proposed plan,
- (c) relationship between the long and short-term uses of the environment, and
- (d) any irreversible commitments of resources to be involved.

The environmental impact statement (EIS) was born in the hopes that through its usage national environmental goals would be achieved.

The evaluative process outlined in NEPA Section 102(2)(C) requires that an EIS be subject to multi-agency review.

"Prior to making any detailed statement, the responsible Federal official shall consult with and obtain comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved." (60)

Based on the comments of federal agencies and public interest groups who reviewed the draft document, the lead agency (the agency that initiated the report) then determines whether the proposed action should be taken, modified, or abandoned. Where a complete EIS is required, NEPA specifies that,

"Copies of such statement and comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality, and to the public. . ." (61)

Unless they are classified, CEQ publishes summaries of all draft and final impact statements in its monthly 102 Monitor. CEQ requires that all impact statements be filed with them and made available to all appropriate agencies and public in draft form at least 90 days before the agency's approval of the proposed action, and, in final form at least 30 days prior to approval of the proposed action (see Figure A-1 in Appendix A).

In the past, the actions of development-oriented agencies have never been subject to widespread public redress. However, NEPA and the EIS process signaled the advent of a dramatic new era of citizen participation in the development process. The EIS procedure requires that the public be informed of the environmental impacts of government projects through public hearings. Also, letters of

public support, or lack of it, need to be incorporated in each project's EIS. Thus, from the earliest planning stages the public is notified of project plans and invited to comment on them.

Though its intentions are noble, the impact statement is characterized by a lack of clear-cut direction. For example, the EIS focuses primarily on the natural environment, with minimal regard for the social and economic environments, thus implying that environmental assessments are not wholly concerned with the total environment.

The term "environment" was never "defined in the basic legislation or in the CEQ guidelines" (62). "Environment," in the context of pre-NEPA Senate and House hearings, was used in reference to the natural biotic system. The EIS reflects the hearing use of the term environment in that it focuses on the evaluation of a project's off-site physical environment (Figure I-2). A focus on physical determinants, which can be more readily quantified than other factors, should not preclude the importance of the social and economic environments as well, especially in light of the fact that the environment includes "all the conditions surrounding and affecting the development of an organism" (63).

"Much effort, for instance, is expended in cost/benefit analysis when neither all costs nor all benefits can be expressed in dollars." (64)

FIGURE I-2

ENVIRONMENTAL IMPACT STATEMENT COMPONENTS

- A. Physical Environment
 - 1. Air Quality
 - a. Pollution
 - b. Odors
 - c. Emmissions
 - 2. Water Quality
 - a. Pollution
 - b. Drainage
 - c. Flooding
 - d. Backups
 - 3. Noise Levels
 - a. Auto/Truck
 - b. Airport
 - c. Subway/Train
 - 4. Land
 - a. Soil Conditions
 - b. Mudslides
 - c. Erosion
 - d. Flooding
 - 5. Vegetation and Wildlife
 - a. Animal Habitats
 - b. Estuaries
 - c. Stream/River Systems
 - 6. Surrounding Land Uses and Physical Character of the Area
 - a. Blight
 - b. Fire Hazards
 - c. Vermin
 - d. Traffic Conditions
 - 7. Infrastructure
 - a. Water Supply
 - b. Sewer and Storm Drainage
 - c. Solid Waste Disposal
 - d. Electricity and Power
 - e. Roads

- B. Social Environment
 - 1. Community Facilities
 - a. Schools, Libraries, Churches, Parks
 - b. Health Facilities
 - c. Fire and Police
 - d. Transportation
 - e. Community Organizations and Facilities
 - 2. Socio-Economic and Racial Characteristic of the Community
 - 3. Dislocation and Relocation
 - 4. Citizens, State, Local Reaction

- C. Aesthetic Environment
 - 1. Historical/Archeological Sites
 - 2. Vista from Project
 - 3. Project Architectural Integration

Where housing is involved, the Department of Housing and Urban Development has focused on an analysis of the impact of off-site housing conditions without serious consideration as to the effect which restraints on housing will undoubtedly have on the supply, the cost, and the quality of the community's housing.

Another problem surrounding the EIS is the lack of specificity in EIS demands. As Robert Gillette noted,

"The law's instructions for preparing an impact report apparently are not specific enough to insure that an agency will fully, or even usefully, examine the environmental effects of the projects it plans." (65)

The EIS preparation and evaluation is enmeshed in assumptions as to what composes a reasonable impact statement.

The EIS is ambiguous in its demands for information. The guidelines are nebulous in order that they may accomodate any number of projects in any area of the Nation. For example, the impact statement might be used to determine the feasibility of a large cluster housing-commercial development in rural Maine, or used to predict the impact of a park improvement plan in Vermont, or used to determine the feasibility of a small, scattered site housing development in the North End of Boston.

There is an underlying assumption that the person(s) responsible for preparing the statement and those who review it are quasi-omniscient. Generally, a perfect (or even near-

perfect) impact statement would require knowledge from a host of technical experts or information which is, oftentimes, simply not available. Theoretically, a perfect statement would be composed of a complete description of each component listed in Figure I-2, along with the ability to forecast environmental changes.

Impact statements are costly in terms of the amount of money and manpower required to prepare, document, and evaluate them. For example, a technical noise analysis alone can add \$1,300 to \$1,600 to project costs (66). The EIS also requires that information on all possible alternatives of a proposed action be supplied. A complete list of possible alternatives is the ideal but one can never know if the perfect alternative for that situation has been omitted. One must also keep in mind that alternatives will be weighed and evaluated according to the value system of the decision maker. At present, there are no generally agreed upon ground rules to guide a reviewer in the evaluation of impact statements. In addition, the underlying assumption is that there is a clear-cut, broader scheme or master plan in existence which will accommodate the mini-decisions of impact statements.

Undoubtedly there are administrative benefits reaped in the use of one basic, undeviatable tool used on a Nation-wide basis. However, differences exist throughout the country and the impact statement does not consider deviations from

the norm nor secondary implications of the project in question. The focus of the impact statement is on the physical environment surrounding the project with little concern for the social and economic impacts which are also at stake.

Thus, the 1970 National Environmental Policy Act represented a culmination of numerous historical strands, themes, and ideals. The 1960's marked the emergence of a broad federal concern for the environment. Faced with a history of unplanned development, resource exploitation and mismanagement, and the ills created by a growing population, Congress assessed the Nation's problems and developed NEPA as a guiding statement of federal principle. Motivated by a genuine concern for man's future and well-being, the passage of NEPA signified the convergence of several themes which have interlaced the Nation's history and, also, the rise of a federal environmental consciousness.

Meanwhile, another public goal, housing, has come in conflict with the environmental approach. The following chapter will focus on the entirely different priorities and traditions which motivated federal interest in housing.

CHAPTER II
THE EVOLUTION OF FEDERAL HOUSING GOALS

The state of the Nation's housing has been a vital federal concern since the turn of the century. Initially involved with the investigation of city slums in 1892 (67), and the housing of World War I defense workers (68), the government gradually assumed a major role in the housing field during the 1930's. Federal involvement in housing expanded considerably during post-Depression years. Then, in 1949, President Truman signed into law the National Housing Act, long regarded as a landmark of federal aid to housing. The Act established a \$1 billion program of federal urban renewal assistance to localities in clearing and redeveloping slums. It also revived and broadened the public housing program, authorized a decennial census of housing and launched a program of economic and technical research in residential construction and finance. Congress also provided \$250 million for a rural housing loan program (69).

The Housing Act of 1949 represented the culmination of over four decades of federal housing involvement. The Act reflected the convergence of several mainstreams of thought which were all woven together in America's political arena. The themes and traditions which came together in this historic act originated in federal objectives of providing basic shelter for certain groups which might not otherwise be

housed; to stimulate the private homebuilding industry with the aim of assisting the overall economy through mortgage money markets; to spur local land and economic planning; to provide federal financial assistance to local communities in order to improve the housing environment; and, to utilize housing as the foundation for moral and social enhancement.

These strands were recurrent in the Congressional hearings that preceded the passage of the Act (70). Although extensive hearings and testimony surrounded the development of the Act, one key report, which reflected the mainstreams behind the Act, was an April 21, 1947 transcript from the Senate Committee on Banking and Currency (71). Their report accompanied Senate bill 866, referred to as the National Housing Commission Act. The bill which eventually became the National Housing Act of 1949 was the Taft-Ellender-Wagner bill (S. 1070, formerly, S. 866, formerly S. 1592). S. 1070 had its beginning in 1945, where it was introduced-defeated-modified and reintroduced during each subsequent Congress, until it was passed in 1949.

The purpose of the Act was to enhance not only the dwelling, but also the environment of housing. The declaration of the Act states that,

". . .the general welfare and security of the Nation and the health and living standards of its people require housing production and related community development sufficient to remedy the serious housing shortage, the elimination of substandard and other inadequate housing through the clearance of slums

and blighted areas, and the realization as soon as feasible of the goal of a decent home and a suitable living environment for every American family. . ." (72)

Post-1949 housing legislation has been directed toward fulfilling that original goal.

The 1970's, however, have changed the prospects of fulfilling the ideals of the 1949 Housing Act. The 1970 National Environmental Policy Act symbolized the emergence of a new federal consciousness. Both policies are beneficent public goals that are concerned with the quality of life, the social well-being of the population, health concerns, and the condition of the immediate and surrounding environment. However, the two approaches toward achieving the good life differ, and an integration of housing--environmental objectives does not yet appear in the offing. Indeed, in an August 1973 statement, Environmental Protection Agency acting administrator John Quarles Jr. suggested that a selection need be made as to which federal priorities must be discarded.

"The nation faces hard choices involving the esthetic quality of our environment versus our opportunities for further economic and cultural growth. . .We must therefore consider the relative priorities which we, as a nation, desire to place on each of our various goals and ambitions." (73)

Evidently, Quarles did not regard policy compromise as an effective alternative.

There has been frequent mention of the term "quality of life" and each federal policy undoubtedly represents one

component of the "good life" which the Nation seeks to achieve. Housing advocates find their goal of providing decent housing for all Americans an important contribution to the enhancement of the overall quality of the Nation's environment. The physical condition of the immediate environment, i.e., shelter, is an essential and integral part of the quest for an overall improved environment. While environmental advocates stress the improvement of the larger scale natural environment, housing advocates place great importance on the condition of dwellings as an environmental indicator.

Since NEPA's enactment in 1970, housing advocates have come to realize the far-reaching implications which environmental standards have imposed on the development of housing. Though forewarned of possible conflicts with other federal policies, the scope and degree of housing--environment encounters is now becoming clearly evident.

"It would be unconvincing to assert that no interest, enterprise, or activity will be adversely affected by a national environmental quality effort. There is no area of public policy that does not impose obligations upon, nor limit the latitude for action of important sectors of society. In brief, although all would benefit, a relative few might be required to make adjustments. . ." (74)

Having already fallen short of 1968 federal housing goals, a problem arises as environmental standards further complicate the process of housing production. Time has shown that some of "those relative few" who would bear the burden of housing--environmental conflicts would be the center city

low-income who would otherwise benefit from Section 236, rehabilitated housing.

The following section will consider (1) the origins of federal housing policy, (2) NEPA's effect on housing production, and (3) the conflict between NEPA standards and inner city rehabilitation.

Federal Housing Policy

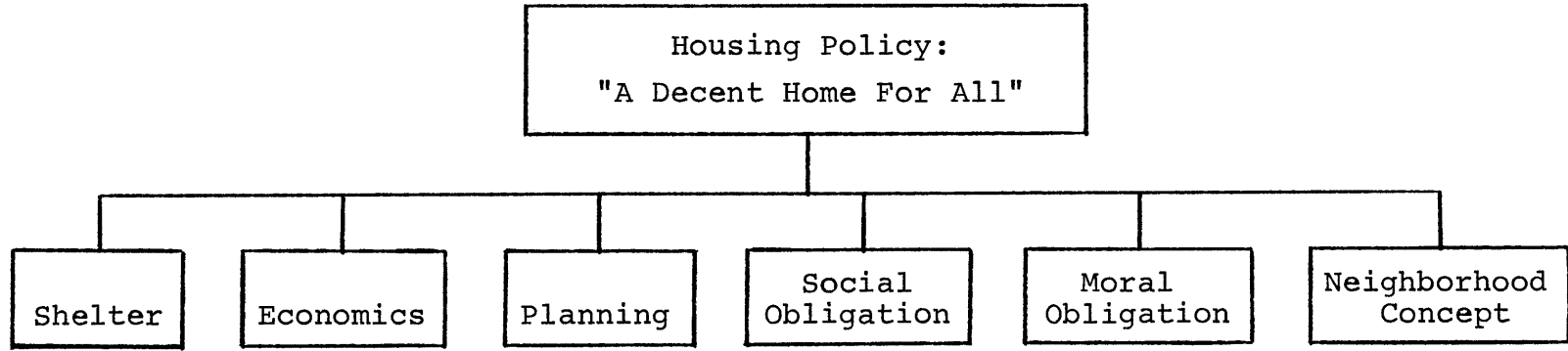
The origins of federal interest and involvement in housing go back to the beginning of the century. Traditionally, housing has been viewed as a mean for improving many of the Nation's social and economic problems. Six of the influences surrounding the development of a national housing policy which will be discussed in the following pages are shelter; economics; planning; social--welfare obligation; moral obligation; and, housing in the context of a neighborhood concept (Figure II-1).

Shelter:

"There is an immediate and critical social need for millions of decent dwellings to shelter the nation's lower-income families." (75)

A need for shelter which would improve "the health and living standards of the people" was one basic reason for federal interest in housing. Decent housing has always

Figure II-1
Housing Policy Influences



been lacking throughout the Nation. Federal interest in housing for the poor dates back to a 1930's involvement in public housing. Public housing was created because the traditional private enterprise approach was not meeting the need of sheltering the Nation's low-income.

The need for low-income housing still exists. During the past decade at least one-sixth of the Nation's households were reportedly living in substandard dwellings (76). Because data on the physical condition of housing is inadequate, the exact number of substandard units is not known (77).

Economics:

In a 1947 Senate Banking and Currency Committee hearing, legislators reviewed an upcoming National Housing Commission Act which looked upon housing as an economic catalyst.

"[One objective of a housing policy] is to enable the housing industry to make its full contribution toward an economy of maximum employment, production, and purchasing power." (78)

During the post-Depression years housing had become a means of national economic revival. Housing was used as a pump priming mechanism (i.e., stimulation of the economy by providing jobs). During this era each housing bill was advocated as a means of putting men to work. Housing was viewed as a remedy for the general economic ills of the day (79).

Planning:

At the turn of the century planned housing was recognized by the Progressive Reformers as a means of creating order in man's life (80). During those years planning was viewed as the key to a city's efficiency. The Progressives contended that a housing--planning linkage would virtually insure the orderly growth of existing cities. However, where orderly growth failed to occur federal financing was viewed as a device that could re-establish physical order, as Senator Taft's 1947 comment illustrates,

"The purpose [of a Government financed slum clearance program] is simply to help cities clear up slum areas after they have made a proper city plan." (81)

Senator Taft did not elaborate on the components of a "proper" plan.

Social Obligation:

Housing for the poor has historically represented a moral and social obligation to the Nation (82). Title I, Section 101 of the National Housing Commission Act expressed the federal attitude of 1947,

"[there is a need for governmental aid] to clear the slums and provide adequate housing for those whose income is so low that they could otherwise not be decently housed. . ." (83)

Low-income housing implied certain social and welfare concerns and costs.

From a social standpoint, slums were considered the breeding ground of crime. Consequently, the very presence of tenements called for increased police and fire protection. In addition, these areas were believed to be the source of health and moral hazards. Social costs of poor housing were regarded as the costs imposed by the poor section on society at large.

Meanwhile, the welfare approach was concerned with the influence of poor housing on the people who lived there. The tenement influence on society at large was not of importance. The welfare approach was based on the efforts of private, religious charity workers. The welfare approach functioned as a catalyst to national consciousness.

In the 1930's, the Public Works Administration Housing Division (PWA) dramatized the federal need to provide shelter for low-income urban families (84). The PWA paved the way by establishing the principle of public housing and creating a permanent agency called the U.S. Housing Authority.

Then, in 1949, the federal government established the goal of providing "a decent home and suitable living environment for every American family" (85). In 1968 it became clearer that the obligation to provide shelter to "every American family" included minorities as well. During that year a fair housing law was passed and a Supreme Court decision held that an even broader Reconstruction era statute

forbade housing discrimination. Also, the Kaiser Commission, a Presidential housing review body, reiterated the existence of a "critical social need" to shelter the nation's lower income families.

However, the traditional concern for the welfare of the poor may well be a concern of the past. Today, environmental sentiment rides the crest of public opinion while low-income housing has been relegated to a secondary position.

"The proponents of open housing, while seemingly well-organized, do not appear to be nearly as powerful politically as the environmental movement. Their constituency is considerably smaller. The goals are central to a relatively small group. . ." (86)

In an ominous vein Richard Neuhaus speculated on the future of non-environmental priorities when he queried, "Who has time for programs of social justice if indeed survival is at stake?" (87)

Moral Obligation:

In his opening comments before the April 21, 1947 Senate Banking and Currency Committee review of the Housing Commission Act, Senator Tobey remarked,

"More than any other single factor the character of family life, the conditions under which our children grow up and assume the obligations of citizenship, and the general attitude of the people toward their system of Government, are determined by the character of the home and the environment in which they live." (88)

Thus, by increasing the quality of housing one would build up the moral character of its residents, or so it was proposed. This premise dates back to an 1866 report by the New York Council of Hygiene which said that housing improvement would alleviate the character of the poor. In his book, *How The Other Half Lives*, Jacob Riis (89) noted that housing could not be isolated from other influences which affected personal behavior, family, and neighborhood life.

Neighborhood Concept:

Federal interest in the dwelling as part of a larger environment (neighborhoods) can be traced to the 1930's. New towns and green belt towns of that day provided "meaningful housing" because of federal support of a "whole housing concept." Housing was viewed as part of a package, a theme which has since been expanded upon to include transportation and urban development, etc. as part of an interdependent network.

Housing statistics did not reflect interest in the dwelling within the context of neighborhood services and amenities until the 1940's. Prior to an American Public Health Association (APHA), Committee On The Hygiene Of Housing (90) study, housing surveys concentrated solely on the dwelling as an entity unto itself. The emphasis of APHA's appraisal was two-fold: to appraise the environment of a dwelling (with

relation to amenities such as parks, street safety, etc.), as well as the physical condition of that dwelling.

