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# Improving the Transportation Planning Process in Small Cities

prepared by  
THE CITY OF CAMBRIDGE



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Transportation Systems Center

December 1972

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IMPROVING THE TRANSPORTATION  
PLANNING PROCESS IN CAMBRIDGE  
AND OTHER SMALL CITIES

VOLUME I -- THE ORGANIZATIONAL FRAMEWORK  
Volume II -- The Planning Program  
Volume III -- Recommendations for Small Cities

A Municipal Level Planning Study  
Prepared by the City of Cambridge, Massachusetts  
For the U. S. Department of Transportation  
Under Contract No. DOT-TSC-296

Department of Planning & Development  
Department of Traffic & Parking  
City of Cambridge, Massachusetts

December 1972

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## DEDICATION

This report is dedicated to O. Hugo Schuck of the U.S. Department of Transportation, Transportation Systems Center in Cambridge, Massachusetts. Mr. Schuck passed away on December 21, 1972, just prior to the completion of this study. Mr. Schuck's able and sensitive counseling to the City of Cambridge in the conduct of the study is greatly appreciated, and his guidance in the further implementation of the study recommendations will be missed.





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## PREFACE -- VOLUME I

The history of urban problems since World War II has demonstrated clearly the critical need for an improved transportation planning process at the municipal level. Cities have not been able to fathom the complexities of their transportation problems, let alone marshal the resources needed to effectively address them.

Instead, they have looked to the state and Federal governments for salvation -- and after nearly three decades this hoped-for panacea has in many ways been found wanting. It was impractical to expect the higher levels of government to unilaterally develop regional and national transportation solutions that did not impact seriously on local quality of living.

The contract under which this study has been carried out reflects a far-sighted view by the U.S. Department of Transportation, its Transportation Systems Center, and its Office of Environment and Urban Systems -- a view that the Federal Government can perform a vital function by fostering the development of an improved transportation planning process for small cities.

The resulting three-volume report is believed by the study team to provide concepts and recommendations of value to small cities throughout the country. Volume I, contained herein, confronts the need for a basic organizational framework within which sound transportation plans and successful implementation can best be generated. Volume II develops an inventory of transportation studies needed by Cambridge, while Volume III recasts earlier material for specific use by other small cities.

To the extent that the study may have been successful, the Federal Government will have helped build the foundations of a new Federal/state/local transportation planning partnership -- one in which cities and towns can at last make strong, well-considered, grass-roots inputs without which Federal and state transportation planning efforts in urban areas cannot hope to succeed.



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## INTRODUCTION

The time was early December 1967.

The speaker was John Kenneth Galbraith -- Professor of Economics at Harvard, former U.S. Ambassador to India, and fresh off the plane from Switzerland, a day earlier than scheduled in order to attend this meeting.

"....so we are in agreement. The planning process for the Inner Belt has been marked by serious deficiencies and inconsistencies.

"These weaknesses must be the starting point of any future effort aimed at reviewing rationally the metropolitan area's (Boston) transportation system.

"Let us telephone Lowell Bridwell."

Lowell Bridwell, whom Mr. Galbraith was about to telephone, was the Federal Highway Administrator.

The meeting was one of a series held by the members of the Cambridge Mayor's Advisory Committee on the Inner Belt. The sixteen committee members -- all peers of Mr. Galbraith -- included Robert Alberty, Dean, School of Science, M.I.T.; Ross A. McFarland, Guggenheim Professor of Aerospace, Health, and Safety, School of Public Health, Harvard; Daniel P. Moynihan, Professor of Education and Urban Politics, Graduate school of Education, Harvard; Lewis Mumford, critic and in residence, Leverett House, Harvard; Talcott Parsons, Professor of Sociology, Harvard; Jack Ruina, Vice-President of Special Laboratories, M.I.T.; Benson R. Snyder (Dr.), Psychiatrist-in-Chief, M.I.T.; and James Vorenberg, Professor of Law, Harvard Law School.

Prior to the formation of the Mayor's Advisory Committee, technicians employed by Cambridge had studied in depth the methodology used by the State Department of Public Works to justify the construction of the "Inner Belt" and "Route 2 Extension" expressways. The City became convinced that the state's methodology had serious deficiencies. Cambridge had presented these findings to the State Commissioner of Public Works and the Federal Highway Administrator but they had not accepted the City's analysis.

Cambridge decided to form a committee of senior professors from Harvard and M.I.T. -- all experts in research methodology. The City felt that any review of the Boston metropolitan planning process by such a qualified committee would support inevitably Cambridge's

contention that the planning process did not justify the recommended construction program.

The Presidents of Harvard and M.I.T. were asked to submit suggestions for membership on the committee. All names submitted by the Presidents were invited to join the committee. Only one refused; he would be out of the country at the time of the committee's deliberations.

On February 6, 1968, Lowell Bridwell, the Federal Highway Administrator, met with the Mayor's Advisory Committee and the Cambridge City Council for review of the Committee's documentation of "deficiencies and inconsistencies." On March 7, 1968, he agreed that the past twenty years of transportation planning in the Boston metropolitan area did indeed have its limitation and that the process required serious reexamination. Mr. Bridwell ordered the Massachusetts Department of Public Works "to analyze and attempt to develop traffic assignments to a highway network which specifically excludes the Inner Belt."

Significant as was that mid-December day in 1967 when Mr. Galbraith made his summation -- and as was the resultant ordering of a re-study by Mr. Bridwell in March 1968 -- this involvement of the academic community was only a minor episode in the twenty-three years of effort that it has taken the citizens and the government of Cambridge, in alliance with the citizens and governments of many cities and towns in the Boston area, to succeed in modifying the metropolitan transportation planning process.

These years of effort finally were climaxed on December 29, 1971, when Francis Sargent, Governor of Massachusetts, officially announced that the Inner Belt and the Route 2 Extension were obsolete transportation concepts and that these highways would not be built.

Notwithstanding this successful conclusion, Cambridge was unable during the previous twenty-five year period to effectively organize its own municipal transportation planning process. The evidence is convincing that for most of this era, the City's performance in the policy-making and administration of its own transportation planning effort must be described as for the most part administratively uncoordinated, and, often, politically contradictory. It is truly a miracle that the Inner Belt battle was won, given the City's internal lack of organization for transportation planning.

The roots of this weakness go deep and lie in Cambridge's diverse citizenry and its diffuse municipal governmental operation. Cambridge is known for its heterogeneity in population and interests.

Cambridge, also, is many things to many people. It is a residential community -- 1,700 acres of it. It uses 1,000 of its

acres for intensive industrial purposes. It is headquarters for many research industries. On the other hand, much of the community's industrial inventory is a relic of an earlier century and perilously close to obsolescence in light of today's needs.

Cambridge has its national institutions -- Harvard University, the Massachusetts Institute of Technology, and the Polaroid Corporation. It is also a community of relatively insular neighborhoods whose long-time residents have deeply-established roots and limited contact with the world beyond.

Cambridge has households at both ends of the income scale. The Census indicates that 20.7% of the City's households fall below the \$3,000 annual income level, while an almost equal number (15.6%) claim incomes in excess of \$15,000.

Cambridge's diversity is both an asset and a liability. It has been a bulwark against the sterile homogeneity that characterizes many of the nation's moderate-size communities and rural areas. But it also nurtures in Cambridge a social fragmentation among its citizenry that makes the policy-making process remarkably complex and diffuse. This lack of capacity for policy-making within Cambridge's citizenry is reinforced unfortunately by the nature of the City's governmental operation.

Cambridge is governed by an elected City Council; a Mayor, elected by the Council from its own ranks; a City Manager, appointed by the City Council; and line departments, whose personnel are appointed by and responsible to the City Manager. In theory, the elected City Council decides all policy matters and the appointed City Manager, charged with implementing the Council's decisions, directs the line departments in carrying out the Council's policies.

In actual practice, however, Cambridge's municipal operation is as fragmented as its citizenry and its policy-making capacity as diffuse. The elected City Council has no technical staff and as a result finds it difficult to deal profoundly with the wide range of policy questions that face the City. The appointed City Manager, with or without strong policy direction, tends to be policy maker as well as implementor. And the line departments, more often than not, operate administratively free from the direction of either the City Council or the City Manager.

The record speaks for itself -- and it is full of noncoordination and contradictions.

Official city policy, articulated many times by every City Council during the past two decades, has been vigorous in its opposition to all expressways through the City, particularly the Inner Belt, which

in its final form, as planned by the State, cut through much of Cambridge's working class residential community.

One problem with these City Council statements is that they have frequently not had the benefit of technical documentation nor were they accompanied by constructive alternatives. Nevertheless, the policy has been clear for all within the City to hear and understand.

The City Council's policy position, opposing the highway proposals of the state and federal agencies, has been consistently supported by Cambridge's Representatives in the State legislature, as well as by Congressman "Tip" O'Neill, Cambridge's Representative in Washington.

On the other hand, with notable exceptions the City Managers serving during this period largely accepted the inevitability of the proposed state and federal highway system and either ignored the City Council's policy position or quietly worked against it. It is, therefore, hardly startling to discover that the critical line departments responsible for carrying out, under the direction of the City Manager, the City's transportation planning activities felt free to ignore and even oppose the City Council's directives.

The single most important City officials, during much of the post-war period in which the City Council opposed the interstate highway system, were the Planning Directors. They were specifically charged with the responsibility of acting as liaison between the City -- its Council, Manager, line departments, and citizens -- and the transportation agencies at the Metropolitan, State, and Federal levels. During most of this period, previous City Planning Directors overtly proselytized for the construction of all highways proposed by the State in Cambridge, particularly the Inner Belt.

The opposition of earlier Planning Directors to the City Council's policy on interstate highways also reflected itself in the activities of the City's Code Enforcement and Review Committee. This Committee brought together all of the City's inspection agencies -- Fire, Health, Building, and Planning. During the Inner Belt controversy the Planning Director acted as Chairman. Annually, this Committee prepared, as part of the City's Workable Program for Community Improvement, code enforcement programs on both sides of the Inner Belt's presumed alignment, but never did the committee initiate inspectional services within the route's anticipated boundary.

In clear though perhaps unwitting conflict with its highway policy, the City Council approved all Workable Programs submissions to the HUD Regional Office in New York City. Further, the City Council funded code enforcement programs, as organized in these Workable Programs, that left the structures within the boundaries of the alleged

Inner Belt route free of enforcement. The results were predictable. Deterioration flourished where the state wanted the highway to be constructed, property values dropped, and acquisition costs for highway purposes were reduced.

Similarly, the Cambridge Redevelopment Authority, legally autonomous but by local tradition responsive to the City Council on policy matters, defined the Wellington-Harrington Urban Renewal Project boundary so as to leave the Brookline-Elm Street Inner Belt alignment free for highway purposes. As with the code enforcement programs, the City Council approved the project boundaries and authorized sending the Survey and Planning Application to the HUD Regional office in New York.

The Cambridge Model Cities program, on the other hand, defined its boundary to include all the then-known Inner Belt alignments, thereby alerting both HUD and DOT that it supported the City Council's policy by striving to protect the neighborhood from any highway encroachments. Concurrently, Cambridge's Urban Beautification Program applied for and received Federal (HUD) funding for the improvement of a play area that was located within the presumed Inner Belt alignment. And, also, at about the same time, the City Manager's office applied for and received from Washington \$90,000 in amendatory Community Renewal Program (CRP) funds to help the City question the implications of the State's highway plans.

In still another situation, the deteriorated Fletcher School was not replaced by the Cambridge School Committee because the logical site for the new school building was adjacent to the Elm Street Inner Belt alignment.

This list could be lengthened almost indefinitely.

Many City officials -- an example might be Cambridge's earlier representatives to the Metropolitan Area Planning Council -- largely were silent during the critical years of the highway controversy. Their silence, of course, could be presumed to mean support for the City Council's position. In actual practice, however, their silence probably better served those who opposed the City Council policy position.

What is clear is that when the City Council made a policy, some City officials followed it -- many did not. And on occasion, the City Council even negated its own policy.

Not only was Cambridge unable to effectively organize itself in support of City Council transportation policy, the City also was unable to create a coherent administration for the direction of the Cambridge transportation planning effort. In the past, responsibility for separate transportation tasks was assigned, at one time or another, to the City Manager, the Planning Director, a City Councillor, an Assistant to the



City Manager for Community Development, the Director of Traffic and Parking, the Redevelopment Authority Director, the Cambridge Advisory Committee, and even the Mayor. But overall responsibility for the transportation effort was never placed in the hands of one person.

Inadequate as the City's transportation policy-making and administration may have been for two decades, Cambridge was most effective, in the later years of the 1960's, in creating a city-wide anti-highway coalition that skillfully blended policy-making, funding, technical assistance, political acumen, and citizen involvement. While limited in scope, as it was oriented only to highway issues, this experience would well serve as a model for the administration of an intermodal transportation planning process for Cambridge and other cities in the future.

By 1966 Cambridge and the other municipalities in the Boston area found themselves confronted by a metropolitan transportation design system that proposed the construction of a spiderweb of major highways through the Region -- all apparently completely unrelated to proposals for parallel mass transit extensions. For Cambridge, the State's proposals called for the construction of three major highways (the Inner Belt, the Route 2 Extension, and an Intermediate Belt); related interchanges; and, inevitably, major arterial improvements to support commuter flows along Memorial Drive, Putnam Avenue, and a Harvard Square By-Pass. In addition, there was planned an extension of mass transit parallel to the Route 2 Extension beyond Harvard Square.

As in the past, contradiction prevailed within the City Government. On the one hand the City Council joined with the City's representatives in the State legislature and Congress and articulated the danger to the City if the State were permitted to go ahead with this construction program. On the other, the City's then Planning Director and the Code Enforcement Committee fostered support for the State's plans. And the City Manager and most of the remaining line departments remained silent. Indecision and inaction on the City's level resulted. All evidence suggested that the highways and their ancillary facilities would be built as the State planned them.

Intruding into this almost hopeless situation a group of citizens organized themselves into a Committee called Save Our Cities. Focusing its energies against the Inner Belt and banding behind the catchy slogan "Cambridge is a City Not a Highway" the citizens soon discovered they needed help in breaking through the disorder at the City level and in countering the massive documentation offered by the State in justification of its highway proposals. Save Our Cities enlisted the help of Urban Planning Aid (UPA), a group of economists, architects, lawyers, planners and community organizers, largely from M.I.T. and Harvard, who had organized themselves earlier in the year to provide just such technical help to neighborhoods in need.

With the help of UPA, Save Our Cities began dramatizing the highway issue throughout the City and particularly in those neighborhoods threatened by the State's Inner Belt proposals. Mass meetings were held. Petitions were circulated. Organizational membership was recruited. The Governor was pressured for a change in State policy. Delegations were sent to Washington to meet with Congressmen, Senators, and Federal officials. Most important, critiques of the State's proposals were developed, supported by impeccable social, economic, and engineering data. Within a year, Save Our Cities and UPA had prepared an alternative location for the Inner Belt so persuasive in its feasibility that the Governor, just prior to the 1966 election, was forced to defer approval of the State's preferred route for the Inner Belt.

By mid-1967, the organizational pressure exerted by Save Our Cities, backed by the technical expertise of UPA, began having its impact on the administrative and political scene within Cambridge. The City Council, supported by Save Our Cities, found itself more and more able to get the City Manager and the line departments to accept its anti-highway position. The City Manager's office was directed to lend its technical capacity to work alongside UPA in support of Save Our Cities. Line department personnel that opposed the City Council's policy position were relieved of their transportation responsibilities, which were taken over by an Assistant to the City Manager. Additional personnel, equipped to give intellectual and technical breadth to the City Council's policy, were employed by the City Manager. Before the year ended, funds were allocated from the City Manager's office to pay for UPA's services and that of other consultants required by Save Our Cities. It was the City Manager's office that took the leadership in organizing the Mayor's Advisory Committee on the Inner Belt, the academic group that negotiated a restudy of the feasibility of the Inner Belt with Lowell Bridwell.

In January 1968 Save Our Cities, UPA, and the City Manager's office mounted a huge demonstration financed by the Cambridge City Council that brought together, for the first time, the full range of Cambridge's diverse citizenry and the municipal administration to march on the State House to demand that the Governor halt not only the Inner Belt through Cambridge but all highways within Route 128. Joining Cambridge's delegation in marching on the State House were nineteen other community and neighborhood organizations in the metropolitan Boston area -- from Lynn in the North, to East Boston, the South End, and Mattapan in Boston, to Milton in the South. This demonstration was the stimulus for the formation of the Greater Boston Committee on the Transportation Crisis, which now leads the metropolitan effort for the creation of a transportation system with an emphasis on mass transit, not highways.

By mid-1968 the City Council's anti-highway policy was clearly supported by Cambridge's citizenry and its municipal operation. When it came time for the City Council to appoint a new City Manager, a pre-

requisite was that he strongly implement the City Council policy. From that moment the City Manager's office became a central force in all matters affecting the highway planning process -- including the development of a coalition with the governments of Boston, Brookline, and Somerville; participating in the Bridwell restudy and, later, questioning the validity of its results; influencing the Governor to declare a moratorium on highway construction in the Boston metropolitan area; and, finally, directing Cambridge's participation in the Boston Transportation Planning Review, the current study ordered by the Governor to develop an intermodal transportation planning process and plan for metropolitan Boston.

Space prevents telling the full story of Cambridge's evolving transportation planning process. It is self-evident, however, that Cambridge's experience in the later years of the 1960's clearly shows that effective policy-making and administration at the City Council level must be combined with a citizens' organization -- securely based in the neighborhoods, knowledgeable in the transportation planning process, and skilled in the art of political action -- if the City of Cambridge is to be able to cope with the complexities of transportation planning in the future.

Creating this coalition of policy-making, administration, and citizen involvement is a major goal of the Cambridge-U.S. Department of Transportation Municipal Level Planning Study. This first volume of the study team's final report discusses related organizational framework considerations and proposals.

## CHAPTER 1 -- BASIC ORGANIZATIONAL ISSUES

### INTRODUCTION

#### Local Consensus and Public Transportation Investment

In recent years, government has experienced a new form of dis-economy: the production of an ostensibly desirable transportation improvement that is later met with severe citizen dissatisfaction -- after substantial, irretrievable public investment has been made in planning, design, or even construction. The problem is one of consensus -- either a misunderstanding, or change, or an ignoring of true public interest is involved. Whatever the mismatch, the consequences appear to be too expensive to be ignored. San Francisco, New Orleans, Milwaukee, Baltimore, the District of Columbia, Memphis and more recently the Boston Metropolitan area, have challenged government transportation investments amounting to hundreds of millions of dollars. Wherever the fault may lie for any of these situations, the government and public can no longer afford to "find out later" that a given facility is undesirable for reasons that might have been predetermined by fuller public participation.

In this regard, it seems most sensible to approach the problem from the ground up, so to speak. The local community, from the point of view of both needs and impact, is the proper place to start. The practice of making too many judgments from the "top-down" is, and has proven itself to be, a very risky business. As discussed fully in later sections of this report, the use of a local forum as an active participant in the development of overall transportation policies is seen as the only way to assure that investments are sound. In this connection, it is important that estimates of needs be generated from local sources, since that is where the services are delivered. The so-called "secondary" or "indirect" effects or impacts are particularly felt at the local level; their true extent must therefore be evaluated at that level. There is also the consideration that the local consequences of any investment may justify not building or carrying out an action at all or delaying it for an indefinite period. We must bear in mind that there are usually other pressing and non-risk expenditures needed in any community at any given time. It would obviously be better to care for them first in a world of limited resources.

#### "Top-Down" Transportation Planning vs. the Reconciliation of Locally-Generated Objectives

A close analysis of the various matters of concern in transportation planning indicates that there are few in fact that require a highly-

centralized organizational structure. The matters that do critically require that kind of structure -- such as public investment considerations and overall system operational efficiency -- are ironically the least likely to be so treated. Instead, it is far more common for judgments and estimates to be made from the "top-down" as to what is desired by and desirable to, a given community. The unfortunate multiplication of public hearing requirements has left both the planning technician and the public frustrated. The technician, in his own and the public's view, is not necessarily the most appropriate person to be given extensive responsibilities in conducting public forums, yet he has reluctantly inherited this onerous task as part of his job. The public, on the other hand, instinctively mistrusts the technician in a political role-playing function, acting both as legislative committee, and judge, as it were, to its petitions. There is therefore a need for an institutionalized public forum as part of the traditional political structure that does not further burden the already crowded legislative branch and that relieves the technician from the conflicting roles that undermine his usefulness and credibility.

Wherever possible, repetitive public hearing requirements should be reduced on the one hand, and more attention given to providing local forums for consensus-building. It is then more appropriate and effective for the higher levels of government to exercise their rightful function of reconciling local, state and federal objectives -- a task which, if well done, should be a sufficient enough challenge. In this regard, the attempt to centrally "estimate" local objectives as well as needs is viewed as essentially a self-defeating exercise.

## SECTION 1 -- GOVERNMENTAL RELATIONSHIPS

### Existing Governmental Relationships in Transportation Planning

A brief survey of the existing governmental relationships for transportation planning may be in order. While much of this may be obvious and generally known to those working professionally in the transportation field, it may be useful to highlight the extent and manner in which agencies do in fact relate to each other.

#### A. Federal -- City

Except in an informal way, a city has had little or no "standing" with regard to the Federal Department of Transportation. Contact between the two governments has existed through political representatives; these contacts are usually for the purpose of arranging or negotiating participation with state, regional or independent agencies involving Federal funding of programs. Some demonstration grant money has required more direct local involvement, as have certain forms of Urban Mass Transit Administration assistance, but this has generally been the exception. Another exception has been the TOPICS (Traffic Operations Program to Improve Capacity and Safety) program, which was more recently conceived as the kind of program that should be initiated locally as a matter of future policy. This would also be true of the projected "Urban Systems" Program (Class D) which would extend this policy. Whether intended or not, many cities have felt that their concerns have been "bypassed" by the present arrangement. This is no doubt the concern to which Federal revenue-sharing has addressed itself, a subject that will be discussed further.

#### B. State -- City

Except for informal cooperative working arrangements such as traffic and street signing which are modest at best, there has been little direct transportation planning involvement by cities within the state structure until recently. The Governor's Boston Transportation Planning Review, now nearing completion, represents a current counter-trend that grew out of four crises caused by impending highway facility construction:

1. I-695, the so-called "Inner Belt," through Cambridge, Boston, Brookline and Somerville;
2. Route 2 Extension -- the proposed Concord Turnpike extension into Cambridge, Arlington and Somerville;

3. I-95 South -- the so-called "Southwest Corridor" through Boston and Milton; and
4. I-95 North, through Revere, Saugus, Lynn, Peabody, including a Beverly-Salem connector.

Each of these facilities had run into strong local opposition which impelled the Governor to halt construction until an 18-month "Restudy" of Metropolitan Boston transportation needs within the Route 128 circumferential expressway could recommend the most advisable options for future transportation investment in the area. It is important to remember that this study is an ad hoc arrangement, funded out of monies previously authorized for a "joint development" study (known as "Task B") for a particularly controversial segment of the proposed Inner Belt. As such its unique and laudable participatory functions are not integrated into the State governmental structure and could well leave a serious void upon its termination. Current efforts by the Secretary of Transportation and Construction, the Metropolitan Area Planning Council (MAPC), the Massachusetts Bay Transportation Authority (MBTA), and the State Department of Public Works (DPW) to establish a "Joint Regional Transportation Committee" for the Boston Metropolitan Area may succeed in consolidating and institutionalizing the gains the ad hoc study has made in bringing local interests into the State transportation planning process.

Another exception is the already mentioned TOPICS Program, which is coordinated by the State Department of Public Works. Here, under the terms of the Federal guidelines, a consultant retained by the DPW is charged with the responsibility of developing TOPICS plans that coordinate the individual municipal TOPICS programs.

The so-called Technical Coordinating Committees set up by the Massachusetts DPW to meet the requirements for a continuing, coordinated, comprehensive planning process as required under the 1962 Amendments to the Federal-Aid Highway Act have not met the certification requirements as interpreted by the U.S. Department of Transportation (D.O.T.) for adequate local community participation. In the Boston Metropolitan Area, the previous Eastern Massachusetts Regional Planning Project had served as an interim vehicle for postponing the need for meeting these requirements. When this Federally-funded study became defunct, there was no longer any state or regional instrumentality to provide for the required community representation. In this regard the role of the Metropolitan Area Planning Council will be discussed below.

With regard to local planning assistance by the State under the so-called "701" Program (U.S. Department of Housing and Urban Development -- under the Housing Act of 1954), this program has in fact not provided for state-city transportation planning relationships through its administration by either the Department of Community Affairs or its

predecessor in "701" responsibilities, the Department of Commerce and Development. The new Cabinet office of Communities and Development similarly has not taken on such functions. The Secretariat for Transportation and Construction, however, would be the logical office to be expected to develop any such relationships, if they are in fact to exist. In order for the Secretary of Transportation and Construction to meet the certification requirements under the Federal-Aid Highway Act on July 1, 1972, arrangements for community participation of this nature will have to be shown to D.O.T. in each of the urbanized areas in Massachusetts. Arrangements have already been made for setting up a Southeastern Massachusetts Joint Transportation Planning group to attempt to comply with the requirements for that area, and, as discussed above, arrangements for the Boston Metropolitan Area (including Cambridge) are in the embryo stage.

Special mention should here be made of the relationship between the City and State Legislature -- more particularly the Joint Legislative Committee on Transportation, which does engage in certain de facto transportation planning activities to which cities may have access. This includes matters regarding the Massachusetts Bay Transportation Authority (MBTA), particularly financial and related questions. Since the Legislature and Executive are strongly divided along political lines, this kind of participation may take on a partisan character that must be given close attention in the consideration of these problems.

#### C. Regional/Metropolitan -- City

State and Federal program structure contemplate, at least in theory, that city participation in transportation planning activities take place at the regional or Metropolitan level of government. For cities in the Boston Metropolitan Area, as already has been mentioned, this meant the Eastern Massachusetts Regional Planning Project in the past, and will now involve the Metropolitan Area Planning Council (MAPC). The present working situation is as follows: the Council is made up of members appointed by the cities and towns within the Metropolitan Area. It is the "701" Planning Agency for the area for the purposes of regional planning (under HUD Guidelines) as designated by the State Department of Community Affairs. It is also the Regional Clearinghouse for Section 204 (Demonstration Cities and Metropolitan Development Act of 1966) Planning Review purposes, and for companion reviews under the Intergovernmental Cooperation Act of 1968 and OMB (Office of Management and Budget) Circular A-95. This means that all Federal grants (including transportation grants) covered by the Acts are to be sent to the Regional Agency (MAPC) for review and comment. Under the concept of the review process, it is the Regional Clearinghouse (not the State Clearinghouse, which has the parallel review responsibilities for state agencies) that is charged with the responsibility of notifying local communities within its geographical district



of Federal grant applications that affect their jurisdictions. The essential purposes of the Intergovernmental Cooperation Act are to avoid conflicting Federal grants and planning policies, in addition to serving an informational function.

Whether due to lack of staff, or other administrative difficulties, it must be said that in fact the process does not adequately keep the various (101) MAPC municipalities fully informed of all grants that are of interest or concern to them. Often, if notice is given, it is not timely enough for effective action or response. This is a matter for particular concern, since, as we have pointed out, the Regional Agency is the theoretical "contact point" for municipal involvement within the concept of our State and Federal system. The region is also important to the municipality with regard to certain programs and certain administrations, such as the Urban Mass Transit Administration, since municipally-targeted grants would preferably be channeled through a Regional agency, as a matter of administrative policy.

Finally, to pick up again on the subject of certification under the Federal-Aid Highway Act for a continuing, coordinated, comprehensive, planning process involving adequate measures for local participation, the Metropolitan Area Planning Council had over the past two years taken the position that it could not serve as the representative for its constituent communities (including the City of Cambridge) on a transportation policy committee as required under the U.S. Department of Transportation Instructional Memoranda and Policy and Procedure Memoranda dealing with this subject. This is one of the principal reasons that certification of compliance with this requirement has not been made to date by D.O.T. However, as noted under "State-City" relationships above, this issue is now moving towards resolution.

The foregoing indicates the critical extent to which the City has lacked true representation or participation in the transportation planning process within the State.

**D. Massachusetts Bay Transportation Authority -- Metropolitan District Commission -- City**

There are two important transportation agencies with relation to the City of Cambridge that must be treated separately since they still operate somewhat independently in the state structure. The Massachusetts Bay Transportation Authority (MBTA), although it is made part of the Executive Office for Transportation & Construction under the State Modernization Act, was originally created in corporate form -- with a Board of Directors and bonded indebtedness under a trust agreement. It has thus been somewhat insulated from the demands of other State and local government entities. For purposes of assessment, however, there

is an Advisory Board made up of membership weighted as to population of the cities and towns within the MBTA District. This Board includes the City of Cambridge, as part of the "original" (Metropolitan Transit Authority) District. The Advisory Board has a limited power of budgetary review and approval over the Authority. Within the MBTA District the Authority has rate making, scheduling and route selection powers over all public transit operations. Until the recent reorganization under the State Modernization Act (otherwise known as the "Reorganization Act" or "Cabinet Act") and the initiation of the Boston Transportation Planning Review, there was little municipal participation in the transportation planning operations of the Authority. Even since, changes in this regard have come about more through changes in political appointments (the Board Chairman) than through government structural change. The City of Cambridge, through its own intensive efforts, has also succeeded in obtaining a cooperation agreement with the Authority which assures it of substantial participation in transit planning and decisions affecting the City. Other than this self-obtained achievement, now shared by several other cities and towns, it is fair to say that there is no adequate institutionalized structure yet in existence for municipal participation in transit planning with the MBTA. Hopefully this will change with further evolvement of the State Transportation Cabinet office.

With regard to the Metropolitan District Commission (MDC), it, on the other hand, has not yet been assigned to the Cabinet Office for Transportation and Construction. Under the Reorganization Act, this is still subject to further negotiation. In other words, it still remains a rather independent entity with regard to its extensive commuter-road functions (called parkways) with important segments such as Memorial Drive and Alewife Brook Parkway running through the City of Cambridge. The structure for local participation in MDC Transportation Planning has never been particularly clear. A case in point was the necessity to create an ad hoc study group for the North Terminal area, gathering together the many interested parties in an advisory committee to the MDC and DPW in making such decisions as whether to build the Leverett Circle Bridge, and, if so, how and where. If these functions become part of the Transportation Cabinet, they may be treated together with others in the manner previously discussed -- hopefully, that is to say, in some institutionalized version along the lines of the Working Committee of the Boston Transportation Planning Review that will permit full community participation in transportation planning.

#### E. Inter-City

The format of an inter-city "cooperation agreement" for transportation planning has existed from time to time in relations between one Metropolitan Boston city and another. It is fair to say, however,

that inter-city cooperation has occurred more as a consequence of community action groups initiating cooperative arrangements than from the existence of any more or less formal working structures. The prototype organizations have been UPA (Urban Planning Aid) and GBC (the Greater Boston Committee on the Transportation Crisis). On the whole, they have proven to be quite effective in this role. To some extent professional organizations such as the Massachusetts Federation of Planning Boards serve as an impetus to inter-city cooperative relationships. However, its resources in this regard are limited, and cannot serve as providing a fully on-going function.