The federal government has indirectly promoted neighborhood improvement through support of home ownership (91). Federally insured mortgages, direct loan, grants, and subsidies were designed to encourage home ownership. Contending that pride in home ownership creates interest in one's property and in the neighborhood, there has been extensive federal support in the financial aspect of housing since the Depression years (92).

More recently, there has been a strong federal emphasis on the preservation of existing housing stock, thereby utilizing existent neighborhood infrastructure. The direction is one of de-emphasizing new construction for low and moderate-income households while encourageing the utilization of the existing housing stock within the city:

"The Secretary of Housing and Urban Development says the Federal government should not subsidize new housing for the poor when existing decent housing is available. . . HUD studies indicate that the Federal subsidized new housing programs may have spurred an abandonment of older houses in the inner cities. . ." (93)

Consequently, the long-term direction appears to be a system of direct cash allowances. Such a strategy presupposes a focus on old neighborhoods and rehabilitation of the existing housing stock in the inner city.

Thus, the 1949 housing policy originated from federal

interest in housing as a means of economic leverage; as an alleviator of social--welfare costs; as a foundation for moral enhancement; as a method of imposing planned order and preserving neighborhoods; and as a means of providing shelter to the Nation's ill-housed.

NEPA And Housing Production

"Overlying this need [shelter] is one raising an unprecedented and challenging production problem. The nation is heading toward a serious shortage of housing for the total population, unless production is sharply increased." (94)

Prior to NEPA the level of housing production was considered far below that necessary to meet the Nation's housing needs. The Kaiser Commission recommended that the Nation work toward achieving a ten year goal of 26 million new and rehabilitated units, with 6-8 million of these for low-income families (95). The Commission recommended that the President report each January to the Congress on the progress made in achieving the national housing objective, and the actions required to accomplish the task. Thus, specific national housing goals of 2.6 million units per year were set, some two years prior to the establishment of the National Environmental Policy Act.

The actual level of housing production has lagged far behind the national housing goal established in 1968 (see Table B-1 in Appendix B). In explanation of housing production

deficiency Lyle Fitch, Director of the Subcommittee on Problems of Urban Poverty, noted:

- (a) Housing, particularly for low-income groups, involves some of the most controversial social and political issues of our time--civil rights, open housing, the question of whether to use housing as a tool for dispersing or for further concentrating large-city ghettos, and redistribution of income through subsidizing housing for low-income groups.
- (b) Congress has been much readier to pass legislation than to provide funds for implementing legislation.
- (c) The cumbersome governmental bureaucracy, concerned with housing at federal, state, and local levels, has been unable to respond adequately to the need of the times.
- (d) Generally high interest rates and recurring credit crunches has raised the cost of financing. Meanwhile, technology thus far has done little to reduce construction costs, and technological innovations are inhibited by archaic building and labor practices (96).

Fitch's comment, made prior to NEPA, summarized the obstacles which have obstructed the production of housing units in earlier years. NEPA has served to add a new barrier to the housing production dilemma.

The environmental standards hinder housing development in that they require extensive, costly research on the state of the environment. Environment-related expenditures vary according to the amount of time lost by the developer in EIS processing, which may be several months, and any consultant costs incurred. For example, should HUD require a soil and noise analysis of site "X", the developer then assumes all test costs and consultant fees in order that HUD be provided

all necessary environmental information. In total, several hundred manhours may go into an environmental statement before it ever reaches HUD's desk. In some instances standard compliance requires that costly provisions be built into structures in order that they might compensate for the condition of the environment (e.g., acoustical measures and/or redesign of existing rehabilitatable structures in order to compensate for noise).

It is impossible to obtain exact figures on the number of housing units which have been abandoned during feasibility-study stages because developers feared that their projects would be below HUD's environmental threshold of acceptability. However, in March of 1973, the American Mortgage Corporation (AMC) predicted a 50,000 unit loss for that year as the result of environmental regulations:

"It appears that demand and mortgage funds are adequate to support an even larger U.S. market [in 1973]--2,300,000 starts, but environmental restrictions should cause a net loss of some 50,000 starts." (97)

AMC's prediction rings of impending doom. Similarly, another source forewarned:

"The environmental impact laws regarding housing development are extraordinarily negative and the development community is being boxed in. I don't think that the environmental laws were designed to stop all development, but that is what is occurring." (98)

Obviously not all housing production has been stopped, as some would suggest. Housing starts in 1973 (2,060,000 starts) were 90% AMC's prediction, indicating a production slowdown, not a production standstill. The environmental impact evaluation will not terminate housing development, however, it will effect the cost and the amount of housing produced each year, in addition to introducing uncertainty and confusion to the development process. Thus, a potential developer faces the prospect of (1) encountering production obstacles created by any number of environmental factors which need be considered, (2) confusion over the environmental evaluation process, and (3) legal entanglements. Development risks increase with the controversiality of the project, and delay is an ever-present evil. Undoubtedly, environmental regulations have, and will continue to effect, the amount, location, and type of housing which a developer will consider worth undertaking.

Environmental Obstacles:

There are a multiplicity of factors to be considered in an environmental evaluation (see Figure I-2 in Chapter I). Although the EIS is based on three components--physical, social, and aesthetic environments--the focus is, clearly, on the state of off-site physical factors which the developer has virtually no control over. For example, an assessment of mudslides, vermin, and estuaries near the project area are

among the required evaluations. A problem with one of the environmental impact statement (EIS) components can delay or even terminate a potential housing project.

A Source of Confusion:

NEPA is a "do it yourself" act and, as such, it is subject to opinion. Environmental impact statement preparers and evaluators are not necessarily one in the same person(s), consequently, there are varied interpretations of the law, and the implementation of the law. Because there are no agreed upon guidelines as to what constitutes a reasonable evaluation developers face confusion over the environmental process. For example, Thomas Flatley, the largest apartment builder in New England, reported that his \$50 million housing-commercial-industrial project for Stoughton, Massachusetts had been set back one year because of confusion over the environmental impact control laws.

"[Flatley] stressed the need for environmental controls, but, he said, those in charge of such controls themselves cannot give investors clear-cut answers." (99)

The institutional framework is a barrier in itself. Although HUD is presently assuming a greater share of the paperwork involved in an environmental evaluation, the process is still time- and capital-consuming. Where controversy is involved or project acceptability is questioned the developer

faces the decision of (a) incurring greater costs created by project delays, additional environmental research, and project revision, or (b) terminating the project because of economic infeasibility.

Legal Risks:

In addition to the red tape and confusion surrounding the impact statement process, the possibility of citizen legal action during any phase of project development is a factor which developers must weigh when considering a housing commitment.

The conflict between conserving the environment and fulfilling other national priorities, such as housing, has emerged as more and more cases are taken before the judiciary. By September of 1972 more than two hundred cases had been filed against federal agencies in courts throughout the country alleging violations of NEPA's Section 102(2)(C). When the first suits were initiated the focal point was the requirement of writing impact statements. In recent cases, however, the trend has been one of asserting the insufficiency of statements already written:

"NEPA litigation in the past year continued at about the same pace as in the year before, with the total number of NEPA lawsuits now exceeding 400." (100)

Thusfar it appears that a suit can be accepted by the courts very late in the process of project construction. Apparently, as long as an action has not progressed to a point where the costs of altering or halting the project would outweigh the public good, then a suit for failure to comply with NEPA can be introduced anytime during the construction period. In February of 1973 a precedent-setting opinion was handed down by the U.S. Court of Appeals which ruled that a U.S. District Court has the authority to issue injunctions against private developers in partnership with government agencies if the project endangers the environment. The extent of NEPA-related litigation suggests that the position of the court has become that of regional planner.

The probability of legal risk increases when a housing development is of a controversial nature, such as low-income housing. Rather than allow low-income entry into a particular area, community groups are using the EIS to prohibit low-income housing. Environmental concern can be used to mask other motives.

Thus, NEPA has forced developers to carefully scrutinize potential housing commitments, especially potentially controversial projects, given that prolonged delays, prohibitive environmental-related costs, and even litigation may arise from the environmental standards. In effect, NEPA standards have served to decrease housing production and increase

building costs, thus creating an especially adverse effect on the housing options of the low and moderate income populations.

In addition to posing a problem for developers, environmental evaluations are having a serious impact on the development of new construction of low-income housing in the suburbs, and low-income rehabilitation in the center city. Although the circumstances differ, the effect is the same, the EIS is constraining low-income housing.

CHAPTER III

URBAN AND SUBURBAN USE OF THE ENVIRONMENTAL IMPACT STATEMENT: THE EFFECT ON LOW-INCOME HOUSING

The environmental impact statement was intended as a planning mechanism which would eventually secure the good life for all Americans. However, one side-effect of this cure-all has been the realization that the impact statement process is perpetuating social--economic inequities by insuring the good life to those who had it anyway. In other words, it is protecting the protected. The environmental impact statement is another addition to the list of exclusionary expedients of low-income housing which is being actively wielded by numerous elite communities outside the city.

Meanwhile, the use of the EIS in the urban environment has also had the effect of impeding low-income housing in the city. Though the reasons are different, the urban--suburban outcome is essentially the same: a failure to provide low-income housing.

The following section will examine the impact of the EIS on (1) the development of low-income housing in the suburbs, and (2) low-income rehabilitation in the center city.

The EIS And The Suburbs: A Question of Equity

Over the past several decades there has been a gradual out-migration of wealth from the city and an in-migration of poverty. (101) Over time, many suburbs and outlying towns became the bastions of the middle- and upper-class. The benefits of the city were easily had because of transportation, but the density and proximity to multiple noise sources, that characterize urban life were eluded through careful implementation of land-use regulations and zoning laws. The good life was, and is, had by those who can afford it. The environmental impact statement is being utilized as a means of holding on to the good life.

Through the use of zoning laws and land-use regulations, suburban residents have been able to preclude low-cost housing development. The EIS has since been added to the list of exclusionary devices.

As with the case of municipal land-use regulations and zoning ordinances, the development of an environmental impact device was not sinisterly devised to promote discrimination. However, as a tool it can be implemented more than one way. Zoning and land-use regulations have traditionally been viewed as planning mechanisms which would restore order to a chaotic land-use system (102). In some areas, however, those tools have been implemented so that municipal land-use regulations promote only large lot zoning, and legally

prohibit multiple unit dwellings and mobile homes (103). Oyster Bay, New York exemplifies the exclusionary use of land-use regulations:

"Through a complex system of land-use regulations the town has insured that future residential development will be restricted to homes of this type [homes worth \$35,000+] and that no apartment buildings will be permitted." (104)

Oyster Bay illustrates how land-use regulations have served to insure the type of housing (and type of people) allowed in a community.

The environmental impact statement is also being utilized as an exclusionary weapon. According to a HUD official, the ecology issue has provided a shield whereby citizen groups can contest and halt construction of low-income housing projects (105). Although the EIS intent was to monitor and plan development, the effect is one of being especially critical of dense housing developments (i.e., multiple unit dwellings) which, in turn, effectively rules against low-income housing.

The EIS and its evaluative process discourage multiple unit developments because of a possible negative effect of those developments on a community's infrastructure and natural resources. Essentially, the message is one of no-growth. If a project can't be accommodated by existant facilities, then the developer faces directives of diminishing the size of his development or, ultimately, dropping the plans

altogether. Meanwhile, citizen groups can develop a case for resource depletion and/or community inability to accommodate any added population, as Oyster Bay residents discovered:

"The concern of the people here. . . is the high rate of contamination of the water supply when high density constructions are developed within the present sewage system." (106)

Similarly, a group of Stoughton, Massachusetts residents attempted to stop a low-income project through the use of a zoning bylaw.

"A group of Stoughton residents, who have stalled for almost two years the development here of a controversial 138-unit low and moderate-income housing complex, are sponsoring a zoning bylaw. . . The Concerned Citizens for Conservation (CCC) contend that if the project site is developed it would cause major drainage problems." (107)

By contesting the introduction of low-income housing, on the grounds that the added population would result in the downfall of community services and resources, the opponents of low-income housing can deter any such projects. Thus, utilizing an ecology--economics position, community groups have successfully opposed low-income housing. The EIS has been utilized as a discreet form of discrimination.

Ironically, while the Oyster Bay and Stoughton communities of the nation are struggling to hold check on low-income encroachment, the dilemma of the poor is compounded by the effect of environmental standards on low-income inner city neighborhoods.

The EIS And Center City Rehabilitation

The effect of EIS implementation on suburban low-cost housing has been a failure to provide new stock. The same result is occurring in the city for a different set of reasons. Environmental standard compliance is made difficult in many parts of the city because of factors unique to the urban environment. For example, where the center city is concerned, the critical element of an EIS is noise.

One area where housing--environmental traditions have come together in conflict is over urban rehabilitation and the fulfillment of federal noise standards. Federal noise standard compliance complicates the rehab process by imposing costs, delaying development, and expecting the developer to insulate an urban structure from the surrounding sounds which HUD considers unacceptable. The noise factor is constraining the amount and location of center city rehabilitation.

Meanwhile, though environmental noise standards limit potential rehab options, federal housing policy is promoting inner city rehabilitation. During the past four years, housing policy has focused on center city restoration and preservation (108). The emphasis on maintaining and upgrading the center city through rehab is based on three assumptions:

- (a) structural soundness and a large proportion of existing housing stock,
- (b) existance of valuable neighborhood infrastructures within the urban core, and
- (c) urban neighborhoods offer unique social and cultural advantages. As Walter Firey theorized (109), social, cultural, and ethnic influences render meaning to the urban environment. Firey concluded that such meaning can supersede economic, and other, considerations.

Housing advocates value the quality of urban neighborhoods and thus promote inner city rehabilitation.

According to past experiences, the rehabilitation process has proven to be a precarious venture. However, housing advocates do recognize the uniqueness of the rehab process, which is characterized by the need for immediate, on-site decisions, cost uncertainty that results from unforeseen obstacles, highly specialized labor, structural layout constraints, relocation, enormous amounts of red tape created by the institutional framework and several dispersed sites (110). Given its host of problems, housing advocates still consider rehab feasible if conducted on a large scale.

"A host of financial, technical, and institutional factors militate against large-scale rehabilitation, and yet the process may be meaningless over the long run unless carried out on such a scale." (111)

In an urban area, such as Boston, where over 77 per cent of the city's housing is more than thirty years old (112), one begins to realize the massive, city-wide scope of rehabilitation.

Thus, rehab is a cost-laden, yet valued, method of housing development. The EIS further complicates urban rehab by:

- (a) requiring standard compliance in a sound-filled environment--a situation which the developer has no control over,
- (b) project delay where HUD questions the developer's noise evaluation. A project delay means increased costs to the developer (assuming that his time is worth money). Also, should HUD require an engineer's analysis, the developer is responsible for providing and paying for the costs of documentation.
- (c) Finally, HUD-imposed structural attenuation measures can "price rehab out of the market."

Although HUD recognized the problems surrounding noise attenuation, they have not acted to minimize or solve it.

"We ought to be much more aware that these buildings [rehab] exist and that there are limitations to attenuation for sound which the present criteria doesn't account for." (113)

Alterations of unit floor plans, structural setback, and the addition of acoustical features cannot readily be introduced into existing units.

Thus, many suburbs have precluded low-income housing by using the EIS as an exclusionary device that perpetuates the status quo. Meanwhile, though some urban communities may also wield the EIS as an exclusionary device, low-income urban rehabilitation is often deterred because of an inability to comply with the federal noise standards.

CHAPTER IV

NOISE STANDARDS AND INNER CITY REHABILITATION

The city is a unique locale. It is a transportation center, and as such the words "noise" and "city" have become synonymous. Consequently, in accordance with NEPA, the Department of Housing and Urban Development (HUD) developed noise standards in order to combat the "threat to serenity and quality of life in population centers" (114). Rehabilitation is one circumstance which was apparently not considered in the formation of noise standards. Indeed, without regard for (1) the uniqueness of rehabilitation as opposed to new construction and (2) the distinction of neighborhood preservation as opposed to planning of new communities.

HUD's noise standards are applicable to all HUD-funded housing projects. As one HUD source pointed out:

"The Central Office [HUD] seems to be very concerned with noise as compared to other factors in the environmental impact statement." (115)

Meanwhile, because of noise levels which exist in the city, developers have found it difficult, if not impossible, to comply with HUD noise standards and still find it economically feasible to rehabilitate inner city housing.

Of all the EIS factors that need be considered (see Figure I-2 in Chapter I), the single factor of most significance

to urban rehab is noise. The distinction between noise and sound involves a subjective judgment. Yet, noise has become a critical issue where urban rehabilitation is concerned. Webster's defines sound as "an auditory impression," as opposed to noise being "sound that is undesired" (116). Noise involves a subjective judgment. Given that noise is defined as "unwanted sound" one must ask "unwanted by whom?" A noise "problem" involves people's feelings and their assessment of the "problem."

Though frequently studied there is much that eludes man where sound is concerned. The psychological and physiological effects of noise beyond pain thresholds can be traced, however, below those levels numerous factors interact and personalize the dimensions of sound. Within the realm of sound there are absolutes, however, sound also involves subjective judgments. For example, the point at which sound becomes noise depends on the person and the situation involved.

The dimensions of the noise--rehabilitation conflict which will be examined in the following pages are:

- (1) an overview of the measurement of sound
- (2) sound versus noise,
- (3) federal noise standards inconsistencies, and
- (4) HUD's noise policy and standards, and the application of those standards to new construction and rehabilitation.

The Measurement Of Sound

As illustrated in Figure IV-1, man has devised a means of measuring sound levels. Sound is gauged on sound level meters. Generally, the "A" weighted network is used to measure volume because the "A" scale on a sound meter most closely approximates the frequency response of the human ear. A sound measuring 15 decibels on the "A" network of a sound meter would be coded 15dBA. Though sound measurement may go unchallenged, questions do arise over the classification of sound.

Sound is the result of variations in atmospheric pressure. The magnitude of a noise source is reported in terms of the sound pressure level produced at a specific distance from the source. A decibel (dB) is a logarithmic unit for measuring the volume of a sound.

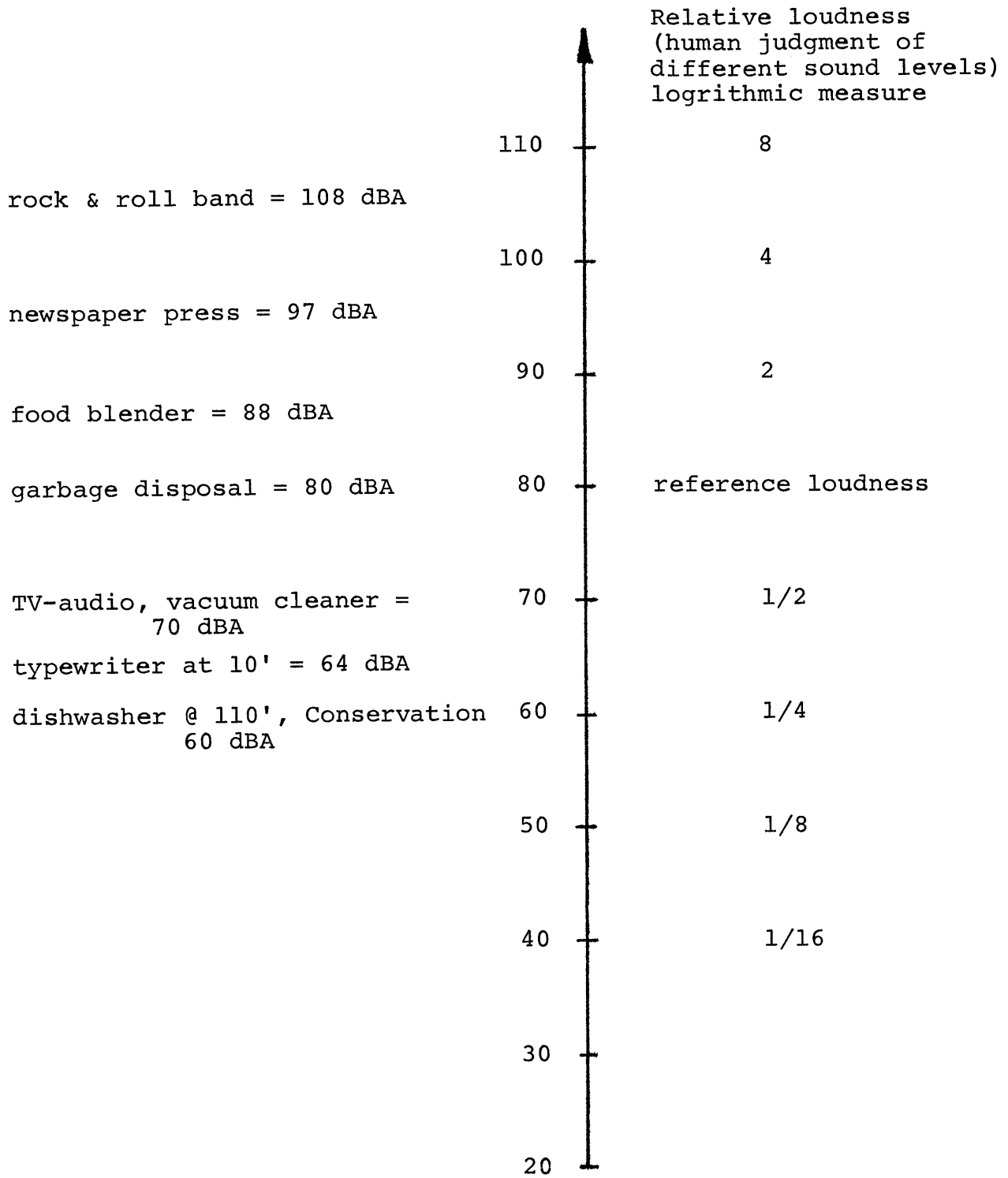
The physiological consequences of exposure to sound have been frequently speculated upon, however, man's knowledge about the effects of exposure is still incomplete.

"'Sleep interference' would seem to have an important impact on the ability of the resident to achieve rest and enjoy his leisure. . ." (117)

"There is a growing concern that exposure to the higher noise levels of the city might contribute to nervous disorders and tensions, but the findings are still inconclusive." (118)

There is still much to be learned about the effects of noise. It is recognized that there is a point after which

FIGURE IV-1
NOISE LEVELS



pain ensues and physical impairment occurs because of over-exposure to certain sound levels. For example,

"Continuing exposures to levels exceeding 100 dBA lead to temporary and, eventually, to permanent hearing loss." (119)

Indeed, one must be fully aware of pain thresholds and the amount of flexibility that exists below those boundaries. The issue then becomes one of "unwanted sound" (noise) determination.

Sound Versus Noise

The determination of a noise problem is related to each individual's value system, attitudes, and beliefs. Other elements that influence attitudes toward sound stimuli are differences in psychological make-up, the way noise is presented, the amount one is exposed to, the message carried by noise, the frequency of noise, noise characteristics, the type of activity one is involved in, the time of day or night, etc. Noise is rooted in psychological and perceptual influences as opposed to a physiological basis.

Opinions surrounding a noise problem may vary substantially. For example, within one household there may be several points of view as to whether or not rock music constitutes noise. Good entertainment for some may be the source of aggravation for others. The example can be carried

one step further--in many urban communities, social bonds may actually be stronger than the problem which noise might present (120). While certain individuals may perceive inner city noise as intolerable, other who are close to noise sources may willingly overlook any inconvenience because more important factors compensate for the noise (e.g., an overriding sense of "community").

Hence, the exact point at which noise levels become uncomfortable or unacceptable depends on the situation and individual involved. "Unacceptable" noise levels are not as readily definable as federal noise standards would suggest. Thus, given the subjectivity of noise determination one might question the absolute nature of federal noise standards.

Noise is a perceptual issue. In *Environmental Law: Sources and Problems*, Frank Grad contends that noise may not be regarded as a problem in cases where it is the result of a beneficial product or service.

"A person may be psychologically predisposed to tolerate and accept a given noise environment when he feels that the noise is an inevitable byproduct of a useful or valuable service. He also tolerates it if his health is not affected and it does not generate fear. One survey of noise around an airport indicated that the people's general connection between noise and their fear of aircraft crashing has more effect on the degree of annoyance than did the actual level of noise." (121)

Grad also contends that when added noise is not sufficiently greater than the noise level (ambient or background noise) which already exists in a community residents may not be annoyed.

"Still another factor is the extent to which people who are annoyed by noise desire to complain and actually do complain about the noise. Complaint data clearly show, however, that new noises will prompt substantial additional response from the community if such noises are heard and identified above the noise level that already exists in the community." (122)

It is difficult to ascertain beforehand certain reactions to noise, given that individuals have different perceptions as to what constitutes ambient noise versus obtrusive noise (123).

In an attempt to determine how Americans perceive their environment, the Environmental Protection Agency conducted a study recently, entitled "The American People And Their Environment 1973", and found what was perceived to be six main sources of pollution. Noise was not on that list. The pollutants listed were: truck/bus/plane exhaust; auto exhaust; industrial smoke and gasses; untreated sewage; solid waste; and factory effluent (124).

Thus, the urban community's recognition of a noise problem may differ somewhat from HUD's perception of a problem, and the noise levels which constitutes that problem.

Federal Standard Inconsistencies

CEQ has directed that each federal agency devise its own environmental standards. Because noise is a subjective determination, and each agency is its own arbitrator of "unacceptable" sound levels, inconsistencies have arisen among the noise standards devised by governmental departments and agencies.

Noise standard discrepancies center around the classification of sound levels. For example, is a sound meter reading of 76 dBA considered "Moderately Loud" or "Very Loud"? Figure C-1 in Appendix C illustrates the differentiation that exists among the Department of Transportation (DOT) and the Bureau of Occupational Health (BOH) noise perceptions. As indicated by the areas of overlap, there is disagreement among the two agencies as to the point where one would consider sound levels to be "Moderately Loud" as opposed to "Very Loud"; or "Very Loud" as opposed to "Uncomfortably Loud." Thus, within federal agencies noise classification differences exist.

DOT and BOH standards are not the only standards which are at odds. There is a 5 dBA difference between HUD and DOT standards. One HUD official noted that noise standard variations create some confusion when federal agencies must review one another's environmental impact reports. He also raised the question of vulnerability

to litigation because of the differences.

"The Department of Transportation standards are 5 dB's higher than HUD's standards, a point to be kept in mind when evaluating a DOT project. It might be wise to have some conformity of standards within federal agencies, especially because of the vulnerability to litigation." (125)

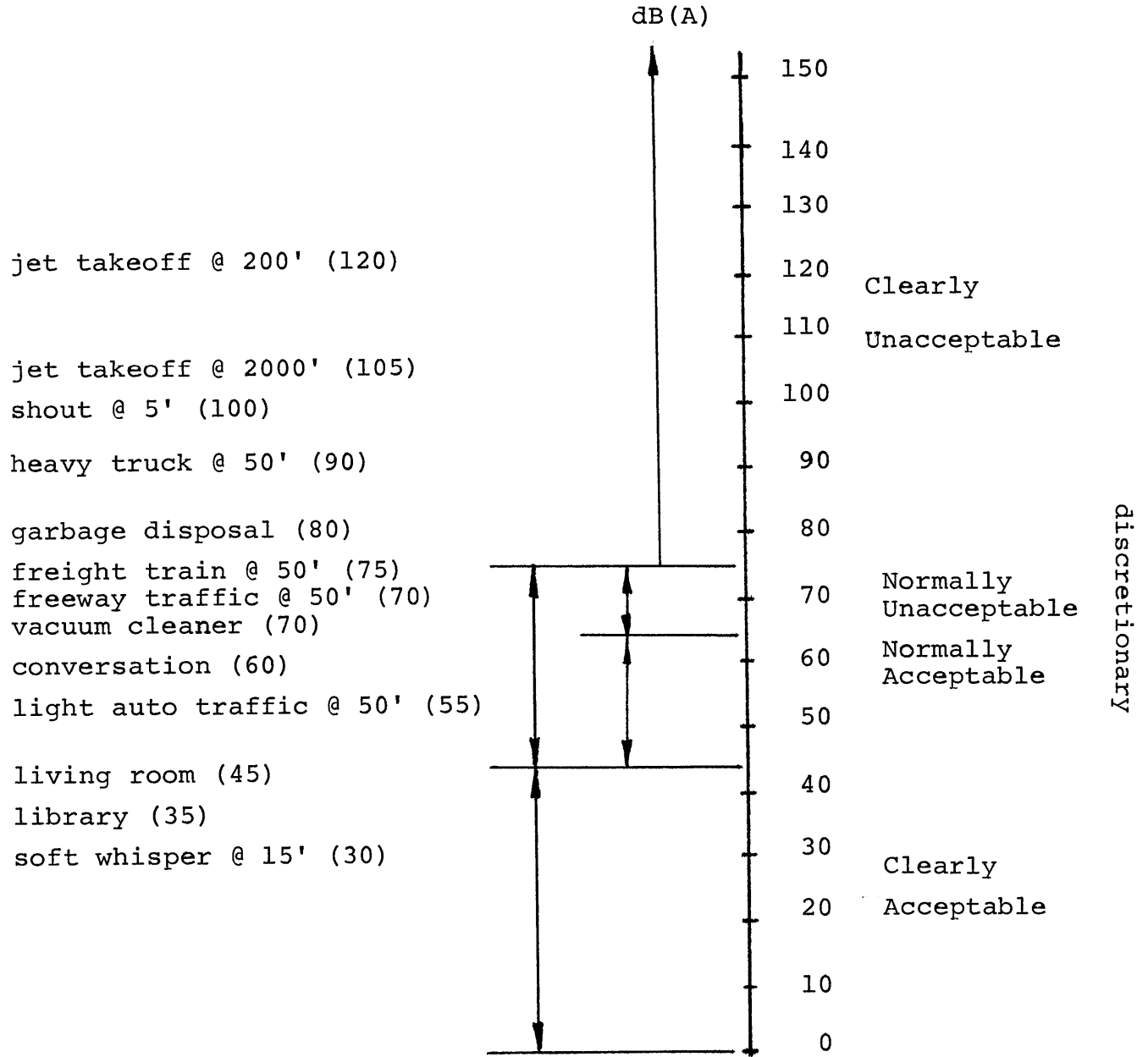
A 5 decibel discrepancy in standards can make a substantial difference in an evaluation of borderline cases. Decibels increase logarithmically. Examples of noise levels and their decibel equivalents can be found in Figures IV-1 and IV-2. Yet, regardless of other valid interpretations of sound classification, HUD noise standard implementation remains inflexible.

HUD Noise Standards

Noise determination is not an exact science because noise, per se, is in the ear of the beholder. Meanwhile, HUD's strict enforcement of noise standards implies a belief in the absoluteness of their own classifications.

HUD's standards were devised by their Washington Office of Research and Technology, with assistance from EPA and CEQ (126). HUD's research department devised a set of noise exposure levels for new construction (see Figure C-2 in Appendix C) and for rehabilitation (see Figure C-3 in Appendix C). Rehabilitation standards are applied to rehab projects only when the lifespan of the dwelling is not

FIGURE IV-2
 Department of Housing and Urban Development
 Noise Exposure Classification



Source: Department of Housing and Urban Development

"significantly" increased.

This segment will focus on (1) HUD noise policy, (2) HUD noise standards, and (3) the application of noise standards to new construction and rehabilitation.

HUD Noise Policy:

Based on the authority granted in Public Law 89-174, and NEPA's federal agency mandate, HUD acknowledged a responsibility to call attention to the threat which noise presents to "the serenity and quality of life in population centers" (127). Public Law 89-174 was also referred to as the "Department of Housing and Urban Development Act of 1965" and relegated the responsibility of the "sound development of the Nation's communities and metropolitan areas" to the Secretary of HUD. In addition, NEPA directed all federal agencies to develop procedures necessary to carry out the purposes of that policy.

In Department Circular 1390.2, HUD outlined a policy designed to foster the creation of noise controls and standards, incorporate a consideration of noise influences in the planning of all HUD programs, disseminate information on noise abatement developments, and encourage overall noise abatement (128). Circular 1390.2 noted,

"It is HUD's further general policy to promulgate minimum standards and guidelines with respect to noise abatement and control, to utilize such standards and guidelines as a uniform national policy to guide HUD program decisions. . .In this regard, noise exposures will be divided into three groupings: acceptable, discretionary (normally acceptable and normally unacceptable), and unacceptable." (129)

According to this policy, approval of all HUD projects is based on one sound level standard, as shown in Figure IV-2.

HUD's classification system was defined further in *HUD Noise Assessment Guidelines*. The Guidelines assume four noise exposure "acceptability" levels, a listing and the assumptions of each category follow:

(1) Clearly Acceptable

The noise exposure is such that both the indoor and outdoor environments are pleasant.

(2) Normally Acceptable:

The noise exposure is great enough to be of some concern but common building constructions will make the indoor environment acceptable, even for sleeping quarters, and the outdoor environment will be reasonably pleasant for recreation and play.

(3) Normally Unacceptable:

The noise exposure is significantly more severe so that unusual and costly building constructions are necessary to ensure some tranquility indoors, and barriers must be erected between the site and prominent noise sources to make the outdoor environment tolerable.

(4) Clearly Unacceptable

The noise exposure at the site is so severe that the construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would still be intolerable (130)

Because of sound levels, center city environments tend to fall into the last two categories. The above definition of HUD's classification list suggests an emphasis on noise and its related monetary implications as opposed to a psychological--physiological approach.

HUD's standards are rigidly enforced and policy dictates that slight deviations from the norm are not allowed. Recourse is available to developers whose projects are unacceptable. Where noise exceeds limits defined as "Unacceptable" (see Figure IV-2), the developer must receive impact statement approval from the Secretary of HUD. Exceptions are "strongly discouraged" and only a handful of appeals are granted each year. According to a HUD environmental clearance officer, the evaluative process generally screens out "Clearly Unacceptable" projects.

"If it's that bad [Clearly Unacceptable] then local HUD officials will generally reject the project and it wouldn't even get to Washington." (205)

However, where officials "all along the line" feel that there is a strong basis for a waiver, the case is submitted to Washington. Then, armed with the case's recommendations and reports, the Secretary considers the case and its overriding circumstances (e.g., is there a "critical" need for that housing project). After weighing the case a decision is then made by the Secretary of HUD. "Normally Unacceptable"

projects must incorporate noise attenuation measures into the project, complete an environmental impact statement, and receive approval by HUD's Regional Administrator prior to project approval.

Thus, based on the responsibility afforded in PL 89-174 and NEPA, HUD established a noise policy that has since been uniformly applied to all HUD planning activities. The responsibility for policy implementation carried with it the task of creating noise standards.

Standard Application And Implementation:

The sole interest of HUD's noise standards is to determine the amount of noise generated by off-site sources. The standards (Figure C-2 and C-3 in Appendix C) are applied to all projects within HUD's jurisdiction. The standards do not account for the differentiation of (a) new construction and new communities, as opposed to (b) rehabilitation in existent communities.

(a) New Construction and New Communities

Where long-range planning efforts for underdeveloped areas (new communities) are concerned, HUD's guidelines and standards could prove to be an invaluable aid. One specific example is the recently completed Dallas-Fort Worth,

Texas airport where development is restricted within certain distances of the airport so that none of the community's residents are subject to undue airport disruptions. Such a measure insures that low-cost housing will not be placed directly on an environmentally unfavorable location.

Similarly, it is easier to build acoustical measures into new construction than into an existent structure. Incorporation of acoustical measures can be planned into a building's design--a task that is not easily afforded in the case of rehabilitation.

(b) Rehabilitation

HUD's noise standards have proven to be virtually insuperable in the rehabilitation of inner city housing. The detrimental effect of noise standards which grew out of NEPA is reflected in the following comment by a HUD official:

"NEPA is good legislation, but it penalized the inner city, especially because of the noise factor. Where in the inner city can you find a place that isn't noisy? Noise attenuation measures can be built into new construction but it's difficult to do so in the existing housing stock if you intend to rehab." (131)

Another HUD employee added:

"The effect of NEPA and noise attenuation measures on rehab is going to kill some of it which might

otherwise be ok, or it is going to price it right out of the market." (132)

Noise standards constrain rehabilitation options because (1) the application of new construction noise standards to rehab does not account for rehab's limited range of economic feasibility, and (2) standard implementation does not recognize the noise levels unique to the urban environment.

Where the application of noise standards is concerned, HUD has deemed that rehabilitation that results in the increased longevity of a structure be regarded as new construction.