Recent inter-city developments involving Cambridge offer promise. In November 1972 fourteen "Northwest Corridor" cities and towns formalized, on the initiative of Somerville, an inter-city transportation planning coalition already operating on an informal, less extensive basis with the help of the Boston Transportation Planning Review's Community Liaison ("Study Element II") staff. This new coalition, known as the Northwest Corridor Transportation Policy Committee, includes an effective eight-town "Subregional Intertown Liaison Committee" (SILC) which had organized earlier around transportation issues in the far northwest part of the corridor. Organizational impetus in the core section of the corridor was initially provided by Cambridge via Red Line transit extension meetings with Arlington -- substantial stimulus for this beach-head effort having been generated by the Cambridge - D.O.T. study then under way.

#### F. Citizen -- City

The present contact points for the citizen in dealing with transportation planning matters in City Government are as follows: directly through the City Manager, and thence to a department at his discretion; through the Mayor; through the Chairman of the City Council Committee on Transportation and Parking; through the Department of Planning and Development; through a City Transportation Coordinator with line responsibility to the Director of Planning and Development and staff responsibility to the City Manager and to the Director of Traffic and Parking (as a result of recommendations growing out of this study); through the Police Department (mainly with regard to traffic safety); through the Traffic Board; through the Planning Board; through the Cambridge Advisory Committee; through the Public Works Department; and, with regard to certain matters, through the Council on the Aging and the Cambridge Redevelopment Authority.

The division of labor with regard to transportation problems is not always fully clear to the citizen; and particularly where the magnitude of the problems becomes great, the agencies are probably not adequately staffed to deal with larger public involvement.

## G. Private Organizations -- City

The following are examples of organizations actively involved in Cambridge transportation issues. It is essentially a preliminary list, with brief descriptions in each case of the nature of their activities. These groups range from being private, non-profit citizens groups to quasi- or governmental organizations whose main task it is to work with certain public interests. In each case, the organizational interests may range from being very specific (e.g., either neighborhood-based or limited to Cambridge) to being oriented toward regional or state-wide interests with Cambridge as an active element. The listing of non-governmental organizations is intended to indicate types of organizations and is most likely not exhaustive. In the case of quasi-governmental organizations, those listed would be likely to be one of a kind, especially if at the local level.

An important next step in the effort to implement the organizational improvements discussed in this report will be to expand the listing and description of organizations to the point where we can be fairly well assured that the organizations represented on any public forum that might emerge from this study are representative of as complete a cross-section of Cambridge as possible.

### 1. Non-governmental, Non-profit Organizations, Ranging from Neighborhood Groups to Institutions

- a. Cambridgeport Residents Union (CRU) -- This is a neighborhood group that actively articulates and seeks consensus on a wide variety of neighborhood issues and is the organ of neighborhood political influence. The Cambridgeport area is severely affected by heavy, loud and hazardous through trucks and fairly large volumes of through automobile traffic on its narrow residential streets. Residents have discussed the truck and passenger car traffic at length and have also discussed the need for improved public transit service and improved access to the Charles River waterfront (across heavily traveled Memorial Drive). They have recently become concerned about the greater influx of students that is likely to accompany transit stops being discussed for the area.

The City has many other neighborhood-based organizations like CRU that have an active or potential concern about transportation issues. All these groups would need to be involved if a public forum on transportation generated by this study is to be meaningful. It would be important that organizational and technical skills and other types of resources be made available to these organizations to

ensure their effective participation. Examples of other such neighborhood-based groups that are active include (but are not limited to) the East Cambridge Planning Team, Neighborhood 10, Western Gateway Survival Committee, and the Ward 3 Democratic Club. Close cousins to these neighborhood groups are the City's business-district organizations, such as the Harvard Square Businessman's Association and its counterparts in Central and Porter Squares.

- b. Humans Against Loud Trucks (HALT) -- This type of organization works with neighborhoods affected by issues that cut across neighborhood boundaries, requiring the joint effort of each to ensure that their interests are included in overall considerations. In this particular case, a truck committee was organized because of the severe conditions imposed on neighborhoods by trucks on Cambridge streets and because the truck problem affecting one community could not be solved by moving it into another residential area. Any solution to the problem required the joint agreement of other affected neighborhoods. In the course of its activities, HALT gained the sanction of the Cambridge City Council, and is in the process of seeking support from other neighborhoods and city-wide organizations in order to develop sufficient public support for needed remedial action. The group has also identified financial and technical assistance required to answer questions relevant to its problem.

Such city-wide issue groups would have an important role to play in the deliberations of a public transportation forum. Other such groups have interests lying both within and outside Cambridge boundaries. These include the Association for Bicycle Commuters, Sierra Club Transportation Committee, Massachusetts Council on Transportation for Handicapped and Elderly, and the Boston Street Railway Association. Other potential groups would include the interests of elderly persons, students, commuter rail riders, transit riders, and so forth.

- c. Cambridge Chamber of Commerce Transportation Committee -- Several years ago, an assessment of local business conditions by the Cambridge Chamber of Commerce resulted in a finding that transportation of people and goods to, from, and within Cambridge was weak enough to adversely affect business decisions as to locating, remaining, or expanding in Cambridge. As a result, the Chamber

established a transportation committee which has since been active on a regular basis. During the past year, it has concentrated on three major areas of concern: the long-range Northwest Corridor transportation planning of the Boston Transportation Planning Review; the potential of MBTA for improving transit facilities and services (with special emphasis on the proposed Red Line transit extension from Harvard Square to West Cambridge) and thereby to move more people, more quickly, and more efficiently; and the need for developing off-street parking and loading facilities on a large-scale in order to eliminate the on-street parking/loading problems that reduce vehicular flow on Cambridge streets. This latter is a particular need, as seen by the Chamber Transportation Committee, in light of the Governor's decision not to build an Inner Belt or Route #2 extension. Currently, the committee is preparing recommendations to send to the Governor on Northwest Corridor issues under study by BTPR.

Other business-oriented groups warranting representation in any local transportation forum that may evolve from this study would include taxi and truck owner associations. The potential of the taxi business to increasingly integrate itself into a public transportation system must be explored through cooperative efforts with owners. As to trucking, only by continuing around-the-table contacts with owners of trucking businesses can localities hope to keep in perspective the negative operating characteristics of trucks on the one hand, and the indispensable services they render to our urban areas on the other hand.

- d. The Planning Office of MIT -- The Massachusetts Institute of Technology, a neighborhood in its own right, needs to protect its interests as well as to relate to the interests of surrounding areas. In MIT's case, much of its internal and external relationship has to do with transportation. As in the past, MIT continues to oppose an alignment of an "Inner Belt" or other special purpose highway that skirts the campus along its western boundary on the Grand Junction Rail Line. This includes opposition to a truck route proposed by HALT. It is apparent -- and appropriate -- that any resolution of issues that affect MIT will have to involve its spokesmen in the decision-making process.

It would be essential that institutions -- for their own protection and for the continued benefit they bring to the Cambridge community -- be included in the workings

of any transportation public forum that may emerge. Other such institutions would include Harvard University, the high schools, hospitals, churches, utility companies, and the like.

- e. Cambridge Civic Association (CCA) -- Cambridge has for some time benefited from several city-wide civic interest groups actively involved in transportation issues. The CCA's Transportation Committee, a group of volunteers with some measure of transportation expertise, was, for instance, active in the Inner Belt dispute. It helped organize residents within the route and others that would help lend necessary political support; it held meetings, developed strategy, put together materials that helped people understand the conditions and kept people moving on the issues (e.g., "VI Speak" -- a story of Inner Belt issues as seen by six people in the highway's path).

Other important city-wide civic interest groups having transportation committees include the Cambridge League of Women Voters, an organization whose contributions towards clarification and resolution of issues has been substantial. Each of these organizations has a different and very active role to play, and the absence of any of them from a public forum on transportation would throw doubt on the forum's being representative of all significant interests.

- f. The Greater Boston Committee on the Transportation Crisis (GBC) -- In 1968 and 1969 it became apparent to many central city communities threatened by proposed superhighways that unless they joined together it would not be possible for them to bring about a reassessment of the regional and state level philosophy that brought this problem to their communities. In this light, they formed a coalition of community groups that has since played a key role in the Metropolitan Boston transportation decision-making process. Working with Cambridge groups, for instance, the GBC was influential in getting the proposed Inner Belt restudied (TASK A); it also was effective in helping to bring about cancellation of a companion study (TASK B), which assumed acceptance of the Inner Belt. It provided much of the basis for the Governor's decision to put into effect a Highway Moratorium within Route 128 (February 1970) and to set up a highway restudy known as the Boston Transportation Planning Review (BTPR). The GBC was an important participant in formalizing the philosophy and work

program of the BTPR through its participation in the Study Design phase. It also participated in the consultant selection and contract drafting stages, and has been a major force in overseeing the BTPR's subsequent planning activities. In part, because of GBC's persistence, several early and major decisions resulted from the re-study process -- namely, the cancelling of the Inner Belt and Route 2 Extension in Cambridge and Somerville, as well as the Lynn Connector, and the Lynn Woods I-95 alignment.

Similar participation appears to have been instrumental in bringing about the Governor's recent decision to abandon the Southwest Expressway and Third Harbor Tunnel projects. Throughout the BTPR study, GBC has focused much of its effort on re-evaluating and improving public transit service. Working with the BTPR staff and community constituents, it has been effective in securing three new MBTA bus routes. It is presently working on the structuring of a continuous regional transportation planning process that adequately includes all affected citizen interests.

- g. Urban Planning Aid, Inc. (UPA) -- In 1965 and 1966 architects and planners working in various professional and private capacities began meeting in the evenings and weekends with neighborhood residents affected by highway projects. This group has continued to make itself available to communities and to provide them with technical and organizing assistance on a variety of issues in addition to transportation, e.g., urban renewal, landlord/tenant relations, housing conditions, health and safety in the work place. Since 1969, UPA has received OEO funds to provide this assistance to low and moderate income communities in an effort to change undesirable institutional conditions. UPA's client groups include many of the highway-threatened communities of pre-GBC days, who now work closely with GBC to coordinate planning and strategy.

## 2. Quasi-Governmental Organizations

- a. Cambridge Equal Opportunities Council (CEOC) -- As the anti-poverty agency, CEOC, together with its neighborhood planning teams, is in a very good position to ensure that appropriate issues are covered in any public discussion of transportation issues.



- b. Model Cities -- The Model Cities staff and Board are working to improve an area that includes part of the old Inner Belt alignment. This area was subjected to over 20 years of adverse impact due to uncertainty as to the outcome of Inner Belt planning. It is also an area deserving priority attention regarding the provision of transportation services and facilities.
- c. Council of Aging, and the Committee of Elders -- Both of these groups work with a large segment of Cambridge populations that have significant transportation and associated problems.
- d. Cambridge Advisory Committee (CAC) -- As an official member of the City Organization, CAC has had a history of strong involvement and influence in Cambridge transportation matters.
- e. City Manager's Task Force on Alewife Tunneling Study -- This is a special committee specifically established to interact with a technical study of the Red Line Rapid Transit Extension from Harvard Square to Alewife.
- f. Community Schools -- The Community School program has considerable potential for developing close working relationships with neighborhood residents on a variety of issues, including transportation. Among many possible examples, there is the opportunity to develop valuable information on unmet or poorly-met transportation needs of both school children and parents.

#### Relationship to Federal Revenue-Sharing Proposals

With the advent of Federal revenue-sharing, an improved structure for local transportation planning and priority setting has become all the more important. The consolidation of categorical grants, and the massive "pass-throughs" of Federal funding to local as well as state governments will require the ability to develop strong program structure in the municipal departments and an equally strong local consensual base with the citizenry.

Those who have in fact been the strong opponents in Congress of the concept of revenue-sharing have aimed their most effective criticism at the inadequacy of existing local government structures to make effective and responsible use of funds of the magnitude involved in the revenue-sharing proposals. It is quite true that there has been a lack of experience in dealing with extensive program management at the local level. Also, the citizen has found that in order to make his voice heard he must often seek other forums to do so.

In view of these great challenges and opportunities presented by the prospect of greater decentralization of Federal spending, a program- or performance-budgeting procedure should be introduced into the city government. Tied to the 6-year capital budgeting procedure developed by the City Manager's office and the Department of Planning and Development, working jointly with the Department of Traffic and Parking and other related agencies, this can provide the necessary basis for evaluating spending and investment performance -- something which has not been really possible under the present line-item budget as it operates today -- with only total costs being shown, without relationship to the achievement of objectives.

As to other shortcomings, it will be important to consider the concept of a "Transportation Forum" -- and the broader concept, perhaps, of a more evolved "Community Development Forum" serving the Planning Board -- as a most promising and attractive institutional improvement for Cambridge. Such a forum could serve as a useful vehicle for helping the Planning Board, City Manager and Council make decisions on local planning policies, and also provide the needed integrity for large undertakings by facilitating full public disclosure of issues and actions to be taken, and their probable consequences. This concept appears to hold great promise for building the needed local capabilities and responsibilities where they are in fact most lacking. Further discussion of this subject will appear below.

#### Organizational Consequences of Federal Requirements for Local Community Participation

There are several Federal transportation programs that more recently call for substantive community participation in state transportation planning. These provide both challenges and opportunities to the municipality to structure effective means for involvement in the process. The more important Federal programs are as follows:

- a. The Federal-Aid Highway Act calls for a continuing, coordinated comprehensive planning process carried out cooperatively between state and local governments. While the state is obligated to show the Federal D.O.T. that localities in each urbanized area participate on a policy committee that has been provided for them, it is also important for each municipality to decide how its position will be represented. Until recently, there was no such body provided for the City of Cambridge in which to participate. As noted earlier in this chapter, however, the Secretary of Transportation and Construction, DPW, MBTA, and MAPC have now joined together to sponsor and support a Joint Regional Transportation Committee whose function will be to oversee Metropolitan Boston transportation planning. Cambridge was given a seat on this committee.

- b. The National Transportation Needs Study -- Recently the Congress has requested D.O.T. to report transportation needs to it and the President in a multi-modal format, for the purpose of making Federal appropriations. (It has previously only received highway classification and needs reports.) D.O.T. has responded with the National Transportation Needs Study which depends heavily upon local participation in making needs estimates to the state executive office. At present, the 12 regional planning agencies are being used as the vehicles for assembling local needs -- they having been given the responsibility of finding out what each municipality within the urbanized areas in their jurisdiction has determined. At present, the procedure is extremely tentative with little direct input from the municipalities. Since it is of great importance that a determination of needs be originated and estimated at the source, this Federal requirement should be actively pursued by the City and accurate, thorough recommendations presented to the Needs Study biennially. If this is not done, the crudest types of estimates will be aggregated by the poorly staffed Regional Agencies for the many localities within their jurisdictions. The opportunities here are therefore exceptional for building truly citizen-responsive transportation policy for all levels of government. The value of a transportation Forum with regard to this responsibility is also quite obvious.
- c. The trend toward multi-modal transportation planning is reflected in the development of a Unified Work Program for Federally funded transportation planning, and the extension of the continuing, coordinated, comprehensive transportation planning requirements of the Highway Act into other modes -- as urban mass transit. Thus, opportunities for local participation will essentially be broadened, and require greater responsibilities on the part of the municipality in transportation planning. The development of an institutional arrangement to deal with these responsibilities at the local level is therefore crucial.
- d. As we have mentioned previously, the City must devise a more effective means for obtaining timely notice of Federal grant applications affecting transportation in its area of concern. There are presently no firm guarantees that the Regional Agency (MAPC) will have sufficient staff to successfully fulfill its role as the currently functioning Clearinghouse.
- e. Federal Urban Systems ("class D") roads and TOPICS-type programs, as already indicated, are based on the concept of

locally generated transportation planning. The increased involvement of the Department of Planning and Development and the Department of Traffic and Parking in initiating local plans and programs as part of State and Federal transportation plans must therefore be expected and encouraged. Here it is important for the locality to actively seek to improve Federal guidelines for local participation requirements in present and future programs as they evolve.

The internal structure for municipal planning must also be made ready to accept the increasing responsibilities generated by these policies. Principally, this will mean raising the municipal transportation planning function to the status of land-use planning -- a major, on-going function requiring continuity of programs, staff and funding, with the latter perhaps provided from earmarked funds generated by fee-paying transportation activities (e.g., parking, auto ownership, transit fares).

- f. The various Federal public hearing requirements, as they have been more strictly administered, have tended to force greater community involvement. In many cases in the past, participation occurred "after the fact." Now, as in the case of the Federal-Aid Highway Program, there is both a corridor and design hearing requirement which impels local involvement at an early stage. Under the so-called "4(f)" review (Department of Transportation Act of 1966, as amended) and the Environmental Policy Act of 1969, where parks or similar public areas may be involved, even more stringent requirements are operative.

### The Regional Planning Problem

From what has already been said, it must be apparent that one of the principal keys to successful local participation in transportation planning is an effective regional or inter-community organization with which to relate. MAPC and MBTA have not had sufficient funds to staff planning efforts involving heavy local participation. As indicated, the Boston Transportation Planning Review (BTPR), while a leader in participatory planning, is still of an ad hoc nature, its 18-month funding terminating in the near future. Several "corridor" or area study groups have been designated under the BTPR which have permitted rather extensive community involvement for the purposes of making decisions on the construction moratoriums under the Restudy. These may possibly find a continued life after the decisions are made, as is possible with the Restudy Steering Committee structure itself as reincarnated in the Joint Regional Transportation Committee discussed above.

All the foregoing regional designations, it should be pointed out, are more or less decided "from the top." As noted earlier in this chapter, an interesting alternative to this procedure may be found in the so-called "SILC" group (Sub-region Intertown Liaison Committee) consisting of the public officials of nine towns (Bedford, Burlington, Carlisle, Concord, Lincoln, Sudbury, Wayland, Weston and Wilmington) voluntarily formed into an area unit to deal with transportation problems. Although originally concerned with the possibility of the State DPW building a "Middle-Circumferential" Highway through their jurisdictions, the group has proven to be a cohesive one for dealing with other transportation crises on a continuing basis. In this respect, it might well be seen as a model for a self-generated coalition of communities providing true local participation on broader issues. Moreover, the problems facing SILC are indicative of the kinds of considerations that must go into making a regional arrangement work; as SILC deals with other transportation issues, it finds that its membership may lack certain important localities affected by the new problems. Also, some problems do not relate at all to existing membership. The lesson that appears to be urging itself upon us is this: in order to succeed, community groupings must not only be self-generated, but not be rigid and inflexible. In fact, flexibility is the key to meaningful inter-community participation. Perhaps the mistake of the past has been to try to fix regions or sub-regions as if they were immutable. The evil was then further compounded by enlarging the district further and further (to be more "inclusive") until it became virtually unmanageable. It would seem far more wise to permit the issues and interests to generate their own alliances than to attempt to impose them (and estimate them also) from above. The natural format for these arrangements is the cooperation agreement. Beyond this, community groupings might be loosely structured in a larger regional organization. When considering the transportation problems of Cambridge vis-a-vis Somerville, Boston, Brookline, Arlington, Medford, Watertown and Arlington, and others, one begins to see the value of this kind of approach. In technical terms only, it has been observed, for example, that Cambridge has both "circumferential" -- and "radial"-oriented transportation problems, dictating at least two geographic regional arrangements. The newly established Northwest Corridor Transportation Planning Policy Committee will require careful watching in this light, as it may prove too unwieldy unless able to coalesce around one or two major objectives shared by all participants.

## SECTION 2 -- LOCAL GOVERNMENTAL CONSIDERATIONS

### Staging of Local Governmental Organizational Change

The setting up of a "Joint Directorate" (or "Interdepartmental Team") for Transportation Planning and a citizen/public agency "Transportation Forum" should be seen as a staging and testing operation in the broadening of local government participation -- that is to say, both inside and outside the municipal structure. Since transportation is in a sense a service function, it is to be expected, for one thing, that other issues such as community development objectives will begin to take precedence over the immediate crisis issues that are the cause of the present intense interest in transportation matters. Over the coming years, it would probably be healthy to encourage the evolution of the Forum into a broader subject matter, as a "Planning Forum" or "Community Development Forum" functioning in this model as an advisory unit within the Planning Board. Thus, the shift in purpose might be seen more as treating causes rather than effects, or seeking to prevent the ailments rather than searching for the cures. The shift in subject matter might, for example, consider the question of the location of traffic generators in city development rather than transportation facility location. Further, it might also be desirable to make available to the various "Citizen Boards" that are intended to provide public participation and/or representation the views of such a broader Planning Forum -- as that institution is able to prove its flexibility, working efficiency, and credibility.

### Basic Structural Options for City Transportation Planning

The question how to best organize for Transportation Planning in the City of Cambridge suggests several basic structural options which should be considered. They may be enumerated as follows:

- a. Department of Planning and Development leadership, with other city agencies as participants. Here the Department head may or may not act as chairman to a Transportation Forum if it exists.
- b. Department of Traffic and Parking leadership, perhaps with an expanded role in transportation, with other city agencies as participants. Here, again, the Department head may or may not act as chairman to a Transportation Forum if it exists.
- c. A "Joint Directorate" -- where the Department of Planning and Development and the Department of Traffic and Parking

serve as co-equals in exercising a leadership role with regard to other city agencies as participants. Here they also may or may not act as co-chairmen to a Transportation Forum, if it exists.

- d. City Council Committee of Transportation as exercising a leadership role. This option would relate more appropriately to a Transportation Forum as part of the legislative structure.
- e. City Manager's leadership -- with or without a council of department and agency heads (or Interdepartmental Transportation Team) responsible for advising the City Manager on Transportation-related decisions. Here, all department/agency heads would serve more or less as equals, acting as a functional "cabinet."
- f. Strong Transportation Forum -- to structure the Forum so that it is as independent as possible within the government structure.
- g. Planning Board leadership, perhaps in some degree jointly with the Traffic Board. Here a functionally-differentiated forum could be advisory to the Board.

Consideration of these structural options must begin with a focus on two basic related factors: (1) most Cambridge transportation issues involve, in varying degrees, a broad spectrum of city departments; and (2) Cambridge city government has no formal mechanism for encouraging the high level of interdepartmental cooperation needed for maximizing the city's effectiveness in responding to these issues. Viewed in this light, options (a), (b), and (d) suffer from the shortcoming of having a single agency or governmental branch deal with its co-equals on matters that may create problems of jealousy, conflict, or self-serving actions. Also, it is hard to justify a leadership role in all cases to a single recipient in dealing with so broad a subject matter.

Where the Council Committee is concerned (option d), there is the added difficulty of its having to deal with another branch of government that may resent the arrangement as overreaching.

Option (f), a strong or independent Forum, has the special difficulty of establishing its legal basis. Such an arrangement cannot compete, as is, with the established branches of government, and sooner or later the question will be raised as to where the basis of its (independent) power lies in fact. Without extensive changes in law, this body would have to yield its independence or find for itself some legal "home."

Option (g) has great appeal, since ideally the Planning Board would function as the central resource for advice to the City Manager and City Council on all significant quality-of-living issues facing the City at any time -- and as such would deal alike with the physical, economic and social structures that heavily influence the lives of Cambridge citizens. However, as a practical matter, the Planning Board's time resources are already over-committed to administration of the zoning ordinance and to the resolution of closely related planning issues. The magnitude of transportation issues in the years immediately ahead argues against an early move to this option -- though not against the option as an ultimate goal.

Finally, options (c) and (e) are two ends of a compromise solution -- providing for leadership by the two key agencies on the one hand, or for the inclusion of all interested agencies as a "council" of co-equals, on the other -- a sort of functional "cabinet." The latter option suffers more from the problem of manageability than the former, but, in each case, the essential question is one of the extent of leadership that will be provided by the City Manager. So far, it would appear that the more manageable option would be the Joint Directorate, where the most involved agencies would be given primary, cooperative roles, leaving to the Manager the ultimate authority for setting out the details for departmental interaction.

#### Democratic Problems of "Executive Leadership"

The "strong manager" form of government -- that which is predicated on the value of "executive leadership" -- can have certain potential shortcomings with respect to public participation and responsiveness to local needs and objectives. Having effected a strong division of responsibilities between the two branches of government, there is no doubt that something has been given up in the way of public involvement. In this light, the creation of a Transportation Forum is seen as a corrective to the tendency toward the isolation of local government. Having recognized these weaknesses, it would appear wise to seek to adapt and develop our present structure to achieve better "grass roots" contact. The Forum could be a "first round" testing ground for both legislative and executive branches, and provide for a more orderly form of participation where the executive is concerned. The present institutional arrangements are really not set up for extensive public involvement in functional issues, such as transportation. With the assistance of an institution as the Forum capable of this role, the traditional structure may operate with greater effectiveness. In fact, the suggested arrangements might be compared to use by the judicial branch of administrative fact-finding boards, referees, and the like to be relieved of business that it cannot effectively handle -- thereby providing the essential time for fulfilling responsibilities that are more important for it to



discharge. Cambridge has what is called a "Plan E" form of charter under State legislation -- a so-called "strong Manager" system. Perhaps what is being proposed in this respect is a democratic corrective to this form that does not negate its advantages.

#### Transportation Decision-Making Categories -- Their Relationship to Local Structure

In the evolution of a local transportation planning process, it would be worthwhile to consider certain categories of transportation decision-making that may have differences in their effect upon local structure. A significant division occurs along the following lines, for example:

- a. Transportation Investment Decisions;
- b. Transportation Management Decisions (e.g., transit schedules, routes, fare structure, operations or equipment changes);
- c. Community Development Decisions

This calls for a more flexible arrangement with regard to participation by the various agencies involved in the transportation planning process. It argues for the setting up of functional committee-type arrangements, most desirably including the pertinent interested local citizen groups as participants. This working arrangement could proceed to identify specific problems, priorities and the appropriate channels for developing solutions. In certain cases, it would be more appropriate for certain agencies or persons to take leadership roles, or be more heavily relied upon for their expertise, than in others. An example would be the Department of Traffic and Parking with relation to Management, and the Department of Planning and Development with relation to Investment. Thus, the structure in operation should not be cast too rigidly, but accommodate somewhat to the nature of the subject matter.

#### Budget Availability on Transportation Matters

The consideration of budget proposals is a delicate matter in government, but the question of whether or not true involvement in policy development exists must always be answered ultimately in terms of how money and other resources are allocated. The Manager must to a major extent preserve his prerogatives with regard to budget preparation and review; however, how and why moneys are being spent must come under more public surveillance to assure broad-based local planning. In this respect, a Transportation Forum would have to be made aware of agency work items and assigned priorities in order to make meaningful

contributions to the planning process. The problems that the transportation-related agencies have to deal with should, on the other hand, be made fully known to the public, including other agencies as well. It is, after all, to the agencies' advantage to have their programs backed by public support and the value of their activities as seen by their "clients" brought out. In this regard, we have already discussed the essential value of "Performance" budgeting in providing the necessary format for intelligent public participation in the spending process.

### Funding Sources for Community Transportation Planning

#### a. Non-Local:

While there is now a direct input of funding for community transportation planning available from Federal sources due to the enactment of a revenue-sharing program, there remain two significant additional Federal sources from which assistance may be possible:

- (1) Highway Planning and Research Funds (under the DPW-administered Federal-Aid Highway Program) -- particularly for carrying out the continuing, coordinated, comprehensive planning requirements already discussed. Although direct support of any of these activities is not provided by the program, it is possible for communities to serve as contractors to the DPW in providing needed data for state and local transportation planning. This has already been done through the Regional agencies and might be further decentralized with increases in the HPR funding. During current years, about \$3 to \$4 million in annual HPR grants has been available to the State budget, without the addition of a discretionary extra 1/2% add-on to the 1-1/2% formula applied to total highway program expenditures for provision of planning funds.
- (2) Through HUD "701" local planning assistance programs -- Also, it is conceivable that through the Department of Community Affairs, local planning assistance from State funds might be made available to cities and towns for transportation planning.

#### b. Local Funding Sources:

There is presently available from the City's Parking Fund annual amounts on the order of about \$800,000. This represents both parking meter receipts and fines for violation of the traffic laws. State enabling legislation permits these funds to be used for parking and related functions, including planning.

### Under-Utilized Agency Resources for Transportation Planning within City Government

There are a number of agency activities within the city that lend themselves well to cooperative or "double-duty" use for transportation planning. Notable among these is the Police Department, with its direct contact with traffic movement, accident reporting, business activity patterns, pedestrian mobility problems and parking needs and effects. The use of official reporting requirements provides a number of exceptional opportunities for obtaining important reliable information on transportation-related problems. Use of the accident report and accident map by other agencies is an example of this kind of function that has already shown some success, and which can be expanded by interdepartmental requests for information. Where citizens can be more fully and directly involved in this process, results can be expected to be more productive. The Fire Department is another agency with good potential in this area, as is the Assessor and the Treasurer (in his tax-collection functions). The Department of Planning and Development's new data-bank program can also contribute significantly in this connection.

### Internal Cooperation Arrangements

With regard to the "staging" or evolution of improvements in local structure, it must be recognized that many changes will require a good deal of time and difficulty to effectuate, due to the "freezing" of organizational structure in legislation. It is for this reason that more attention should be given to the use of internal cooperation agreements and in certain cases, administrative or executive guidelines or orders for setting up flexible, informal working arrangements between the City's agencies. This also serves as a testing device for the effectiveness of the various arrangements that are tried. As they prove worthwhile, it may be appropriate to seek to make them more permanent. But that is a matter of discretion.

### Problem of Departmental and Citizen Board Differences

There are a number of agencies with citizen boards that will develop divergent opinions or positions from time to time. The problem of how to resolve these differences has not always been an easy one to deal with. However, it is well to point out here that the boards do tend to vary one from another in their composition, nature of outlook and constituency. It is seen as a worthwhile objective to aim at eventually eliminating any tendency toward factionalism in individual boards and instead, to make citizen representation as broad as possible. While we cannot and should not hope to eliminate differences of opinion of this sort, we should try to avoid arrangements that result in

arbitrary alignments of citizen vs. departmental interests. In this respect, the Forum-Manager arrangement discussed in the balance of this Volume I report could make a great contribution.



### SECTION 3 -- THE CONCEPT OF A TRANSPORTATION FORUM

#### Basic Transportation Forum Functions Affecting Working Structure

For purposes of clarity, one may define five basic functions of a Transportation Forum that would affect its working structure. These functions indicate that a certain amount of skill and flexibility in working out its internal organization would be required. While these functions are not intended to be "definitive," they do point to significant qualitative differences in the essential operation of a Forum of the kind here contemplated. These functions are as follows:

- a. As an Information Source or Source-of-Data Clearinghouse -- a place where both citizens and government agencies may apprise one another as to the source of vital statistics and other essential transportation related information.
- b. As an "Early Warning" or "Town Crier" type Function -- where impending decision needs may be made known. As a one-stop, open-entry point to the government structure, it provides for both public and government awareness of issues and the appropriate routing for action.
- c. Program Development -- to provide information on the relationship between local, State and Federal transportation programs and Cambridge transportation needs; and to help clarify the potential of these multi-leveled programs for working together to meet Cambridge needs. In a sense, the Federal Model Cities Program was developed somewhat along this concept.
- d. Development of Cooperative Working Relationships -- the Forum could here serve as an instrumentality for identifying the need for cooperation agreements and working relationships between cities, independent agencies, metropolitan or regional entities and State and Federal government agencies.
- e. Assist in the Development of Consensus among Private Groups -- here a Forum could serve as a focal point for caucusing between divergent private interest groups. In fact, it would be essential that the Forum provide the means for the negotiation and resolution of differences so that more effective government action may be possible with regard to complex transportation issues.

### Comparison of the Boston Transportation Planning Review (BTPR) and Transportation Forum Concepts

As already indicated, the BTPR was created in response to community dissatisfaction with four highway projects within the Route 128 area. Set up as a consequence of recommendations by a Governor's Task Force, its basic governmental power concession to local community interests was as follows: in any important decision to be made by the Governor in transportation matters, the community representatives would have equal standing with the Secretary of Transportation and Construction as to presenting their consensus (or their differing opinions were no consensus possible) to the Governor as an input to his decision-making process.

Steering Group attendance at the BTPR was open, although initially a finite group of about 70 members -- drawn about equally from the municipality, State agency and quasi-public sectors -- were invited to participate in the start-up of the project. A ten-member Working Committee was set up to serve the Steering Group, with the municipality and quasi-public sectors each electing three of their own members, and the State agencies four. Observers from the Steering Group were welcome to monitor Working Committee meetings, but not to interfere with proceedings. All Steering Group and Working Committee meetings were chaired by representatives of the Executive Office or Transportation Secretary's Office. Sub-area (corridor or core) studies were designated and directed by BTPR staff members, thereby generating a corresponding subdivision of the Steering Group for the purpose of monitoring and making inputs to the planning work on a sub-area basis.

During the BTPR study's initial phase, which involved the preparation of a "study design" (work program) and the subsequent selection of a consultant team, Steering Group and Working Committee meetings were carried out on a relatively structured basis -- in line with the procedures developed at the outset. During the planning phase, an evolution took place, in that the "Working Committee" came to consist of whatever interested group representatives were willing and able to attend the regular Tuesday afternoon meetings -- which were now used to exchange ideas and information with BTPR staff members as to the progress of the study and the major issues involved. In this way, the Working Committee grew to, in fact, be much like the Steering Group in size and function, and the difference between the two became of ever less significance.

By comparison, the Transportation Forum concept arises within the locality itself, and is seen as "built-in" to the local government structure at the outset. Its issues are not crisis-generated, but center rather on an ongoing, "grass-roots" development of policy and consensus-building with regard to local transportation programs -- and

with their relationship to other programs at the State and local level. The Forum would also be more closely tied to participation by the legislative branch than the BTPR, which either because of political differences or other reasons, has not been heavily represented by that branch. The Transportation Forum would rather be seen as an important resource to the legislative (Council) as well as the executive (Manager) branch.

The budget of the BTPR is extraordinary, having some \$3-1/2 million available over an 18-month period. The staffing for a Transportation Forum, however, would have to be built into the existing budget structure. The Transportation Forum would necessarily have certain referral procedures assured to it by the Manager. Also, it would be intended to provide far more interaction between the citizens and the professional or technical staff. While the BTPR has provided close contact between its administrative staff and community representatives, the latter are somewhat insulated from the professional process of developing specific alternatives.

The Transportation Forum is, therefore, not to be viewed as a "little BTPR," which it is not. The fact of its community-generated aspects is essential to understanding its true potential for achieving local consensus and accurate information as to community needs.

#### "Substitutability" of Transportation

It must be recognized that transportation is essentially a "service" function. As such, it really only serves other primary goals, such as employment, health (service accessibility), and the like. It may be seen as having an objective of efficiency, but, as such, it may become self-serving. Consequently, it must be related to other substantial, broader human values. Thus, it may be more desirable to reduce or eliminate the trip to work by better housing and employment location planning, or substituting other forms of communication for hauling people to and fro. Seeing transportation as part of the broader fields of land use and communications planning relates very closely to a possible evolution of the "Forum" concept. It is the substitutability of other forms of communication of land use relationships for transportation that might become a primary concern in transportation planning activities.

#### The Question of Referral Powers

Where a Citizens Forum is to be set up, it is essential to deal directly with the problem of referral powers. The more independent the Forum is of the government structure, the less authority there will be for it to exercise such powers. It is only to the extent that the



Forum acts as part of an existing office that it may fully justify these prerogatives. Conceivably, the Forum may be lodged in either the Executive or Legislative Branch. In each case, the basis for referral will be somewhat different, since the power that is in fact delegated would be different. Here we should note that a legislative committee already exercises all these powers, and the further question arises, why should a Forum duplicate these? Elsewhere, other reasons for placing the Forum in a position closely identified with the City Manager -- at least initially -- will be given. But this arrangement, from the point of view of referral powers, is most defensible where the Forum acts as an arm of the Manager's Office.

#### The Transportation Forum Agenda

Management of a Transportation Forum agenda would be the vital link to the success of the new transportation planning structure. Both citizens and government agencies must have timely access to the agenda in order to have adequate opportunity for preparation and participation in the various matters that may need to come under their consideration. Each participating organization should register its responsible agent for receiving the agenda with a clerk in the Manager's Office. Referral of matters to regular Forum meetings, or to working committees, would then be necessary. The clerk could also serve as a referral point to the various agencies or citizens groups in preliminary dealings on Forum business. In fact, a good deal of business may be directed to working committees or negotiated and resolved outside of formal meetings, in order to keep the time of those meetings available for the most important matters.

Publication of the agenda in the news media is also a necessary procedure to provide full public notice. It would be desirable that a standard form for petitioning considerations on the agenda be developed, so that a record of these matters can be made publicly available, and account kept of their disposition. The Manager's chairman or coordinator would be responsible for the disposition of items.

#### "Work in Progress" Reporting -- Government and Private

Another key activity that relates closely to the "Agenda" distribution procedures of the Transportation Forum is the concept of "Work In Progress" reporting by the various transportation related agencies of the City. This procedure might also be extended to the various private organizations, too, as for example, Harvard University and M.I.T. with regard to their developmental objectives and activities. Under this arrangement, periodic reporting of important projects, studies, or activities under way that affect transportation planning in

the area would be circulated to participants requesting to be so informed. The reporting could take place with the Transportation Forum serving as the clearinghouse for such information, or the City Manager himself might make this a regular service that he oversees through one of his staff. This arrangement provides information and understanding of the various activities in progress essential for effective participation by the parties. In its own right, it may well serve to eliminate duplication and promote good intra-governmental communications.

#### Options for Providing a Transportation Forum with Staff Capability

The operational success of a Transportation Forum would depend to a great extent upon the staff capabilities it receives. Where this staff comes from is an important consideration in the organizational framework for transportation planning. Several options may be considered:

- a. Independent Staff -- Here, a Forum would have its own staff, paid for from as yet unspecified funding sources, but, in any case, budgeted or earmarked for that purpose.
- b. Agency Loan Arrangement -- a "Guaranteed Draw" on Departmental Staff Time -- Here, each agency would commit specific work days and personnel to be drawn upon by the Transportation Forum. These would need to be reasonable amounts that are not subject to reassignment, but in a sense "guaranteed" or committed to a Forum. This would allow close coordination between the Department and a Forum although the problem of conflict of loyalties may come up from time to time as a shortcoming of this arrangement.
- c. City Manager's Staff Commitment -- Conceivably, a Forum could be seen, in fact and in theory, as very close to the City Manager -- in which case, it may be logical to assign staff from his office as the Forum staff. This may require increasing the Manager's staff positions for this purpose and might even justify restructuring the Manager's Office from an organizational standpoint.
- d. and e. Volunteer Staffing Possibilities; Sub-Committees of the Forum as Working Committees -- Volunteer staff, while subject to many uncertainties, may be necessary if adequate budget is not otherwise available. This might be utilized more directly, or in what would appear to be a more feasible arrangement, through sub-committees as working committees of the Forum. In fact, some Committees could well develop into standing functional committees dealing with work flow

to the Forum that need not necessarily go directly to the floor of regular Forum meetings.

#### City Agency Membership in the Transportation Forum

It would be essential that certain City agencies participate regularly in a Transportation Forum. For this purpose they should be designated "Permanent Members." They, more than any participants, must assure representation by persons having decision-making authority for their respective agencies. Preliminary recommendations for permanent status are the following agencies:

1. Department of Planning and Development
2. Department of Traffic and Parking
3. Police Department
4. Cambridge Redevelopment Authority
5. Model Cities Agency

Without full and regular attendance of these participants, the purpose of the Forum would soon be defeated.

Other important participants to consider would be:

1. Fire Department
2. Cambridge Department of Public Works
3. Cambridge Economic Opportunity Committee

#### Relationship of Cambridge's CEOC Area-Planning Teams

The work of Cambridge's CEOC "Area Planning Teams" (under the Cambridge Economic Opportunity Committee) provides a valuable building block for the functions of both a Transportation Forum and an inter-departmental planning concept such as a "Joint Directorate." First set up in 1966 by the Office of Economic Opportunity for the Community Action Program to further "maximum feasible participation" by the poor, CEOC's activities are carried out in six specified areas:

1. North Cambridge
2. Riverside

3. Cambridgeport
4. East Cambridge
5. Donnelly Field
6. Area Four

(The latter two are within the designated Model Cities Area.)

These areas have established resident councils, known as "planning teams" which send two representatives each to the Cambridge Economic Opportunity Committee (CEOC) Board. Special effort should be made to tie groups of this sort directly into departmental program development, rather than to permit a drift toward political factionalism. In a sense, this is the real purpose and strength of the "Forum" concept, where direct participation would be encouraged in identifying needs and achieving consensus on local objectives as a basis for dealing with these needs. In terms of overall staging of the development of a new transportation planning structure, these teams might be best integrated into the work committees of a Transportation Forum, providing both local representation, experience and capabilities.



## CHAPTER 2 -- PROPOSAL: A CITY MANAGER'S TRANSPORTATION FORUM

### INTRODUCTION

#### Background to Forum Concept

City officials, both legislative and executive, are continually called upon to make critically important decisions on transportation planning issues based on their best reading of constituent needs and priorities. To develop this "best reading" as a basis for their decision making, however, they are seldom afforded sufficient opportunity to draw from their constituency anything like the full measure of information, opinion, and wisdom that is there to tap. Nor, in general, are the means even available to our city officials to simply inform their constituency adequately of the transportation issues that cry for attention, and of the alternatives under consideration for the resolution of these issues.

This state of affairs is no longer satisfactory to citizens and interest groups in Cambridge, for here, as throughout the nation and world, our political institutions are undergoing a significant shift toward direct democracy. While aware that there are far too many public decisions made hourly, daily, weekly, for handling other than through the institution of representative democracy, our citizens are no longer satisfied to limit their participation in their own government to a biennial marking of ballots at the polls.

Our urban people of today are demonstrating an ever-increasing conviction and insistence that they have both the right to know what is going on in their city's affairs, and the right to participate in its decision-making process. This is a force to be reckoned with -- a force of ever-growing strength. Local officials who cannot accept it as such will likely find themselves in difficulties that might easily enough have been avoided.

To accept and work with these newly-emerging rights should not, however, be difficult for today's local officials, since there is much evidence that the emerging demand for the right to know and the right to participate is as rational as it is strong. Among such evidence are the well-established facts that:

- ✓ 1. When citizens and city officials discuss a public issue together, the discussion generally produces more accurate and more comprehensive information relevant to the issue, and, equally important, a more comprehensive, more thoughtful,

more rigorous analysis of the issue, often accompanied by the emergence of new, creative alternatives for its satisfactory resolution.

- ✓ 2. Such discussion of the issues with citizens serves to clearly identify for the responsible public official unacceptable courses of action which, if not so identified at an early stage, could develop into costly failures of major proportions.
- ✓ 3. When citizens are not informed of public issues in the process of resolution, and/or are not given a valid opportunity to participate in the decision-making process, they are prone to consciously or subconsciously reject out-of-hand the decision subsequently thrust upon them, no matter how rational it may be.
- ✓ 4. Citizen participation in public affairs is the cure for public apathy -- a dangerous phenomenon possibly capable of paving the way to destruction of our democratic institutions.

Against this background, the Cambridge - U.S. Department of Transportation Study team has worked to develop a public interaction process the main purpose of which is to improve the City's decision-making procedures through the operation of an ongoing forum for public discussion of transportation and closely-related issues. This Forum proposes to bring together all relevant citizen, quasi-public and public agency interests as a dynamic entity capable of advising both the City Manager and such city departments and City Council committees as the Manager may specify under arrangements he and the Forum participants develop for the Forum's operations. Three unique and key features that have evolved for the Forum during the course of the study are (1) the bringing together of groups carefully selected to provide a valid cross-section of Cambridge interests -- with each group represented by a single delegate; (2) the melding of citizen, quasi-public and public agency interests into a single, unified advisory group, as contrasted with the setting up of separate citizen/quasi-public and public-agency forums; and (3) the according of sufficient influence potential to the Forum -- principally in the form of mandatory referral agreements -- to provide its delegates with a rational basis for giving its functions their time and energy on a continuing basis.

The following pages discuss in detail the background thinking, evolution, and present status of the proposed City Manager's Cambridge Transportation Forum (CTF) as developed by the Cambridge - U.S. Department of Transportation Study team.

## Cambridge Involvement in Transportation Issues

Cambridge has been a leader in efforts to resolve Boston Metropolitan Area transportation issues. Strong Cambridge citizen and official opposition to the potentially destructive Inner Belt (I-695) in large measure led the way to Governor Sargent's declaration of a planning and construction moratorium on certain major highway projects within Route 128. The Governor's decision was based on the need to determine what transportation and related development the people of the Boston Metropolitan Area really need. The Boston Transportation Planning Review, a study to determine this need, evolved in part from work Cambridge did to demonstrate that the previous technical studies failed to justify the destructive transportation investments that were threatening, and that a completely fresh examination of transportation services and facilities was warranted.

The unity between Cambridge and Boston municipal officials and community groups was a force with which State and Federal legislators, public executives, and highway planners had to deal. For the moment, these public officials have pulled back to reconsider Metropolitan Boston's transportation needs and to assess emerging citizen attitudes and priorities in situations where proposed improvements in transportation facilities must compete with the demand for a high quality of physical and social environment. The combination of a well organized, united and determined community and public official position, based on thoughtful consideration of technical, environmental and political factors, as well as on sound argumentation, in essence demonstrated the strength of local government in controversies with larger and stronger governmental units. This process made it clear that (1) a well organized and informed public can influence significant public decisions, and that (2) local groups and their city government can work together to the greater benefit of all concerned.

The above example dealt with a clear threat imposed from the outside; in a sense, no alternative remained but to stand and fight. However, it pointed to the need for a way that gets people at the municipal level creatively involved from the beginning in the work of identifying projects -- regional or local -- that respond to their problems and needs. This chapter of the study team's Volume I report describes a process evolving from the assumption that citizen/quasi-public/public-official cooperative efforts at the municipal level can deal effectively, creatively and constructively with both external and internal transportation issues. While in some ways it is easier to deal with a clear, outside threat than it is to confront and resolve the complex local issues that affect each of us personally in our own communities (but do not affect a large enough constituency to gain the center arena), in the study team's view the potential of a rationalized citizen/city attack on localized transportation problems must not be underestimated.



The recommendations of this chapter of the Volume I report also assume that the innumerable present and future conflicting policies, priorities and competing issues -- involving both short and long term considerations -- can and must be effectively dealt with by those involved in and affected by the issues. This requires a process that brings people together to replace misinformation with facts, to reason together in an effort to arrive at a sound decision, and to effectively communicate their thinking to public officials responsible for action.

### Current Status

At this point in the Cambridge-D.O.T. Study, the proposed public interaction process has the endorsement of the Cambridge City Council and its Transportation Committee; the City Manager; the Cambridge Police Department; the City Departments of Planning and Development, Traffic and Parking; and the U.S. Department of Transportation. However, the process remains to be finalized, implemented and evaluated. Thus, this chapter is intended as a "working document" describing concepts, considerations and proposals that reflect extensive research, thought and discussion to date by a variety of participants in this study.

The work of further refining this working document can serve as a means for Forum participants to revise and expand the proposed process to properly serve their individual and mutual needs. Eventually, with the City Manager's encouragement, this statement should reflect the involvement and best thinking of the Forum participants, as a basis for developing mutual trust between the Manager and themselves. While the final selection of principles and procedures will necessarily remain with the City Manager, it is clear that failure to develop a strong mutual understanding between the Manager and participants would severely strain the prospects of the Forum for becoming a positive force in the transportation planning program.

## SECTION 1 -- THE FORUM: A PUBLIC INTERACTION PROCESS

### Why is the Public Interaction Process Needed: Its Purpose

The overall purpose of transportation planning and development is to help the city government improve the quality of life for its residents and other people that use the City by:

1. improving access for all people that live in and use Cambridge to jobs, education, shopping, recreation, friends, social service and facilities and all other places and activities that give substance to their lives -- such improvements to include increased safety of travel; reduced trip times, costs and frustration; expanded knowledge of travel opportunities and methods; greater flexibility to travel when and where one chooses.
2. improving the efficiency of commercial and industrial goods movements servicing Cambridge in a way that also enhances other aspects of Cambridge life, and to do this through working with other metropolitan Boston communities and the State to accomplish the same objective on a metropolitan basis.
3. reducing to acceptable levels the negative environmental impacts that are the by-products of needed transportation movements and activities in Cambridge.
4. improving regional and intercommunity transportation services and facilities -- and concurrently bringing about a more equal distribution of the disbenefits -- by developing cooperation, understanding and mutual support between the communities involved.

The overall importance of establishing a public interaction process is to ensure that everyone needing or choosing to be involved in transportation planning and development is able to do so within an ongoing process that is capable of being effective, responsive, open and informative. Such a process should make it possible for all interests to interact with one another, and together to generate and focus far more light on issues than would otherwise be available to decision-makers. As it is, professional planners constantly run up against public policy questions and issues requiring conflict-resolution and political trade-offs; legislators constantly search for the largest public constituency and the information that adequately and reliably reflects the constituency's problems and needs; and the pluralistic public diligently tries to protect and enhance its separate, often conflicting, interests by entering more and more into the planning

and political decision-making processes -- but none of these entities has the opportunity to further its objectives through the workings of a truly viable public interaction process.

The following is a set of specific purposes for establishing a public interaction process. Each purpose can be considered as a problem or need that is not being adequately served by the present planning and decision-making process. The list is not intended to be complete nor its sequencing intended to imply a particular order of priority.

1. To establish a process that allows broad public interaction for the purpose of shaping overall public values, goals and objectives through consensus building on conflicting policies, priorities and issues related to transportation.
2. To inform and involve all public interests at their own choosing so that they can perform their advisory function responsibly, decisively, and creatively, and have a substantive effect on the decision-making process.
3. To provide a means by which professionals may interact with a full range of public interests, and through face to face contacts learn more about the groups they are working for and be able to more effectively identify and analyze relevant information for use in the decision-making process.
4. To establish a machinery by which all points of view -- public, political, and professional -- can be surfaced on an issue -- resulting in a fuller and more productive consideration of the issue.
5. To facilitate a comprehensive, coordinated and continuous approach to transportation problems, and thereby to reduce the incidence of confusion and frustration resulting from piecemeal and fragmented approaches.
6. To make the entire public decision-making process, as it relates to transportation issues, as open and understandable as possible.
7. To pull together a group of Forum participants as fully representative as possible, in order that the City Manager -- and/or whatever city departments or City Council committees he puts into contact with the Forum -- may at a single sitting gain a comprehensive and appropriately-weighted set of views on a given issue.
8. To develop a process that will engage the public, politicians and professionals in an interaction that can lead to

beneficial discussion of transportation problems, needs, opportunities, possible and desirable solutions, and strategies for attaining the goals.

9. To establish a process that is responsible; closely reflects public needs; can be trusted by both politicians and public; is open to scrutiny, discussion and improvement; and which because of these qualities, promotes the greater benefit of all, a more equitable distribution of benefits and costs, and sufficient long-range public support to carry out needed transportation improvement projects.
10. To increase public awareness of the need for and importance of an ongoing transportation planning and development program -- and to develop public support for such a program.
11. To develop a process that gives full, open and fair consideration of all interests; provides maximum and early information about projects in order to reduce surprise, anxiety and frustration; and creates the potential for constructive interaction.
12. To create a process that protects and maximizes the potential for surfacing and responding effectively to minority and special interests.
13. To provide a forum that will allow the public, politicians and professionals to understand, cooperate with and creatively support each other.
14. To establish a clearinghouse for public pressure groups to (a) test their positions on other participants; (b) seek wider support for their policies and priorities on given issues; and (c) identify other valid group interests in conflict with their own, with which they will have to develop and negotiate an accommodation.
15. To give the City Manager advice vis-a-vis his administration of transportation programs in the executive branch of government (e.g., what transportation projects and priorities should the city departments be working on -- to answer what questions -- to solve what problems -- for whom.)
16. To add public discussion and consensus to transportation related decisions or recommendations the City Manager gives to the City Council.

### What the Public Interaction Process Is (and Isn't): Goals and Objectives

Against this background it seems necessary that the City establish a single, comprehensive, ongoing, participatory process that is representative of all transportation and related interests -- to include community and special interest groups, city departments, and the City Manager. This public group would concern itself with identifying transportation related problems and needs; making recommendations on solutions to these; and providing the necessary support for the implementation and administration of final decisions. The process should be advisory to the City Manager and should assist the Manager and City Council in their deliberations. The process is viewed as essential if City Manager and City Council judgments are to accurately reflect the values, needs and opportunities of all the people of Cambridge.

It is proposed that this public interaction process be named the City Manager's Cambridge Transportation Forum (CTF for short). It must be fully representative of all transportation related interests and should become sufficiently acquainted with city-wide policies and issues to be able to give the City Manager and the City Council a comprehensive and reasonably accurate reading of public attitudes regarding transportation issues. It should also assist the Manager in determining the transportation policies, priorities, and level of effort that are most appropriate for Cambridge. Its overall goal would be to assist the City Manager, city departments, and the City Council to make sound decisions on transportation and related issues based on the widest possible public interaction.

The Cambridge Transportation Forum (CTF) will not be just another inactive and/or meaningless layer of red tape for the City Manager or public interest groups to cope with. Its mission will include responsibility for effectively pulling together all the valid interests and working to develop a city-wide consensus on transportation issues it takes under consideration. In doing this, it will be charged with responsibility for protecting minority rights and points of view by encouraging special interest groups to articulate their positions and to seek the widest possible support.

### Structural Framework Considerations

In the interest of maximizing the short and long term effectiveness that the City Manager's Cambridge Transportation Forum would have in dealing with transportation-related issues, policies, and priorities, the Cambridge-U.S. Department of Transportation Study team has given extended consideration to several overall structural alternatives for the CTF. The most significant among these alternatives are listed and discussed below.

- ✓ 1. Should the CTF be made a part of the City government, or should it be an independent entity?

It was decided that there were serious drawbacks to establishing an independent citizens' organization. In order for the CTF to be effective it would need to (a) be fully representative, and (b) have sufficient status to warrant and ensure consideration of its recommendations by the City Manager, City Council, et al. Relative to these two requirements, it was felt that (a) independent citizen groups would find it exceedingly difficult to pull themselves together into a well-balanced and fully-representative coalition; and that (b) in any event, such coalitions consume considerable energy and resources convincing public officials of their legitimacy and of their right to be taken seriously. Thus it was decided that if a fully representative group was to be formed and was to have sufficient status to give it a basis for being effective, it must be a functioning part of the city government, with appropriate rights and duties assigned to it.

2. With the CTF a part of the city structure, where and how should it be attached to the city government so that it can be an effective part of the decision-making process?

The original thought was to establish two separate groups -- a City Manager's Technical Advisory Group on Transportation (made up of city department heads involved in transportation matters) and a Citizens Transportation Forum (made up of public interest groups involved in transportation matters and sponsored by the City Manager). Discussion of this initial plan resulted in the conclusion that it was basically unsound (although, as outlined in item #4 below, the concept of the "Technical Advisory Group" evolved into the proposed establishment of both a "Joint Directorate for Transportation Planning" and an "Interdepartmental Coordination Committee for Transportation Planning"). The decision against the setting up of separate technical and citizens' advisory groups was based on the study team's growing understanding that the technical aspects of transportation planning are by no means so complex as to make necessary the exclusion of the "layman" from the deliberations of a technical advisory group, and that such an exclusion and separation could surely be expected to produce significant negative by-products. Other reasons for turning away from this original approach included the study team's intent to (a) increase the exposure of technical staff to laymen, and vice versa; and (b) cut down, in so far as practical, the number of organizations advising the City Manager and City Council. (As to the latter, there was full and strong agreement that that goal of reducing the number of advisory groups should be pursued only within the framework of both maintaining a viable system of "checks and balances" and developing a viable system for providing the Manager and Council

with a fully-representative cross-section of opinion on transportation issues.)

From this original position, the two advisory groups were combined as a single Forum, with the Director of Planning and Development and the Director of Traffic and Parking acting as Co-Chairmen on behalf of the City Manager. After studying this model carefully, however, it was decided that having city departments formally tied to the leadership of the process (as distinct from participating on a peer basis) would involve several drawbacks that should be avoided if possible. Among these drawbacks were the following: (a) the departments would be viewed as caught in a conflict-of-interest situation, and their handling of the chairmanship would be constantly suspect in terms of protecting their own position; (b) this conflict-of-interest issue would irreconcilably jeopardize the credibility of the process; (c) although established as a City Manager's Forum, the process might well in this model evolve into an adjunct of the city department structure and thereby suffer both a weakening of its vital linkage to the City Manager and a serious lessening of its status (i.e., particularly in its own eyes).

If the Cambridge Transportation Forum was not to be tied to the city departments (i.e., through department-head leadership on behalf of the City Manager), the only other rational alternatives were (a) to give the City Manager direct responsibility and control; (b) to place the Forum under the City Council; or (c) to place the Forum under the Cambridge Planning Board. Thought and discussion as to these alternatives generated the following considerations:

- (a) In Cambridge the City Manager is equivalent to a chief executive officer of a corporation, with the City Council acting as a board of directors and the Mayor as the chairman of the board. Under this arrangement, the Council sets broad policy and the Manager determines priorities and acts on issues within the Council's policy mandates. The City Manager may also raise policy issues for Council consideration. Under this system, the lion's share of transportation planning and development responsibility is at the Manager level.
- (b) Since the City Council is re-elected every two years and the Manager serves at the discretion of the Council, neither body provides by itself the assurance of longevity and continuity in dealing with transportation issues. Wherever the Forum is located, it will need to

be closely related to the Council, the Manager and the departments. A Forum serving the Manager would have the greater opportunity to develop and maintain linkages at all three levels.

- (c) More specifically, placing the Forum under the City Manager would allow a close interaction with transportation-related operating agencies having staff and resources for identifying, analyzing and formulating policies, priorities and issues.
- (d) The argument for making the Forum a part of the Council is that the Council has a Transportation Committee, and as such is responsible for setting transportation policy. By attaching the Forum to the Transportation Committee (which consists of the entire City Council), the prospects for developing a strong Council-Forum linkage would clearly be better than in the alternative (Manager-dominated) model. However, the participating groups in a City Manager's Forum would surely find ample opportunity -- on their own initiative -- to talk with Councillors about the issues; and the City Council will always have the opportunity to request a meeting with the Forum. The reverse (i.e., easy access for the Manager and his departments to a Council-sponsored CTF) could not be expected to develop.
- (e) The Plan E form of city government involves a large-scale delegation of decision-making responsibility from elected officials to an appointed administrator. Elected officials, by the very nature of the process that puts and maintains them in office, have little difficulty maintaining an awareness of and sensitivity to the concerns and attitudes of their constituency. The appointed administrator is not afforded the same opportunity. To place the Forum directly under the City Manager would provide this key decision-maker with an invaluable resource.
- (f) To place the Transportation Forum under the Planning Board, while thoroughly sound as a long-range objective, would not be practical at this time. The Board is already overworked in discharging its statutory responsibilities -- the administration of the City's land-use regulations. Major structural changes would be required as a basis for its moving heavily into the transportation-planning-and-development problem area now handled principally by the City Manager. A reflection of this circumstance is found in the Manager's



decision to set up an ad hoc Harvard Square Task Force directly under himself rather than as advisory to the Planning Board.

Weighing all significant factors that surfaced during the deliberations on this issue, the study team decided to recommend that the proposed public interaction process be attached directly to the City Manager. The city departments involved in various aspects of transportation planning and development would, in the recommended model, have seats on the CTF, and would have (a) the opportunity, through the City Manager, to seek the CTF's advice, and (b) the responsibility to make written or oral reports to the CTF at its request. Similarly, the City Council would have the opportunity, through requests to the Manager, to meet with the CTF for around-the-table discussion of issues; and the CTF would have the right to present its views to the Council in written form and/or to request a meeting with the Council -- all with the City Manager's direct assistance and blessing -- in cases where the Manager has advised the CTF that he cannot agree with its view and will make an alternative recommendation.

3. What authority does the CTF need in order to be effective?

The CTF will need certain explicit, delegated authority, establishing its position and ability to deal with issues. The primary purpose is to demonstrate to potential participants that they can be involved in a real process that assures that they can have a voice in and even be a critical part of the decision process, and that they can impel the attention of city legislators and professionals. An expansion of this concept is given further along in this section of the report.

4. With professional staff department heads integrated into CTF on a peer basis, what additional role will the City's professional personnel play in the transportation planning process, and in what relationship to CTF?

The City's on-going technical transportation planning and development function will, of course, be performed by City staff, and will be the principal source of technical recommendations to the Manager relative to improvement of Cambridge transportation. It is the study team's conclusion that this technical-studies function will best be discharged by a Transportation Planning and Development Joint Directorate -- a full-fledged, viable transportation program under the joint direction of the two department heads

already responsible for most of the City's transportation planning and development work -- i.e., the directors of the Planning and Development Department and the Traffic and Parking Department. The CTF would relate to this Joint Directorate by advising the City Manager as to (a) its opinion on priorities for study by the Joint Directorate staff; and (b) its opinion of recommendations proceeding from Joint Directorate technical studies.

Additionally, the study team recommends the establishment of an Interdepartmental Coordination Committee for Transportation Planning. This committee would consist of the ~~department heads~~ from each City department significantly involved in any aspect of transportation planning and development or as a major user (e.g., Traffic and Parking, Planning and Development, Police, Public Works, Redevelopment Authority, Council on Aging, Fire, Health, Recreation, Housing Authority). The functions of the coordination committee would be (1) to inform all City departments about the activities of each with regard to transportation (e.g., studies, user programs, facilities development completed, in progress, scheduled, or under consideration); (2) to coordinate current and future transportation activities in an effort to secure maximum possible efficiency in and return from the City's investment in staff work to improve Cambridge transportation. Only to a limited extent would this committee involve itself in direct discussions of program alternatives, priorities, etc., as all major discussion in this area would necessarily be reserved for meetings of the CTF. The coordination committee would be responsible to the City Manager, but, as the study team sees it, would best be run by a chairman of its own selection, and without the Manager present at meetings other than for an occasional monitoring on his part, or in the event that the department heads found themselves unable to reach concurrence on an issue before them.

#### Organizational, Administrative and Operational Considerations

Beyond the issue of basic structural organization, there are many important considerations and issues that must be thought through as part of setting up the proposed CTF. Some of the more important considerations that have surfaced during the study team's work are discussed below.

1. If the CTF is to be directly tied to the City Manager's Office, the Manager himself must be its chairman and leader. As a practical matter, however, he could not rationally devote to such a function the amount of time required for

successful operation. However, to substitute another individual as chairman would endanger the strength of the Manager-CTF linkage. Consequently, the study team decided that the Manager should appoint a "Coordinator" who (a) can do limited staff work for him (subject to qualified City or CTF personnel being available to assist) and (b) can serve as moderator of CTF meetings at which the Manager cannot be present. A major function of the Coordinator would be to help the CTF membership work toward a consensus, and to report accurately to the Manager either the consensus arrived at or the substance of the major differing views where no consensus can be reached. However, as a general rule when the issues are particularly critical or the CTF is stalemated, the Manager would be expected to preside.