"Within cost restrictions, including those set by market forces, HUD encourages modernization efforts for buildings in noisy environments when such efforts improve the noise exposure environments without substantially increasing the life of the structure. When modernization or rehabilitation would substantially increase the life expectancy of the structures, it is HUD's policy to apply noise exposure standards closer to those applicable to new construction." (133)

Not only are the standards "closer" to those used for new construction, but when rehabilitation extends the life expectancy of a structure they are the same standards for new construction. The point at which a potential increase of the "life expectancy of the structure" become a "substantial" increase is subject to wide interpretation. Yet, the definition of terms and application of standards are left to the disgression of each HUD evaluator.

Noise evaluation is a particular problem point for urban projects by virtue of the fact that an inner city environment is inherently a noisy environment. As a HUD source noted,

"It doesn't take very much to put a project into a 'Normally Unacceptable' or 'Clearly Unacceptable' category when it comes to noise because of the adjustment factors." (134)

The "adjustment factors" referred to occur in noise evaluation calculations where special considerations are called for. For example, adjustments must be made for the amount of stop-and-go truck traffic that occurs within 800 feet of a given site. Consider an inner city rehabilitation site, where the structure has a zero property setback and the roadway is twenty feet away. Given that a stop sign/light is located within the 800 feet radius, an average hourly traffic count of four trucks will thus render the site "Normally Unacceptable" (see Figure C-4 in Appendix C).

Although hypothetical, the truck traffic example is not unrealistic where center city rehabilitation is concerned. Similar adjustment factors must be made for stop-and-go car traffic on all "major" roads within eight hundred feet of a site, and railway/above-ground rapid transit lines within three thousand feet of the site.

Noise presents a great threat to urban rehabilitation in that urban sound levels are often deemed "Normally or

Clearly Unacceptable" according to HUD standards. Given that HUD discourages development in "Normally Unacceptable" areas and vetoes it in "Clearly Unacceptable" areas (except in extreme cases where waivers are granted, the possibility of rehabilitation in the center city is clearly diminished.

Thus, based on the current conflict between environmental noise standards and urban rehabilitation one can predict the future implications of noise standards on urban rehab. Due to the developers' inability to meet noise standards, within the range of economic feasibility, the amount and location of center city housing will undoubtedly differ from the current housing pattern.

Also, the city's low and moderate-income families, a group from whom there is presently a deficit of decent housing (135) will undoubtedly be part of the "relative few required to make adjustments" to NEPA. Many of the center city low-income will be forced out because it is becoming financially unfeasible to rehab center city housing stock. Rehab costs would price housing well out of their means. Indeed, the poor are unquestionably part of the "relative few" who need make adjustments for environmental priorities.

HUD's environmental noise standards have proven to be an inflexible, across-the-board device. The standards do not distinguish between urban and non-urban environments. HUD is inflexible in the implementation of its noise standards,

although a comparison of federal agency norms will show, there are opposing views as to where the "unacceptable" cut-off points should be. Recognizing the existence of noise absolutes (e.g., a point where too much sound creates pain), one must also consider that the area below those absolutes is subject to varied interpretation.

Exceptions to the rule need be granted where non-environmental factors contradict an "environmentally unacceptable" noise evaluation. A community's perception of a noise problem may differ from HUD's perception of a noise problem. For example, one's attachment to a community may override any inconveniences created by noise.

Thus, where standards contend that the noise level constitutes an "undesirable" environment, yet community project support deems otherwise, some means should be established whereby other factors are weighed. One set of indicators which might be used in conjunction with an environmental evaluation to determine the "acceptability" of an urban neighborhood will be presented in the following chapter.

CHAPTER V

NON-ENVIRONMENTAL INDICIES OF VIABILITY

The environmental--noise evaluation comprises a one-facet analysis of "acceptability." Concerned primarily with physical environment issues, such as air quality, water pollution, and the biotic setting, an environmental analysis does not take into account the unique character of urban life. Therefore, it is important to further explore other factors which influence the character, quality, and atmosphere of an area in question.

Two indicies which reflect a community's impression of residential "acceptability," and also the degree to which sound levels constitute a noise problem are (1) social and, (2) housing market trends. By assessing the social and economic dimensions of a neighborhood one can expand the scope of an environmental evaluation and also get a clearer understanding of the urban interactions and functioning. For example, social and market indicators could be used to determine the state of the neighborhood. From a market approach, George Peterson, Art Solomon, et al., have concluded that neighborhoods may be static, or undergoing upward or downward transitional movement (136). A similar, yet social-oriented continuum might be that of Gans' urban village on one end of a scale, as opposed to George Sternlieb's

depleted-area theory as the other extreme (137).

Thus, the environmental evaluation alone provides a narrow vision of neighborhood ingredients. A social and housing market trend analysis can be used to create a three-dimensional understanding of the urban environment.

Social Indicies

Neighborhood integration and cohesion are not easily definative phenomena. Sociologists and planners don't know enough about integration to utilize one set of data as an integration index. In fact, to go one step back, man has yet to reach a concensus as to what a neighborhood is.

"I'll tell you what a neighborhood is, it isn't the buildings. It's the people." (138)

"In a rudimentary form neighborhoods exist, as a fact of nature, whether or not we recognize them or provide for their particular functions. . .Neighborhoods are composed of people who enter by the very fact of birth or chosen residence into a common life. Neighbors are people united primarily. . .by the proximity of their dwellings in space. This closeness makes them conscious of each other by sight, and known to each other by direct communication, by intermediate links of association, or by rumor." (139)

"[a neighborhood is] an aggregate of people who occupy a common and bounded territory within which they establish and participate in common institutions." (140)

"Each separate part of the city is inevitably stained with the peculiar sentiments of its population. The effect of this is to convert what was at first a mere geographical expression into a neighborhood that is to say, a locality with sentiments, traditions, and a history of its own." (141)

Thus, definitions suggest that a neighborhood is characterized by proximity in space, and beyond that basic spatial arrangement there are degrees of social bonds between individuals, and between individuals and institutions. As a result of social arrangements, commonality of shared beliefs, traditions, and interests, moral integration (142) and social cohesion develop within the community. Since a neighborhood is spatially defined by resident perceptions (143), and specific geographical boundaries, the task then becomes one of determining the existence and extent of neighborhood integration and cohesion.

The extent of "neighborhoodness" seems to depend on the degree of resiliency, stability, and cohesion that exists in a given area. Park and Burgess suggest that cohesiveness and solidarity tend to be built-in in areas which are isolated along color-class, or other such boundaries.

". . .the isolation of the immigrant and racial colonies of the so-called ghettos and areas of population segregation tend to preserve and, where there is racial prejudice, to intensify the intimacies and solidarity of the local and neighborhood groups. Where individuals of the same race or of the same vocation live together in segregated groups, neighborhood sentiment tends to fuse together with racial antagonisms and class interests." (144)

Similarly, Herbert Gans observed the strong social fiber of a lower-class ethnic urban village (145) and concluded that the values and social structure, while different from middle-class objectives, were unique and functional to that

group.

However, not all urban neighborhoods are homogeneous urban villages and the degree of integration may not be readily apparent. There are techniques which a planner can utilize to determine integration beyond the Gansian approach of participant observation.

Groups may develop distinctive patterns of integration which a planner can detect by developing a neighborhood sociogram (146). Sociograms are used to diagram the informal relations within a group.

Also, Leo Srole devised a continuum whereby variations in the "integratedness" of individuals into the social system can be gauged (147). Srole's is a five point scale which measures one's socio-psychological concept of anomie (148). Srole's purpose was to "devise a measure of interpersonal alienation" (149). The continuum focused on a "self-to-others" relationship whereby one extreme was "self-to-others: belongingness" versus "self-to-others: distance/alienation."

In accordance with Morris Axlerod's hypothesis (150), Dorothy Meier and Wendell Bell suggest that social integration be measured according to (1) participation in formal organizations and annual attendance, and (2) informal social participation with neighbors and co-workers (151). Meier and Bell devised a participation ratio which could be used to

measure integratedness. Mirra Komarovsky has suggested that in lower-income groups, the degree of formal participation integration does not serve as a valid index of integration (152). Komarovsky theorizes that in lower-income groups a lack of formal organization may be compensated for by participation in unorganized social relations of a neighborhood, a gang, or a strong family unit.

Thus, information on neighborhood integration and social stability (or lack of it) might be obtained through utilization of the following techniques:

- (a) Herbert Gans' mode of participant observation
- (b) Srole's five point scale of anomie and integration
- (c) sociogram analysis
- (d) research on formal and informal organization participation.

In addition to neighborhood integration, population data might also shed light on the conditions for social cohesion in an urban neighborhood.

A population profile is essential in the determination of community stability, and the characteristics of neighborhood residents. A population profile might include such questions as:

- (a) has there been a population decline or increase in the area in question?
- (b) what is the composition of that decline/increase according to factors such as age, income, race/culture, and class?

Aimed at determining population stability, one might continue the line of inquiry by asking:

- (c) how many people are renters versus homeowners?
- (c) what is the average length of residency in the area? What part of the population is transient? Burgess and Park contend that the forces of transiency "tend to render the population unstable, to divide and concentrate attentions upon widely separated objects of interest." (153)
- (e) have there been any changes in types of residences (e.g., rooming houses versus single family homes)?

A periodic population trend analysis should serve to reveal any changes in population characteristics and density.

An evaluation of population stability, cohesion, and integratedness is of value where the issue of sound versus noise is to be determined. In neighborhoods where cohesion and integration exist and noise is perceived to be a problem, the neighborhood may activate and unite around a noise issue. For example, the perception of noise as a problem has activated more than one local community. In May, 1973 a group of Jamaica Plain residents banded together to go to Washington, D.C. and protest the use of Federal funds in the refurbishing of a rapid transit elevated structure (154). Also, East Boston has vehemently voiced complaints against the noise generated by Logan Airport. Residents of East Boston unified and campaigned for an evening curfew of air traffic only to be told that,

"All-night operation (of the airport) is helpful to our business. Anyone in our position cannot afford a curfew." (155)

Three days later, Massachusetts Port Authority reported plans of pushing ahead with an expansion of Logan Airport, despite opposition from "a broad-based coalition of politicians, community officials, local, state, and federal environmental officials" (156). Ironically, in October of 1973 Massport conceded to an air traffic curfew and cutback, not as the result of months of community complaints but rather because of an impending energy crisis (157).

Thus, one might contend that where neighborhood cohesion and integration exist, the neighborhood itself will verbalize discontent with sound levels, and, perhaps, also work toward changing the situation through political channels. In addition to social factors, a second element which would mitigate an environmental evaluation would be an analysis of housing market trends. Housing market trends would determine if there is investment or disinvestment in a neighborhood, what is being bought and sold, by whom, and, also, the prices people are willing to pay.

Housing Market Trends

A second factor which may contradict a negative environmental evaluation is the consideration of housing market trends. Coupled with social fabric information, housing

market data can serve to expand the basis for judging the degree to which a neighborhood is functioning as a community and valued by its residents. Given that the desirability of an area is reflected in housing market rises and declines, the following pages will utilize neighborhood quality, and financial investment--disinvestment as market trend indicators.

Housing Inventory:

An inventory of structural conditions can provide information on the overall physical status of neighborhood housing. APHA's housing information system, mentioned earlier, as well as that devised by Justin Gray Associates (see Figure D-1 in Appendix D), are valuable models that would serve to provide some sense of the physical state of the housing stock. In addition, housing market price trends reflect the condition and desirability of a neighborhood's housing stock.

In conjunction with a housing inventory one should not overlook the importance of assessing the incidence of abandoned structures. It has been suggested that,

"The nature of externalities is such that the very presence of abandoned or blighted structures in a less health housing market may have a multiplier effect." (158)

Blight is a form of financial disinvestment which can signal neighborhood demise if not arrested.

Neighborhood Quality:

However ambiguous the term "quality of the neighborhood" may be, it is of vital importance to the future of a neighborhood. Investment rests on perceptions of stability and permanence.

"The neighborhood must be pleasant and stable. When families take the step of owning a home they are making a major commitment to a part of the city. They are choosing a life-style with greater emphasis on stability and permanence." (159)

There are several factors contributing to the desirability and esteem of a neighborhood:

- (a) location in the city, proximity to transportation, accessibility, etc.
- (b) character of structures, quality of the housing stock.
- (c) quality and level of city services and facilities, such as schools, police, trash collection, etc.

Another indicator of market status is the rate of neighborhood investment, or disinvestment, which occurs. Capital outlay suggests positive perceptions neighborhood quality.

Investment And Disinvestment:

The level of investment, or disinvestment, is also an important indicator of neighborhood trends. Investment falls into two categories: public investment and private investment.

Examples of public investment would be increases in a neighborhood's police and fire protection, water and sewer improvements, park and school development, etc. Urban renewal can be regarded as large-scale public investment.

Private investment, while related to mortgage and loan availability, is a second facet of investment. Private capital outlay which is directed toward home ownership, and commercial ventures, best exemplifies investment by the private sector. Decreases in the rate of home ownership are virtually synonymous with neighborhood decline, due to a lack of stake in the maintenance of the neighborhood. It has been suggested that the treatment of residential structures changes from one of pride in ownership to that based on investment criteria as a result of absentee ownership.

Also, within the realm of private investment one might consider the church and semi-public agencies, such as the Salvation Army, as sources of private capital.

On the opposing side of this crude balance sheet would be negative investment, i.e., disinvestment. Increases in the vacancy rate as well as the presence of blight are forms of disinvestment. Blight and vacancy occur where capital is not regenerated and structures fall into disuse.

"A building is considered abandoned. . .if it is vacant and standing or has been removed for reasons of hazard with no replacement forthcoming." (160)

Abandonment is synonymous with housing loss. George Sternlieb points out that abandonment is a process which reflects,

" . . . a much deeper seated and extensive phenomenon--the disinvestment of private capital in core cities. The absolute number of abandoned structures is thus much less important than both the process and the state of mind which has produced the art [abandonment]." (161)

There are numerous causes of residential abandonment, however, one important element is the lack of monetary interest in the property. There can be no financing without insurance, and there is no insurance without rehabilitation, and there can be no rehabilitation without financing. The environmental laws have added one more step to this cyclical plight which is that there can be no federal financing without absolute compliance to environmental regulations. Sternlieb contends that abandonment is related to other indicies of decay such as tax delinquency, and fire and crime rates.

Thus, population and housing inventories, neighborhood quality, and changes in the investment pattern could be used to determine neighborhood housing market trends. Social integration analysis and housing market trends might be used to supplement HUD's environmental evaluation. The environmental evaluation does not consider resident perceptions and social--market trends. A failure to include these factors results in a one-dimensional environmental evaluation.

CHAPTER VI

THE SOUTH END OF BOSTON: A CASE STUDY

The environmental standards are constraining housing rehabilitation objectives. In a process already hampered by development constraints (162), environmental standard compliance can render rehabilitation economically unfeasible. One area where potential rehabilitation has been encumbered due to environmental standards is Boston's South End.

The South End underwent a downward transitional period which encompassed the past several decades, however, most sources agree that the area now has all the characteristics of an upward transitional neighborhood.

"The typical upward transitional neighborhood. . . was a well-defined geographic neighborhood composed of old, architecturally interesting housing stock. Often constructed as single-family homes, the structures over the years had been converted to more intensive use and permitted to fall into disrepair. At some point, the neighborhood was rediscovered by young professionals and foresighted developers who valued access to downtown and recognized that by upgrading this old stock they could purchase high quality housing at much lower prices than was possible with new construction." (163)

Indeed, the South End is a classic example of a resurgent neighborhood. The transition has transformed the South End into a viable urban market. However, as the result of NEPA's noise standards "rehabilitation and restoration" of the South End's housing stock has been stifled because of

added delays and costs imposed by federal environmental standards.

One case in point where NEPA-related problems have encumbered South End rehabilitation involves the rehab of 36 row houses sponsored by the Tenants' Development Corporation (TDC). The conflict which surrounds TDC's rehabilitation goal epitomizes a classic "environmental policy versus housing policy" dilemma. More specifically, in the case of TDC HUD's noise regulations were pitted against a sound-filled urban environment, and, also, some area residents utilized the EIS as a means of blockading TDC's proposed low-income development.

This chapter will first provide an overview of the noise setting in the South End which precipitated the HUD--TDC conflict before focusing on (1) TDC's NEPA-related rehabilitation obstacles, and (2) the socio-economic and housing market background of the South End that contradicts HUD's anti-development position.

The South End: Ambient Urban Sound

The South End, like many other inner city neighborhoods, is subject to the city's clamor by virtue of its location. The South End, a 606 acre area which is within minutes from Logan Airport, is located south of downtown Boston, bounded by the New Haven Railroad, Massachusetts Turnpike Extension,

Fitzgerald Expressway, and the Inner Belt. Thus, because of the South End's proximity to noise influences, much of the area, if not all of it, could, according to HUD's Clearance Worksheet (164), be deemed "unacceptable." Logan Airport alone has rendered approximately one third of the South End "Normally Unacceptable" (165).

According to a Supreme Court ruling in May of 1973, municipalities cannot enact curfews on air traffic, suggesting that Logan Airport is one noise source which cannot be controlled or even influenced by Boston residents.

In addition to Logan Airport, the Turnpike and Expressway borders of the South End, one must also consider the noise influences within the area which could pose environment standard problems. For example, other potential problem areas would be those regions adjacent to, and in the vicinity of,

- (a) the elevated subway which runs through the South End,
- (b) "major roadways" such as Massachusetts Avenue, Tremont Street, Columbus Avenue, Shamut Avenue,
- (c) the depressed New Haven Railroad line which runs parallel to Columbus Avenue.

The South End is situated amidst Boston's transportation routes, and as such the exposure to noise in much of the area is at levels which HUD's Clearance Worksheets would assess unfavorably. One particular instance where a South End noise evaluation impeded the development process, and the

EIS was used as an exclusionary device, was in the development of low-income housing by the Tenants' Development Corporation.

TDC's Rehabilitation Obstacles

The Tenants' Development Corporation (TDC) is a non-profit community organization made up of South End residents. TDC's goal is to provide low and moderate-income housing for South End families and elderly individuals through rehabilitation. Consistent with that goal, TDC proposed the development of 36 structures (185 units), utilizing Section 236 of the Housing Act of 1968 (rehab).

Having already successfully rehabilitated an earlier project, South End Tenants Houses I, the Tenants' Development Corporation submitted a Feasibility Application to HUD on January 14, 1972 for the development of the South End Tenants Houses II (TH II). By April of the following year, the TH II application had since undergone numerous reviews and modifications. Also during that month, the first hints of an environmental conflict surfaced. According to a project log, on April 12, 1973 HUD processing was suspended due to "environmental problems" (166). The reasons for the suspension were: (a) HUD's demand for sound level data, and (b) letters from a South End resident against the proposed project claiming that such development would result in an

environmental hazard. The following section will examine these two obstacles as they affected TDC's rehab plans.