2. As stated above, the study team decided that the Coordinator should be appointed by the Manager. The alternative of electing the Coordinator was studied and discarded on the grounds that the election process is subject to faction building, and in this context could well generate adverse attitudes and reactions. The process is one that depends on and encourages minority and special interest participation. The Coordinator will be expected to be sensitive to all sides of an issue, and will only be effective if he is fair-minded and does not represent any particular position or voting block.
3. Alternatives for a CTF decision-making process were given extensive consideration by the study team. It was decided that since the CTF is only advisory to the City Manager and is dealing with conflict and trade-off situations that are not satisfactorily resolved by voting, only the force of an argument should be used to persuade the Manager, rather than the weight of numbers. The participants should be encouraged to develop and present the arguments related to their position. Conflicts would be considered healthy, since they would begin to define the range of acceptable alternatives (i.e., within a larger range of alternatives established by the surfacing of all positions held among the participants). The incentive for participants to resolve their conflicts will come from wanting to maximize the CTF's potential for affecting decisions by the Manager -- who will be looking for the narrowest possible set of options to inform his decision. The more the CTF can demonstrate its ability to resolve issues internally, the more importance the Manager is likely to assign to it as an input to his decision-making process. However, in the study team's view, it will be important to stress for the CTF and Manager the concept that even a thoroughly and irreconcilably split CTF will make an

invaluable contribution to the City by reporting to the Manager (through the Coordinator) the full range of differing opinions and the basic reasoning behind each.

4. Another issue dealt with was that of what happens in the event that the City Manager's decision goes against a CTF consensus. The study team decided that on the one hand it will be of the utmost importance that the CTF understand and accept as paramount the Manager's responsibility to make his own decisions -- using the experience and judgment for which he was hired -- rather than to simply function as a device for recording and relaying someone else's decision. On the other hand, the team held strongly to the view that (a) it will be important for the Manager and the CTF to develop an agreement on procedures for ensuring full understanding and consideration of the CTF view by the Manager as an input to his own decision-making process; and that (b) the entire public interaction (CTF) process would be meaningless unless the City Manager was at all times philosophically and psychologically motivated to go the last mile in giving his support to both the spirit and letter of such an agreement.

Such an agreement should include the opportunity for the CTF to discuss the issue in question on an around-the-table basis with the Manager following notification that the Manager's initial reaction to the CTF view is negative. It should also include a provision that in cases where the Manager's final reaction is also negative and the issue involves a Manager recommendation to the City Council, the recommendation will be transmitted with the written view of the CTF and a request that both sides be heard by the Council. However, granting even the most sincere and meaningful implementation of such an agreement, in the study team's view, the CTF and its underlying concept will falter unless in the great majority of cases involving a clear CTF consensus, the reasoning behind it and the clarity of communication are such as to result in concurrence by the Manager.

5. The study team decided that a key to the success of CTF operations will be the quality of participating delegates, their ability to speak for their organizations, and their determination to maintain their attendance records at or near 100 per cent. It was felt that this would require an agreement that each participating organization designate its leader and two additional individuals from the second echelon as a team of three alternate delegates, and that all delegates (and alternates) be actively involved with

their own organizations in terms of discussing the CTF issues, getting instructions, and reporting back results. It was also felt that the Manager and the CTF should give strong consideration to agreeing that a prerequisite to going forward with the CTF will be a carefully-thought through commitment by each participating organization to have a delegate (i.e., one of the three Manager-approved alternates) at each meeting. A further extension of this agreement would necessarily be an operating rule that a quorum will consist of all the participating groups. The rationale for this approach is that (a) a key concept involved in the establishment of the CTF is that it will provide the Manager et al with an efficient vehicle for gaining exposure to a comprehensive, balanced view (or set of views) on Cambridge transportation issues; and that (b) the clear understanding that failure of any one participating organization to attend a CTF meeting will undermine the efforts of all should substantially increase the importance and value that every participating group attached to its own role in and contribution to the CTF.

6. Another key to the success of CTF operations is seen by the study team as being the wise selection of transportation issues for review by the participants, and the careful advance preparation of technical background material (data and analyses) for use by the Forum in its work with each issue selected. With regard to the first point -- agenda development -- it seems clear that all concerned must have in mind a critical underlying principle: even granting the availability of substantial staff resources for the CTF in the form of city and volunteer personnel, the CTF itself will not have the time resources for dealing in depth with more than a small percentage of all the transportation issues referred to it under its agreement with the Manager. Consequently, failure to select from among these issues with great care could result in a tragic wastage of the CTF's potential for making a major contribution to the city's transportation planning work. With regard to the second point -- the need for advance technical preparation -- the fact of limited CTF time resources is again applicable. The more data and analyses that can be presented to the CTF at the outset of its consideration of an issue, the less risk there will be of wasting CTF resources.

Such advance technical work will be of particular help to the CTF as a basis for making its own determinations as to the particular kinds of questions it wants answered about an issue under consideration.

7. The study team has recognized that CTF success (i.e., in the form of (a) improving the quality of living for Cambridge residents and (b) improving the city's understanding of how to get public, quasi-public and private interests to work more effectively together in any and all areas of public concern) will be threatened by the understandable tendency of most city departments to view public involvement as too time consuming, unproductive, and as a hinderance to fulfilling their commitments. This view of public involvement is, of course, entirely warranted where a city's leadership has not been able to free its operating departments from traditional goals and commitments that no longer closely reflect the emerging needs and priorities of today's constituency. Evolving into an ever higher priority, for instance, is the need of citizens to know what their government is doing that affects them, where their interests are clearly involved in an issue under consideration. However, a city department with no mandate to respond to this need cannot be expected to regard it other than as an obstacle to achieving the year's tangible production goals -- against which success or failure of the department will presumably be measured. In this context, the study team has concluded that success in achieving CTF objectives will depend to a significant extent on the willingness of Cambridge public leadership to permit city department goals and priorities to increasingly reflect today's citizen need for involvement. This will necessarily require that the quality of a department's "process" be elevated to equal status with its quantity of production, and that procedures for both measurement and credit-giving be developed for the former. ✓
8. In the study team's opinion, both "product" and "process" orientations are necessary during the identification and development of any public project, if time delays and frustrations caused by unexpected public intervention (at an advanced stage of the project) are to be held to a low level. This is not to say that by engaging citizens in a public-involvement process a city department will automatically ensure clear sailing for its projects -- or alternatively, that unexpected, strong intervention at a late date by an initially-unidentifiable interest group will spell failure either for the project or the public-involvement process. There is no way to ensure that full and informed public participation will determine whether or not all relevant factors have been adequately considered, or that a given project should in fact be undertaken. However, in the study team's view, every effort should be made to develop a rational public interaction and decision-making process that is accessible and understandable to all parti-

cipants, including City departments. The CTF is seen as an important step forward in this direction.

9. City departments are usually in touch with individuals or groups on specific issues. Sometimes this interaction highlights conflicting goals and objectives between or within communities. It is often desirable to raise and discuss these conflicts within a larger context; thus, the CTF can play the valuable role of providing a sounding board for departments. In the study team's view, the departments will increasingly find the CTF's public interaction process useful for (a) testing the validity of the department's own concerns and observations about city conditions; (b) getting a reading on the extent to which the department's resources may have to expand in order to handle an issue with the breadth and depth necessary to reflect the views and priorities of the constituency; and (c) seeking public support for projects a department is engaged in.
10. On the other hand, the CTF may at times want to put departments on the firing line about performance, motives, etc. Departments need to understand how to handle such situations, and be able to turn differences and harsh criticism into issues that the group can deal with constructively and realistically, instead of taking personal offense and closing off discussion. The success of the CTF is seen as in part dependent on the ability of related City departments to receive and use CTF criticism in a positive manner.
11. There are numerous transportation-oriented City departments; none is responsible for the full range of transportation matters. The Planning and Development Department does extensive planning and evaluation of transportation facilities and services, as does the Traffic and Parking Department, which also is responsible for most anything related to city streets. The Police Department carries the responsibility for enforcing traffic and parking regulations, while the Cambridge Redevelopment Authority becomes involved in whatever aspects of transportation planning emerge as needing to be dealt with within the context of redevelopment project planning. These four departments should be considered as permanent participants of the CTF. Other departments should be "on call," meaning that they would be asked to attend CTF meetings when issues affecting them are scheduled -- but would receive all agendas and minutes and would be welcome to attend as observer-participants at any time.
12. Whether by Manager-CTF agreement or on their own initiative, City departments can demonstrate their commitment to resolving

issues through the CTF by sending it top level people -- the director or someone that is able to speak and make commitments for the department. The City Manager will need to oversee the level of participation and commitment that his departments put into the CTF. Nothing will be more undermining to the process than public agency failure to provide cooperative and capable participation. In order for the Manager to further develop and maintain his credibility with the public and the City Council as to his commitment to the principles underlying his establishment of the CTF, it will be essential that his transportation-related departments be actively and ably involved.

13. The study team arrived at the conclusion that another important prerequisite to successful CTF operation will be staff assistance of adequate quality and quantity. There are two separate but connected functions that are needed as support to the CTF -- these being technical assistance and organizational assistance. This assistance might be drawn from departments, be voluntary, or be provided through a city budget available to the CTF. The assistance should be available to the CTF as a whole to work on overall or particular issues, as well as be available on a carefully-scheduled basis to specific participating groups who may feel the need for help in preparing themselves to contribute to the resolution of an issue before the CTF. In either case, assistance available to the CTF should be administered by the Coordinator, who would decide how it would be allocated and on what basis. It seems desirable for the CTF to have its own full and part-time staff members -- preferably supplied by the City's transportation planning team and responsible to either the Department of Planning and Development or the Department of Traffic and Parking from a departmental standpoint -- in order to ensure that the interests of the CTF are protected and developed, technically and politically. Related to this, the City Manager should have a budget with which he can supplement the capacity and capabilities of the departments depending on issues raised by the CTF.

The technical staff supplied by the departments should have broad understanding of and experience in transportation planning, development and operations in order to capably identify the nature of the problem, clarify the issues, and develop the type and/or range of considerations that need to be made in developing solutions. These technical staff assistants supplied by the departments would seldom do more than the most limited technical work, however, and only then on a teamwork basis with the City's transportation planning team. The study team felt this latter an important decision



about CTF, on the grounds that it is the goal of the CTF to help strengthen the city departments and make them more successful -- not to duplicate their technical functions and expertise. In this context, the CTF staff emphasis would be on making sure that the right kind of information and analysis of issues are available for thoughtful consideration by the CTF. Emphasis would also be placed on the periodic need to introspect about improving the process.

The organizational staff assistant would perform time-consuming but vital functions of arranging for meetings, coordinating and getting participants together, seeing that people receive and understand information and are prepared to contribute to the resolution of issues. This CTF staff member should be able to put newsletters, meeting announcements and fliers together that will interest the public. He/she will need to be able to handle press and media matters, will need to know about the history of and present relationships between all various groups, will be expected to know what influence a participant will have as to current issues, and when to contact whom about what. This person will need to be fair-minded, able to grasp technical issues, be skilled in group conflict and issue resolution, and have leadership qualities.

Together, and with the Coordinator, the CTF staff will help the participants identify, understand and articulate their concerns and positions, and develop strategies for handling the issues. They will help groups understand the implications of proposals and develop a range of acceptable solutions. They will also help groups identify and clarify their own values, goals, objectives, problems, needs and the transportation planning criteria that reflect these. They will be expected to work together to formulate consensus positions that result from CTF deliberations. They will work individually with all CTF participants; but, in order to ensure effective and equal participation, it will be necessary to develop priorities for the allocation of individual assistance. On occasion, they may need to be neutral participants in meeting discussions in order to negotiate conflicts.

14. During the evolution of the study team's concept of the CTF, a focus sharpened on the City's budget preparation as an area of concern particularly warranting CTF attention. It became increasingly apparent that (a) the CTF cannot be expected to meet more than twice a month (for perhaps a total of six hours) on a regular basis; (b) in this short amount of time, it will not be possible to deal with more than a fraction of all the transportation planning and

development issues facing the City; (c) consequently, it will be necessary and important for the CTF to carefully establish priorities for the use of its time, and to develop a number of key functions that it performs on an on-going basis; and that (d) a yearly or more frequent review of the City's transportation planning and development program and accompanying budget would certainly be near or at the top of the list of such key functions. The study team noted that currently the City's transportation-oriented departments do not have resources for preparing "Program" budgets, nor for coordinating with each other as regards their proposed transportation planning and development activities. The team decided that the City Manager's strong interest in improving the City's overall budgeting process could well receive impetus by a decision on his part that transportation planning and development activities of the City departments and agencies be budgeted on a program basis and submitted to the CTF for review early enough to make possible a 30-day review period prior to the point at which the Manager begins to firm up his recommendations to the Council.

15. Again with the CTF's time constraints in view, the study team has become increasingly aware that the fulfilling of the Cambridge citizen's need and right to know what his government is doing constitutes a relatively uncomplex and undemanding function that should be among the CTF's top priorities. A review of Governor Sargent's Executive Order No. 75 (see Appendix "A: at end of this chapter) made clear the fact that the right to know must be met not only by a transportation information system but also by a strengthening of citizen access to public documents. An equally important element in a comprehensive CTF information system on Cambridge transportation would be that of relaying citizen complaints, questions, and suggestions to appropriate city officials. The study team has put together the basics of a plan for a round-the-clock transportation "hot line" in this connection. ✓
16. The study team has concluded that it is important for CTF participants, City officials, and Cambridge citizens to think of the CTF in terms of a "better client" concept. The Cambridge government is working to effectively provide its client -- the people of Cambridge -- with a transportation system of optimum quality; but under present conditions the City government necessarily has difficulty taking the measure of its client, hearing all that the client has to say, and understanding the client's priorities when some voices are loud and others are muted. The CTF can help make the client more accessible, more articulate, better able to communicate a comprehensive and priority-rated view of its concerns.

17. The phrase "transportation system of optimum quality" has been used above. During the study, a concept developed by the study team centered on the word "optimum." It was noted that (a) transportation (other than travel for recreation) is not an end unto itself, but rather is simply the overcoming of space friction in order to make possible the achievement of some human objective; (b) increasingly, this necessary overcoming of space friction is becoming practical through communications technology (e.g., telephone, television, picture-phone, transmittal of documents by telephone, etc.); (c) significant reorientations of land use are occurring that reduce space friction by bringing together in multi-use centers a high level of residential, employment, retail and recreational facilities and services; (d) as a general principle, the options available in the arrangement of land uses that generate a heavy volume of trips provide city officials with a significant opportunity to reduce transportation needs through the utilization of land-use planning powers. The study team concluded that the CTF must be encouraged to work not only for the improvement of Cambridge transportation but also for practical means of eliminating the need for transportation.
18. As the concept of the CTF developed during the first year of the Cambridge-DOT study, the study team became increasingly aware of the vital contribution that sub-committees can make to the success of the CTF in providing Cambridge with better transportation. It was recognized that sub-committees can greatly extend the time resources of the CTF, and therefore the scope of its work. It was also recognized that sub-committees can be formed wherever necessary to achieve the essential objective of maintaining within the CTF a full and balanced representation of all Cambridge transportation-related interests. In this context, it was decided that there should be no barrier to staffing sub-committees with qualified volunteers not sitting as delegates on the CTF itself.

## SECTION 2 -- START UP AND OPERATIONS PROPOSALS: CURRENT STATUS

### Current Status of CTF

The Cambridge City Council, acting on the City Manager's April 3, 1972, report on the Cambridge-D.O.T. Study and the proposed City Manager's Cambridge Transportation Forum, adopted a resolution on April 10, 1972, strongly supporting the proposed Forum. The Manager's report and the City Council's supporting resolution are included as Appendix "B" at the close of this chapter. The delay in moving forward since that time has been brought about by the need for working out all CTF specifics. In particular, the study staff has had to wrestle with the task of striking a workable balance between two major objectives potentially in conflict with each other. These are:

1. the objective of giving the CTF sufficient strength (i.e., in terms of its opportunities to influence decisions by the Manager and Council) to provide satisfactory incentive for its delegates to participate with continuing vigor and effectiveness.
2. the objective of retaining for the City Manager and the Council their own prerogatives for making the final decisions.

Put another way, the study staff is seeking to find a balance that provides effective citizen participation without undermining the City's system of representative democracy. It is the staff's intent that the CTF serve to strengthen the Manager and Council, not to intrude on their prerogatives and responsibilities.

The following paragraphs of this section provide details on the current status of the staff's thinking as to the most appropriate start-up and operating procedures for the CTF.

### General Statement of CTF Functions (for Incorporation in a charter)

1. To help the Manager produce better executive decisions, and the Council to produce better policy decisions, with regard to transportation planning and development issues in Cambridge -- including, in particular, the following Manager/Council decisions:
  - (a) Determination of priorities among transportation problems, where resources do not permit remedial action on all problems at once;
  - (b) Determination of solutions to problems under study, with special emphasis on "value" inputs on which technical solutions must be based.

2. To accomplish (or work toward) this objective by using the CTF vehicle for keeping the City (through its groups represented on the CTF) well informed on specific transportation issues and what is being done about them (or what is on the shelf waiting to be done about them).....thus giving citizens a stronger potential for (a) making sound judgments about the issues; and (b) helping the Manager and the Council by relaying these judgments to them.
3. To accomplish (or work toward) this objective by using the CTF vehicle to keep the Manager and the Council well informed of the general views and concerns of their constituency with regard to transportation planning and development matters.
4. To help develop a better, more efficient method for generating productive interaction between Cambridge City staff and the citizens they serve -- for future use in broader areas of Cambridge government operations.

#### Administration and Authority of the CTF

1. The City Manager will administer and be the nominal head of the CTF. He will delegate the necessary authority to a Coordinator of his own choosing, who will serve as the convenor and moderator of the CTF meetings, as well as the City Manager's personal representative. The Manager will preside at the CTF meetings when his direct involvement appears necessary to move deliberations along, resolve deadlocks, or explain a proposed course of action by the Manager that may be contrary to the consensus of the CTF.
2. The City Manager will allocate a budget to the CTF -- preferably through the Department of Planning and Development and Department of Traffic and Parking -- for "core" staff assistance and resource needs. The Coordinator will be responsible for administering the "core" staff program, for determining other resource needs, and for recommending a budget and program to the City Manager.
3. The City Manager in conjunction with the Coordinator will develop and maintain a set of guidelines governing the CTF that reflect the needs and capabilities of the CTF to deal effectively with issues. These guidelines will define the principles, goals, objectives and ground rules necessary for the effective operation of the CTF, and will need to be mutually agreed to by the CTF and the City Manager. This set of guidelines will be the basis for a memorandum of understanding and cooperation between the City Manager and the CTF, and will be subject to change by mutual agreement.
4. The City Manager will establish and maintain the CTF and its Working Committee, will be responsible for the initial membership of the two

groups, and will be responsible for monitoring the representativeness of the two groups as their membership changes. The Manager will be careful to ensure that the CTF and its Working Committee are representative of the major significant areas and interests of the City and that they are not unduly over or under represented. Additional groups can be added where the Manager decides that they are needed to fill a gap in the coverage of the interests.

5. The CTF will be granted sufficient authority to be able to carry out its mandate effectively. It will also be assured that this authority will not be duplicated or dissipated, unless for unusual circumstances. Within this framework:
  - (a) The CTF, through the Coordinator, will be able to receive substantial staff assistance from appropriate departments upon request to the City Manager (but subject to specific maximums established in the budgets for each of the participating departments).
  - (b) The CTF will have the authority to review and comment on all transportation and related matters sent to the City Manager or the City Council for their considerations, with sufficient time before decisions are to be made to allow the CTF to make its own recommendations. This review-and-comment provision relates to all recommendations sent to the Manager and Council on transportation and related matters from whatever source (e.g., city department, state agency, neighborhood association) and includes documents dealing with transportation policy matters, projects priorities, and substantive issues.
  - (c) The Manager will be urged to carefully protect this provision, as it is a crucial underpinning to the credibility of the process and the continued cooperation of its participants. The CTF will have certain rights to waive a review, or to hold up a decision for a limited period pending its own deliberation on the matter. Where time is of the essence -- due to approaching deadlines, unexpected emergency issues, etc. -- the Manager may request that an issue be reviewed by the Working Committee of the CTF. All agencies planning to submit transportation-related recommendations to the City Manager and/or City Council will be advised of the CTF review and encouraged to discuss issues with the CTF at the earliest possible stage.
6. The CTF will be prepared to share responsibility for the City's continued and coordinated relationship with other state or regional entities (e.g., MBTA, MDC, DPW, Secretariate of Transportation and Construction) that handle transportation matters -- but only as requested by the Manager. It will also develop and maintain

relationships with other Boston Metropolitan Area citizen-based forums (particularly in the Northwest corridor) that deal with transportation-related matters.

7. All existing and future committees, task forces and the like, that deal with special transportation issues and advise the City Manager will have representation on the CTF. These committees will be encouraged to become standing or ad hoc committees of the CTF.
8. The CTF will be encouraged to provide input to, and to review and comment on the City budget and capital improvement program.

#### Procedures of the CTF

1. The CTF will be representative of all interests within Cambridge that are involved in or affected by transportation and related matters. These interests include neighborhood, city-wide and special interest groups, city departments, the City Manager's Office, and knowledgeable individuals representing specific transportation modes. Members of the City Council or other politicians will be welcomed at all times and will be sent special invitations depending on issues to be discussed. Each group will be invited to designate a representative to the CTF and sufficient alternates to ensure attendance at CTF meetings. The importance of the CTF will be stressed in order to encourage groups to send leaders and spokesmen actively involved in their organization and able to accurately represent its interests. City departments will be expected to send their director or an alternate who can speak and make commitments for the department. Some departments will be permanent members of the CTF; others will be "on call," depending on the issues to be discussed. The City Manager and/or the CTF Coordinator will be able to determine which of the latter departments need to be present for a discussion, and in what official capacity they should be represented.
2. Meetings of the CTF will be open on an "Observer" basis, with the understanding that citizens will seek to have opinions voice through a delegate representing an organization to which they belong or sympathize. These meetings may be organized into three parts: (a) initial discussion by delegates on agenda items; (b) followed by discussion from the floor, limited to new ideas only, (c) followed by further discussion by the delegates on agenda items or new business. If the Coordinator determines that all significant opinions have not been adequately presented, the Coordinator may then take steps to see that such opinions gain a hearing.
3. Since the CTF can only recommend or advise the City Manager of its deliberations, the Manager will encourage the CTF to seek agreement through consensus rather than by vote. Decisions by vote tend to

bypass the careful consideration of various arguments, and to establish voting blocks that are not sensitive to minority or special interests. Consensus building involves full and informed discussion of the issues and may take the form of an agreed-upon set of common goals or alternatives, or the limits of a range of options. The Coordinator will be responsible for accurately reflecting the sense of the discussion surrounding an issue, and for formulating a consensus for the City Manager's consideration. The Coordinator will review this formulated consensus with the CTF Working Committee and revise as necessary before giving it to the Manager. The more narrowly defined the CTF consensus, the greater the weight the Manager will attach to the CTF position in making his own decisions. Therefore, in an effort to have the greatest influence on the City Manager's decisions, the incentive will be present for the CTF to arrive at a well-developed consensus that resolves the major conflicts. Where significant disagreements remain unresolved, the CTF representatives related to the different sides of the issue may choose to present their positions to the City Manager to inform his decision. Where a CTF recommendation is not initially accepted by the City Manager, he will necessarily make a concerted effort to learn more about the CTF position through direct discussion -- as a basis for making his final decision.

4. The Coordinator will encourage the representatives to develop their positions in writing for wide distribution and review at least a week before the meeting at which an issue is to be discussed. Where such working-papers are distributed, they will acknowledge the author(s) and the status. Papers that do not have the endorsement of the City Manager will be considered "informal papers" and carry no weight other than that associated with the author(s). A paper that represents the consensus of the CTF can be sent to the Manager for his consideration.
5. The decision as to how the CTF will allocate its resources among the many issues it will encounter is to be made by the CTF participants on the recommendation of the Working Committee. In general, the CTF's full efforts will be needed simply to respond to the City Manager's request for advice on transportation-related matters he is dealing with, including (a) reports he receives for his information or action; (b) other issues on which he is preparing to make his own decision for the City, or, alternatively, to make a recommendation to the City Council. Occasionally, however, the CTF may want to use its prerogative to initiate a dialogue with the Manager regarding a transportation issue that has not been brought to its attention through the on-going referral process. It is unlikely that the CTF will ever return a Manager referral with no comment, but the level of resources applied to the preparation of comments will necessarily vary heavily from one referral to another. The Working Committee's recommendations as to where CTF resources should



be applied must be based on criteria developed and approved by the CTF. Considerations reflected in the criteria should include the following questions about the issue under review:

- (a) Has it city-wide implications, or is it a purely neighborhood issue?
- (b) Has it a built-in potential for becoming a critical issue with long-term, wide-spread and/or severe impacts?
- (c) Is it a short-term and manageable issue offering good prospects for successful and meaningful resolution?
- (d) What demands will be placed on the CTF participants at various levels of consideration of the issue?
- (e) Might the issue be expected to be satisfactorily resolved by the existing decision-making processes without any CTF participation (i.e., based on the state of current City manpower resources, departmental priorities, etc.)?
- (f) What linkage does the issue have to other critical issues for which Cambridge is seeking resolution?

#### The Working Committee and Other Committees

1. The Working Committee will consist of 6 to 10 members of the CTF to be selected by the City Manager and approved by the full CTF membership. Together the members must be representative of the whole CTF, have at least one-half day a week during working hours to devote to the task, and have a flexible schedule. (It is recognized that many CTF representatives may only be able to perform this service on a rotating basis -- perhaps for 3 months in each year.) The Coordinator of the CTF will be a member, might be the Chairman, and will advise the City Manager as to who should be on the Working Committee and when its membership should be revised. The CTF Staff Assistant will serve the Working Committee as an executive secretary, and in a technical capacity insofar as his/her background and experience permit.
2. Specific functions of the Working Committee will be:
  - (a) To review and approve the Coordinator's final draft of a CTF consensus report, prior to its submittal to the City Manager.
  - (b) Upon request by the Manager or other City staff official for a CTF consensus report within a matter of hours or a very few days, to decide whether (1) to call a CTF meeting; (2) to poll

as many members as possible in order to get a CTF decision as to whether a meeting is practical; (3) to proceed to develop a consensus report on behalf of the CTF, on the grounds that (a) the tight schedule made a full CTF meeting impractical, or (b) the issue was too small to warrant a full CTF meeting.

3. In the b(3) situation described above, to develop the report on behalf of the CTF, submit it to the City Manager or City department having requested it, and then have it distributed to the full membership by the CTF Staff Assistant, together with an explanation of the basis for the decision to act on behalf of the CTF, and a request for an immediate reaction from any delegate who disagrees either with the decision by the Working Committee to act for the entire CTF or with the content of the consensus report it developed, or both.
4. To meet with the Manager/Coordinator/Staff Assistant or whatever citizen or official may request a meeting with the CTF which the Working Committee decides cannot (due to time problems) or should not (due to the nature of the agenda) involve a calling together of the full CTF. (In such cases, to report to the CTF as provided under #3 above).
5. To maintain normal Working Committee meetings open to observers, who will be able to speak at the discretion of the Working Committee Chairman. Only under special circumstances, and in keeping with the State's open-meeting law, may the Committee exercise a prerogative to hold a closed-door session, and only if it announces the general nature and reason for the session. The full contents of such a meeting must later be reported to the CTF participants, and a "post-audit" made by the CTF as to whether the closed session was warranted.
6. Other standing and ad hoc committees can be established jointly by the CTF, the Working Committee and the Coordinator, to further the scope and purposes of the CTF. Membership on these committees will be decided by the Coordinator acting on the advice of the CTF. Such committees will be encouraged to develop their own momentum and to coordinate their efforts with other interests within the CTF. The authority, staff, budgetary resources and other benefits vested in the CTF will at the discretion of the Coordinator be transferable and available to CTF committees, provided that the committees keep the Coordinator and Working Committee adequately informed of developments, and provided that proposed committee recommendations to the City Manager first receive CTF endorsement.

#### The Coordinator and Staff Assistant

1. The CTF Coordinator is to be appointed by the City Manager, and to serve for agreed-upon periods of not less than six months or more

than one year, unless reappointed. The Coordinator must (a) have a thorough knowledge of transportation planning issues, and (b) have superior ability to function as an effective leader and catalyst in the identification, analysis and resolution of issues by heterogeneous groups. The City Manager's selection of the initial CTF Coordinator has already been made and is considered by the study team an excellent one.

2. The CTF Staff Assistant (initially one, perhaps two or more later -- possibly with volunteer help involved) will have substantial functions to perform requiring technical qualifications, including (a) reading, summarizing, evaluating and preparing recommendations to the CTF Working Committee on all City Manager referrals to the CTF; (b) pulling together information on transportation planning and development activities and issues in Cambridge or affecting Cambridge -- and writing up the essentials in a meaningful and brief manner for CTF use; (c) helping CTF groups (on a between-meeting basis, via telephone or at their own group meetings) to better understand the issues coming up for discussion at the next CTF meeting. Education and experience appropriate to these technical functions will be necessary. The executive secretary functions (e.g., records keeping, preparation of minutes and agendas, notifying participants of regular or Working Committee meetings) should also be handled at the outset (perhaps the first year) by a technically-qualified staff assistant. These latter functions might eventually be found appropriate for handling by para-professional personnel with a deep interest in and devotion to the goals of the CTF -- but this should not be attempted until the CTF is well-established.

#### Participation in the CTF

1. A CTF membership of 25 to 35 participating groups or interests is anticipated as necessary to provide the broad-gauged representation necessary for CTF success. The membership will consist of three categories of participants, as follows:
  - (a) community and neighborhood groups (e.g., the neighborhood associations, neighborhood planning teams, Model Cities);
  - (b) city-wide or special-interest groups (e.g., Chamber of Commerce, civic organizations such as the League of Women Voters and the Cambridge Civic Association, Cambridge Advisory Committee, the elderly, students, the handicapped, Welfare recipients, foreign language and ethnic groups, blacks, the public housing "Tenant Senate," market-housing tenants, clergy, truckers, transit interests, bicycle and pedestrian interests, major institutions such as the universities, the hospitals, Polaroid);

- (c) the relevant City agencies (e.g., Traffic and Parking, Planning and Development, Police, Redevelopment Authority, Council on Aging -- each on a delegate basis; and City Council Transportation and Parking Committee, Health and Hospitals, School Department, Conservation, Recreation, Fire on an advisory basis).
2. A principle involved in the demanding work of making a wise selection of participants will be that perhaps two to three times as many organizations and interests will be members of the CTF as will actually have seats. Those not having seats will be known as CTF Advisors (as contrasted with CTF delegates), will receive all agendas and minutes, and will be welcome to attend meetings as observers (with the opportunity to speak during the second part of the three-part meetings). CTF Advisors will also be specifically invited to CTF meetings for participation in discussions involving issues about which they are particularly knowledgeable or concerned.
  3. The work of selecting "delegate" and "advisor" participants will begin by developing an inventory and analysis of all Cambridge public, quasi-public and private groups/organizations/interests having transportation concerns and/or qualifications for making contributions to the solution of transportation problems. This inventory will also encompass organizations outside Cambridge (Northwest Corridor and regional) whose interests or potential inputs would possibly qualify them as appropriate CTF Advisor participants.
  4. The term "interest" as used above includes unorganized groupings of individuals having transportation concerns. Transit users provide an example; at present, they are not organized in Cambridge. Other examples include students and young people generally (i.e., non-drivers) and welfare recipients.

#### Rights of the CTF

The following 14 specific rights of the CTF are proposed by the study team and have been approved in their essentials by the City Manager, Mayor, Chairman of the City Council Transportation Committee, appropriate department heads, and study consultants:

1. To receive from the City Manager quarterly summaries (no later than two weeks following end of quarter) from the Cambridge Departments of Planning and Development, Traffic and Parking, DPW, Police and Redevelopment Authority, covering all transportation and closely-related planning and development activities of major significance, and specifically to include:

- (a) List of projects worked on --
  - (b) Brief statement of progress on each project --
  - (c) Estimated date of completion for projects still under way --
  - (d) List of projects that need doing but are not under way, with a statement on each of these as to the Director's thinking on the relative need for getting the project started, and the hurdles to be cleared in order to get it under way.
- 2. To receive from the City Manager copies of reports on transportation and closely-related planning and development issues sent to the Manager from city departments or other public or quasi-public sources, including the City Council or its committees.
  - 3. To receive from the City Manager annual budget proposals developed by City departments with regard to transportation and closely-related planning and development activities (with sufficient explanatory material to provide a program budget, listing projects and their dollar allocations).
  - 4. To be accorded a request from the City Manager for a CTF "consensus report" on all referrals from the City Manager (per items #2 and #3 above) -- with a statement from the Manager as to the length of time he can give the CTF for its response.
  - 5. As in #4 above, to be accorded requests from the City Council or its committees for consensus reports on transportation and related planning and development issues, (subject to such requests being transmitted to the CTF through the Manager).
  - 6. To meet with the Manager where he does not concur in a CTF consensus report and intends to take action in whole or in part contrary to the CTF recommendation.
  - 7. To have the City Manager forward to the City Council the CTF view, along with his own report to the Council, regarding transportation or closely-related planning and development matters on which the Manager makes a recommendation to the Council; and to have the Manager request the Council to allow a presentation by the CTF of its own view, where it may differ from the Manager's conclusion.

8. To release its consensus reports together with minutes of its meetings to all public and quasi-public groups receiving agendas of CTF meetings (making clear the status of such reports as being advisory only).
9. To initiate discussion of transportation and closely-related planning and development issues (where no specific referral of a report, etc., has been made by Manager or Council); to prepare and send its consensus report to the Manager on such issues; and to receive a response from the Manager by a date specified (and justified in the CTF report).
10. To request that the Manager and/or other City staff participate in specific meetings of the CTF, and to have those requests honored by the Manager (subject always to the requirement that the meeting time be workable for the official(s) whose participation is requested).
11. During the first half year, to have a minimum staff consisting of a full-time staff assistant funded by the City, together with a part-time Coordinator -- with the option to request additional staff assistance from the Manager if needed during this start-up period, and to make a proposal to the Manager for the balance of the fiscal year and for incorporation into the following year's budget based on the first half year's experience. Further, to have sufficient budget to cover typing, reproduction, mailing of minutes, etc.
12. To have the Coordinator and/or Staff Assistant participate in meetings set up by groups represented on the CTF.
13. To have the CTF Staff Assistant do fact-finding work for the delegates, on approval of the Coordinator, or alternatively to have such work done by City department staff members who have been budgeted to perform this function within specific limits.

#### Responsibilities of the CTF Member Groups

The following CTF responsibilities are proposed by the study team and have been approved by the study participants cited under "CTF Rights" above:

1. To select a delegate and two alternates who are acceptable to the City Manager in terms of their position in the group they will represent (and therefore in terms of their potential for being able to accurately reflect the views of their group) -- and who are themselves willing and able to commit

themselves to their group and to the Manager to always have one of their delegate/alternate team present and participating for the full period of a CTF meeting.

2. To have a delegate or alternate at all CTF meetings for the full period of the meeting, and to have such person report back promptly to his/her group the results of the meeting.
3. To work to make the CTF a positive force in the City's efforts to overcome its transportation deficiencies. To work to this end in six-month incremental trial periods (with reviews at the end of each six months) and not to withdraw support in "midstream" (i.e., between review points) because short-term CTF results are not seen to be as satisfactory as expected.
4. To give procedural suggestions to the Staff Assistant (on a between meeting basis) for his/her research and thought, for discussion with the Coordinator and Manager, and for eventual discussion with the CTF at six-month review points (or earlier if thought necessary by the Manager).

#### Start-Up Steps to be Taken

The following basic steps are recommended by the study team as appropriate for moving forward with the establishing of the CTF:

1. Study team inventories all identifiable Cambridge and Cambridge-related groups and interests having transportation concerns.
2. Each identified group and interest is analyzed by study team in terms of (a) the range and depth of its concerns; (b) its potential (in terms of people resources, etc.) for contributing to the analysis and resolution of issues; and (c) the size of its constituency, and its "fit" (i.e., in terms of filling gaps or, alternatively, overlapping other constituencies).
3. Study team prepares tentative list of "CTF Delegate" and "CTF Advisor" groups based on above criteria, and Manager reviews and revises as necessary.
4. Study team and Manager prepare letter for Manager to send to all groups on tentative list, advising them of the full background and history of the CTF concept and asking them to attend an informal meeting to discuss it. The letter includes considerable background documents, and invites groups

to call Manager as to any questions these documents generate that a group may want answered prior to the meeting.

5. Informal meeting is held. Manager and his team seek views, and answer questions. Manager states that he will firm up a proposal for a one-year "pilot" CTF operation reflecting as closely as possible the comments received. He invites additional comments for submittal within a specified period (perhaps 2 weeks -- unless participants want more time).
6. Based on meeting results, study team and Manager prepare recommendations for pilot CTF operation, mail these, and hold second meeting.
7. This process is repeated as many times as necessary to achieve a consensus on a pilot operation. During the entire process, the Manager encourages the meeting participants and the media to put him together with groups and/or interests not included on the list to date -- and whose transportation concerns might be such as to make them want to join the "CTF Advisor" group.
8. With the pilot operation approved, study team and Manager collaborate on "memorandum of understanding" confirming the agreements, and Manager hires Coordinator.
9. Coordinator hires staff assistant, and operation begins.

#### How CTF Meetings Will Be Run

The following constitutes the study team's prototype of a typical CTF meeting. It is the team's intent that it serve as a working model for review and adjustment by the Manager, Coordinator, and CTF participants.

1. Meeting is called by either (a) the City Manager; (b) the Working Committee; or (c) the entire membership.
2. Once called, the meeting is set up by the CTF Staff Assistant, who contacts delegates by mail or phone, depending on time available.
3. The CTF entity calling the meeting (Manager, Coordinator, or delegates) will have specified to the Staff Assistant those members of the "CTF Advisor" group who are also to be asked to attend. These additional participants are then invited by the Staff Assistant in the same manner as the delegates.



4. All other members of the "CTF Advisor" group are then notified of the meeting by the Staff Assistant through a mailed announcement. The general public is notified through media announcements.
5. The Staff Assistant assumes responsibility for making certain that every CTF seat will be covered by a delegate or alternate, it being understood that without 100% participation there will be no meeting.
6. To the extent possible, the Staff Assistant circulates pertinent background material to the entire membership prior to the meeting, and meets with member groups and/or their delegates, as requested, to go over the issues. Background technical work in this connection is performed by department technical staff assigned to the CTF on part-time basis.
7. The meeting is run by the CTF Coordinator, who, after finding that all member groups are represented, introduces the subject and reviews the "ground rules" for discussion. (These are meeting procedures already developed and agreed to by the CTF participants, Coordinator, and Manager.)
8. Unless the meeting ground rules are then modified by the CTF to meet the needs of this particular meeting, the meeting goes forward for approximately three and one-half hours (e.g., 7 p.m. to 10:30 p.m.). (See Appendix "C" for prototype meeting format.)
9. In closing the meeting, the Coordinator points out that (a) minutes will be mailed in draft to all delegates, together with a finalized "consensus statement" as approved by the Working Committee and sent to the City Manager; (b) delegates are urged to telephone the Staff Assistant between meetings as to their thoughts about meeting content or procedures -- or as to their need for further discussion of the issues (possibly requiring a meeting of the delegates' own group, at which the Coordinator and/or Staff Assistant will be present if requested).
10. Since many delegates may want to go back to their own groups and discuss an issue further before taking a position on behalf of the group, any delegate will have the right to delay the Working Committee's submittal of a "Consensus Report" to the Manager by as many days as the Coordinator determines to be practical -- for the purpose of going back to the group for discussion. The Working Committee will then (upon receiving supplementary opinions) have the option of amending its report on behalf of the CTF, or

requesting more time from the Manager, in order to make possible a reconvening of the CTF for further discussion.



APPENDIX -- VOLUME I

APPENDIX "A" -- Governor's Executive Order No. 75

APPENDIX "B" --

1. City Manager's Report of April 3, 1972, to City Council Re Cambridge -- U.S. Department of Transportation Study and Proposed City Manager's Cambridge Transportation Forum
2. City Council's Resolution of April 10, 1972, Endorsing and Supporting Concept of City Manager's Cambridge Transportation Forum

APPENDIX "C" -- Prototype Meeting Format for City Manager's Cambridge Transportation Forum



COMMONWEALTH OF MASSACHUSETTS

By His Excellency

FRANCIS W. SARGENT

Governor

EXECUTIVE ORDER NO. 75.

WHEREAS, the people of this Commonwealth are entitled by the constitution of the Commonwealth to a government accountable to them; and

WHEREAS, the people's right to know what their government is doing is one of the fundamental rights of a citizen and the primary means they have to ensure the accountability to which they are entitled; and

WHEREAS, the legislature has adopted in Chapter 66 of the General Laws a policy requiring that "public records" shall be open to inspection and examination; and

WHEREAS, there are many documents which are neither specifically required by said law nor prohibited by it to be open to inspection, but which should be available to citizens of this Commonwealth so that their government will be truly open and accountable; and

WHEREAS, standardized rules and regulations are needed to implement the policy of the legislature and the requirements of the Constitution so that citizens will be better able to understand their rights and so that all requests for information will be granted or denied expeditiously, reasonably, and equitably;

NOW, therefore, I, Francis W. Sargent, Governor of the Commonwealth, by virtue of the authority vested in me as supreme executive magistrate, do hereby order that:

1. This Order shall apply to all departments, agencies, and bureaus within the executive department of the government of the Commonwealth.

2. Unless otherwise specifically required by any general or special law, or permitted under this Order, each such agency, in accordance with the rules and regulation prescribed by Article 1, shall make available for public inspection all public records, documents, reports, studies, memoranda, statistical and other data, and statements of agency policy and interpretations of such statements, or such further information as defined by the Commissioner of Administration and Finance. Exceptions to this paragraph shall be limited to those enumerated in paragraph 3, of the Law.

3. Unless otherwise specifically required by any general or special law, an agency shall withhold information requested by a citizen only if the matters requested are:

- a. specifically required to be withheld by statute;
- b. specifically required to be withheld by Executive Order in the interest of the defense or security of the Commonwealth or of the United States;
- c. related solely to the internal personnel rules and practices of said agency;
- d. inter-agency or intra-agency memoranda or letters relating to policy positions being developed by the agency; but this sub-paragraph shall not apply to reasonably completed factual studies or reports on which the development of such policy positions may be based;
- e. investigatory information compiled for future law enforcement purposes except to the extent available by law to a party other than the agency;
- f. trade secrets and commercial or financial information obtained from a person on a privileged or confidential basis;
- g. personal and medical files and similar information, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy;
- h. matters specifically exempted by order of the Commissioner of Administration.

The burden shall be upon the agency to explain with specificity the exception which applies to any request for information, and the reasons for such application.

4. Each agency shall designate from among its present employees a person who shall be charged with the agency's responsibility to carry out the purposes of this order in accordance with the rules and regulations adopted by the Commissioner of Administration.

5. Each agency shall provide for inspection of documents as may be available to citizens on a routine basis as well as those for which the citizen has made specific request, and where provided by any general or special law and subject to the approval of the Commissioner of Administration and Finance, each agency shall charge reasonable commercial rates for copying documents.

6. No later than ninety days from the effective date of this order, the Commissioner of Administration shall adopt rules and regulations to carry out the purposes of this order, such rules and regulations shall include a method of administrative appeal for citizens aggrieved by decisions of any agency, which appeal shall be final.

Given at the Executive Chamber in Boston  
this fourth day of August in the year  
of Our Lord one thousand nine hundred  
and seventy and of the independence of  
the United States of America, one  
hundred and ninety-fifth.

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FRANCIS W. SARGENT  
Acting Governor  
Commonwealth of Massachusetts







## CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139  
Tel. 876-6800

E DEPARTMENT  
I. CORCORAN  
Manager  
T. J. LeBLANC  
the City Manager

April 3, 1972

To the Honorable, the City Council:

Subject: Cambridge - U.S. Department of Transportation Study

The following summary of the Cambridge - U.S. Department of Transportation Study will supplement the report to be made to the City Council Transportation Committee on April 3d by the City Manager, together with members of the Planning and Development Department, Traffic and Parking Department, and Police Department. The summary and oral report are pursuant to my memorandum of March 17, 1972, to the City Council requesting a meeting with the Council Transportation Committee.

### History and Objectives of Study

The Cambridge - U.S. Department of Transportation Study is being carried out under a \$50,000 contract awarded to the City of Cambridge by the Transportation Systems Center of the U. S. Department of Transportation. The contract was awarded in August, 1971, and completion of the work is scheduled for June 30, 1972.

The Transportation Systems Center, with headquarters here in Cambridge, is a major research arm of the U.S. Department of Transportation. Consequently, the basic thrust of the work called for by the study contract is in the nature of research -- the Center having commissioned the City of Cambridge to study, develop and recommend more effective ways of doing transportation planning at the municipal level. Specific work products called for the contract under which the City is working are:

1. Development of a proposal for a three to five year prototype transportation planning operation in Cambridge which takes fully into consideration the existing intra-city needs of the people, other relevant community values, the longer-range land use plans of the City, and compatibility with metropolitan-level and regional-level plans -- this prototype transportation planning operation to serve as a basis for helping solve the transportation planning problems of generally similar cities throughout the United States.
2. A sketch master plan for Cambridge land use and transportation -- to serve as a starting point for the prototype transportation planning program.
3. An Annotated Inventory of Cambridge Transportation and Land Use Plans.

Staffing assignments for the study are given in an attachment to this memorandum.

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To the Honorable, the City Council (cont.)

April 3, 1972

### Status of Study

With approximately one-half the contract funds expended through March 31, 1972, the study has moved ahead significantly in the development of sketch master plans for land use and transportation in Cambridge, as well as in the development of concepts and programs for broad, well-balanced citizen/public agency/private sector involvement in a participatory Cambridge transportation planning effort. Working documents developed to date include (1) an annotated inventory and evaluation of previously completed Cambridge land use and transportation planning reports; and (2) a progress report of January 12, 1972, containing preliminary statements on (a) summary of Cambridge transportation problems; (b) goals and policies for Cambridge transportation planning; (c) a transportation planning and development process for Cambridge; (d) transportation proposals.

### City Manager's Cambridge Transportation Forum

Against the background of a clearly strong Cambridge commitment to an open and participatory planning process, the study team has determined that there exists a very significant need for a single, broadly-representative group of citizens, appropriate public agencies, and private organizations whose concern with transportation problems produces a capability for valuable and efficient two-way communication between the many interests they represent. Cambridge government staff and officials responsible for identifying and finding solutions to the transportation problems of the City. From this determination has emerged the concept of an on-going City Manager's Cambridge Transportation Forum -- and it is this concept in particular for which the City Council's concern and support are earnestly sought both through this memorandum and presentation to be made at the Council's meeting of April 3, 1972.

The overall purpose of the Transportation Forum will be to help Cambridge government improve the quality of living for the people of Cambridge and the Metropolitan Area by:

1. improving their access to jobs, education, medical services, recreation, shopping, personal services, libraries, and to all places and activities that give substance to our daily lives -- improvement in access to involve greater travel safety; reduced times and costs; less frustration; expanded knowledge of travel opportunities and methods; greater freedom to choose the time of day which a trip will be made.
2. improving the efficiency of commercial and industrial goods movement serving Cambridge -- and working with the State and Metropolitan Boston communities to accomplish the same objective on a metropolitan basis.
3. reducing to acceptable levels the negative environmental impacts which are the by-products of needed transportation movements and activities in Cambridge.

B-1

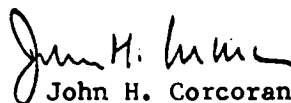
To the Honorable, the City Council (cont.)

April 3, 1972

The Transportation Forum will move toward the achievement of these purposes by helping the City Manager, the City departments, and the City Council in their efforts to identify, understand, evaluate, and find solutions to major transportation problems that downgrade the quality of living in Cambridge.

It is my intent, with the City Council's support, to move forward immediately with the establishment of the proposed City Manager's Cambridge Transportation Forum. I have selected our transportation consultant, Tunney F. Lee, as interim Coordinator for the Forum -- and together, working with the Cambridge - U.S. Department of Transportation study staff, we will select a tentative group of approximately twenty-five to thirty transportation-oriented individuals and organizations constituting a fully-representative and well-balanced cross-section of Cambridge interests. All procedures for operation of the Transportation Forum will be discussed and worked out with this group-- and while the final selection of operating procedures will necessarily be mine, it is clear that failure to achieve consensus would severely strain the Forum's prospects for becoming a positive force in our transportation planning programs.

Very truly yours,



John H. Corcoran  
City Manager

JHC/b

Enclosure

STAFFING FOR CAMBRIDGE - U.S. DEPARTMENT OF TRANSPORTATION STUDY

Overall direction of the work is provided jointly by Robert A. Bowyer, Planning and Development Director, and George Teso, Traffic and Parking Director, and by their Assistant Directors, Edward A. Handy and Lauren M. Preston. Stephen E. Zecher of the Planning and Development Department is a major contributor to the work, and Captain Nicholas J. Fratto represents the Cambridge Police Department on the study team. Consultant services are provided by Michael A. Powills, Jr., Senior Vice President at Barton-Aschman Associates, Inc.; Professor Marvin E. Manheim, M.I.T. Urban Systems Laboratory; and Assistant Professor Tunney F. Lee, M.I.T. Department of Urban Studies. Mr. O. Hugo Schuck, the Transportation Systems Center's Technical Assistant to the Director/Concepts, monitors the contract for the U. S. Department of Transportation, and together with an associate, Mr. David Glater of D.O.T., is making valuable contributions to the City's work.

# City of Cambridge

In City Council,  
April 10, 1972

## CAMBRIDGE CITY COUNCIL RESOLUTION IN SUPPORT OF CITY MANAGER'S CAMBRIDGE TRANSPORTATION FORUM

WHEREAS, the U. S. Department of Transportation has commissioned the City of Cambridge to develop improved municipal transportation planning procedures, and to perform related work; and

WHEREAS, a major factor in the improvement of transportation planning procedures has been determined by the Cambridge study staff to be the need for increased and better-structured citizen and inter-agency participation in the transportation planning process; and

WHEREAS, the Cambridge City Manager has now proposed to establish a City Manager's Cambridge Transportation Forum to advise him with regard to all aspects of transportation problems in Cambridge; and

WHEREAS, the Cambridge City Council believes that only through broad public interaction can a city-wide consensus be reached on issues related to transportation; and

WHEREAS, the City Council believes that the need for transportation projects is best determined and the support for such projects best achieved by a process that assures full, open and fair consideration of the interests of all citizens involved and affected; and

WHEREAS, the City Council further believes that a well-informed and involved public can act in a responsible, decisive and timely manner and thus have a beneficial effect on the City's decision-making process; and

WHEREAS, the City Council believes that a coordinated city-wide effort is essential to assure that all current and future transportation and related projects have city-wide or neighborhood impact are fully discussed by all involved and affected interests; and

# City of Cambridge

-2-

WHEREAS, the City Council believes that a comprehensive, coordinated public interaction process is essential as a basis for City Manager and City Council deliberations that accurately reflect the needs, values and opportunities of all the people of Cambridge;

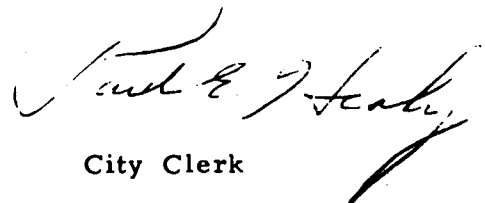
NOW THEREFORE BE IT RESOLVED that the Cambridge City Council endorses the formation of an on-going City Manager's Cambridge Transportation Forum as proposed and outlined by the City Manager, and the City Council hereby seeks the strongest support for this Forum by all Cambridge citizens, citizen groups, and public and private organizations; and

BE IT FURTHER RESOLVED that the City Council hereby requests that the City Manager submit to the City Council by July 15, 1972 a progress report on the formation and activities of the Forum through June 30, 1972; and that such progress reports be submitted periodically thereafter on a quarterly basis.

In City Council April 10, 1972.  
Adopted by the affirmative of 8 members.  
Attest:-Paul E. Healy, City Clerk

A true copy

Attest:-

  
City Clerk

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APPENDIX "C" - PROTOTYPE MEETING FORMAT FOR CITY MANAGER'S CAMBRIDGE  
TRANSPORTATION FORUM

The following is a suggested format for CTF meetings. The format would be subject to modification by the Coordinator as required by the agenda for specific meetings.

1. Ascertain full representation. Circulate agenda and background materials. Allow brief period for reading for participants who were unable to do their "homework" in advance.
2. Coordinator or someone else he has selected presents the topic, its background, related facts -- and, in particular, the reasons the topic was selected; the deadline for developing a CTF position; and the "ground rules" for working to develop the position.
3. Per ground rules, this period is devoted to discussion by the delegates. Each delegate (or CTF Advisor who has been invited to this particular meeting) on being recognized by the Coordinator is allowed a maximum of three minutes to speak on the subject.
4. Per ground rules this period is devoted to discussion (comments or questions) from the public (i.e. general public, or CTF Advisors not specifically invited to attend, if any are in attendance and interested in participating. However, in beginning this period, the Coordinator stresses the ground rule that points made by the public must consist of new ideas, rather than just affirmations of support for ideas already put forward by one or more delegates. (If public participation does not take place, the Coordinator moves on to the next phase).
5. Per ground rules, during this period the Coordinator or someone else he has selected works to develop a consensus, or if this is not forthcoming, a clear agreement as to what major (divergent) opinions are held, and which groups support them.
6. In this final period for discussing the meeting's main topic, the Coordinator sums up the results of the discussion and arranges for a review of his written summary by the Working Committee prior to submittal to the City Manager.
7. The final period of the meeting is devoted by the Coordinator to discussion of new business and procedural matters. A Working Committee new-business report (already sent out to the membership for its review) is reviewed and discussed. The report covers all referrals received from the Manager, and the Working Committee's



recommendations to the CTF as to these referrals. Consensus positions are developed by the delegates regarding the recommendations. Also discussed are reports from the Working Committee on the content of meetings it has held, and on the specifics of decisions it made, if any, on behalf of the CTF (i.e., what the issue and decision were, and why the Working Committee found it necessary to make a decision for the CTF rather than to refer the issue to a regular or special meeting).

**IMPROVING THE TRANSPORTATION  
PLANNING PROCESS IN CAMBRIDGE  
AND OTHER SMALL CITIES**

**Volume I -- The Organizational Framework**  
**VOLUME II -- THE PLANNING PROGRAM**  
**Volume III -- Recommendations for Small Cities**

**A Municipal Level Planning Study  
Prepared by the City of Cambridge, Massachusetts  
For the U. S. Department of Transportation  
Under Contract No. DOT-TSC-296**

**Department of Planning & Development  
Department of Traffic & Parking  
City of Cambridge, Massachusetts**

**December 1972**

The contents of this report reflect the views of the City of Cambridge, which is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policy of the Department of Transportation. This report does not constitute a standard specification or regulation.

## PREFACE -- VOLUME II

The history of urban problems since World War II has demonstrated clearly the critical need for an improved transportation planning process at the municipal level. Cities have not been able to fathom the complexities of their transportation problems, let alone marshal the resources needed to effectively address them.

Instead, they have looked to the state and Federal governments for salvation -- and after nearly three decades this hoped-for panacea has in many ways been found wanting. It was impractical to expect the higher levels of government to unilaterally develop regional and national transportation solutions that did not impact seriously on local quality of living.

The contract under which this study has been carried out reflects a far-sighted view by the U.S. Department of Transportation, its Transportation Systems Center, and its Office of Environment and Urban Systems -- a view that the Federal Government can perform a vital function by fostering the development of an improved transportation planning process for small cities.

The resulting three-volume report is believed by the study team to provide concepts and recommendations of value to small cities throughout the country. Volume I, under separate cover, confronts the need for a basic organizational framework within which sound transportation plans and successful implementation can best be generated. Volume II, contained herein, develops an inventory of transportation studies needed by Cambridge, while Volume III recasts earlier material for specific use by other small cities.

To the extent that the study may have been successful, the Federal Government will have helped to build the foundations of a new Federal/state/local transportation planning partnership -- one in which cities and towns can at last make strong, well-considered, grass-roots inputs without which Federal and state transportation planning efforts in urban areas cannot hope to succeed.



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## INTRODUCTION

There is no need to establish the important influence and effect transportation issues have on people's lives and well being. The explosive public reaction in municipalities throughout the nation to proposals for new urban highways has dramatized this sufficiently. Moreover, other less publicized conflicts over existing (e.g., heavy through trailer truck traffic), proposed (e.g., garages in residential neighborhoods) and missing (e.g., rapid transit service) transportation facilities and services may be just as critical to those affected, and just as demanding of the competence and creativity of local professionals and public officials. However, as has been highlighted on numerous occasions here in Cambridge, decisions on critical transportation planning issues have been too often without adequate understanding of their profound implications, without sufficient facts, and without full, orderly, and well-informed public discussion of the issues.

Against this background, the study team has worked to develop a truly viable program for planning transportation and related land use in Cambridge. In Volume One of this report, the team has dealt with the need for improving the organizational framework within which the planning of transportation and related land use will go forward. This has centered on an attempt both to strengthen public credibility of the planning and decision-making process and to develop a constructive process that has the potential of being accessible and understandable to everyone affected by a transportation-related problem.

It has also stressed the thesis that of equal importance in establishing a process that promotes public participation is the need to make sure that process also works to the benefit of the political decision-maker and the professional planner. As participants in the process, politicians and professionals want and need greater contact with and understanding of their constituency. The decision maker may also want more of a hand in the planning process, as the professional will want to increase his/her input to the decision-making process. A basic assumption of the Volume One proposals is that the more inter-play these three groups of participants have in the process of developing and resolving issues, the more prospect there is for creating a society that practices understanding, trust and cooperation in achieving its goals.

In Volume Two, the study team reports on the first technical steps it has taken (using some of the organizational concepts developed in Volume One) to produce better transportation in Cambridge. These steps have consisted of preparing (a) an annotated bibliography and evaluation of transportation and land use plans prepared by or directly affecting Cambridge (this bibliography is found in the Appendix); (b) three sets



of "guidelines" to be used in clarifying the transportation issues, developing workable options, and making choices; and (c) a program for next steps to be taken. The three guidelines prepared by the team are as follows:

**Guideline #1 -- Statement of Cambridge Transportation  
And Land Use Problems**

A clarification of the problems (their quantitative dimensions), the impacts (who is affected, what hardships are caused, and what can be expected if the problem isn't solved), and the possible solutions (what potential is there for relief of the hardship and what are the political, legislative, financial, time, etc., constraints?) is of critical importance to identifying the information and developing the range of realistic options necessary for resolving the issue. The study team's problem statement is a first step towards achieving a thoroughly comprehensive and detailed description and analysis of all Cambridge transportation problems to be addressed.

**Guideline #2 -- Statement of Goals and Policies**

This statement both reflects and frames the problems, their impacts, and their possible solutions -- and begins to define the transportation planning program needed to further clarify the issues and provide implementable solutions. That is, the goals and policies may be determined by the identification and study of a problem, or alternatively may help to determine the problem and what facts are needed as a basis for its solution. This Guideline provides criteria for political policy judgments.

**Guideline #3 -- A Sketch Plan for Transportation and  
Related Land Uses: Round One**

This Guideline constitutes an initial technical response to the problems identified. In urban planning efforts, the concept of a "sketch plan" varies widely. The study team has developed what it believes is a dynamic and useful concept -- namely, that a sketch plan is the city's best statement at any given point in time as to (a) firm recommendations where warranted by adequacy of data and analyses relating to specific problems; (b) tentative or no recommendations where inadequate data and/or analyses exist -- accompanied by a statement of studies needed to provide a basis for making firm recommendations. This concept of a sketch plan is believed by the study team to be "dynamic" because it implies and promotes continuing development of the sketch plan (from soft to hard recommendations), and "useful" because it differentiates clearly between those problems for which solid recommendations can be made and those on which additional study is needed.

It is worth emphasizing that as conceived the three guidelines do not stand independent of one another. Only through the inter-relationship of each to the other is it possible to satisfactorily resolve the issues. The guidelines cannot, of course, serve to resolve all issues quickly, because the range of opinion differences may frequently remain widespread and the proponents of the positions steadfast, in which case the political stakes may be too great for immediate resolution. However, differences of opinion are inevitable and healthy. It is believed by the study team that, through the interrelationship of the guidelines, such differences can be reduced to common denominations and thus permit protagonists to focus on basic and substantive issues.

An underlying assumption in setting up the guidelines is that the more our Cambridge citizens can be encouraged to be explicit about their problems and goals, and to consider the roles they want to play in a city, community and neighborhood social context, the more possibility there is of resolving complex issues and conflicts at many levels. Thus, in order for the guidelines to be helpful in resolving issues, there are three prerequisites, as follows: (1) a public forum must be available for all participants and interests -- public, political, and professional; (2) there must be a public will to reach agreement; and (3) the technical and political aspects of the issue must be understandable and usable by all participants.

Thus far, the development of the guidelines basically represents the best current thinking of the city departments involved in the project -- it being a first round of thinking by those professionals that are familiar with Cambridge and with technical/administrative approaches to handling such broad public issues. However, the proposal developed to date does not necessarily represent the "best thinking" the entire city can do on these problems, since the options, concerns and interests of a large segment of the City have not yet had a chance to surface.

Although the guidelines are in an early stage of development, the next immediate steps in the planning program must include submitting them for citizen review and discussion. There are advantages to gaining public reaction to these guidelines as they appear in their preliminary form. In this way, the public does not feel the need to challenge the validity of the document -- it is a draft available for their comments -- nor do the professionals need to defend it because it represents the final word.



## CHAPTER 1 -- EXISTING CONDITIONS AND PROBLEMS

### SECTION 1 -- CAMBRIDGE: HISTORY, PROFILE AND TRENDS

Cambridge began as a colonial settlement called Newtowne at approximately the present location of Harvard Square. Lying south of the overland route from Charlestown to Watertown, Newtowne was selected as the original seat for Massachusetts Bay Colony Administrative Functions (and later judicial) due to its strategic location. Because of the possibility of sea attack, Newtowne's up-river location seemed more defensible to early settlers than the less well-protected ports of Boston or Charlestown. It was only later when Boston's superior location was realized, and invasion fears subsided that Bay Colony offices crossed over the Charles River to Boston.