(a) Noise:

The "sound versus noise" issue created a HUD--TDC quagmire that delayed the project for several months. After weeks of TDC data gathering and compilation, it became apparent that HUD was convinced that the South End must be an "unacceptable" noise environment.

Indeed, having first submitted a completed *HUD Noise Assessment Guideline*, TDC's test results were dismissed by HUD as being insufficient because the *Guideline* was only a "screening tool." Then, a second noise evaluation was called for that required the use of a sound meter. The results of test "spot" readings (167), taken inside the South End sites during specified house (168), were accompanied by a May 1, 1973 letter from Mary Longley, TDC's Treasurer/Chairperson. Ms. Longley reported that test results were "acceptable," according to HUD guidelines, and thus requested that application processing be resumed so that "we might be able to hold to our present construction cost figures. . ." (169). Ms. Longley's comment was not unfounded, particularly since,

"Rehabilitation of South End row houses provides little opportunity to introduce cost-saving construction techniques." (170)

On May 22, TDC's second noise study was not accepted by HUD's Area Office because it had not been prepared by an environmental engineer, although the developer was not told that the study need be completed by an engineer. Some of the drawbacks of a layman's noise analysis are that, intentionally or unintentionally, a sound level meter might not be in the correct position to accurately monitor sound levels, or, that "spot" readings might be taken after a noise source had passed. Consequently, HUD then decided to require of TDC a third noise test.

On June 20, 1973, the third noise study, completed by Arnold Greene Testing Laboratories, was submitted to HUD. The engineer's conclusions (171) were that the noise levels in most sleeping quarters conformed with to HUD's interior noise standards (see Figure C-3 in Appendix C). In two buildings where the standard levels were exceeded, TDC planned to utilize air-conditioning and double-glazed windows as acoustical measures. HUD was still not convinced that the buildings were environmentally acceptable and so they requested that the engineer's backup data and sound meter tapes be supplied. On August 24, 1973, HUD determined that further testing and possible re-design would be required. Then, in December of 1973, the noise issue was resolved and HUD approved TDC's TH II development.

Meanwhile, environmental problems were developing on another front: the use of the EIS as an exclusionary device.

(b) Anti-TDC Efforts

TDC's rehab goal, and the group itself, were not without opponents (172). Though letters of project support had been sent to HUD from many major community organizations (173) and interested persons, TH II did encounter some anti-low income resistance. TH II opposition was one reason for HUD's application evaluation suspension in April, 1973. The resulting delay was countered in October by TH II advocates who mailed hundreds of signed petitions to HUD's Regional Director, contending that:

"[As] concerned residents of the South End of Boston, [we] object to the obstructionist tactics delaying the rehabilitation by the Tenants' Development Corporation of 36 deteriorated buildings for low and moderate income people. We urge the Department of Housing and Urban Development to approve this project immediately and not delay its development because of the objections of a few to housing these people in the face of overwhelming community support for the project." (174)

The anti-TDC camp was in a minority. Kenneth Brown, Executive Director of the United South End Settlements, commented:

"[HUD] should not construe that the unfounded and selfish complaints of one individual are any indication of the feelings of the community for the project." (175)

Similarly, Luz Cuadrado of the Emergency Tenants' Council

supported South End Project Director Clark Frazier's statement:

"It is absurd to think that a project that is needed to help improve and maintain the character of the South End could have any negative environmental impact. . . Those few who oppose TDC are trying to force the misuse of the environmental impact statement, an objective measuring device, to achieve a political goal that could not occur through the normal political process." (176)

In the tradition of Oyster Bay, New York and Stoughton, Massachusetts, the EIS was being used as an exclusionary device in the South End as well.

TDC opponents, Liliame Wilson, et. al., determined to stop TDC's low-income rehab, applied for a temporary restraining order on January 31, 1974. The restraining order was denied. Two weeks later the Plaintiffs applied for a preliminary injunction on the basis of TDC's alleged violation of Section 102 of NEPA. Ruling that TDC would not "significantly affect the quality of the environment" and that the project complied with the South End Renewal Plan, the Plaintiffs' applications for preliminary and permanent injunctions (177) were denied.

Thus, TDC's experience with NEPA exemplifies the urban rehab dilemma created by federal environmental standards. The project was delayed for months due to the confusion surrounding standard implementation and HUD's assumption that TDC's sites were "unacceptable." Also, although TDC had

strong community support, their few opponents impeded project development by contending environmental standard and urban renewal plan non-compliance. Though TH II would improve the South End by providing the area with decent housing, and restoring life to vacant, blighted structures, TDC opponents attempted to utilize the EIS as a device to exclude the low-income housing project.

The South End is but one area where development has been questioned because of environmental acceptability. However, beyond the issue of project support, social and housing market considerations could have supported TDC's position and indicated to HUD that the South End is perceived to be an acceptable, viable environment, as the following social--housing market trend profile illustrates.

South End Social Fabric

The settlement history in the South End has been one of change--from housing Boston's Brahmins in the early 1800's (178), to hosting European emigrants, ethnics, aged, and rural blacks who in-migrated to the central city. The demise of the South End from an area of the affluent to an area of the impoverished has been attributed to a series of events:

"Many events contributed to the fall--the newly created residential streets of the Back Bay, the railroad line that had to be crossed in order to get to downtown Boston. But the taproot of the South End's demise was the Panic of 1873. . . With banks selling foreclosed houses for what

they would bring on a glutted market, property values dropped, Brahmins fled, and bowfront homes were taken over by immigrants and lodging house proprietors." (179)

The South End entered the 1900's as a transient rooming house society. Neighborhoods change, and so has the South End. Currently the area is being renewed after its "stint as the local skid row" (180). A chronicle of the South End transformation is depicted in *The Rehabilitation Planning Game* by Langley Keyes (181). Particular emphasis is given to the state of the neighborhood during the 1960's.

"Of the three areas under study [Charlestown, Washington Park, and the South End] the South End offers the widest array and the most involved interrelationship of interest groups. Although the district has a certain architectural and historic unity, it is not an integrated or homogeneous community." (182)

The South End, a heterogeneous community, is composed of Syrian, Chinese, Black, and Puerto Rican ethnic enclaves.

Briefly, a population report indicates that in light of Boston's population decline, the South End has maintained a stable, heterogeneous character. Boston as a whole has been experiencing a major population decline since 1950. From 1960-1970 the City encountered an eight per cent population loss. Meanwhile, the South End lost thirty per cent of its population during that same time span (see Table E-1 in Appendix E).

An important subclassification of population is that of family structure. Length of residence and family structure information can prove useful in determining the probability of transiency, assuming that families are not as fluid as single adults. There were 6,378 families in the South End in 1960 and 4,047 families in 1970 (183). Although the total number of families declined during the decade, one must remember that the population decreased by thirty per cent during the same period.

In addition, in 1960, 41.7 per cent of the population had lived in the same residence in the South End for more than five years, versus 48 per cent in 1970 (184).

According to data provided by the United Community Services (UCS) of Boston, despite the general decrease in its population, Boston has experienced a 70 per cent increase in its non-white population (see Table E-2 in Appendix E), while the South End experienced an 8 per cent decrease in its non-white population. The South End's non-white population decrease was less than most other Boston neighborhoods. A UCS profile analysis indicates that a sizeable percentage of persons of foreign stock lived in the South End in 1970 (36 per cent of the total population). Of this group, the greatest percentage claimed China as their country of origin (185).

Heterogeneity has not detracted from community willingness to band together, as a 1961-1965 urban renewal experience illustrates. As Robert Whittlesey points out in *The South End Row House*, community cohesion was clearly apparent in the urban renewal controversy.

"The community's desire to keep the South End a residential neighborhood was indicated by a controversy which arose over the redevelopment of the Castle Square site. Original plans proposed that only one-third of the site be used for residential purposes. After many heated discussions and meetings, the plan for the Castle Square site was revised so that two-thirds of the site would be used for residential purposes." (186)

The Castle Square issue was not the sole input provided by the community. According to Whittlesey, an initial plan for the South End, prepared by the Boston Redevelopment Authority, was rejected by the community until 1965 when the revised urban renewal plan was accepted with "widespread community support for the plan" (187).

Though composed of various ethnic groups as well as interest groups (188), horizontal integration (189) has taken place in the South End. Horizontal integration has the effect of integrating the various geographic segments and interest groups together. During the South End's history, organizations which have served as mechanisms for horizontal integration are the United South End Settlements (USES) and the South End Planning Council (SEPAC).

"Beyond history and physical unity, the United South End Settlements stood as the one mechanism for tying together the polygot district of the project area. Area-wide clubs and fraternal organizations played little part in the life of the South End. . . A 1960 diagram of power distribution in the South End would show a geographically scattered pattern, with the South End Planning Council the one shaky linkage between the pieces and the USES the one organization viewing the South End in unitary terms." (190)

Unlike the West End, where one ethnic and class group resided in the neighborhood, the South End hosts a diversity of ethnic groups, interest groups, and as of late, class and income groups. Skid row has not disappeared nor have illicit activities withdrawn from the area (191), however, most sources agree that a change is taking place in terms of improvements and marketability of the South End.

"The path that property values have been prusing [sic] in the South End demonstrates the changing character of this neighborhood. . .The steep climb of prices since that time indicates a strong optimism for the area's future." (192)

Given that the market reflects desirability, a look at market trends would also help to determine the nature and direction of change in the South End.

Income:

The median family income in the South End increased in comparison to 1960 figures. In 1960 the median family

income was \$3,814. In 1970 the median income was \$6,532 (193). The distribution of income has changed considerably among the high and low ends of the income scale (see Table E-3 in Appendix E). The percentage of families in the "\$3,000 and under" category decreased from 40.5 per cent in 1960 to 17 per cent in 1970. Meanwhile, the percentages of families with incomes above \$10,000 increased from 4.2 per cent in 1960 to 28 per cent in 1970. The influx of middle-class residents and the rise of inflation must be considered when comparing figures for 1960 against 1970.

The largest single employment category in the South End was service-related jobs. In 1960, 33.5 per cent of those employed were in white-collar occupations as compared to 47 per cent in 1970.

Housing Inventory:

A housing inventory for the South End was provided in a 1973 BRA draft report entitled *Toward A Housing Policy For The City Of Boston*. The report includes a compilation of data on the condition of the South End's housing units, as well as quantifying the amount of resources required to bring the units up to code standard (see Table VI-1). According to the BRA analysis, average "per unit fix-up cost" in the South End would be \$1,715.

TABLE VI-1

South End Housing Units By Condition

Planning District	Total Units	A: \$250		B: \$750		Condition ¹ C: \$2,000		D: \$8,000		E: Demolition		Per Unit Fix-Up Cost ²
		%	#	%	#	%	#	%	#	%	#	
South End	10,771	17	1,846	29	3,165	45	4,892	7	731	1	137	1,715

¹"Condition" is expressed as an average cost of fix-up to code standards.

²This is a weighted average which excludes units in Category E (which should be demolished rather than fixed up.)

Source: Boston Redevelopment Authority

Expanding upon Table VI-1, the first category, "A", includes all units (194) which are presently in good condition or for which minimal work, not exceeding \$500, is necessary. The second category, "B", includes all units for which a modest amount of repair, not exceeding \$1,000, would be sufficient. Category "C" includes all units which typically have been the target of intensified code enforcement programs. Units within this category might require the replacement of a major system--electrical, plumbing, or heating--and would need \$1,000 to \$3,000 worth of fix-up. Category "D" refers to those units for which gut rehabilitation, with a cost ranging from \$3,000 to \$10,000, is the only solution. Finally, category "E" includes those units which do not merit fix-up at all and which should be demolished (195).

Disinvestment:

In 1960 there were 21,401 housing units in the South End, of which 3,185 were vacant. According to the United Community Services of Boston, 9,449 of the total number of units were considered "deteriorating" and 2,098 units were deemed "delapidated" (196). By 1970 the total number of deteriorating and delapidated units had dropped from the 1960 total of 21,401 to 11,849. The vacancy rate also declined by approximately half with a total of 1,780 vacant

units in the South End. The clearance format of urban renewal in the 1960's accounts for the demolition of a large percentage of the South End's blighted structures.

Investment And Land Values:

"While the type and intensity of an area's land use help help establish that area's land values, land prices are an important determinant of the direction and degree of further development." (197)

Disinvestment has occurred in the South End, if one considers the occurrence of blight and abandonment as forms of negative investment. However, the presence of disinvestment has not hampered the steady increase of land values in the South End.

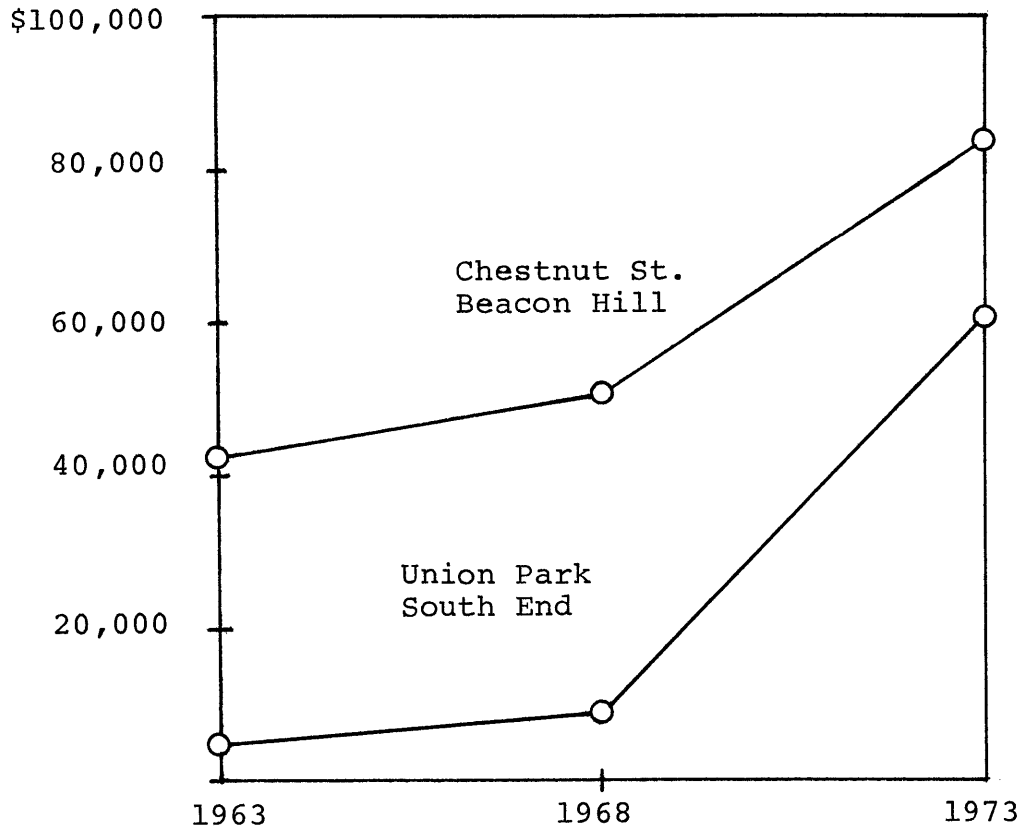
Where home ownership is concerned, data from the 1960 census indicates that 9 per cent of all occupied units in the South End were owner-occupied. In 1970, 9.5 per cent of all occupied units were owner-occupied. According to Ralph Horne, the periodical *Banker And Tradesman* recently compared average mortgage values in a prime Beacon Hill location and in Union Park in the South End. Horne reports,

"In a prime Beacon Hill location, Chestnut Street, the average mortgage value has increased an impressive 92% in the last ten years while Union Park in the South End has increased a staggering 924%!" (198)

Horne's comparison of average mortgages in Beacon Hill and the South End are illustrated in Figure VI-1.

FIGURE VI-1

Comparison of Average Mortgages in Prime
Beacon Hill and South End Locations



Source: Ralph Horne, "A Frank Look At The South End And Its Future".

Public investment in the South End has been substantial since the area was declared the target of a massive urban renewal program in November of 1965. A summary of development goals and actual project improvements is provided in Table E-4 in Appendix E. An accurate list of South End improvement expenditures has, reportedly, never been compiled, however, with the assistance of two Boston Area Office HUD officials (199) an approximate list of improvement expenditures is provided in Table VI-2. The indication is that HUD has invested approximately \$97,745,000 in the South End since 1965.

A combination of political and social considerations undoubtedly motivated the decision to filter massive federal funds into the South End. In effect, a decision was made that the South End was worth saving. The transient wilderness described by Robert Woods (200) has been replaced by a now-flourishing, diverse, yet apparently desirable neighborhood.

Residential market value trends in the South End have been on the upswing for the past two decades. Based on sales price data, Table VI-3, compiled by the BRA, illustrates the rise of residential property values from 1946 through mid-1972. Using linear regression analysis the BRA's calculations included all properties in the South End with the exception of those that underwent major rehabilitation or

TABLE VI-2

APPROXIMATE EXPENDITURES IN THE SOUTH END (1966-1974)

HUD:

Neighborhood facilities, water and sewer, open space.	\$ 1,000,000
Urban renewal grant (through fiscal year ending June 1974).	60,000,000
236 (rent supplement & subsidy)	4,300,000
221(d)(3) (rent supplement & 221(d)(3) monies for 1,153 units.	2,800,000
221(d)(3) market rate program	145,000
Public housing.	13,000,000

CITY OF BOSTON

Approximate value of local monies and services, etc. contributed by city	16,500,000
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Subtotal	\$ 97,745,000
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HUD Mortgage insurance funds earmarked for the South End at present time	20,000,000
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\$117,745,000

Source: Department of Housing and Urban Development

TABLE VI-3

RESIDENTIAL MARKET VALUE PRICE TRENDS IN
 THE SOUTH END AND BOSTON 1946-72
 (Price Indices, 1946=1.0)

	<u>All Boston</u>	<u>South End</u>
1946	1.000	1.000
1947	1.168	1.257
1948	1.340	1.563
1949	1.315	1.161
1950	1.383	1.493
1951	1.490	1.685
1952	1.593	1.581
1953	1.613	1.610
1954	1.671	1.570
1955	1.659	1.772
1956	1.675	1.429
1957	1.739	1.374
1958	1.764	1.758
1959	1.943	1.592
1960	1.905	1.415
1961	1.998	1.656
1962	2.067	1.414
1963	2.193	1.542
1964	2.345	1.812
1965	2.545	2.354
1966	2.499	2.619
1967	2.651	3.081
1968	2.826	3.211
1969	3.062	3.981
1970	3.481	4.854
1971	3.483	4.730
1972	3.750	5.152

Source: Boston Redevelopment Authority

renovation, as well as those bought or sold by the City or BRA or those units resold within one year of the initial sale. By mid-1972 South End properties commanded 5.152 times more than their 1946 value. The South End had the fourth highest price increase of Boston's fifteen planning districts.