Access to Boston from Cambridge was, during the 17th and 18th centuries, far more difficult than it is today. Large parts of Boston and Cambridge were then unfilled marshy areas, and crossing from one to the other required uncomfortable overland treks and a ferry crossing. At that time, Cambridge included all or parts of present day Arlington, Bedford, Billerica, Belmont, Brighton, Carlisle, Lexington, Lincoln, Newton, Tewksbury and Watertown. Newtowne life was village-oriented, and the economy was agriculturally dominated. Even the building of a bridge crossing the Charles at what is now Boylston Street did not change that basic orientation. There was a largely speculative effort later in the 18th century to create a substantial port for Cambridge in Cambridgeport, but these efforts went unfulfilled.

Only with the building in the late 18th and early 19th centuries of the West Boston (Longfellow) and Craigie (Charles River Dam) Bridges did Cambridge's village orientation change as travel to Boston became far more convenient. The city then began to assume one of the transportation roles it now plays as conduit between Boston center and suburban hinterlands. Parts of East Cambridge grew rapidly with succeeding immigrations, and the subsequent industrialization of that part of the city pulled exclusive political control away from Harvard Square interests.

Throughout the later 19th and 20th centuries, Cambridge was ever more closely tied to Boston; first by horse-drawn omnibus and later by horse-drawn "street railway" over the East Cambridge bridges. In 1912, the subway tunnel was completed linking Boston and Cambridge by rapid transit. Cambridge now lies on one of the heavily travelled regional spokes of the Boston hub, and its life is inexorably bound up in Boston and regional developments.

### Cambridge Population

Population is declining in Cambridge and has been declining for many years. Since 1950, when the City's population was 120,740, it has declined 17% to 100,361 people (including university dormitory residents) counted in the 1970 Census.

More significant than the population decline, however, are the changes in the composition of the City's population. Families, especially those of moderate means are those leaving the city. School enrollments are projected to remain level or more likely to decline. People moving into Cambridge tend to be young professionals able to afford the increasing cost of living in the city.

In 1950, 95.3% of the City's population was white, 4.3% was black and 0.4% was classed in other racial categories. In 1970 those respective figures were 91.1%, 6.8% and 2.1%. In absolute figures, blacks increased from 5,235 in 1950 to 6,783 in 1970, about 29%. The most significant increase, however, was in the other racial group category, which increased absolutely from 437 in 1950 to 2,170 in 1970, or 400%. While it may not appear so from these statistics, Cambridge is a culturally diverse city having large numbers of citizens with Italian, Portuguese, Greek, and Indian backgrounds.

The age of the City's population has been undergoing changes in the last 20 years, also. In 1950, 20.4% of Cambridge's population was between the ages of 0-14 years while 9.2% was over 65 years old. In 1970 those percent figures were respectively 16.6% and 11.7%, indicating that at the extreme ends of the population pyramid Cambridge is losing its young and increasing the number of its older citizens. However, in the 15-34 year age group, Cambridge has shown a percentage increase in 1970 over previous census years. In 1950, 36.9% of the city's population was in this group, while in 1970, 46.6% were from 15-34 years old. One can see that Cambridge now has many more young, professional people than it did in 1950.

The shifting orientation of Cambridge's population is further demonstrated by the City's marital status in 1950 and 1970. While in 1950, 52.3% of the City's population was married and 37.1% was single, by 1970, 42.4% were married and 46.1% single. Percentage figures for widowed and divorced persons show no substantial change over that period. The statistics clearly indicate that Cambridge is losing population absolutely, and that this population loss is heaviest among the city's families, especially those with school-age children. From 1950 to 1970 when Cambridge's population fell from 120,740 to 100,361, Cambridge's married population fell from 50,903 to 35,957. While experiencing a total population decline of about 17%, the married population fell by 29% or 14,946 people. Of a total population loss of 20,379 from 1950-1970, 73% were married.

Cambridge neighborhoods are becoming more forceful and articulate in their opposition to these trends and tend to see the universities as as particularly responsible for described trends. Clearly in view of mounting neighborhood pressures and expected continuation of these population trends, some considerable need exists for a positive articulation of City objectives with respect to its population and its housing stock.

### Cambridge Economic Conditions

The economic problems which beset the City of Cambridge are largely typical of those problems afflicting other built-up urban areas with strong but declining industrial-manufacturing bases. As a local firm has to confront the need to expand, it often finds expansion opportunities minimal in place. Additionally, as the area becomes built-up other problems beset the local firm and often it is confronted with the need to decide whether to continue operations in Cambridge or to move elsewhere. Numbers of firms have had to leave Cambridge because of problems associated with doing business in the City. The subsequent loss of jobs, purchasing power and tax base obviously depresses the economic life of the City.

What sets Cambridge aside from other largely industrial-manufacturing urban economies is the presence here of several major educational institutions, especially Harvard University and The Massachusetts Institute of Technology. While providing many jobs, producing much tax income and attracting many firms to the City, and while producing a large but unquantifiable income multiplier effect (as money is earned and spent in the City), the universities also constitute a significant economic burden for Cambridge as they utilize City services such as fire and police and local housing resources where students and faculty can successfully outbid older City residents in a very tight housing marketplace.

The juxtaposition of the older industrial-manufacturing base with the more recent growth in light industries attracted in part by the universities' presence, confronts the City with the need to decide in which direction it would best move from the economic development and manpower planning standpoint. Within a manpower planning context, the City's goal is generally agreed to be that of seeking to create and/or hold jobs that employ Cambridge residents. However, to a very significant extent implementing such a policy is difficult for Cambridge because local manpower conditions are heavily affected by forces operating regionally or even nationally. The number of Cambridge residents in the work force is approximately 46,000. About 25,000 of those Cambridge residents work within the City and the other 21,000 work outside of Cambridge. Fully 45% of Cambridge's resident work force is employed outside the City. Also, if we can assume, as seems safe, that the City has about 91,000 total jobs, only 27% of those jobs are filled by Cambridge residents. Economic forces in the Boston region then play as important a role in the City's manpower conditions as would any local policies that Cambridge might adopt.

Cambridge's total retail sales as a percentage of the Boston SMSA have declined from 9% to 8% while rising absolutely from \$182,565,000 in 1958 to \$210,900,000 in 1967. It would appear that Cambridge has generally held its competitive position within the SMSA during that 10-year period. However, during that same period there were important changes in the composition of those sales. In 1958 approximately 41% of the City's retail sales were convenience goods (food, eating and drinking, drug and proprietary goods, etc). In 1967, convenience goods represented about 1/3 of total sales. In 1958, shopping goods accounted for 25% of Cambridge retail sales whereas in 1967 they accounted for over 37% of those sales. Shopping goods include apparel, general merchandise, furniture, home furnishings, equipment, etc. Finally, about 34% of 1958 retail sales were in an "other goods" category, while 29% of 1967 sales were in other goods. Hardware, building materials, automotive supplies, books, cameras, jewelry, optical goods and other goods are included in this category. Cambridge changed significantly in that 10-year period, and can reasonably be assumed to have further evolved, from a retail emphasis on the sale of convenience goods to the sale of shopping goods. To an extent, this probably reflects the general availability of more disposable income on the part of Cambridge residents as well as serving to reflect changes in Cambridge's population already mentioned.

The City's operating budget has increased approximately 25% in the last four years from \$30,499,398 in 1968 to \$38,340,734 in 1971. The largest part of that increase is represented by the School Department which rose from a budget \$7,493,495 in 1968 to \$11,772,967 in 1971, a 57% jump. While the budget increased 25%, the assessed value of real and personal property in the City rose from \$303,491,200 in 1968 to \$319,696,000 in 1971, an increase of only 5%. For that reason the City's tax rate has jumped from \$82.50 in 1968 to \$132.40 in 1971, an increase of 60%. In per capita terms, the Cambridge tax levy has risen from \$249 in 1968 to \$422 in 1971. While Cambridge has been able to pay its bills, it is clear that such a continuing increase in the tax rate is both financially and politically unfeasible. Either expenditures must be moderate and brought into line with increases in assessed values or other forms of municipal financing must be sought.

### Cambridge Housing

Just as there are significant changes in the composition of Cambridge's population over the last 20 years so too are there important differences in the composition of the City's households and housing stock. Population in households has declined from 107,676 persons in 1950 to 88,502 people in 1970, a decline of 17%. Over the same period population in group quarters declined 9%, from 13,064 in 1950 to 11,859 in 1970. Significantly, persons per household dropped from 3.27 in 1950 to 2.43 in 1970.

<u>Density</u>	<u>1 Person</u>	<u>2 Persons</u>	<u>3 Persons</u>	<u>4 Persons</u>	<u>5 + Persons</u>
1950	3,944	9,206	7,299	5,557	4,556
1960	8,082	10,617	6,058	4,313	5,183
1970	11,785	11,857	5,430	3,509	7,370

	<u>Percent</u>				
1950	12.9	30.1	23.9	18.2	14.9
1960	23.6	31.6	17.7	12.6	15.1
1970	29.5	29.6	13.6	8.8	18.4

The preceeding figures indicate the numbers of people per dwelling unit in Cambridge both absolutely and as a percentage figure from 1950-1970. What the figures clearly show is that there has been a dramatic change in the number of 1 and 2 person dwelling units in the city. From 1950 when there were 13,150 persons in 1 and 2 person units to 1970 when the number jumped to 23,642, the increase was about 80%. The increase is even more significant in 1 person units where it approximated 300% from 1950-1970. In 1950, 1 and 2 person units accounted for 43% of total City housing units whereas in 1970 it was 59% of all Cambridge's units. Again, the single person units were responsible for the jump. While there has been a gain in the number of dwelling units in the City from 1950-1970 of from 33,437 to 37,610, these density figures indicate a trend which complements the population decline and dwelling unit increase: a substantial jump in 1 and 2 person units. As family size and numbers have declined substantially, the housing market (rentals) has responded with smaller sized units. Non-subsidized, non-university private construction during the 1960's confirms this finding. Of the 1,738 new dwelling units privately constructed between 1960-1970, 1,569 of them were in 45 structures with over 10 units apiece. For the most part these were dwelling units with 1 or 2 bedrooms. There has been a decline in the size of units being marketed, either through new construction or "re-conversion" of existing dwellings.

The competition for housing units in the City is partially reflected in changes in the cost of housing, and those costs have risen substantially over the last 20 years. In 1950, the median contract rent for apartments in Cambridge was \$43. The median value for a house was \$12,600. By 1970, those dollar figures were \$119 and \$24,000, respectively. Costs for apartments increased 177% and housing costs averaged a 90% rise during those 20 years. Median income for families and unrelated individuals rose 74% in this period, from \$2,933 in 1950 to \$5,114 in 1970. Obviously, in some parts of the City these changes were far greater than in others, but general trends indicate that there have been substantial city-wide changes during the last 20 years.



## Cambridge Government

Cambridge adopted a Plan E Council-Manager form of government during the early 1940's. Essentially, what that means is that all governing legislative authority resides in an elected City Council (in Cambridge's case of 9 members), and all administering authority resides with a Council-appointed city manager. The Council elects from among its membership a mayor whose real functions are largely symbolic and ceremonial, except that the mayor chairs both the City Council and the School Committee meetings. Public School business is handled by the School Committee. The city manager administers city government, encompassing all its departments and commissions (with the School Committee an exception), and all city workers are his subordinates rather than the Council's. The city manager can be removed or appointed by simple Council majority vote.

In addition, Cambridge elects its Council and School Committee by a system called Proportional Representation. This means that candidates are selected at large by the voting population, and that in order to be elected a candidate must reach a certain quota (depending upon the number of candidates running and people voting) established before votes are tallied. Once a candidate reaches the quota he or she is elected. People can vote for all candidates in order of their preference, so that, if a voter's preferred candidate is elected when that voter's ballot is tabulated, his vote can be passed on to a second preference. If a person names 2 or 3 candidates, and when his ballot is tabulated they are already elected, in effect that ballot is voided. Therefore, the voting system, in effect, rewards those making complete ballots and penalizes those who do not indicate all voting preferences.

Expressing political choices at election time is one way, the traditional one, of recording preferences. Much happens of concern to citizens between elections, of course, and Cambridge lately has indicated more of a predisposition to cull citizen opinion on particular issues and to respond to citizen group concerns where expressed. A more responsive city government could be the result of such subtle changes in the local political process. Two recent examples in Cambridge serve to highlight a growing change in approach by elected officials. The City Council recently appropriated \$16,000 for an umbrella community group, the Cambridgeport-Riverside Community Corporation, in order that they might hire consultants to determine reuse feasibility of an old neighborhood-located publishing company. In another example the City Council solicited city-wide group interest and participation in the city manager nomination process. In effect, the Council sought public opinion preferences on the several city manager candidates. Both examples of city government responsiveness auger well for Cambridge's resolution to face and solve the difficult problems it now faces.

## SECTION 2 - INTRODUCTION TO PROBLEM STATEMENT

Everyone living or working in Cambridge has some understanding of the type and range of problems associated with the City's transportation system. Each person or group brings a different perspective to the problems, and each perspective has its own validity. The elderly and handicapped have severe mobility problems associated with walking, due to sidewalk conditions, vehicular violation of crosswalks, and personal insecurity arising from crime. Community residents may be angered by the hazardous and discomforting conditions visited on them by large, heavy trucks traveling through their streets at all hours. Transit riders are facing the prospect of increased costs and decreased service.

The intent of a problem statement is to identify the conditions that need to be corrected. A well-articulated statement of a problem can go a long way toward bringing to light the work needed to be done in searching out and developing workable solutions. The goal is to eliminate the problem.

In the following section, the study team has set forth its first attempt at a statement of city-wide transportation problems. Although this initial statement is relatively general in nature and does not delve to any great extent into basic causes underlying the problems identified, it nevertheless covers the full range of problems sufficiently to provide a framework for developing a coordinated and staged program of corrective action. Many of the problems are interrelated, so that by developing a statement of all the problems the team can begin to identify groups of problems stemming from related causes. As it now stands, however, the problem statement is only a beginning and will need additions and refinements in order to maximize its contribution. In particular, it must be expanded to include the impacts of problems, a detailed statement of their causes, a discussion of possible solutions, and the studies needed to test their validity.

As a guideline, the Problem Statement should provide everyone involved in trying to correct the problems -- from people affected by an adverse situation to governmental and professional people whose job it is to make corrections -- with a better understanding of the comprehensive effort required. As is too often the case, the squeaky wheel gets the attention. The squeak may go away with a little attention. However, not enough effort can be put into all the squeaks demanding attention to eliminate the causes. The squeaks become louder and more recurrent. The comprehensive problem statement can help direct attention to the interrelationships of problems, and by this route move to the basic causes that must be treated if the problem symptoms are to be effectively eliminated.



**SECTION 3 - GUIDELINE #1: A STATEMENT OF TRANSPORTATION AND RELATED  
LAND USE PROBLEMS IN CAMBRIDGE**

**A. VEHICULAR CIRCULATION**

**1. Street Network**

- a. **Eighteenth Century Street Network:** Very irregular pattern, produces many intersections of more than four streets and/or acute angles. Arterials have a locational rather than directional orientation, resulting in many confluences of major streets (i.e., Harvard, Lechmere, Central, Porter, Kendall, Inman Squares, etc.). Streets are generally narrow; 40 foot right of way is most common (including sidewalks); arterials rarely reach 100 feet.
- b. **Convergence of east-west arterials in Harvard Square:** While east-west arterials are numerous, most converge in Harvard Square; the remainder converge in Porter Square. Both squares function as severe bottlenecks.
- c. **Shortage of north-south arterials:** There is a severe lack of means for continuous north-south movement. Consequently, streets like Prospect, River and Western are functioning as principal north-south routes. Such streets were at one time almost completely residential, but non-residential use has invaded to the point of dominance.

**2. Land Uses**

The rapid and relatively unplanned development of Cambridge in the latter half of the nineteenth century, imposed on an eighteenth century street pattern, created a situation where major traffic generation points are poorly served by the vehicular circulation system.

- a. **Institutional:** Harvard University severely aggravates a natural traffic bottleneck which occurs at Harvard Square. M.I.T. is less of a problem because of its linear character and location abutting Memorial Drive.
- b. **Industrial:** Most industrial areas of the City are either poorly served by major streets or directly abutt residential neighborhoods or both. Thus, much truck traffic is forced to filter through non-industrial areas. The situation is particularly acute in the East Cambridge and Cambridgeport industrial areas, both of which are trucking and warehousing centers. Additionally, trucks are not permitted on most of the M.D.C. Parkways within the city.

- c. **Commercial:** While most commercial districts are located at intersections of major streets, few have direct access to the areas outside Cambridge. Thus, the metropolitan oriented centers, like Harvard Square and the County Courthouse area, attract considerable non-city traffic which is forced to filter through the local street system.
- d. **Residential:** Street patterns in most Cambridge neighborhoods are well suited to discouraging outside thru traffic. However, this is counteracted by the exceptionally high residential density throughout most of the City (about 16,000 persons per square mile on a gross basis); each residential neighborhood functions as a major traffic generator in itself.

### 3. Metropolitan Location

The location of Cambridge in the Metropolitan core, directly abutting downtown Boston, insures that for many people Cambridge is the place to go through to get somewhere else.

- a. **Automobile:** The M.D.C. Parkways encircling the city undoubtedly attract a considerable amount of thru-traffic. Nevertheless, these parkways already operate at capacity in off peak and at over capacity in peak hours, forcing much thru-traffic onto the city streets. In addition, the parkways do not adequately serve north-south desire lines and east-west desire lines at the northern part of the City.
- b. **Trucking:** Several circumstances peculiar to Cambridge enlarge the thru-truck traffic problem above that level which might normally be expected. First, truck traffic is not permitted on much of the M.D.C. Parkway system which would ordinarily attract thru-truck as well as thru-car traffic. Secondly, the Massachusetts Turnpike's major metropolitan trucking terminal is located in Allston just across the river at River Street. Thus, much truck traffic originating in the northern part of the metropolitan area and destined for the truck terminal must pass through Cambridge, and vice versa. Finally, the older core cities northeast of Cambridge -- Somerville, Chelsea, Winthrop, Revere, etc. -- contain numerous truck generation points which result in traffic passing through Cambridge. One particular problem is the petroleum depot areas in Chelsea; oil trucks are not permitted to use the Turnpike east of the Brighton exit and must divert through Cambridge.

#### 4. Signs and Signalization

An intense effort to improve the traffic signalization system within the last several years has produced significant results. However, it will be four or five years until the program is complete; numerous intersections remain which must be signalized or updated. The overall system of traffic signs is in good shape, with the exception of M.D.C. Parkways and street name signs. The latter is included in the City's TOPICS PROGRAM, but implementation is still in the future.

#### 5. Other

- a. Enforcement of traffic and parking regulations: The combination of narrow streets and the shortage of sufficient personnel for adequate parking regulation enforcement, particularly with respect to double parking and parking in bus stops and loading zones, has had serious consequences for efficient traffic circulation in Cambridge. The City recently hired parking control officers and instituted a program of strict enforcement, and the early results are encouraging. But at this stage the program is limited to Harvard and Central Squares, and it will be several years before the program reaches the city-wide perspective that is necessary. Similarly, enforcement of moving-traffic laws suffers from inadequacy of available resources. While the impact of this situation on traffic circulation is not clear, an obvious consequence is the serious threat to public safety.
- b. Snow Removal: Despite public pressure in recent years, the City has yet to adequately handle the snow removal problem. Illegal parking is probably the principal contributor to this situation. One heavy snowfall, followed by a spell of cold weather, has in the past paralyzed traffic movement for weeks or longer. While snow removal is a periodic and temporary problem, a severe winter can mean impaired traffic circulation for a total of perhaps three months.
- c. Storm Sewer System: The City's storm and sewerage systems are badly in need of improvement. The systems are either combined or inadequate in many areas of the City. Heavy rains and/or melting snow produce serious street flooding in many locations throughout the City. The City has embarked on a program to correct the situation, but the extent of the problem and the high cost of improvements necessitate that the whole program be scheduled over a 10-year period.

## **B. VEHICULAR PARKING AND LOADING**

### **1. Parking Shortage**

- a. **Commercial Areas:** The most severe shortage of parking space in the City occurs in the principal commercial centers like Harvard and Central Squares. The shortage has several perspectives. First, the City's zoning district applicable to most commercial centers does not require off-street parking for non-residential uses. Secondly, almost none of the existing developed parcels include any off-street parking. Third, while the City operates a few open parking lots, the parking shortage at Harvard Square is aggravated by the demand on space by Harvard related persons; data indicates that perhaps over 30% of total space time is occupied by Harvard students, faculty, and employees. However, Harvard has embarked on a parking garage construction program which, coupled with strict enforcement, should mitigate the problem.

The parking shortage does, of course, have spill-over effects. First, the continuous circulation of vehicles searching for parking space impedes traffic flow. Secondly, the shortage of off-street parking spaces results in large-scale illegal parking, even on major arterials, to the serious detriment of both traffic flow and safety.

- b. **Residential Neighborhoods:** Only recently has off-street parking been required for residential units. Thus, most residential structures throughout the City depend upon on-street parking for their tenants and owners. In many areas these include even most one, two and three family structures originally built on lots so small that even one off-street parking space is not feasible.
- c. **Industrial Areas:** Available land for on-grade off-street parking facilities has been more available in industrial areas than in residential and commercial areas. But the shortage of off-street parking space to serve industrial uses, while presently severe only in East Cambridge, will worsen in the near future as the high demand for all Cambridge land turns parking into more productive uses.

### **2. Loading and Delivering**

As is a case with off-street parking, off-street loading facilities are the exception rather than the rule. This holds true throughout the City and for most land uses. Compounding the problem is a street system which totally lacks alleys, which in

most American cities provide built-in service access. In industrial areas, the extremity of the problem is illustrated by semi-trailers parked perpendicularly across public streets to be served from street-line loading docks. In commercial centers, the points of greatest traffic congestion in any case, normal procedure is to unload from a double parked truck. Loading zones are usually occupied by illegally parked cars. In residential areas the provision of adequate loading zones is impractical. In the common situation where there is only a single travelling lane, a garbage truck or oil truck can effectively seal up a street for a considerable period of time.

### C. PUBLIC TRANSPORTATION

1. MBTA: Since Cambridge occupies a prominent position - second only to that of Boston - within the MBTA system, the problems which plague the MBTA system generally weigh heavily upon Cambridge: excessive cost, deteriorating service, inefficiency, poor maintenance, antiquated management procedures, inequitable fare structure, poor public information services, etc.
2. Rapid Transit: It would appear at first glance that Cambridge is reasonably well served by rapid transit, with 4 stations, three of which are on the Red Line - the MBTA's most modern and best-run line. However, the radial pattern that characterizes the metropolitan transit network insures that any community can be served by transit only in the most limited sense: service to and from Downtown Boston. This segment of public transportation demand in Cambridge is probably only a small proportion of the total. A strong current demand in the Cambridge area is along a line that includes Davis Square (Somerville), Porter Square (Cambridge/Somerville), Harvard Square, M.I.T., Boston University, and the Fenway institutional area; yet transit service among these points is nonexistent or tremendously inconvenient. Other circumferential demand to and from work, shopping, and social services outside Downtown Boston is similarly unsatisfied. Certain groups of persons, such as the handicapped and the elderly, are poorly served irrespective of destination. Problems associated with existing transit lines include erratic service and deplorable station conditions.

Another serious problem related to transit service is the function of the Harvard Square station as a major transportation terminal. Harvard Square terminal, together with a dozen or so bus lines which terminate in Harvard Square, attract tremendous amounts of traffic to the City's most congested area. Harvard Square has neither the street nor parking capacity to serve as an efficient transportation terminal.



3. **Bus Service:** In terms of coverage, bus service is good in many areas of the City, with several notable exceptions, such as Rindge Avenue, and parts of East Cambridge, Cambridgeport and Riverside. In addition, bus service on many routes ceases early in the evening.

The degree to which buses adhere to schedules is in large part a function of the level of traffic congestion, which in Cambridge must be considered a serious detriment to good service. Ironically, buses contribute to the congestion on major arterials through their failure to pull to the curb at bus stops, although the blame must be shared by illegal parkers. One final problem related to bus service is the MBTA's insistence on using full size buses to serve collector routes through dense residential neighborhoods with narrow streets clogged by parked cars; the maneuverability of the buses is so limited that several tries must often be made to complete a 90 degree turn.

- D. **PEDESTRIAN:** Cambridge should be a walker's city. High density reasonable access to public transportation, physical environment of infinite variety, high level of traffic congestion, and the shortage of parking space should provide a considerable incentive for the pedestrian. However, there is a substantial list of factors which constitute significant deterrents to walking:

1. **Sidewalk Conditions:** Many of the sidewalks in the older areas of the City are brick. While brick sidewalks are hailed by some for their quaintness and attractiveness, and a modern brick sidewalk set in concrete is a top quality product, most old brick sidewalks have heaved considerably, making them difficult and sometimes dangerous to use. In many cases their condition is so bad that they force pedestrians, especially the elderly, to walk in the street. And, when in bad condition, they are almost impossible to keep clear of snow and ice. Furthermore, the City is currently too inclined to grant permits for bituminous concrete sidewalks; such a material, though inexpensive, is of limited durability and cannot be expected to maintain rigidity over a long period of time. Finally, there still remain more than a few streets with no paved sidewalks at all. It should also be added that in some commercial areas, sidewalks are simply too narrow to carry all the traffic.
2. **Sidewalk Maintenance:** Poor sidewalk maintenance becomes a serious problem in two situations. First, the widespread failure to remove leaves from sidewalks in the fall, in combination with uneven sidewalks, creates a distinct danger, especially when the leaves are wet. Secondly, ordinances requiring that sidewalks be kept clear of snow and ice are all but ignored. On some heavily travelled pedestrian routes, it is

common to see all walkers using streets during long stretches of the winter.

3. **Pedestrian Services:** Perhaps the most serious failure to accommodate pedestrians occurs in the provision of adequate pedestrian cross walks along major streets. While painted cross walks are numerous, the state law requiring motorists to stop for pedestrians is completely ignored. Pedestrians should be encouraged to use existing signalized intersections, and pedestrian desire lines and flow volume should be monitored as a basis for identifying the need for additional pedestrian crossings. Benches for pedestrians constitute another service which is badly needed. Benches are provided only in parks, which are too few and far between to adequately serve the pedestrians. Benches are especially necessary in areas with high concentrations of elderly persons. Finally, bus shelters are almost nonexistent.
4. **Other Deterrents:** Two other deterrents to pedestrian movement should be noted. The "dog problem" is common to most cities but is perhaps intensified in Cambridge by the combination of a large dog population and a shortage of green space. Secondly, an inadequate storm drainage system results in flooded sidewalks and streets in many locations in the city.

E. **BICYCLES:** Despite a potentially high demand for bicycle transportation, the City thus far has done little to accommodate this mode. There appears to exist a mutual disrespect between cyclists and motorists which makes the use of bicycles a hazardous practice at present.

F. **GOVERNMENT PROCESS:** There are several situations in which transportation problems relate directly to issues of governmental process and jurisdiction.

1. **Metropolitan Transportation Planning:** Until recently the City has been unable to participate in a positive manner in the metropolitan transportation planning process. Such planning has traditionally fallen within the almost exclusive province of the State Department of Public Works and the MBTA. The City has resisted destructive proposals, particularly expressways, only through sheer political force. The Boston Transportation Planning Review is an effort to formalize involvement of local communities and groups in a broader, more comprehensive metropolitan transportation planning process. Whether or not it will succeed is not yet clear. The BTPR's success will be determined by the quality and extent of input by local communities.

In the case of Cambridge, the development of a prototypical municipal transportation planning process funded through the Federal Department of Transportation would contribute significantly to the quality of this city's participation in the BTPR.

2. M.D.C.: The Metropolitan District Commission has responsibility for the metropolitan network of parkways, which in fact function as the primary arterial system of the metropolitan area. The parkways in Cambridge include Memorial Drive, Fresh Pond Parkway, Alewife Brook Parkway, and a small proportion of Msgr. O'Brien Highway. These parkways are high capacity roadways and are crucial to the City's traffic circulation system. However, Cambridge's input into M.D.C. planning, operation, and maintenance procedures was all but nonexistent until a year ago. Effective coordination with the M.D.C. is, of course, critical to the City's transportation planning.
3. The State Department of Public Works: In addition to the involvement in metropolitan highways, the State Department of Public Works has jurisdiction over one of the City's principal transportation problems - the control of truck traffic. Trucks have a legal right to use any public way unless this right is limited by the City's Traffic Director with approval of the State Department of Public Works. Generally, the process of designating truck routes has been difficult. If the City is to effectively attack the truck problem, this process must be reviewed and altered.

## CHAPTER 2 - GOALS AND POLICIES

### SECTION 1 - INTRODUCTION TO GOALS AND POLICIES STATEMENT

"...it is impossible to plan without some sense of community goals... Moreover, for the planning process in any community to be democratic... the goals must win approval from a democratic political process; they must not be goals simply prescribed for the community by planners." (Alan Altshuler, *The City Planning Process: a Political Analysis*, Cornell Paperbacks, 1970, pp. 300-301).

The value of a set of goals for Cambridge is in providing our decision makers with a guide to a range of acceptable decisions. This is especially true when at least the following conditions are met:

1. The Goals and Policies (a) accurately reflect the collective judgement of the community; and (b) relate closely to the particular problems the community believes most in need of attention.
2. The Goals and Policies are operational; that is they are neither too broad to be misconstrued nor too narrow to fore-close desirable options.
3. The problem statement associated with the set of Goals and Policies is developed in close consultation with those affected including the decision-makers, and is eventually approved by all significant citizen and quasi-public groups, as well as by the City's legislative body.
4. The decision-makers are credible, responsible leaders who will make decisions only after the alternative choices are understandable to the constituency, and the views of the constituency are known.

The Goals and Policies statement will need to be closely related to the problems the Cambridge community wants solved. The problem statement will provide a context for the Goals and Policies statement which will in turn provide an overall context for the development of a transportation planning program. As particular problems are solved, the Goals and Policies statement may be adjusted to reflect the current situation. This adjustability is necessary if the City's Goals and Policies are to relate effectively to changing conditions.

An accurate set of Goals and Policies - one that will provide decision-makers in Cambridge with rational, realistic guidelines - will require a firm foundation of well-developed information. However, in selecting the information to be gathered, it will be important to distinguish between the transportation facility planning and policy

planning functions. Information collected and analyzed as part of a traditional transportation planning program will not necessarily tell the City what it needs to accomplish, and should be the subject of public discussion as to its relevance and importance. The Goals and Policies statement can help evaluate planning information in these terms.

Too often disputes over goals and policies are referred to professionals for resolution. This tends to harm the credibility of the politician as well as the professional. Where does one find a highway planner who does not arouse public suspicion? What is called for, and proposed by the study team, is a joint, cooperative and open effort by the public, the professionals, and the politicians to identify and clarify problems, formulate Goals and Policies, and develop responsive action programs. It makes more sense for all three to work together in order to ensure that they understand one another and that each entity is developing its area of interest and concern realistically.

The final decision on a Transportation and Related Goals and Policies Statement for Cambridge can be considered to be primarily the domain of the City's policy and decision-makers -- the City Council and City Manager. It is the intent of the study team that eventually the Goals and Policies Guideline will provide the basis for objective decision-makers to formally adopt a set of Goals and Policies in order to maintain high visibility for this important statement.

The draft statement that follows should be considered open for discussion. When the Cambridge Transportation Forum gets under way there will probably be considerable incentive to clarify the Goals and Policies basis for dealing with the variety of issues it will be taking up. The list could be expanded at that time to include additional areas of policy concern, e.g. environmental goals related to transportation and land use, and governmental process goals. It would also be important as a next step to relate the set of Goals and Policies to the set of problems and in turn relate these explicitly to the transportation planning program being developed. Concurrently, it will be desirable to develop a set of goals and objectives for as many other functions of the City as possible, so that eventually transportation can be tied into a coordinated program of City improvements.

## SECTION 2 - COMPREHENSIVE PLANNING GOALS RELATING TO TRANSPORTATION PLANNING

### POPULATION SIZE:

To ~~maintain~~ rough stability in population size, with minor variance up or down in response to progress toward other goals.

### POPULATION DISTRIBUTION:

To achieve the level of population density in each neighborhood which both complements the existing character of each neighborhood and encourages most efficient use of existing public facilities, streets, and utility systems.

### POPULATION COMPOSITION:

To strive for a balanced diversity of population in the City as a whole with respect to age, race, socioeconomic characteristics, and ethnicity. The process of achieving this diversity should not violate the identity and character of any existing residential neighborhood unless the alteration reflects the consensus of the residents. However, the rights of neighborhoods to self-determination shall not impact in any case on individual rights of opportunity.

### RESIDENTIAL LAND USE:

To place high priority on the development of a high quality residential environment for all Cambridge residents.

### RESIDENTIAL LAND USE:

To maintain the existing structure of strongly differentiated residential neighborhoods, spatially defined by and separated by strong natural and structural barriers.

### INSTITUTIONAL LAND USE:

To integrate the physical structure of the universities and other institutions into the fabric of the broader Cambridge community.

### INDUSTRIAL LAND USE:

To preserve a quantity of land for industrial purposes sufficient to satisfy the employment needs of Cambridge residents and to provide a vital element of the City's tax base.

### INDUSTRIAL LAND USE:

To achieve a distribution of industrial land use which, first,

minimizes the detrimental impacts of such industrial activity on the City's residential neighborhoods, and, secondly, maximizes the efficient use of the City's physical infrastructure and public services.

COMMERCIAL LAND USE:

To develop a hierarchy of compact, functionally defined commercial areas which meet as completely as possible the product and service needs of Cambridge residents and businesses and which contribute strongly to the City's tax base.

COMMERCIAL LAND USE:

Develop a variety of major commercial centers, each oriented to a different principal function, each reflecting a unique and attractive character which reinforces its marketability.

OPEN SPACE LAND USE:

To expand the City's supply of open space to such an extent that all residents have reasonable pedestrian access to open space resources.

### SECTION 3 - TRANSPORTATION GOALS & POLICIES

#### DOMINANT OBJECTIVES

##### A. GOAL:

To develop a balanced, integrated, efficient overall transportation system which includes all modes potentially useful within Cambridge: including public transportation (rapid transit, buses, jitneys, and special vehicles), taxis, bicycles, pedestrians, as well as private motor vehicles, trucks and railroads.

##### POLICY:

Emphasis should be given to the development of all useful modes of public transportation, including minibuses, taxis, jitneys, special vehicles, bicycles and pedestrian modes.

##### POLICY:

The City should investigate programs used elsewhere in the nation and the world to accomplish this objective and also encourage businesses to develop programs to meet their transportation needs.

##### POLICY:

To deemphasize the use of private automobiles and trucks through the effective enforcement of traffic and parking regulations.

##### POLICY:

Steps should be taken to prevent any general or specific increase in automobile or truck traffic until public transportation options have been developed and in operation sufficiently long to establish public usage.

##### B. GOAL:

The City's transportation services and facilities shall contribute to the enhancement of the desirable social, economic and environmental qualities of life in Cambridge.

##### POLICY:

Any new transportation developments should strive to improve the conditions of the area affected.



**POLICY:**

Where existing transportation facilities have an adverse impact on an area, remedial action should be taken to correct the condition.

**POLICY:**

To discourage thru-traffic from using residential streets and to establish traffic conditions that are compatible with residential areas.

**POLICY:**

To vigorously resist any major transportation proposal which seeks to sacrifice a disproportionate quantity of the City's resources for the prime benefit of the metropolitan area outside Cambridge.

**POLICY:**

To recognize the City's obligations within the metropolitan region and to participate fully in efforts to develop reasonable solutions to the metropolitan transportation problems.

**POLICY:**

To create conditions of social, economic and physical stability rather than uncertainty, disruption and destruction.

**POLICY:**

To establish criteria and standards that reflect the values, goals and objectives held by Cambridge - for use in the design and evaluation of transportation services and facilities.

**POLICY:**

To establish environmental quality standards which must be met by all existing or future transportation services and facilities, in both construction and operation.

**POLICY:**

To ensure that transportation facilities avoid adverse impact on historical, open space, recreational and watershed areas and structures, while at the same time providing accessibility to them (e.g. to Fresh Pond).

**POLICY:**

To control the quality of the roadside environment by seeking legislation and developing programs that achieve the following: visual screening of junkyards; eventual elimination of intrusive advertising displays and billboards; and coordination of all agencies to ensure that public signs and their support structures are informative and of high visual quality.

**C. GOAL:**

To utilize existing and future transportation resources (of the City) as a tool in the solution of the City's social, economic and environmental problems.

**POLICY:**

To increase accessibility to jobs and the job market through improved transportation.

**POLICY:**

To reduce, in so far as practical, the need for travel - through intelligent land-use planning, and through the development of education, job, shopping, personal service, and recreation facilities and opportunities to which Cambridge residents have access through local trips.

**POLICY:**

To establish controls over new land-use developments that occur as an outgrowth of transportation investments - in order that such developments will be compatible with the conditions and needs of the surrounding community and will make efficient and appropriate public use of opportunities created by the transportation investment (e.g. public corporation assembly and development of sites adjacent to new transit stops.)

**POLICY:**

Ensure that all people (including elderly, handicapped, low income, students, bicycle riders) who presently suffer because of the auto/highway dominant transportation system, be given high priority with respect to their transportation needs (e.g. through reorientation of transportation investment philosophy to correct present imbalance of private and public transportation facilities and services).

**D. GOAL:**

To encourage the development and operation of a public forum for the discussion of transportation issues, and for advising the City Manager, his departments, and the City Council in this regard.

**POLICY:**

To assemble, under the City Manager, a group of citizen, quasi-public and city department participants as fully representative as possible, in order that the City Manager, his departments, and the City Council may at a single sitting gain a comprehensive and appropriately-weighted set of views on a given transportation issue.

**POLICY:**

To resolve transportation issues before the forum by consensus building rather than by weight of numbers, and to rely only on the force of an argument in advising the City Manager of forum positions.

**POLICY:**

To develop a City Manager-Forum agreement under which all transportation-related documents, proposed actions, etc., referred to or initiated by the City Manager are referred to the Transportation forum for review and comment.

**E. GOAL:**

To help achieve better coordination of the administrative and financial resources of the City, State and Federal governments in the development of a transportation system consistent with the goals and priorities of the City, and adjacent cities and towns and the region.

**POLICY:**

To develop a close working relationship with Arlington, Belmont, Lexington, Somerville, Watertown and all other northwest corridor communities, as well as with Boston, Brookline and other metropolitan area communities having transportation concerns in common with Cambridge - for the purpose of flagging and working together to deal effectively with interrelated transportation problems and opportunities.

**POLICY:**

To consider Cambridge's transportation problems and needs relative to the overall quality-of-living objectives of the City (so that transportation does not become an end in itself).

**POLICY:**

To establish as a high-priority program a City effort to secure Congressional action that would permit the use of Highway Trust Funds (especially the 90/10 matching funds that will become available because of the decisions not to build previously planned Federally-financed highways in Cambridge) for other transportation services and facilities as needed by the City.

**POLICY:**

To strive to make current State and Federal transportation funding policies and procedures match Cambridge transportation needs.

**POLICY:**

To ensure that projects requiring demolition of homes will not be allowed to advance beyond the planning stage unless and until replacement housing fully satisfactory to the displaced residents is provided, with the complete cost being borne by the taking agency.

**VEHICULAR CIRCULATION**

**A. GOAL:**

To establish a hierarchy of roadways based on functions as follows:

- a. Arterial - to serve thru general and truck traffic, subject to appropriate limits on the latter.
- b. Parkway - to serve as a low speed passenger-car arterial.
- c. Collector - to feed arterial streets from residential neighborhoods and commercial and industrial districts.
- d. Local - to serve abutting residential units and a bicycle network.
- e. Limited Use - to serve adjoining commercial and industrial properties.

**POLICY:**

Arterials must not force more traffic through neighborhoods than is compatible with the desired residential environment.

**POLICY:**

Major arterials should only be allowed along existing natural and community boundaries such that traffic is a positive and unifying force rather than a disruptive and intrusive force.

**POLICY:**

Where arterial streets pass through residential areas, the following should be applied (which may mean revising existing traffic movements):

- a. Allow arterial use of streets only to the extent that traffic does not adversely impact the use of the area (this is an overriding factor which to a large extent requires the collective judgement of the community affected).
- b. When traffic exceeds the level desired, the following should be considered:
  - i. emphasis should be put on diverting auto trips to public transit;
  - ii. traffic should be restrained from overloading residential streets through the enforcement of traffic and parking controls; or
  - iii. consideration should be given to a program that aims at changing the character and land use of the area through which the traffic passes to one that is better able to tolerate the traffic impact.

**F. GOAL:**

To optimize the level of vehicular traffic such as that it is compatible with the capacity of the existing arterial street network and the amenities of the traversed neighborhoods.

**POLICY:**

To optimize the utility of the existing arterial street network through the provision of a coordinated, centrally-controlled signalization system and related traffic engineering devices.

**POLICY:**

To optimize the capacity of the existing arterial street network through the elimination of on-street parking and the strict enforcement of parking regulations.

**POLICY:**

To develop and publicize a strong enforcement program for achieving compliance with traffic and parking regulations by doing the following:

- a. plan and implement a 30-day education program during which "courtesy" tickets are given out to warn the motorist that strict enforcement will begin on a stated date, and to explain the rationale for this new policy.
- b. provide sufficient staff, equipment and budget for daily enforcement,
- c. streamline court procedures in order to minimize the time between ticketing and compliance,
- d. maximize the effectiveness of a towing program by improving the visibility of tow signs and establishing the fact that cars will be towed.

**POLICY:**

Establish procedures related to use of emergency vehicles (police, fire and ambulances).

**POLICY:**

Establish a good snow removal program that is able to quickly clear up heavy snow and ice conditions on both streets and sidewalks.

**POLICY:**

Establish a good storm sewer system that is able to handle heavy rains and snows that currently produce street flooding in many locations throughout the city.

**POLICY:**

Reduce traffic on Memorial Drive to a level and speed compatible with its parkway function and with the residential and recreational character of the area through which it travels.

G. GOAL:

To plan and establish preferential treatment on selected existing and future arterials for buses, car-pools, taxis, jitneys, bicycles and pedestrians.

POLICY:

Study the potential of establishing special lanes during peak hours on Massachusetts Avenue, Broadway, Beacon Street (Porter to Central Square) and Mt. Auburn Street, for use by transit-related vehicles.

POLICY:

Study the practicability of giving preferential treatment to transit-related vehicles at signalized intersections.

VEHICULAR PARKING AND LOADING

A. GOAL:

To develop an optimum number of parking spaces to serve projected land uses throughout the City -- the optimum number to be based on demand as limited by the capacity of arterials to service the demand at the locations and time of day for which the demand exists. To place the parking facilities off-street, but not in a manner that converts existing private or public green space to parking lots.

POLICY:

Require that adequate off-street parking facilities be provided by the private sector on a lot or pooled basis where new construction is involved.

POLICY:

Identify the need for and plan the provision of public off-street parking to replace existing on-street parking, where such a transfer (on-street to off-street) will clearly improve the functioning of either automobile, transit or pedestrian movements.

POLICY:

Plan for additional off-street parking facilities that are in excess of removals of on-street spaces only to the extent that the Cambridge Traffic and Parking Department determines that the

City's arterial system can satisfactorily accommodate the additional traffic volume generated by such additional parking spaces, and that the additional parking spaces would not detract from the use of public transportation.

**POLICY:**

Pricing for all (publicly-provided) parking facilities shall function as an instrument for the realization of broader public policy objectives.

**POLICY:**

Establish the right of the Traffic and Parking Department -- on advice from a parking research and planning unit -- to use pricing of parking spaces as a tool for bringing demand in line with supply (e.g., it is pointless to hold Harvard Square/Kennedy Library/Harvard University parking spaces to a level consistent with arterial capacity if low pricing encourages a far greater number of cars to compete for these spaces).

**POLICY:**

Regulate parking in such a way as to both encourage a logical geographic distribution of long-term, middle-term and short-term parkers (e.g., all day, 2 hours, 1 hour, half hour) and discourage the use of the automobile in excess of the capacity of the Cambridge street system.

**POLICY:**

Strengthen the enforcement of parking regulations through the increase of the number of Parking Control Officers, from the present total of four to at least ten, and by providing these officers with appropriate vehicles and with communications equipment for strengthening the towing program.

**POLICY:**

Coordinate the City's parking policy with that of Boston and the regional policy being developed by the current parking contract with the Commonwealth of Massachusetts Department of Public Works.

**B. GOAL:**

To achieve a system of loading and delivery which eliminates conflict with the circulation of traffic to the maximum extent possible.



POLICY:

To require the provision of off-street loading facilities by the private sector in those cases where feasibility is indicated.

POLICY:

To actively regulate on-street loading and delivery in such a manner that conflict with moving traffic is minimized.

PUBLIC TRANSPORTATION

A. GOAL:

To strive for the establishment of a public transportation system which both meets the transport needs of non-drivers and attracts a large enough number of drivers to significantly reduce private vehicular travel in and through Cambridge.

POLICY:

To give highest priorities to the improvement of public transportation relative to all other modes.

POLICY:

To participate fully in all metropolitan efforts to improve the capabilities of the MBTA for providing improved and expand service.

POLICY:

To give priority to coverage-intensive transit service for those communities that have limited transportation options (e.g. East Cambridge, Model Cities Neighborhood, Cambridgeport and Riverside Neighborhood 9 and North Cambridge); where coverage service does presently exist, to strive to improve routing and scheduling.

POLICY:

Where maneuverability is a problem with a standard size bus on narrow residential streets to work with the MBTA to find more suitable equipment.

**POLICY:**

To work through the MBTA Advisory Board to bring about changes in present MBTA administrative, financial, planning and operations practices that adversely affect Cambridge and other MBTA served cities. To continue efforts to expand the Cambridge-MBTA Cooperation Agreement to cover major operational factors affecting Cambridge (e.g. routing, scheduling, equipment).

**POLICY:**

To promote the use of public transit services by doing the following:

- a. provide a full-time person to respond to and develop solutions to the problems and suggestions people have about the MBTA service,
- b. continually press the MBTA to be more responsive to local transit needs and to actually encourage people to think transit,
- c. strive to have the MBTA improve conditions and improve scheduling (including: ease of accessibility by the handicapped and people carrying bulky personal effects and improvements to the Lechmere station),
- d. keep bus turnout lanes clear of illegal parkers, and see that the buses make use of the turnouts.

**B. GOAL:**

Encourage the use of suburban commuter rail service as a way of commuting to Cambridge and downtown Boston.

**POLICY:**

Promote the preservation and upgrading of current commuter rail lines.

**POLICY:**

Promote good connections between the commuter rails and the Green and Red rapid transit lines.

C. GOAL:

Develop new transit connections.

POLICY:

Promote the proposed Harvard-Alewife extension of the Red Line as a deep bore tunnel to Alewife.

POLICY:

Develop new crosstown transit service connecting Cambridge, Somerville, Allston, Brighton, Brookline and Boston.

POLICY:

Develop north-south institutional connections between Tufts, Harvard, (and other Harvard Square area educational institutions), MIT, Boston University, and the many educational and medical facilities in the Fenway south of Boston University.

PEDESTRIAN & HITCHHIKING:

A. GOAL:

To provide an environment and level of facilities which maximizes incentives and opportunities for pedestrians.

POLICY:

To reorganize pedestrian movement as a vital and viable transportation mode.

POLICY:

To encourage pedestrian movement, both singularly and in conjunction with public transportation.

POLICY:

To provide for pedestrian safety and comfort by

- a. improving sidewalk surfaces, but retaining brick,
- b. implementing a sidewalk snow clearance program which would insure that puddles and icy surfaces are eliminated.

**POLICY:**

To give consideration to pedestrian movement in all street widening and signalization projects.

**POLICY:**

To provide street furniture and conveniences in order to encourage pedestrian travel (e.g. benches, trees, pedestrian islands on wide streets, and shade protection from the weather).

**B. GOAL:**

To encourage and control the concept of shared rides in automobiles (hitchhiking) such that this mode supplements rather than competes with public transportation and is operated with safety to all concerned.

**BICYCLES:**

**A. GOAL:**

To establish a city-wide network of bicycle routes in which potential conflict with motor vehicles is minimized.

**POLICY:**

To encourage bicycle transportation as a vital and viable transportation mode.

**POLICY:**

To encourage the use of bicycles for utility trips as a practical alternative to the use of private motor vehicles.

**POLICY:**

To develop a city-wide bicycle network of exclusive lanes and/or bicycle safety streets -- making predominant use of local streets.

**POLICY:**

Through bicycle registration and/or other financing methods to raise funds for use in public efforts to solve the bicycle theft problem.

**GOODS MOVEMENT:**

**A. GOAL:**

To develop thru and local patterns for the distribution of goods.

**POLICY:**

Develop controls on the time, weight and size of truck movements relative to the affect they have on areas through which they pass.

**POLICY:**

Work closely with truckers, distributors, warehouses, business and industry (receiving shipments) and the affected communities in order to develop the most suitable patterns and regulations.

**POLICY:**

Through the use of signs at all street entrances to Cambridge, advise trucks (of more than 2-1/2 tons) to use only designated truck routes, except for pick up and delivery on specific and designated streets, during business hours.

**POLICY:**

Work with State officials to secure authority to ban all trucks of more than 2-1/2 tons from Cambridge streets at night (7 p.m. to 7 a.m.) and on Sundays.

**POLICY:**

Arrange for easy access to maps showing designated truck routes (such as through gas stations).

## CHAPTER 3 -- SKETCH PLAN FOR TRANSPORTATION AND LAND USE: ROUND ONE

### Introduction

The study team has developed a concept of a "sketch plan" as a dynamic, evolving set of thoughts about one or more aspects of the City's quality of living - e.g. transportation facilities and services. This concept is viewed as fostering on-going development of the sketch plan toward the final goal of producing recommendations sufficiently grounded in fact and analysis to warrant formal City acceptance and implementation. By contrast, a traditional and less satisfactory practice in sketch plan development is seen as generally consisting of bringing the sketch along to a given point (on the calendar, or on the plan development progress chart) before calling it a "sketch plan" and then presenting it in elaborate text and graphics. This process tends to give a thought-crippling air of finality to proposals for which no firm basis has yet been (or may ever be) developed.

In developing a sketch plan for transportation facilities and services, the study team became evermore aware of the necessity to integrate transportation land use and social planning. Since transportation is primarily a service that provides people and goods with the potential accessibility to alternate locations for the full spectrum of social and economic purposes, planners cannot logically map transportation services and facilities without also showing, at some early stage, how those services relate to the user or potential user, and for what purposes.

During the course of the first year of the Cambridge - D.O.T. Study, a significant amount of work was done to move forward with the development of a sketch plan for Cambridge land use and transportation. This was done in part to produce a focus on transportation planning work that needs to be done by the three to five-year pilot program, and in part to produce a laboratory for developing and testing "organizational framework" improvement concepts -- particularly in terms of simply getting the City departments to jump into the presumably icy waters of interdepartmental cooperation and find that "the swimming's great."

A milestone in this sketch planning effort was the two-day work session of March 23 and 24, 1972, held in one of the D.O.T. Transportation Systems Center conference rooms. Ten people working on and knowledgeable of Cambridge transportation matters spent the entire two days discussing Cambridge transportation problems, issues and opportunities.

The purpose of the session was to develop an intuitive transportation plan for the entire city that could serve as a framework for wider professional and citizen discussion of the issues identified. The participants, who were chosen to represent a range of 1) official positions; 2) areas of professional expertise; and 3) approaches to complex public issues, were

- Michael Appleby, head of planning for Cambridge Model Cities (works closely and has good understanding of Model Neighborhood residents).
- Robert Bowyer, Director of the Planning and Development Department (has overall responsibility for the Cambridge - D.O.T. Study).
- Captain Nicholas Fratto (represented the Police Department's interest in resolving these issues).
- Peter Helwig, a planner for Planning and Development Dept. (responsible for land use planning and capital budgeting).
- Edward Handy, Director of the Planning and Development Department's Community Development Program, and City Transit Coordinator (responsible for much of the transportation planning work done for Cambridge; is in working charge of the Cambridge - D.O.T. Study).
- Tunney Lee, consultant to Cambridge on transportation (responsible for representing Cambridge at BTPR).
- Michael Powills, transportation planning consultant, (assisting Cambridge on the Cambridge - D.O.T. Study).
- Lauren Preston, Deputy Director for Traffic and Parking Dept., representing the Director, George Teso (has played a key role in the development of this project).
- Bob Sloane, public transit expert working for BTPR (formerly in charge of research for MBTA; resident of Cambridge).
- Steve Zecher, planner for Planning and Development Dept. (responsible for transportation planning specifically related to this project, actively involved with local organizations concerned about transportation).

Much of the sketch plan products reported in the following pages were developed at the two-day work session -- and references to this fact and the specific thinking that evolved on various issues during the session have been placed in the text in order to give future Cambridge transportation planners using this report some sense of the evolution process of the study team's thinking.

## SECTION 1 - LAND USE CONSIDERATIONS:

### Land Use and Transportation Interrelationships

The theoretical view of transportation as a demand derived from the spatial distribution of human activities must be tempered considerably when the context of discussion is one small political jurisdiction within a larger metropolitan area. In other words, while a high proportion of the movement of people and goods within a metropolitan area will be contained within the boundaries of that area (there is relatively little movement from within the area to points outside, and vice versa), a small area within the metropolitan region, like the City of Cambridge, will experience a considerable portion of transportation movements crossing its borders, with either a destination or origin, or both, outside. Thus, from the Cambridge prospective, the issue of the land use-transportation relationship assumes several dimensions:

1. Intercity transportation needs; the function of the distribution of locally oriented land used in the city.
2. Transportation demand between activities in Cambridge and activities located elsewhere in the metropolitan region. In other words, transportation demands related to Cambridge as one activity sphere within metropolitan Boston.
3. Transportation demand among points outside Cambridge, but which is satisfied by movements which must pass through or near Cambridge.

In reality, of course, the distinctions between these three types of transportation/land use relationships blurs considerably; overlap is the rule rather than the exception. For example, Harvard University generates transportation demand, directly and indirectly, within the City, to and from the City, and through the City; while the MBTA Red Line services transit demand between Harvard and Central Squares, it at the same time functions as a segment of a transit link between Harvard Square and downtown Boston, or in the case of modal transfer, can service riders travelling from the suburbs to Boston; similarly, a major traffic artery may serve intra-, inter-, and through-Cambridge traffic.

However, in terms of Cambridge this picture can be clarified as follows: The more localized the transportation demand the more amenable it is to analysis based upon land use considerations. The more "metropolitanized" the demand, the more the transportation activity itself becomes a significant land use consideration. The epitome of this latter situation is perhaps a metropolitan airport. While the airport functions as a major element in the metropolitan, regional, and national transportation system, it at the same time usually represents the dominant individual land use activity in a metropolitan area, in terms of such criteria as



physical size, level of activity, employment, and environmental impact. Thus, Cambridge has found that the impact of an Inner Belt as a land use to be as significant as its transportation role.

One universal goal of land use planning is to minimize the need for transportation, in line with other objectives. Transport utilizes resources, but generally has no inherent value of its own. To the individual the principal elements include residence, work, shopping, and recreation.

However, in moving from theory to reality we are faced with one overpowering consideration: in Cambridge, and the metropolitan area, both land use patterns and the transportation system are basically fixed. Thus, our concerns are with incremental changes in each. Will a proposed adjustment in the City's traffic control system improve transportation service between a residential area a particular employment center? How can through traffic be diverted from xyz street? How can the trucking demands of an industrial area be served with minimum impact on surrounding neighborhoods? Thus, we deal not with "minimizing transportation" in most situations, but rather seek to minimize the detrimental impact of the transportation system on land use or vice versa. In fact, when we talk in terms of "service improvements", particularly with respect to public transportation, we are actually seeking to "maximize transportation" -- to compensate for inadequacies in the land use distribution pattern.

Another interesting twist in the minimization theory is that in the cases where we do seem to be seeking to minimize the need for transportation, we are usually reacting to an improvement in transportation system. Thus, as industrial park is located at the juncture of the two new interstate highways. Or in the case of Cambridge, a high density, multiuse development is envisioned at the Alewife Terminal of the proposed Red Line extension.

The distortions of land use planning theory that occur in the real world simply reflect the historical dominance of transportation development over land use planning. During the 18th and 19th Centuries, transportation was the key to unlocking what appeared to the Nation to be infinite and inexhaustable land resources. In the 20th Century the "psychology of the automobile" added its force to transportation development. Only within the last decade has there been widespread recognition of the fact that the country's land resources are limited. Thus, while much of the nations' transportation system has developed under the sponsorship or tight control of government, most land use decisions (and the resulting patterns) have been, and continue to be, made by the private sector in the form of innumerable individual actions, with relatively little interference on the part of government. Neither transportation nor land use have been coordinated internally or relative to each other.

## Critical Interactions between Land Use and Transportation Issues

The resolution of the critical land use issues facing Cambridge will have a profound impact on the transportation system, and vice versa. These critical issues can be summarized as follows:

1. What should be the overall development densities in the City? While residential density and manufacturing activities have been decreasing during the last several decades, dwelling unit density, institutional activity, and the commercial sectors have been increasing. Existing land use controls create significantly more development potential throughout the City.

Overall densities contribute largely to the general "level of activity" in the City. Can the basic transportation system absorb higher activity levels? Can higher transportation activity be tolerated?

2. What is the future of the City's industrial areas? As manufacturing leaves the City, much industrial land is becoming underutilized. Should an effort be made to consolidate shrinking industrial areas, with their characteristic transport demands? Or should we maintain a dispersed pattern?

3. Should Cambridge continue the pattern of encouraging numerous, dispersed commercial centers -- which in effect create a number of high traffic-generating points?

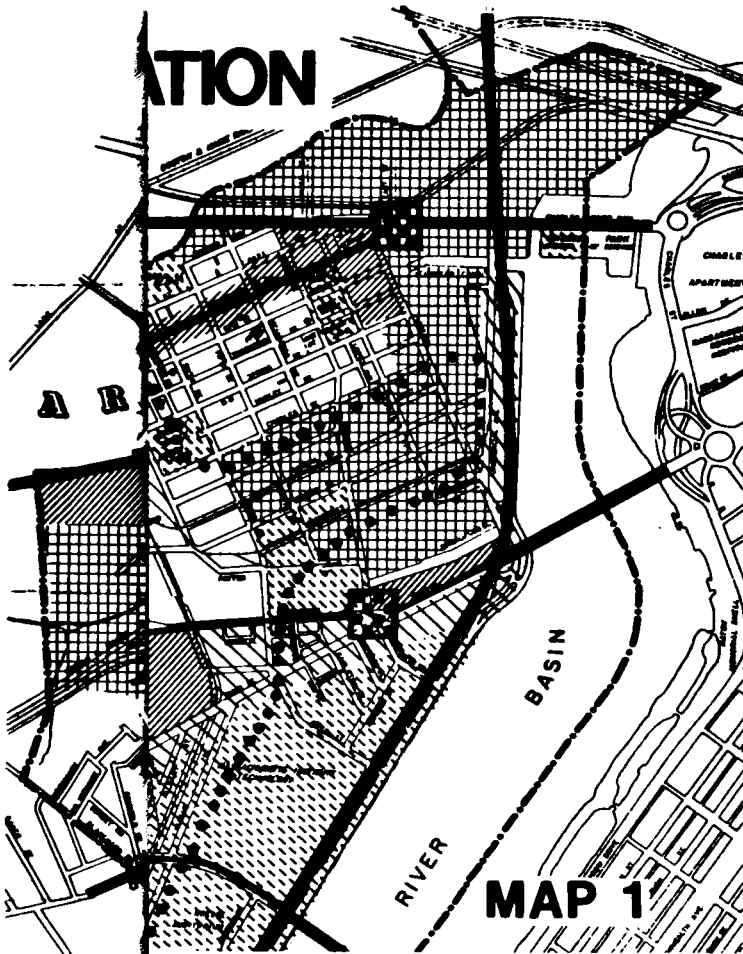
4. Specific projects/proposals/areas with potentially high impact on transportation system:

1. Kendall Square Urban Renewal Area
2. Alewife Brook Terminal Complex
3. Kennedy Library Complex
4. Development of Riverfront
5. Concord Avenue (North of Fresh Pond) -- conversion to high density Residential
6. City Dump
7. Simplex Properties

Map 1, Proposed Land Use and Transportation, reflects a preliminary attempt to resolve (at least partially) some of the critical land use issues discussed above and in turn relate these solutions to the proposed transportation network.

The most significant change between existing and proposed land use is the consolidation of industrial use into three primary areas: Northwest Cambridge, East Cambridge, and eastern Cambridgeport. Small pockets of industrial activity -- which tend to severely impact residential neighborhoods -- are eliminated, particularly the industrial strips



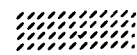


PROPOSED LAND USE AND TRANSPORTATION

Land Use Plan



Residential



Institutional,  
Governmental,  
Open Space



Commercial



Mixed Residential  
and Commercial



Industrial

Transportation



Regionals



Arterials



Existing  
R.T. Stations



Proposed  
R.T. Stations

Unresolved Areas

which tend to line railroad rights-of-way. The location of many of these small areas is such that they are serviced by vehicles which must pass through cohesive residential areas. The proposed consolidated areas are not only the largest of the existing industrial areas, but they are also located where they can be relatively efficiently served by major transportation elements: the Northwest Cambridge area is in the midst of the confluence of a number of major traffic arteries, and in addition could be effectively served by the MBTA Red Line transit extension; East Cambridge is less efficiently served by arteries, but transit stops at Kendall Square and Lechmere Square proved adequate public transportation; the Cambridgeport industrial area enjoys close proximity to the Massachusetts Turnpike, even though connections are now poor. A big question mark with regard to the Cambridgeport area is the resolution of the truck route issue: if a truck route of some type were developed through the eastern part of the City, it would likely pass through this area and thus provide excellent connections for industrial traffic; otherwise, the maintenance of this area for industrial use might not be wise in the very long run.

The shortage of blue-collar employment in Cambridge is so severe that significant alterations in industrial land use patterns must be accomplished only very gradually, with the major means of implementation being through natural attrition in conjunction with an adequate relocation mechanism. At the same time, much Cambridge industrial land is used very inefficiently. Methods must be explored which result in more intensive land use for industrial activity.