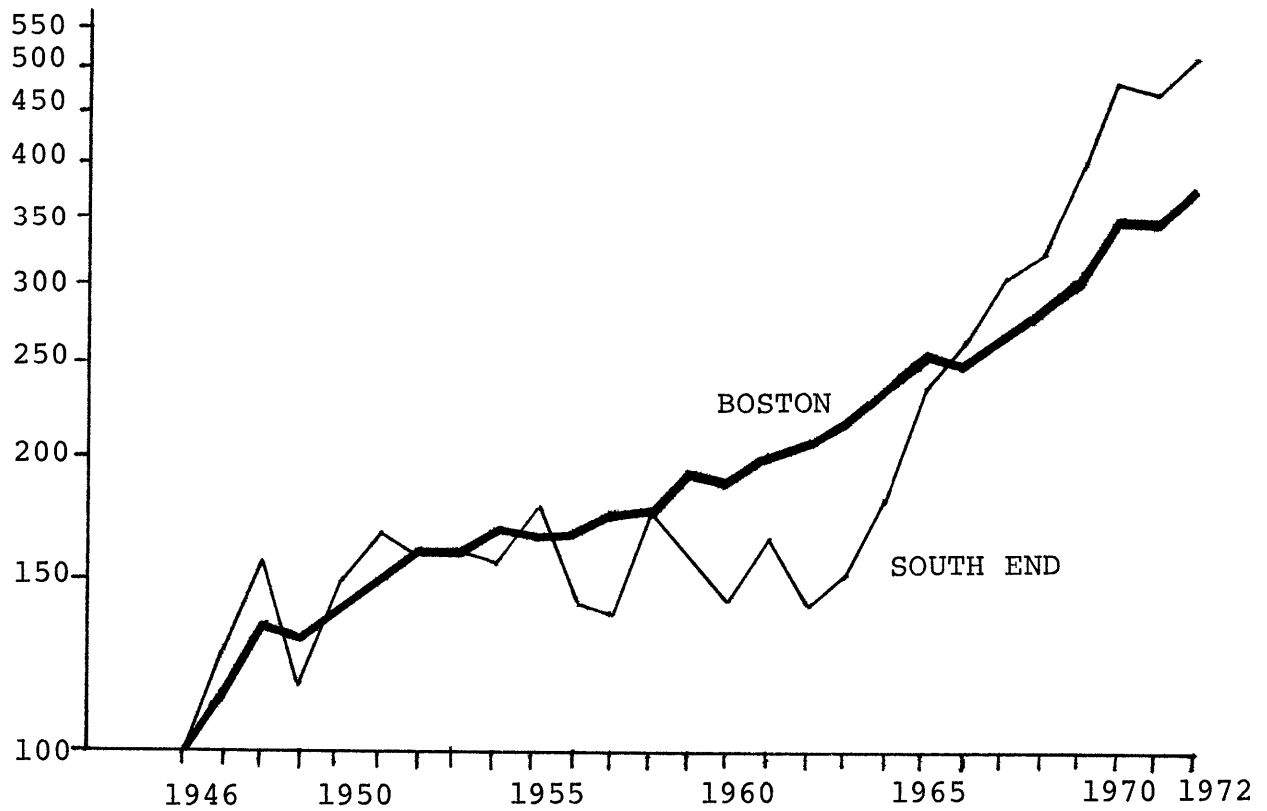
The mid-60's commitment to the cities and the subsequent development of urban renewal seemed to signal an upward price surge in the market value of residential property in the South End. Figure VI-2 illustrates the South End's price trends in relation to the City of Boston.

Thus, the picture which has emerged is that of an evolving South End. Though the population is 30 per cent less than 10 years ago, a phenomena which is applicable to the entire City of Boston, factors such as the rate of home ownership and property values have remained constant or increased. The area has seen an increase in the white professional and student resident, yet, the South End still remains a diverse, ethnically mixed urban neighborhood which can, as it has in the past, unite where the community interest is at stake.

The South End has experienced rapidly rising market value since 1946. Some of the increase can be attributed to the national economy's inflation as well as Boston's economic development. However, during the past decade the rate of increase has been especially dramatic in the South

FIGURE VI-2

PRICE TRENDS IN THE MARKET VALUE OF RESIDENTIAL PROPERTY
IN BOSTON AND THE SOUTH END 1946-1972



Source: Boston Redevelopment Authority

End as compared to other areas of Boston, inflation and local economy considered. The rise of property values attests to the renewed market desirability of the area. The steep climb of prices since 1960 indicates a strong optimism for the South End's future.

The South End is a classic example of an upward transitional urban neighborhood. Defined by geographical boundaries and once the home of the affluent, the South End experienced a demise from its rank of "fashionable" to that of an inner city wilderness. However, the tide has changed and the South End has exhibited signs of progress.

The South End is a unique setting. Its housing stock is primarily aging row houses.

"An urban renewal plan has been adopted for the South End which calls for the rehabilitation of 75% of the residential structures, 98% of which are. . .row houses." (201)

In light of federal and local housing policy, rehab is, seemingly, the direction of the future. However, rehab is subject to numerous limitations. As Robert Whittlesey's South End rehab experience confirms,

"Given the basic characteristics of existing South End row houses, and HUD/FHA's No. 950 'Minimum Property Standards For Urban Renewal Rehabilitation," little flexibility in design was possible. Three different experienced architects produced essentially the same designs." (202)

Consequently, because structural modification is limited, and federal noise standards disregard rehab limitations, a threat to the South End's continued progress is posed.

In the South End, as in many other urban neighborhoods, HUD's noise evaluation might be weighed along with other indicies, such as project support, the need for housing, and social--housing market trends.

Thus, a modification of noise standards need be made where urban environments are concerned. Where non-environmental factors support a noise evaluation, then perhaps HUD's standards need be adhered to. However, a compromise, or lowering of the noise standards must be considered where community perception of noise differs from HUD's standards, as in the case of TDC and the South End, an upward transitional neighborhood.

CONCLUSIONS

The traditions of two vital public priorities, environmental preservation and housing, transformed into legislation, came together in conflict in the 1970's. The environmental standards, born in the National Environmental Policy Act of 1970, have seriously impeded urban efforts to utilize Section 236 (rehab) of the Housing Act of 1968.

Where rehabilitation in existing viable neighborhoods is concerned, environmental and housing planners must work together to distinguish the circumstances which differentiate inner city rehabilitation from new construction and new communities. There are unique situations which require special consideration within and among these two sets of circumstances. In areas largely deemed "unacceptable" by noise standards the neighborhood's housing market is endangered, particularly where rehabilitation for low and moderate-income families is concerned since they compose much of the center city and rely primarily on Section 236 funds as the source of rehabilitation financing.

A course of action need be developed and enacted which acknowledges the sound levels that are unique to the center city. At present, HUD standards provide that only

those housing projects that comply with environmental standards will receive 236 rehab funds. Rehabilitation is favored by housing advocates as the means of responding to urban housing needs. In many cities, such as Boston, the scope of rehab encompasses a massive city-wide effort which, clearly, cannot be constricted by rigid environmental standards.

Because urban housing policy is focused on rehabilitation, yet the richness of urban neighborhoods is not acknowledged in environmental evaluations, other options need be explored that reflect the viability of urban markets. A combination of the following policy positions warrants consideration where urban rehab is concerned:

(a) Accept Noise

Due to other overriding factors, such as positive social and housing market trends, rehabilitation which complies with building codes will be funded and environmental compliance would be waived.

Another possibility might be the establishment of federal grants designed to absorb the added costs of environmental standard compliance where rehabilitation for low and moderate-income neighborhoods are involved.

(b) Decrease Noise At Its Source

Thusfar the direction has been one of prohibiting rehabilitation in the vicinity of noise "problems." However,

in addition to promoting attenuation measures for rehabilitation, environmental planners must impose pressure on the creators of noise disturbances. For example, there are several operational options which can be instituted to curb noise, such as strict enforcement of speed limits, rerouting heavy truck traffic or using residential roadways during specified hours, ease the flow of traffic by using one-way street patterns, minimize the number of traffic signals and stops or adopt synchronized control systems, impose nighttime air traffic curfews, etc.

Viable urban neighborhoods warrant consideration above that which is afforded in environmental evaluations. Where non-environmental factors determine that neighborhood viability exists, exemptions need be made on the condition that design efforts will be oriented toward minimizing noise. Meanwhile, every effort must be made to decrease noise at its source. To decrease rehab, as the result of noise, without altering the source of noise is an inequitable solution to environmental problems. The inequity is magnified where housing cutbacks occur along transportation routes because of the high incidence of low-income within close proximity of urban noise sources.

One can predict the range of development repercussions resulting from strict adherence to environmental regulations.

At one end of the scale one can surmise that regardless of a modification or decline in federal funds, the private sector can provide the necessary resources for community revitalization. However, in some communities, such as Boston's Italian North End or its Chinatown, where piecemeal private investment does occur, the incremental contributions may not always keep pace with that community's needs.

On the other hand, certain urban neighborhoods, especially those undergoing transition which rely on Section 236 monies for housing (such as the South End), might not be able to withstand a lack of public support. Should public investment decline, the incentive for private investment may also experience a demise.

The effect of noise-related federal lack of investment in upward transitional neighborhoods may soon be visible in the form of private lack of investment. In *Property Taxes, Housing, And The Cities*, George Peterson, et al., suggest that the future of neighborhoods depends on the small owner commitment to his property:

"Thus, the prospects for arresting the downward transition of the quality of the housing in a neighborhood may very well depend on keeping the small owner committed to his property." (203)

In upward transitional areas where there is limited federal financial involvement, an investment slowdown

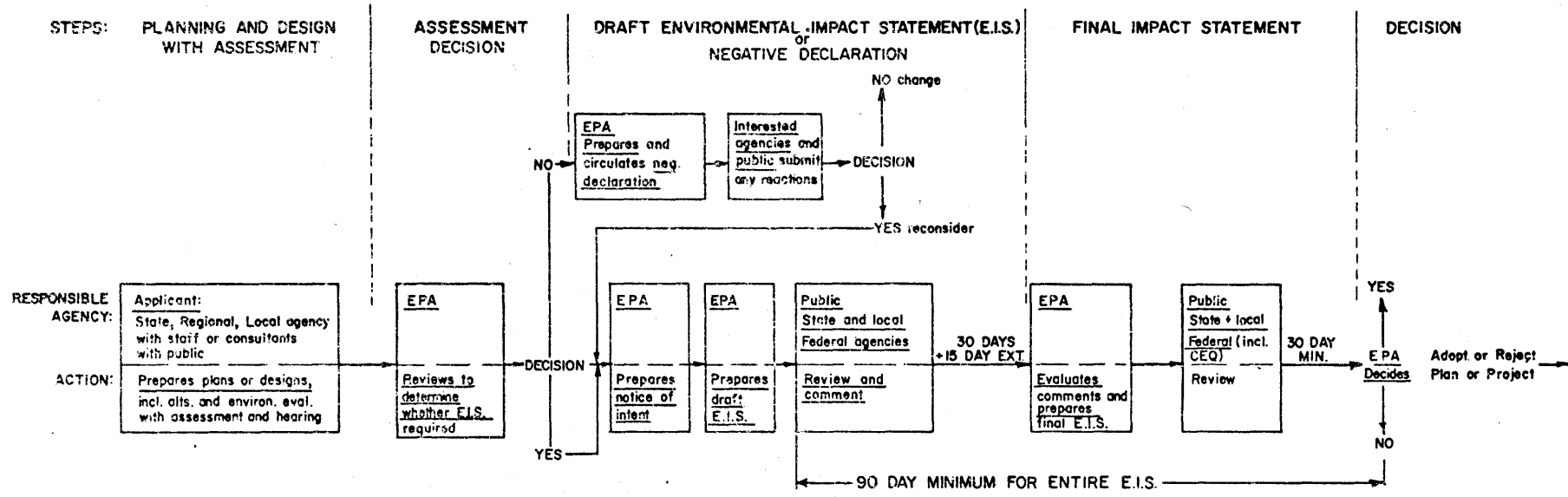
might have a negative catalytic effect. George Sternlieb suggests that there is a psychology of disinvestment created by the presence of blighted and abandoned structures (204).

Federal and private lack of investment could result in the backslide of an upward transitional neighborhood. Possible implications of such a backslide are a decrease in the amount of available housing, and deterioration of the neighborhood, and neighborhood services.

Thus, there are negative implications of federal housing limitations. The environmental noise standards are limiting federal participation in urban rehabilitation. The standards neglect to consider the influence of social and market environments on resident perceptions of neighborhood acceptability. As Walter Firey and Herbert Gans have suggested, a neighborhood's cultural, social, and ethnic influences may override their sense of other considerations as problems, noise included. Consequently, because an environmental evaluation has the potential of altering and disrupting viable urban neighborhoods, the process need be supplemented with in-depth social and economic analyses.

APPENDIX A

Figure A-1



FLOW OF ENVIRONMENTAL PLANNING, ASSESSMENTS, AND IMPACT STATEMENT

Source: Environmental Protection Agency

APPENDIX B

TABLE B-1

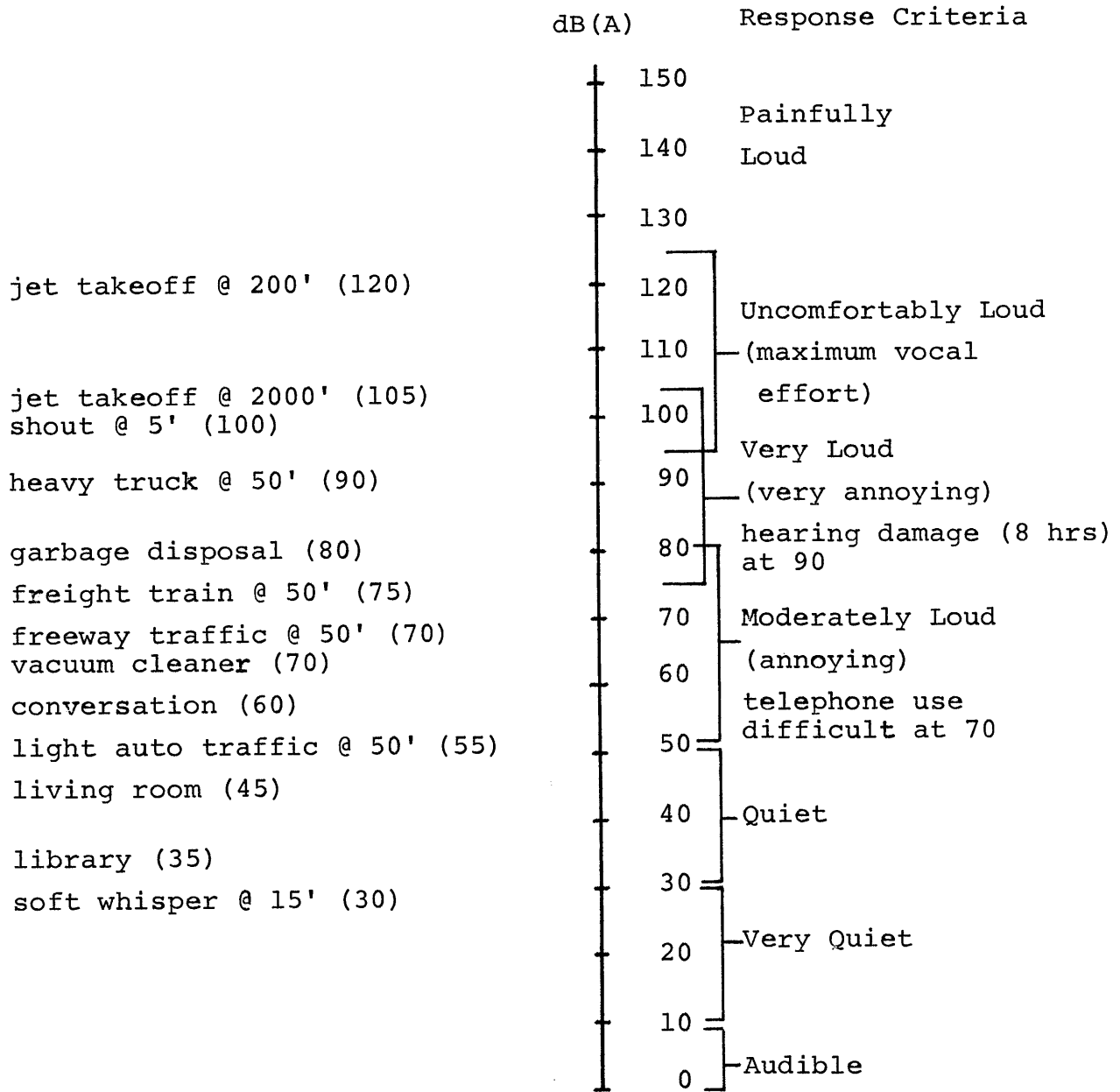
NEW HOUSING ACTIVITY, 1968+

<u>Year</u>	<u>Total Private & Public Housing Starts</u>
1968	1545.5
1969	1499.6
1970	1469.0
1971	2084.5
1972	2378.5
1973	2057.4
1974	heavy decline forcasted

Source: National Association of Homebuilders

APPENDIX C

Figure C-1
 Department of Transportation --Bureau of
 Occupational Health Noise Response Scale



Source: Department of Transportation and the Bureau of Occupational Health

Figure C-2

EXTERNAL NOISE EXPOSURE STANDARDS FOR
NEW CONSTRUCTION SITES

GENERAL EXTERNAL EXPOSURES dB(A)

AIRPORT ENVIRONS
(NEF Ratings)

UNACCEPTABLE

Exceeds 80 dB(A) 60 minutes
per 24 hours

More than 40
(Unacceptable)

Exceeds 75 dB(A) 8 hours
per 24 hours

Recourse: Exceptions are strongly discouraged and
require a 102(2)C environmental statement and the
Secretary's approval (Secretary of HUD)

DISCRETIONARY -- NORMALLY UNACCEPTABLE

Exceeds 65 dB(A) 8 hours
per 24 hours

30 to 40
(Discretionary)

Loud repetitive sounds on site

Recourse: Approvals require noise attenuation measures,
the Regional Administrator's concurrence and a 102(2)(C)
environmental statement

DISCRETIONARY -- NORMALLY ACCEPTABLE

Does not exceed 65 dB(A) more than
8 hours per 24 hours

less than 30
(Acceptable)

ACCEPTABLE

Does not exceed 45 dB(A) more than
30 minutes per 24 hours.

Source: Department of Housing and Urban Development

Figure C-3

INTERIOR NOISE EXPOSURES
(for new and rehabilitated residential construction)

ACCEPTABLE:

Sleeping quarters: For the present time, HUD field personnel should consider existing and projected noise exposure for sleeping quarters "acceptable" if interior noise levels resulting from exterior noise sources and interior building sources such as heating, plumbing and air conditioning

--do not exceed 55dB(A) for more than an accumulation of 60 minutes in any 24-hour period, and

--do not exceed 45dB(A) for more than 30 minutes during night time sleeping hours from 11 p.m. to 7 a.m., and

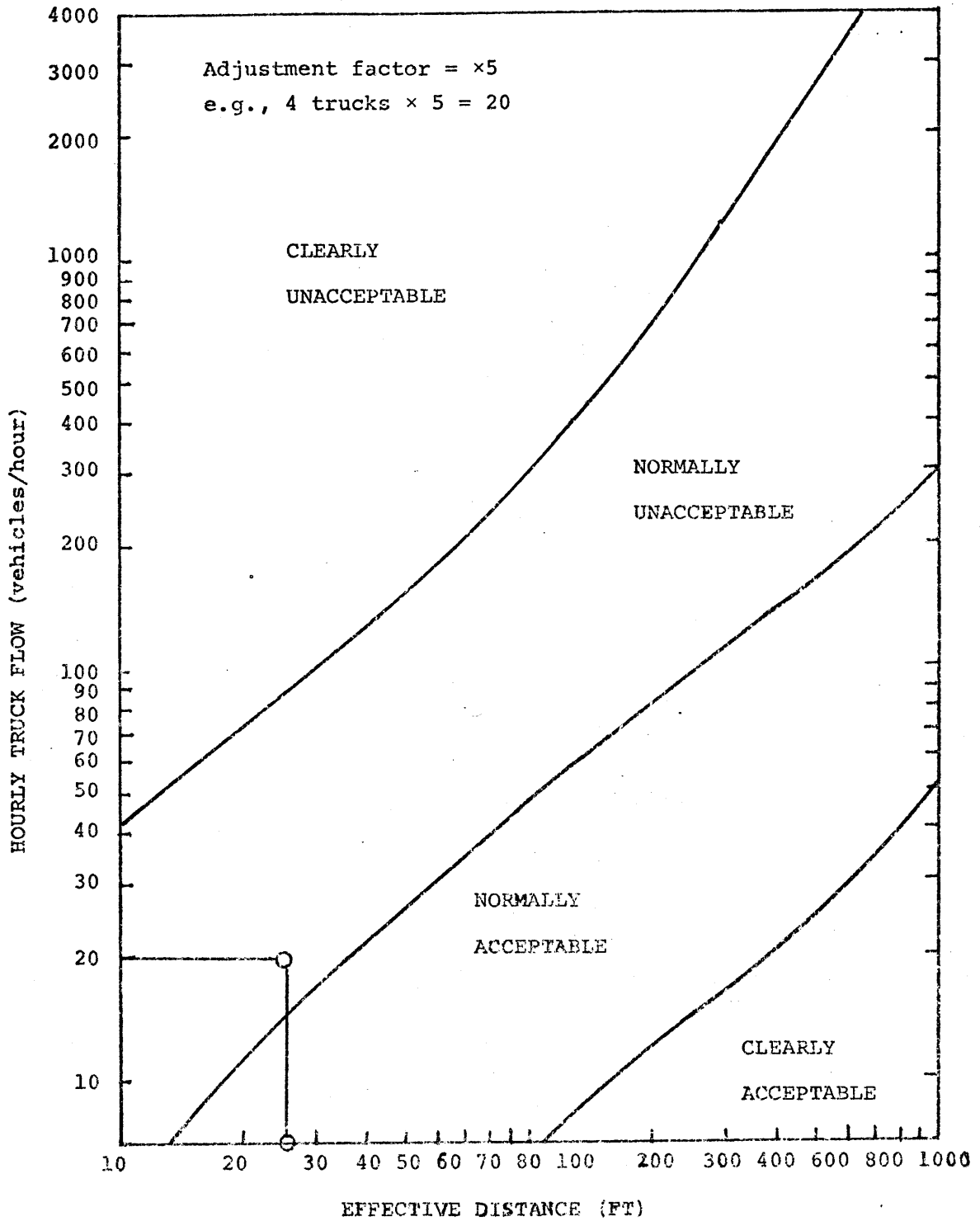
--do not exceed 45dB(A) for more than an accumulation of eight hours in any 24-hour day.

Other interior areas. HUD personnel should exercise discretion and judgement as to interior areas other than those used for sleeping. Consideration should be given to the characteristics of the noise, the duration, time of day, and planned use of the area.

Source: Department of Housing and Urban Development

FIGURE C-4

TRUCK TRAFFIC: A HYPOTHETICAL EXAMPLE



Source: Department of Housing and Urban Development

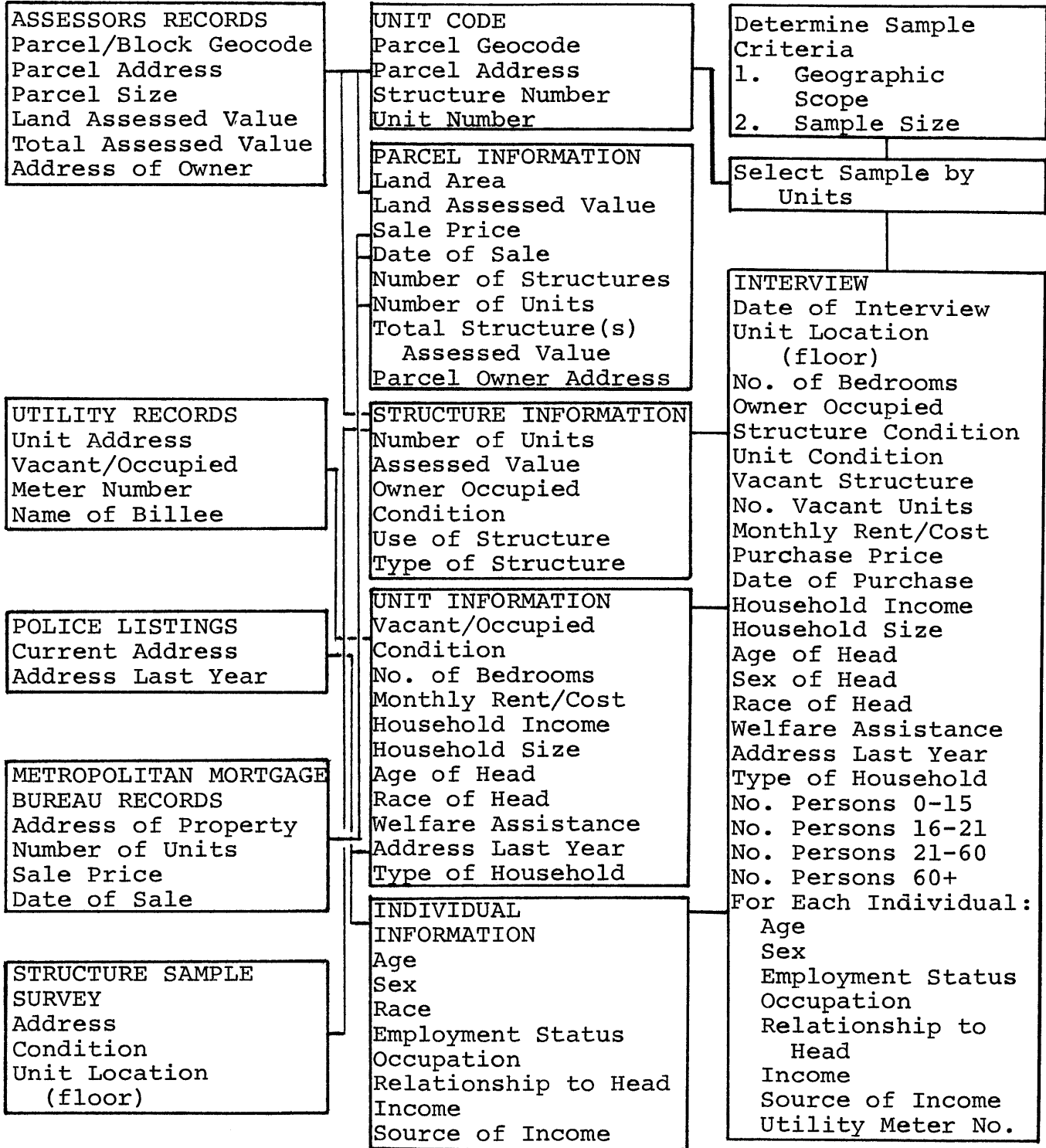
APPENDIX D

Figure D-1
HOUSING INFORMATION SYSTEM

SECONDARY SOURCES
OF DATA

INTERVIEW SURVEY

BASIC FILE UNIT



Source: Justin Grey Associates

APPENDIX E

TABLE E-1
SOUTH END POPULATION CHANGES

	<u>South End</u>	<u>Boston</u>
1950 Population	54,563	801,444
1960 Population	35,082	697,197
Percent Change (1950-1960)	-35.7%	-13%
1970 Population	24,505	641,071
Percent Change (1960-1970)	-30%	-8%

Source: United Community Services of Boston

TABLE E-2

CHANGES IN NON-WHITE POPULATION: BOSTON AND THE SOUTH END

<u>AREA</u>	<u>1960</u> Non-White Population	<u>1970</u> Non-White Population	%Change (1960-1970)
BOSTON	68,493	116,362	+70%
SOUTH END	12,448	11,448	- 8%

Source: United Community Services of Boston

TABLE E-3
SOUTH END FAMILY INCOME

% of families with:	<u>1960</u>	<u>1970</u>
Less than \$3000	40.5%	17%
\$3000 -- 9,999	55.3	55
\$10,000 and over	<u>4.2</u>	<u>28</u>
	100	100

Source: The Rehabilitation Planning Game, United Community Services of Boston.

TABLE E-4

SOUTH END DEVELOPMENT GOALS

1. Rehabilitate, preserve, enhance, and strengthen one of Boston's oldest, most centrally located and blighted residential neighborhoods.
2. Remove through clearance heavy concentrations of blight.
3. Provide new housing which are within the income requirements of the residents of the community, and new housing specifically designed to meet the needs of the numerous elderly residents in the community.
4. Relocate the MBTA elevated structure, a major blighting influence.
5. Provide major community facilities, and new street and traffic patterns, which will improve the environment and facilitate public safety.
6. Provide incentive and guidance for institutional, commercial, and industrial growth.
7. Expand the property tax base of the city and provide new employment opportunities. Construction completed includes Castle Square, Methunion, Rosem Camfield Gardens. Grant AME Housing, Rutland Square Housing. Construction underway includes: a) Tuckerman Homes; b) Infill housing, c) City Hospital expansion and rehabilitation; d) Boston University Medical Center expansion; e) South End Center for the Arts. Construction planned or proposed includes: a) Concord Square Housing; b) four elementary schools; c) two playgrounds; d) several industrial and commercial development sites.

The following projects are also planned, but with no schedule for construction:

1. Harriet Tubman House
2. Closing of Pembroke Street
3. Day Care Center, depending on the construction of the Inner Ball

4. Several hundred more units of residential rehabilitation
5. Intermediate School Library
6. Lighting, street sewer and water main improvements.

Source: Urban Renewal And Planning In Boston

REFERENCES

1. Senator Henry Jackson in Congressional Record, Volume 115, Part 14, July 10, 1969, p. 19012.
2. Refer to January - March, 1968 hearings before the U.S. House Subcommittee On Science, Research, And Development; the text of a July 17, 1968 joint House-Senate Colloquium to discuss a national environmental policy; the July 11, 1968 report by Dr. Lynton Caldwell which was used as the background document for the July 17, 1968 joint House-Senate colloquium; an April 1968 environmental policy hearing before the Senate committee on Interior and Insular Affairs; and Congressional White Papers, Reports, and Congressional Record testimony during 1968 and 1969.
3. Laurance Rockefeller in Joint House-Senate Colloquium To Discuss A National Policy For The Environment, hearing before the U.S. Senate Committee On Interior And Insular Affairs and the U.S. House of Representatives Committee On Science And Astronautics, July 17, 1968, p. 11.
4. Rockefeller, Colloquium, p. 9.
5. Land not thought to be of substantial economic value was designated as national park land whereas the most economically productive lands fell into the hands of the railroads and private ownership. Refer to: Alfred Runte, "Parks and Wilderness: The Grand Compromise," American West, Volume 10, May 1973, pp. 4-11. Also John Ise, Our National Park Policy (Baltimore: Johns Hopkins Press, 1961), pp. 120-121, or Vernon Rosco Carstensen, The Public Lands (Madison: University of Wisconsin Press, 1963).
6. The 1966 Clean Water Restoration Act provided for an increase in Federal construction grants. The 1970 Water Quality Improvement Act contained stringent regulations pertaining to items such as oil and vessel pollution as well as acid mine drainage.
7. The 1963 Clean Air Act provided research funds for the study of air pollution and control as well as grants for the development of state and local air pollution control agencies.
8. Congressional Record, July 10, 1969, p. 19012.
9. Paul R. Erlich, The Population Bomb (New York: Ballentine Books, 1968).

10. Richard M. Nixon, A Message to Congress on Environmental Protection, February 9, 1972.
11. Refer to Massachusetts Institute of Technology, Woods Hole Oceanographic Institute, Boston University, Papers On National Land Use Policy Issues, as prepared for the U.S. Senate Committee on Interior and Insular Affairs, 1971.
12. U.S. Senate Committee On Interior and Insular Affairs, Committee's History, Jurisdiction, And A Summary Of Its Accomplishments During The 87th, 88th, 89th, 90th, and 91st Congress. September, 1971, p. 10.
13. Letter from Dr. LaMont C. Cole, Professor of Ecology at Cornell University to Representative Emilio Daddario in Colloquium, p. 172.
14. Jackson, Colloquium, p. 97.
15. Jackson, Colloquium, p. 59.
16. Rockefeller, Colloquium, p. 5.
17. Senator Clifford P. Hansen in Colloquium, p. 55.
18. Dr. Paul Weiss in Congressional White Paper On A National Policy For The Environment, submitted by the Committee On Interior and Insular Affairs (Senate) and the Committee On Science And Astronautics (House of Representatives), 90th Congress, 2nd Session, October 1968, p. 3.
19. Weiss, White Paper, p. 3.
20. Secretary Robert Weaver in Colloquium, p. 48.
21. E. Goldsmith, R. Allen, M. Allaby, J. Davoll, S. Lawrence, Blueprint For Survival (Boston: Houghton Mifflin Company, 1972), p. 133.
22. Refer to David E. Davis, "Physiological Effects of Continued Crowding," Behavior and Environment, ed., A. H. Esser (New York: Plenum Press, 1971), pp. 133-147. Also, John Calhoun, "Population Density and Social Pathology," Scientific American, Reprint No. 506.
23. Representative John Dingell in Congressional Record, Volume 115, Part 20, September 23, 1969, p. 26580.

24. Secretary Stewart Udall in Colloquium, p. 15.
25. Today's organized efforts to influence population control are based on the work of Mrs. Margaret Sanger, a feminist rebel in New York who sought to promote the emancipation of women from unwanted pregnancies through contraception. Mrs. Sanger coined the phrase "birth control" and established the first birth control clinic in 1912. A national Planned Parenthood movement, designed to provide a full range of family planning services, was formulated in 1962 and was based on Mrs. Sanger's Birth Control League.
26. Luther B. Terry, "Memorandum On Population Field-- Extramural Program Guide, January 6, 1965."
27. U.S. Department of State, Agency for International Development, "A.I.D. Memorandum On Population, February 1965."
28. Hansen, Colloquium, p. 68.
29. In order to counter a population crisis a specific numerical goal oriented faction developed in 1969 (private group) called Zero Population Growth. Based on a "replacement fertility" concept, i.e., two children or less per couple, advocates see zero population growth as the only means of avoiding chaos.
30. Senator Ted Stevens in National Environmental Policy, hearings before the U.S. Senate Committee On Interior And Insular Affairs, April 16, 1969, p. 107.
31. Weaver, Colloquium, p. 19.
32. Dr. Harvey Brooks in Colloquium, p. 70.
33. Weaver, Colloquium, p. 48.
34. Louis Wirth, "Urbanism As A Way Of Life," On Cities And Social Life, ed. Albert J. Reiss, Jr., (Chicago: The University of Chicago Press, 1964), p. 62.
35. Sam B. Warner, Jr., Streetcar Suburbs: The Process Of Growth In Boston (Cambridge: Harvard University Press and The M.I.T. Press, 1962), p. 12.
36. Morton White and Lucia White, The Intellectual Versus The City (Cambridge: Harvard University and The M.I.T. Press, 1962), p. 2.

37. S. 2282 included broad provisions to cope with inadequate use and application by Federal agencies of ecological knowledge and resource methods for attaining better management of our physical environment. S. 2549 called for the establishment of a national policy on conservation, development, and the utilization of natural resources.
38. A detailed listing of these documents is found in Appendix A, "A Documentation On Environmental Problems," p. 24, in A National Policy For The Environment, (Committee Print), Senate Interior and Insular Affairs Committee, July 11, 1968. See also the "Bibliography On Environmental Issues," pp. 192-204 in National Environmental Policy, hearing before the Committee on Interior and Insular Affairs, U.S. Senate, 91st Congress, on S. 1075, and S. 1752, April 1969.
39. Jackson, Congressional Record, p. 19010.
40. Jackson, Congressional Record, p. 19010.
41. Representative Emilio Q. Daddario in proceedings of a hearing before the U.S. House of Representatives Subcommittee On Science, Research, And Development of the Committee on Science and Astronautics, January 17, 1968, p. 1
42. John Baker in Colloquium, p. 24
43. Dr. Phillip Lee in Colloquium, p. 41
44. Refer to A National Policy For The Environment Special Report To The Committee On Interior And Insular Affairs (Committee Print), July 11, 1968, p. ix. The Report preamble notes that "Calls for [environmental] action a have come from many sectors of American society: from labor, from business, from agriculture, from science, from civic bodies, from religious, cultural and ethnic groups. . ."
45. Representative David Obey in Congressional Record, Volume 115, Part 20, September 23, 1969, p. 26581.
46. Representative George Goodling in Congressional Record, Volume 115, Part 20, September 23, 1969, p. 26581.
47. Senator Frank Church in Congressional Record, Volume 115, Part 21, October 8, 1969, p. 29059.
48. Jackson, Congressional Record, p. 19010.

49. Jackson and Senator Gordon Allot, National Environmental Policy, pp. 205, 88.
50. Jackson, Congressional Record, p. 19013.
51. Jackson, National Environmental Policy, p. 206.
52. Udall, Colloquium, p. 14.
53. Section 101(a) of Public Law 91-190, January 1, 1970.
54. Section 2, Public Law 91-190, January 1, 1970.
55. Refer to "Statements On Proposed Federal Actions Affecting The Environment Guidelines," Federal Regulations 36(79): 7724-7729, April 23, 1971.
56. Council on Environmental Quality, "Guidelines for Federal Agencies," Also, the Clean Air Amendment of 1970 specifies that no Federal agency may enter into any contract for the procurement of goods, material, or services where the contract is to be performed at a facility which has given rise to a conviction for any offense of violating Clean Air Standards.
57. Public Law 91-604, December 31, 1970.
58. U.S. Environmental Protection Agency, In Productive Harmony: Environmental Impact Statements Broaden The Nation's Prospectives, Washington, D.C.
59. Effective August 1973 there has been a revision of the CEQ Guidelines to include secondary impacts, particularly the effects of population concentration and growth. For more information on the revised CEQ Guidelines for impact statements refer to Environmental Quality: The Fourth Annual Report of The Council On Environmental Quality, September 1973, Washington, D.C. U.S. Government Printing Office Stock No. 4111-00020, pp. 234-236.
60. Section 102(C), Public Law 91-190, January 1, 1970.
61. Section 102(2)(C), Public Law 91-190, January 1, 1970.
62. U.S. Department of Housing and Urban Development, Circular No. 1390.1 (Subject: Departmental Policies, Responsibilities and Procedures for Protection and Enhancement of Environmental Quality), July 16, 1971, p. A-1.

63. "Environment" as defined in Webster's New World Dictionary, pocket edition, David B. Guralnik (World Publishing Company, 1959), p. 185.
64. "Comprehensive Environmental Analysis," TGC Bulletin, Vol. 5, No. 3, University of Massachusetts, Amherst, Massachusetts, March--April 1973, p. 1.
65. Robert Gillette in A Procedure For Evaluating Environmental Impact, by L. Leopold, F. Clark, B. Hanshaw, and J. Balsley, Geological Survey Circular 645, (Washington, 1971), p. 1.
66. Personal correspondence from Carl J. Rosenberg of Bolt Beranek and Newman, Inc., dated January 25, 1974. According to Rosenberg "24-hour [noise] measurement programs have typically cost between \$1,300 and \$1,600. . ." Bolt Beranek and Newman have been acoustical consultants to HUD in the establishment of HUD noise assessment guidelines.
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68. On March 1, 1918 the 65th Congress (PL 65-102) authorized the U.S. Shipping Board, Emergency Fleet Corporation to provide housing for shipyard employees. Later in the same year, two laws (PL 65-149 and PL 65-164) authorized and appropriated funds for housing for war workers.
69. Senator Burnet Maybank, Housing Act of 1949: Summary of Provisions, U.S. Senate Committee on Banking and Currency, June 2, 1949.
70. Refer to "Bills Pertaining To National Housing: S. 287, S. 866, S. 701, S. 801, S. 802, S. 804," Housing, hearings before the U.S. Senate Committee On Banking and Currency, March 18, 20, 26, 27, 28, and April 9, 1947.
71. National Housing Commission Act, Report from the U.S. Senate Committee on Banking and Currency to accompany S. 866, April 21, 1947.
72. Section 2, Public Law 81-171, 1949.
73. John R. Quarles, Jr., in "Hearings Begin On Air Standards," Santa Barbara Newspress, August 27, 1973, p. 1.

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75. 1968 Kaiser Commissions Report on Housing.
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78. Title I, Section 107 of National Housing Commission Act in U.S. Senate Banking and Currency Committee hearing, April 21, 1947, p. 117.
79. Miles L. Colean, American Housing: Problems And Perspectives (New York: Twentieth Century Fund, 1944).
80. Roy Lubove, The Progressives And The Slums (Pittsburg: University of Pittsburg Press, 1963).
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82. Lawrence M. Friedman, Government And Slum Housing (Chicago, Rand McNally, 1968).
83. Title I, Section 101 of National Housing Commission Act in U.S. Senate Banking and Currency hearing, April 21, 1947, p. 117.
84. Colean, American Housing, pp. 257-269.
85. National Housing Act of 1949.
86. Ira Michael Heyman, "Legal Assaults On Municipal Land Use Regulations" (speech), March 1972, reprinted in The Urban Lawyer, Vol. 5, 1973, p. 20.

87. Richard Neuhaus, In Defense Of People (New York: The McMillan Company, 1971), p. 114.
88. Senator Charles Tobey in U.S. Senate Banking and Currency hearing, April 21, 1947, p. 96.
89. Refer to Lubove, The Progressives, pp. 217-256.
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91. In an April 17, 1947 statement before the Senate Banking and Currency Committee Senator Charles Tobey noted pre-1947 federal investigation of housing matters paid special interest in "the encouragement of home ownership," p. 4 of hearing proceedings.
92. Colean, American Housing, pp. 257-269.
93. Peggy Simpson, "HUD Chief Says US Subsidies Of Housing For Poor Hurt Mid-Income Groups," Boston Sunday Globe, September 30, 1973, p. 24.
94. 1968 Kaiser Commission Report on Housing.
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96. Lyle C. Fitch, in "Foreward" of Morton J. Schussheim's book Toward A New Housing Policy: The Legacy Of The Sixties (New York: Committee For Economic Development, 1969), Paper No. 29, pp. viii-ix.
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98. Interview with Andrew Olins, Boston Mayor Kevin White's Special Assistant On Housing, November 13, 1973.
99. Anthony J. Yudis, "No-growth Policy Means Hardship, Developers Say," Boston Sunday Globe, September 23, 1973, P. A-56.

100. Environmental Quality: The Fourth Annual Report Of The Council On Environmental Quality, September 1973, Washington, D.C., p. 237.
101. Refer to: Sam B. Warner, Jr., Streetcar Suburbs: The Process of Growth In Boston 1870-1900, (Cambridge: The Joint Center, M.I.T. and Harvard, 1962), p. 14. Homer Hoyt, The Structure And Growth Of Residential Neighborhoods In American Cities, (Washington, D.C.: Federal Housing Administration, 1939), F.H.A. Form No. 2008, p. 102. Also, Leonard Reisman, The Urban Process, (New York: The Free Press, 1964), pp. 105-106.
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104. Fred Bosselman, "Ecology v. Equality: The Sierra Club Meets The NAACP," Yale Review of Law and Social Action, Vol. 2, No. 1, Fall 1971, p. 93.
105. Interview with Robert Mendoza, Housing and Urban Development, Boston Area Planning and Relocation Office, November 9, 1973.
106. Bosselman, "Ecology v. Equality. . .," Yale Review, p. 94.
107. Richard C. Sawyer, "Stoughton Conservation Group Fights To Limit Number Of Units In Housing Complex," Boston Sunday Globe, October 14, 1973, p. 4.
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restoration of credit availability. Meanwhile, the Mayor's office has implemented an experimental home improve--tax credit system ("1973 Mayor's Housing Improvement Program") in Allston. Also, the Mayor's office is studying the feasibility of an urban homestead program as another means of further inner city rehabilitation.

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110. Langley C. Keyes, The Boston Rehabilitation Program: An Independent Analysis (Cambridge: The Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, 1970), pp. 7-13.
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113. Interview with Robert Mendoza, Department of Housing and Urban Development, Boston Area Planning and Relocation Office, November 12, 1973.
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115. Mendoza, November 12, 1973.
116. Philip B. Gove, ed., Webster's Third New International Dictionary (Unabridged) (Springfield: G. and C. Merriam Co., 1967), pp. 2176 and 1533.
117. HUD, 1390.2, Appendix 1, pp. 5-6.
118. HUD, 1390.2, Appendix 1, p. 6.
119. HUD, 1390.2, Appendix 1, p. 4.
120. One local example of social bonds as a determinant of an areas "acceptability" would be Boston's North End. The North End is a tightly knit cohesive urban village. An environmental evaluation would undoubtedly deem the area "unacceptable" because to its proximity to express-ways, an above-ground subway, and Logan Airport. Other factors (a sense of community, etc.) obviously keep the North End thriving. Also refer to Walter Firey in Reissmann, Urban Process, pp. 110-111.

121. Frank P. Grad, Environmental Law: Sources And Problems (New York: Matthew Bender, 1971), Section 6.01, p. 6-5.
122. Grad, Environmental Law, Section 6.01, p. 6-5.
123. In a February, 1970 Massachusetts Institute of Technology M.C.P. thesis entitled Noise Prediction Techniques For Highway Design, p. 92, Mohammed Ashraf Jan devised a table (Table VI-1) gauging probable reactions to noise level excesses. Probable reactions to ambient level excesses were predicted as follows:

0 - 5 dBAprobably ignored
5 - 10 dBAmarginal range
10 - 15 dBAonset of serious noise problem
15 - 20 dBA+concerted community action expected
124. Lloyd Shearer, "Intelligence Report," Parade, February 24, 1974, p. 8.
125. Mendoza, November 12, 1973.
126. Mendoza, November 12, 1973.
127. HUD, Circular 1390.2, p. 1.
128. HUD Circular 1390.2, pp. 1-3.
129. HUD Circular 1390.2, p. 3.
130. Theodore J. Schultz and Nancy M. McMahon, HUD Noise Assessment Guidelines, August 1971, p. 1.
131. Interview with Ken Salk, Housing and Urban Development, Boston Area Program Manager, November 13, 1973.
132. Interview with Phil Solomony, Housing and Urban Development, Boston Area Office, November 13, 1973.
133. HUD, Circular 1390.2, p. 2.
134. Mendoza, November 9, 1973.
135. Colton and Goetze, Toward a Housing Policy, p. 18.
136. G. Peterson, A. Solomon, H. Madjid, W. Apgar, Jr., Property Taxes, Housing, and the Cities (Lexington: D.C. Heath and Company, 1973).

137. G. Sternlieb, R. Burchell, V. Paulus, Residential Abandonment: The Environment Of Decay (New Brunswick: Rutgers University, 1972).
138. Bob Sales, "North End's Fieriest Issue: Will Redevelopment Make, Break Neighborhood?" Boston Globe, September 24, 1973, p. 3.
139. Lewis Mumford, The Urban Prospect (New York: Harcourt Brace and World, Inc., 1968), pp. 58-59.
140. Herbert J. Gans, The Urban Villagers (New York: The Free Press, 1962), p. 104.
141. Robert E. Park and Ernest W. Burgess, The City (Chicago: The University of Chicago Press, 1967) p. 6.
142. Robert Angell defined moral integration as being "a firm moral order to which people are loyal and in terms of which conflicting parties may be reconciled." See Robert C. Angell, "The Moral Integration Of American Cities," Cities And Society, eds. Paul K. Hatt and Albert J. Reiss, Jr., (New York: The Free Press, 1957), pp. 617-630.
143. Kevin Lynch, The Image Of The City (Cambridge: The M.I.T. Press, 1960).
144. Park and Burgess, City, p. 9.
145. Gans, Villagers.
146. Leonard Broom and Philip Selznick, Sociology, (New York: Harper And Row, 1968), pp. 148-152).
147. Leo Srole, "Social Integration And Certain Corollaries: An Explorative Study," American Sociological Review, Volume 21, December 1956, pp. 706-716.
148. Emile Durkheim, Suicide (Glencoe: The Free Press, 1951), p. 254. Durkheim suggests that anomie (normlessness) creates personal disorientation and results where social disorganization creates a lack of moral order.
149. Srole, Sociological, December, 1956, p. 712.
150. Morris Axlerod, "Urban Structure And Social Participation," American Sociological Review, Volume 21, February, 1956 p. 15.

151. Dorothy L. Meier and Wendell Bell, "Anomia and Differential Access To The Achievement Of Life Goals," American Sociological Review, Volume 24, April, 1959, pp. 189-202.
152. Mirra Komarovsky, "The Voluntary Associations Of Urban Dwellers," American Sociological Review, Volume 11, December, 1946, pp. 686-698.
153. Burgess and Park, The City.
154. Robert B. Carr, "Noisy Elevated Trains Must Go, MBTA Warned," Boston Evening Globe, May 14, 1973.
155. John Robinson, "King Says Logan Cannot Afford Jet Curfews," Boston Evening Globe, May 17, 1973, p. 5.
156. R. S. Kindleberger, "Massport 'Doesn't Care' Some Say," Boston Sunday Globe, May 20, 1973, p. 2.
157. James H. Hammond, "Allegheny Seeks More Fuel From US For Logan Flights," Boston Evening Globe, October 30, 1973, p. 3.
158. Colton and Goetze, Toward A Housing Policy, p. 10.
159. Justin Gray Associates, Housing Needs and Priorities, Vol. 1, Cambridge, Massachusetts, pp. 79-80.
160. G. Sternlieb, R. Burchell, and V. Paulus, Residential Abandonment: The Environment Of Decay, ed. Mary Vance (New Brunswick: Rutgers University, 1972), p. 10.
161. Sternlieb, Burchell, and Paulus, Abandonment, p. 2.
162. For more information on South End rehabilitation construction costs refer to Robert B. Whittlesey, The South End Row House (Boston: South End Community Development, Inc., 1969), pp. 4-1 to 4-2.
163. Peterson, Solomon et al., Property Taxes, pp. 79-80.
164. Schultz and McMahon, HUD Noise Assessment.
165. To date, the aircraft noise criteria has been based on "1975 Noise Exposure Forecasts" developed by the Department of Housing and Urban Development and the Federal Aviation Agency. The 1975 standards have labelled much of the South End "Normally Unacceptable."

166. Greater Boston Community Development "History Of Events: South End Tenants' Houses II," August 29, 1973, p. 2.
167. "Spot" readings are periodic, visual sound meter observations.
168. Time periods in question:
 7 am - 10 am
 12 pm - 12:30 pm
 4 pm - 8 pm
 10 pm - 12 am
169. Letter from Ms. Mary Longley of TDC to Mr. Daniel Richardson of HUD, May 1, 1973.
170. Whittlessey, South End, p. xi.
171. Letter from Arnold Green Testing Laboratories to Tenants' Development Corporation, dated August 29, 1973.
172. Ralph Horne, "A Frank Look At The South End And Its Future" (unpublished article), November 1973, p. 29.
173. Letters to TDC support came from Robert Kenney of the Boston Redevelopment Authority, Clark Frazier of the South End Project Area Committee, Luz Cuadrado of the Emergency Tenants Council, and Kenneth Brown of the United South End Settlements.
174. TDC Petition, October 1973, mailed to John Barry, New England Regional Director, Department of Housing and Urban Development.
175. Letter from Kenneth Brown of the United South End Settlements to John Barry of the Department of Housing and Urban Development, November 2, 1973.
176. Letter from Clark Frazier of the South End Project Area Committee to James Barry of the Department of Housing and Urban Development, November 2, 1973. Also, letter from Luz Cuadrado, of the Emergency Tenants' Council to James Barry of the Department of Housing and Urban Development, November 1, 1973.
177. U.S. District Court District of Massachusetts, Civil Action No. 74-392-S, Liliane Wilson, et al., (Plaintiffs), versus James T. Lynn, et al., (Defendants).
178. The rise and decline of the South End has been chronicled in John P. Marquand's The Late George Apley (New York: Pocket Books, 1944).

179. Keyes, Rehabilitation Planning, p. 36.
180. Sheila Elfman and Carol Hurwitz, Four Areas Of Boston, 1970: A Report Based On The 1970 Census, Vol IV Center City (Boston: United Community Services of Metropolitan Boston, 1970), p. 1.
181. Keyes, Rehabilitation Planning, pp. 35-86.
182. Keyes, Rehabilitation Planning, p. 40.
183. 1960 and 1970 Census, United Community Services of Boston.
184. 1960 and 1970 Census, United Community Services of Boston.
185. 1970 Census, United Community Services of Boston.
186. Whittlesey, South End, p. 5.
187. Whittlesey, South End, p. 5.
188. Keyes, Rehabilitation Planning, pp. 40-52.
189. Roland Warren, The Community In America (Chicago: Rand McNally, 1963), pp. 161-162. Warren defines horizontal integration as "the structural and functional relationship of [the community's] various social units and subsystems to each other," whereas vertical integration is concerned with "the structural and functional relation of [the community's] various social units and subsystems to extra-community systems."
190. Keyes, Rehabilitation Planning, pp. 50 and 52.
191. According to the Architectual Forum, Special Issue entitled "Boston," Vol. 120, No. 6 (June 1964), p. 104, the South End is the home of five percent of Boston's population and "95 per cent of its problems."
192. Robert F. Engle and John Avault, Residential Property Values in Boston (Boston: Boston Redevelopment Authority, 1973), p. 20.
193. 1960 and 1970 Census, United Community Services of Boston.
194. All estimates were done on a per-unit basis, even though conditions generally affect the stock structure-by-structure.

195. Colton, Housing Policy, p. III2.
196. 1960 Census, United Community Services of Boston.
197. Engle and Avault, Residential, p. 1.
198. Horne, "A Frank Look. . .", p. 14.
199. Interview with George Widenfeller and Phil Solomony, Housing and Urban Development, Boston Area Office, November 9, 1973.
200. Robert Woods, ed., The City Wilderness (Cambridge: Houghton Mifflin, 1898).
201. Whittlesey, South End, p. x.
202. Whittlesey, South End, p. 16.
203. Peterson, et al., Property Taxes, p. 63.
204. Sternlieb, Residential Abandonment, p. 20.
205. Telephone interview with Ray Crisp, Environmental Clearance Officer, Department of Housing and Urban Development, Los Angeles Office, April 21, 1974.