The land vacated by emigrating or relocated industrial uses will constitute (as it has for several years) the principal sectors for new development in Cambridge. Areas in close proximity to transportation nodes will be developed for medium to high density commercial and/or residential use. Such areas include Kendall Square, the Alewife Brook Park area, parts of the Riverfront, and areas near Fresh Pond. Other areas which are more integrated into existing residential neighborhoods should be converted to moderate density residential use, in keeping with the scale and density of surrounding areas: the Portland/Broadway/Fulkerson Street area, parts of Cambridgeport, and the areas along railroad rights-of-way which cut across North Cambridge.

High density "Central Business District" type of commercial activities should be concentrated in those few centers with good public transportation service, such as Harvard Square, Central Square, Kendall Square, with more modest concentrations at Lechmere, the Alewife Brook Park area, and along selected arterials (Massachusetts Ave. and Cambridge Street).

In Summary, the Proposed Land Use and Transportation Plan attempts to concentrate land uses which are detrimental to residential environments and guide most new developments toward those locations most effi-

ciently served by the transportation system. At the same time, many proposed transportation improvements are intended to "open up" areas where development potential is greatest. In general, there is a relatively good fit between what has for the most part been independent planning of transportation and planning of land use: The western sector of the City is the most underutilized with large potential for a variety of types of development; this same area also possesses the best vehicular transport network in the City and will be served by the extension of the MBTA Red Line. However, a critical issue remains: at what point could new development over-tax the proposed transportation network?

Map 2, Major Developments and Proposed Transportation, indicates that, to a considerable extent, current project planning and construction is corresponding to the City's proposed land use objectives. The highest concentrations of new development occur in the western sector of the City, the Kendall Square area, parts of the Riverfront, and the major business districts.

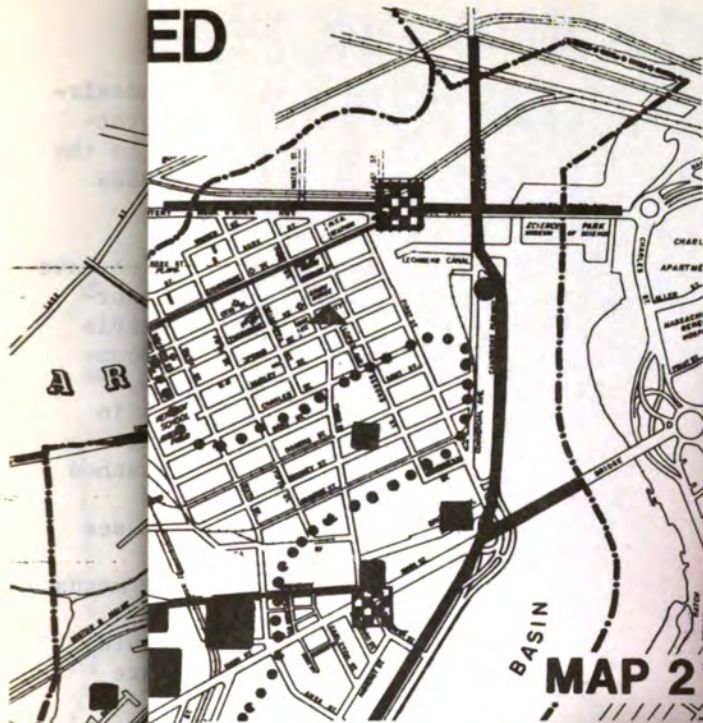
#### Cohesive Areas and Travel Barriers

Since most of Cambridge land uses and communities are well established, it is most appropriate to develop a concept of "cohesive areas," including residential and commercial areas, in developing a street use network that also defines appropriate levels and type of street usage and transit service. This "cohesive areas" concept would define areas which need protection from undesirable intrusion and impacts associated with traffic, as well as indicating how these areas would be enhanced relative to traffic improvement and accessibility.

Cohesive areas, whether they are residential or commercial, desire and benefit from not having to accommodate disruptive thru traffic. The residents, merchants, shoppers, or other users of an area must be involved in determining the extent and character of a cohesive area, for in many situations, a firm boundary is not only elusive, but can also be a sensitive issue. The user should also be involved in determining the level and type of accessibility as well as the allowable traffic intrusion.

The location and boundaries of cohesive areas must take into account the existing and potential traffic condition. Existing disruptive traffic conditions will need to be examined with respect to conflicts with cohesive areas. It may be possible to reroute this traffic, but only if this traffic is not moved into another cohesive area. It may be possible to reduce the undesirable traffic. Some ways of doing this include: eliminating undesirable aspects of the traffic (e.g. loud heavy trucks); intercepting area destined traffic and converting motorists into pedestrians; and promoting and making desirable all forms of transit. In addition to this approach, or in case it is not possible to reduce the undesirable traffic, it may be possible to reduce the undesirable impacts resulting from the traffic. Possible methods include: providing noise reduction barriers; enforcing restrictive noise and emissions controls;





MAJOR DEVELOPMENTS  
AND PROPOSED TRANSPORTATION

Major Developments

- ▲ Under Construction
- Advanced Planning
- Possible Projects
- Preliminary Plans
- ▲ ● ■ Less Than 200 Units  
(or 200,000 sq. ft.)
- ▲ ● ■ 200 to 400 Units  
(or 200,000 to 400,000 sq. ft.)
- ▲ ● ■ More Than 400 Units  
(400,000 sq. ft. and over)

Transportation

- || Regionals
- || Arterials
- Existing R.T. Stations
- Proposed R.T. Stations
- Unresolved Areas

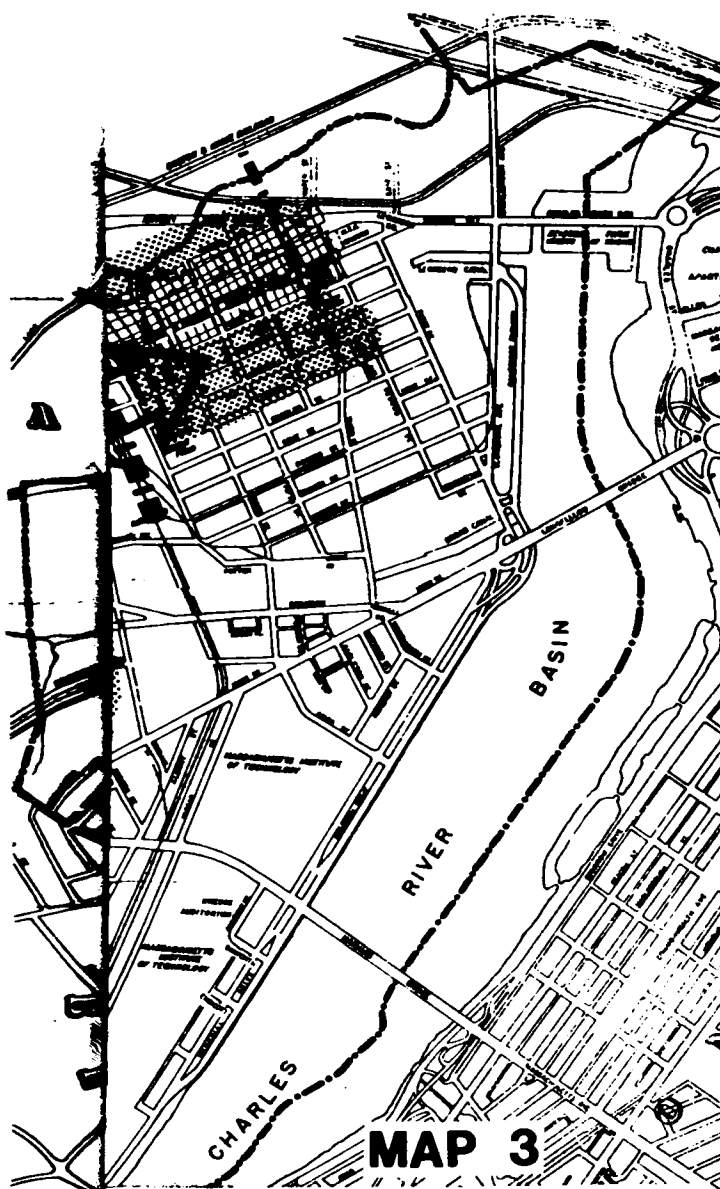


and restricting heavy traffic to certain hours of the day. If the undesirable traffic and impacts cannot significantly be reduced, there are probably only two remaining alternatives. One is to live with and adapt to the irreconcilable conflict. The other involves changing existing land uses to make them more compatible with the traffic conditions and impacts.

In addition to considering the effect transportation facilities have on locations or places, one needs to consider the linear effect transportation has in terms of connectivity and separation. An extension of this is to view transportation services and facilities in terms of their boundaries or edge effects. Transportation may provide an edge condition, separating a cohesive area from an undesirable or non-compatible use; in which case transportation would be considered as a positive or neutral barrier. Cohesive areas and travel barriers are indicated on the attached map. These barriers show up simply as cohesive areas separated by a transportation facility. In those situations where transportation causes undesirable barriers between cohesive areas, those barriers are to be considered as negative conditions; the attached map indicates this by means of an arrow across the barrier, connecting the cohesive areas. These situations may be either considered as undesirable conditions that could be connected or as connections that could be strengthened in the future because the separated areas would benefit by the connection.

The attached map also distinguishes between major and minor barriers, which can be associated with the street classification and the traffic volume. A major barrier would be associated with an arterial facility that is heavily travelled, and minor barrier would be an arterial or collector that carries lower traffic volumes.

In summary, the "cohesive area" concept provides a means to approach the densely developed character of the Cambridge land use fabric during the process of transportation planning, since elements of the transportation system are the principal means by which cohesive areas are physically defined.





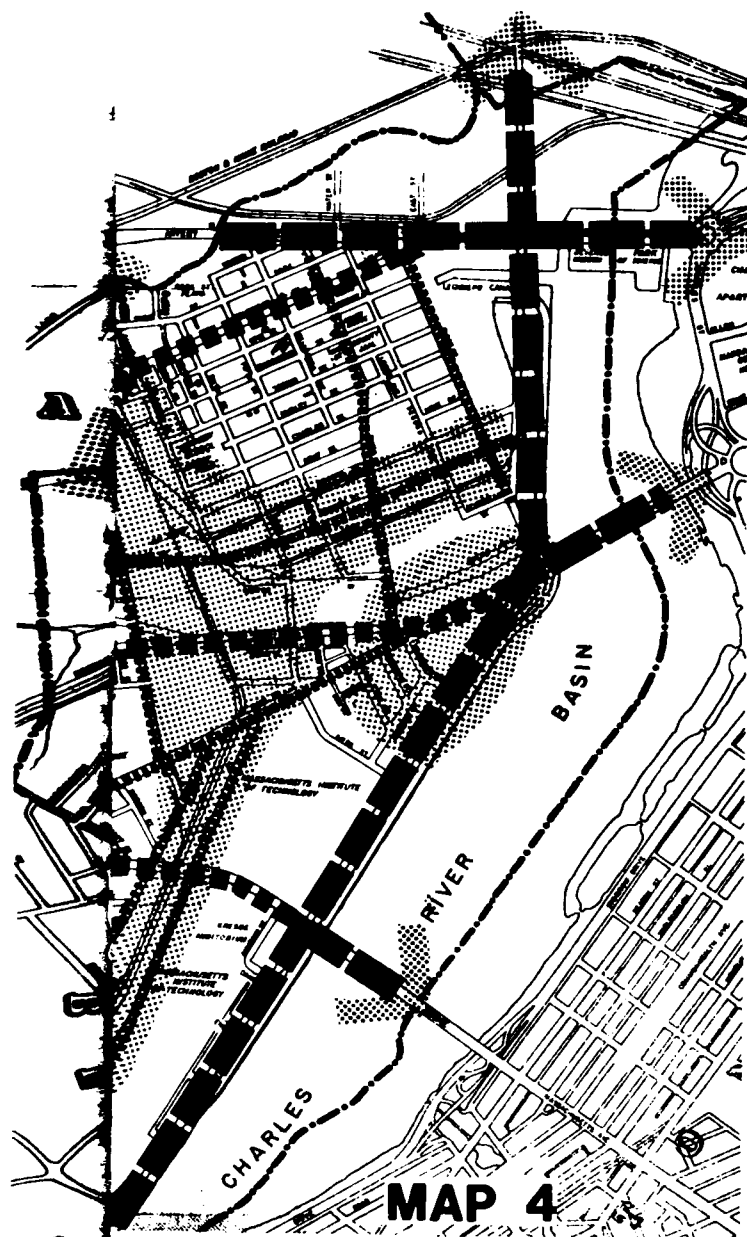
## SECTION 2 - TRANSPORTATION ELEMENTS

### Street Use Plan and Functional Categories






The accompanying Sketch Street Use Plan illustrates the study team's current best thinking as to the development of rationalized Cambridge street use plan that separates through from local traffic. Listed below are several underlying considerations the team felt important during the development of the sketch plan -- and which in their opinion should be kept in focus as the plan is expanded and refined.

1. Traffic congestion problems in Cambridge are not to be solved by major new building or expansion of the existing roadway system; instead, solutions must consist principally of improved use of existing rights-of-way -- both road and railroad. Significant land-takings for street improvements are to be avoided, but would be acceptable where necessary for the achievement of important environmental objectives (e.g. an urban renewal project may involve the closing of some streets and development of new ones -- usually for the purpose of creating better linkages in the existing street system). As stated in a letter to the Boston Transportation Planning Review's Executive Director from the Chairman of the City Council Transportation Committee -- "Cambridge will not wish to consider any new road building within the city limits until better public transit is planned and working. Our desire is to discourage commuters from bringing their cars into and through the City..."
2. Traffic flow is not to be maximized (i.e. the City is not to put its technical ability to work for the purpose of moving the largest possible number of cars). Instead, traffic is to be optimized, in the sense that it be made compatible with and acceptable to the traversed neighborhood or commercial area. Conflicts that result from this stipulation should be resolved on the side of improving local conditions.
3. The upgrading of Cambridge streets needs to be closely coordinated with new developments, the capacity of other local streets, and with adjacent cities.
4. Not much is gained through street improvements unless there is thorough enforcement of traffic and parking regulations.
5. It is important to Cambridge that the MDC parkways -- Alewife, Fresh Pond, Memorial Drive -- be developed and controlled for optimum service both as regional roadways relieving Cambridge streets of through traffic and as integral parts of the City's arterial street system. "Optimum" rather than "maximum" service is called for in light of the equally important requirement: that these three arterials preserve their parkway character -- both aesthetically and operationally.





# SKETCH STREET USE PLAN

-  Regional
-  Arterial
-  Collector
-  Local - All Other Streets
-  Unresolved Issues

Offsetting these areas of agreement, the study team and its associates at the two-day sketch plan work session identified a number of issues that must for the time being remain unresolved -- either because of substantial lack of necessary information or because work on them is currently in progress. These unresolved issues, illustrated on the accompanying sketch street use plan map, are as follows:

1. The question whether efforts should be made to rationalize the movement of through-trucking in Cambridge (i.e. as contrasted with the alternative of seeking to substantially eliminate cross-Cambridge through-truck movements). The work-session participants were generally agreed that a significant number of through trucks will have to be accommodated on a permanent basis -- although some of the group expressed an opinion (later generated separately at a meeting of the City Council Committee on Transportation and Parking) that it should be possible to ban at least "non-dangerous cargo" heavy truck through movements during night and possibly weekend periods. Nobody, however -- including BTPR -- yet has firm information as to the scale of the problem. There was a related consensus that Cambridge residents, businesses, and institutions should not have to suffer the consequences of through traffic. The location, and scale of a possible truck-way remained very much in question at the end of the session, although several options were extensively discussed. These were:
  - a. Use of the Grand Junction railroad right-of-way from Memorial Drive to Binney Street, either as a surface or depressed truck route, and thence along Binney to Commercial Avenue;
  - b. Use of the Grand Junction right-of-way for a surface or depressed route from Memorial Drive north into Somerville.
  - c. Use of existing streets (with necessary modifications) parallel and immediately adjacent to the Grand Junction right-of-way, from Memorial Drive to Binney Street, and then to Commercial Avenue via Binney.
  - d. Use of existing streets (as in "c" above) from Memorial Drive to Somerville.

There was general agreement that a surface arterial street from Memorial Drive to Binney and then via Binney to Commercial was the preferred route, provided that it could be engineered to meet performance standards (both in its construction and operational stages) fully compatible with the traversed institutional and residential areas.

It was agreed that in any event the City's emphasis should be on dealing with the total truck problem, rather than to adopt a piecemeal approach and thereby risk the result of simply moving trucks

from one neighborhood to another. This is well stated in a letter from the Chairman of the City Council Transportation Committee to BTPR, stating: "Although truck traffic is a major problem in many neighborhoods, we deplore the suggestion that one solution should be studied before we understand the full scope of the problem... We certainly would not want to transfer a bad situation from one neighborhood to another."

2. River Street-Western Avenue Couple. It was agreed that the problems associated with truck and other heavy traffic movement on these streets -- as well as on their extension over Prospect Street -- are to a large extent regional in nature, and that the team should not attempt a resolution of the issues until the regional scale of the problem has been addressed.
3. Harvard Square. The unresolved issue here involves the conflict between Harvard Square destined traffic, non-stop through traffic, and the activities of the pedestrian-oriented commercial/professional/institutional core area. It was agreed that the primary objectives of the current Harvard Square traffic study must be to seek to provide the through traffic with a by-pass route, and to get Harvard Square destined traffic into peripheral parking facilities that will convert motorists to pedestrians before they enter the core.
4. Putnam Avenue Between Western Avenue and Massachusetts Avenue. This section of Putnam Avenue is a narrow, residential street, and, consequently, making any "through" arterial connection between Massachusetts Avenue and Western Avenue would be disruptive to the neighborhood. On the other hand, this is the only right-of-way that provides a direct connection between Harvard Square and the Riverside/Cambridgeport area. The issue is that of how to resolve these conflicting objectives. The possibility of diverting this traffic over Memorial Drive is involved.
5. Fresh Pond Parkway, from Huron Ave. to Mt. Auburn: As currently used, the traffic is very unsuited to the winding street and the residential area. Some participants thought that by now residents have adapted to the condition. Others thought it preferable to move the disruption to an area where it may have less of an impact, or to reduce the impact by sharing it between two one-way routes.
5. Beacon St. (Somerville): Cambridge proposes to use this street as an arterial. However, this will require Somerville's concurrence and cooperation.
7. All other connections to adjacent cities. The status of all roads leading to Somerville, Boston, Watertown, Belmont and Arlington will need to be discussed with each of these municipalities. Until this is done the connection issues will remain unresolved.



## Public Transportation

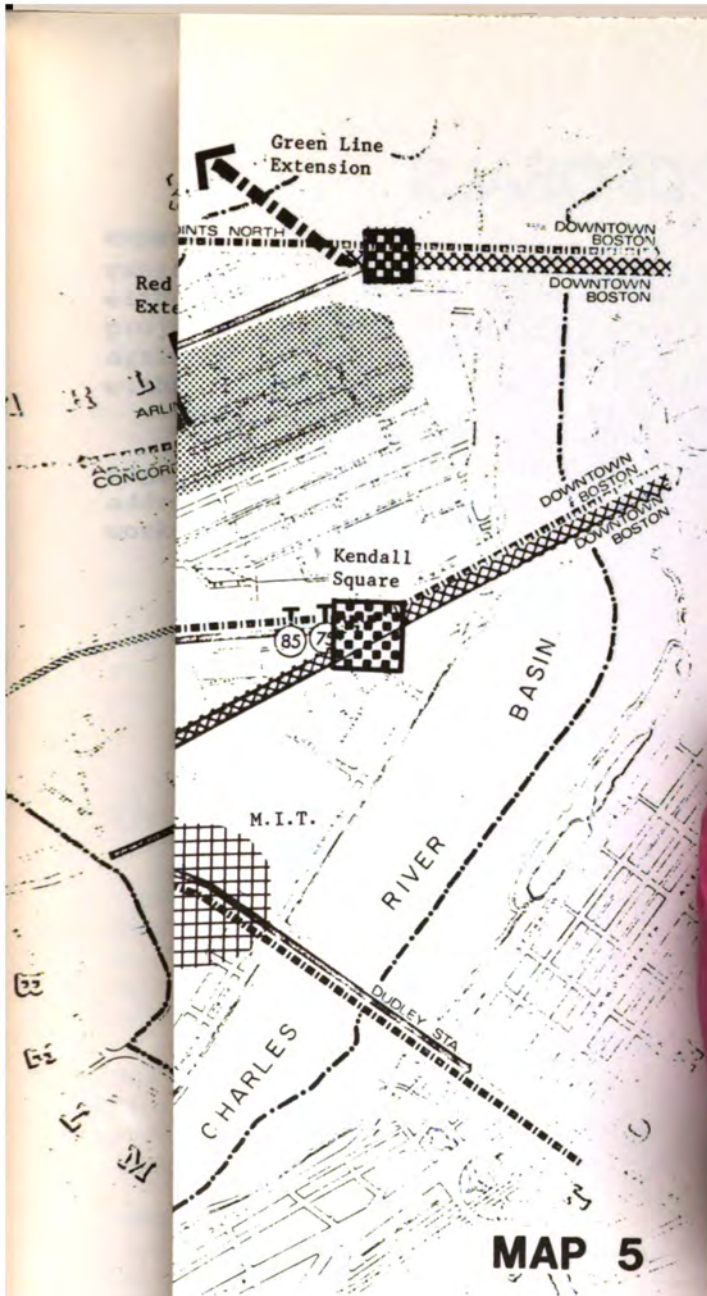
Although the two-day session mainly focused on considerations of the roadway network, some very productive effort was put into discussing the potential and need for improving public transit. ~~Many~~ suggestions were brought out that are worth further consideration. All participants of the session agreed that the present public transit system, both buses and rapid transit, while better in Cambridge than in many parts of the region, still needed substantial attention. The blame for the presently declining ridership and financial crisis was seen as appropriately related to the preferential treatment accorded the private automobile, from tax breaks to comfortable seats.

It was felt that some transit service and operational improvements would be made possible by improvements to the roadway system, as discussed earlier, if a conscious effort were made to include these in the roadway improvement program. These changes would be welcomed by Cambridge residents due to the immediate betterment of transit service they would provide.

The study was of the opinion, however, that unless the overall public attitude and approach to public transit can be improved, incremental changes in operations will not stem the declining ridership or increasing deficit. There was agreement that the present policy of requiring transit to substantially pay for itself out of the fare box needs to be abandoned in favor of viewing transit as a public service such as education, libraries, recreation, fire and police protection. The Boston Metropolitan Area and the Nation needs to revise its approach to financing transit. In addition, substantially increased funds are required to expand and make transit truly a desirable and usable system.

Public support for working toward more and better transit was thought to be especially high in the Boston Metropolitan Area central cities, and Cambridge was viewed as one of the leaders in this regard. Cambridge's position was seen as that of wanting to work with the M.B.T.A. in structuring the coverage of quality of the service by helping to determine the routing, scheduling and equipment most appropriate to Cambridge residents. However, it was noted that in order to be effective in this effort, it will be necessary for Cambridge to have sufficient staff and other resources available. It was also noted that many operational changes are capable of being made quickly, at little or no additional expense, and that near-term improvements of this sort can be of significant help in changing public attitudes toward the "T."

The study team also agreed that much of the local transit need is best served by local coverage transit service, which generically covers a wide variety of vehicles and systems, including feeder bus, mini bus, dial-a-bus, and contract taxi. Determining the most appropriate type and combination of service was seen as to a large extent best done through developing a close working relationship between residents and technical



**SKETCH**  
**TRANSIT NEEDS / PROPOSALS**

-  RAPID TRANSIT EXTENSION
-  EXISTING RAPID TRANSIT
-  EXISTING STATION
-  PROPOSED STATION
-  CITY-WIDE DESTINATIONS
-  AREAS NEEDING IMPROVED SERVICE
-  NEEDED NEW SERVICE  
(GENERALIZED ALIGNMENTS)



experts who are familiar with the potentials and limitations of a full range of transit services. From this cooperative effort could develop either permanent changes in the system or, in some cases, demonstration projects to test a concept for serving an identified need. However, again, it will be necessary for the City to have the resources and wherewithal to be able to embark on such demonstration projects.

There are several public transportation needs that are worth listing, some of which are of critical importance to the City and should be addressed as soon as possible, and others of which are at least being worked on to some extent.

1. Of primary importance is the need to examine and revise the present fare structure and deficit financing policies such that increased ridership will become an incentive to improve service.
2. The Red Line Rapid Transit service must be extended at least to Alewife at the earliest possible date. Cambridge also considers it extremely desirable to have this service extended beyond to Arlington Center and eventually to Route 128. If this extension will have to be stayed because of limited funds, then all effort should be put into assuring the communities to the northwest that Cambridge will press as hard for the extension to Route 128 as it did for the extension to Alewife.
3. The Green Rapid Transit line should also be extended into Somerville and Medford.
4. Circumferential and cross town travel needs are presently very poorly served. Indications show that service between Cambridge and Somerville (and perhaps Everett and Chelsea) to the North and Boston and Brookline to the South would attract considerable patronage. Alignments and types of service need to be worked out.
5. There are routing, scheduling and equipment problems that are in need of attention and that, if cleared up, would provide significantly improved service.
6. There are many unfulfilled service needs that have not been given attention that would also provide significantly increased mobility for people that are presently adversely affected by this lack of public transportation.
7. Harvard Square does not work well as a bus terminal, especially since it is also a multi-activity hub and the focus of much east-west traffic.

There was considerable discussion about increasing the Cambridge mode split above an imaginary 30% maximum (that is, at least 30% transit

riders, with the remaining 70% travelling by auto). By getting the mode split above 30%, the quality of transit service could be economically increased, the out-of-pocket costs would be more competitive with the automobile, and transit would begin to decongest the streets. A question was raised of whether transit should be considered a failure if it didn't take cars off the streets. Another point raised was that transit is already full during the rush hours and that increasing transit's capacity to handle more of the peak hour trips meant a larger capital investment that would be under-utilized most of the day. If the peak hour were spread, the peak would be reduced making it more compatible with transit's ability to handle it.

Lastly, it was agreed by the study team that it is particularly important to develop a sound on-going working-relationship with M.B.T.A. as a basis for stepping up efforts to utilize the Cooperation Agreement for improving and adding to the existing service.

#### Vehicular Parking and Loading

Parking and loading problems occur in commercial, institutional and industrial areas with the greatest intensity. To an extent they spill over into residential areas. Thus these problems become city-wide in scope, and require city-wide approaches to bring relief. The City has come to realize that any effective analysis and resolution needs to be done systematically and in coordination with an attack on related problems.

To a considerable extent, the problems as they now exist could be relieved by active police enforcement of traffic and parking regulations. A determined enforcement program can go a long way toward establishing positive public attitudes toward the law in general and traffic regulation in particular. The public's present attitude about the need for enforcement certainly does not give the police an incentive nor a solid mandate. This attitude is somewhat reflected in the court system. The time between receiving a parking ticket and a summons to pay the fine is about one year. Perhaps part of the problem could be solved by providing an efficient and effective system for processing tickets.

Another part of the problem is the need for a coherent public policy on these issues that attempts to resolve some of the basic conflicts and begins to provide direction and limits to potential solutions. Should commuters be encouraged to come into Cambridge by a City policy that makes it relatively easy and inexpensive to park? Should this policy decision be left to Cambridge residents when over half of the work force comes from outside the City? Even if parking is difficult under the current situation, it is more by default than by public policy. Transit service is not coordinated with commuter needs to the extent that a restrictive parking policy on long term (commuter) parkers can be related to an extensive effort to provide those commuters with a transit alternative accompanied by necessary incentives.

An approach to the parking problem could be as follows. On-street parking in commercial areas would be phased out, to discourage motorists destined for a commercial area from cruising the streets. Short term (shopper) parking would be provided at the periphery of commercial areas within walking distance of shopper destinations. Motorists would be intercepted as quickly as possible and converted to pedestrians. Long term parkers would be intercepted further out (e.g. Alewife) and diverted to transit, which would take them to their destination. Pricing policies would be coordinated to promote this program, and possibly to help support transit improvements.

Business and industry should be encouraged to develop off-street loading facilities. Loading zones could be established for use during non-peak hours when the width of the street is not required to handle the peak traffic volume. If this is not necessary, the sidewalks could be widened and loading pull-offs made for use at any time. What ever means are used to ease the parking and loading problems, businesses, government and the public must be encouraged and helped to work together.

### Pedestrian Areas

Pedestrian movement is rarely conceived of as a mode in itself, or a transportation subsystem. Rather, walking is considered primarily as a necessary, but irritating, connecting link between the points of origin or destination and another (mechanical) mode. Such an attitude, on a national level, has not only generated widespread discouragement of what could be a pleasant, inexpensive, readily available, and healthful means of transportation, but has also distorted -- at additional cost -- the most practical utilization of other modes: consumers and workers demand parking spaces unnecessarily close to their destinations; bussing children short distances to school; shrinking demand for public transportation; etc.

Cambridge is one of the few cities with the assets necessary to counter a cultural anti-walking psychology: high population density, compact locational relationships of nearly all land uses; physical environment of interest and variety; unique mix of human activity; and a relatively good public transportation system, with adequate access to many parts of the metropolitan core. Yet to date, almost everything possible has been done to discourage the would-be pedestrian.

Any comprehensive transportation plan for Cambridge would be incomplete without strong measures for the improvement of pedestrian facilities and services. Not only is the strengthening of the pedestrian mode born of eloquently simple logic (cheap, efficient, high potential, etc.) -- it is an absolute necessity for a city which is structuring its transportation thinking around significantly improved public transit. Even the most fine-grained transit system imaginable in the foreseeable future in Cambridge will

require of almost every user considerable pedestrian input. And conversely, the more attractive pedestrian movement is made, the less fine-grained (and less costly) the transit network has to be.

Unlike other elements in the City's transportation system, the improvement of the pedestrian circulation network would require relatively little planning analysis, money, or time. The "problem" in actuality is a compendium of many of the irritants of urban life: poor quality and maintenance of sidewalks; inadequate street lighting in some areas, especially local streets; high levels of filth and litter; an uncontrolled canine population; inadequate snow removal in some areas (largely due to on-street parking); absence of benches and bus shelters, ad nauseum. In most cases the solutions are readily at hand and inexpensively achieved. Their implementation would require only a consensus that a "problem" does exist, and strong leadership (effort) from the City government.

### Bicycle Usage

The use of bicycles has become an important and popular form of transportation in Cambridge, for both recreation and utilitarian purposes. There are several factors that make Cambridge and other parts of the Boston area particularly suited to bicycling. The area is generally flat topographically. The densely settled central city provides easy access to a variety of destinations. The same short distance trips by automobile are usually frustrated by congested streets and lack of ready parking, which result in significant time and cost differentials. There is increasing awareness and concern about environmental and ecological conditions -- bicycling is the least disruptive and polluting of any form of transportation, other than walking, and the most efficient.

This increased interest and use of bicycles has resulted in several related efforts. This year the State legislature has seen a dramatic increase in the number of bills introduced in support of the bicycle, in one form or another. Several organizations have become active in an effort to promote the use of bicycles and improve the conditions of their use. One of the more active groups, the Association for Bicycle Commuters, has had several meetings with Cambridge -- the Mayor, the City Council and the Departments of Planning and Development and Traffic and Parking -- in an effort to work with the City toward increased support and protection of the bicycles, together with the establishment and enforcement of exclusive bicycle lanes and/or bicycle safety streets. In addition, several other governmental entities -- namely, the State Departments of Public Works and Natural Resources, and the Metropolitan District Commission -- have embarked on a joint effort to determine what needs to and can be done with regard to improving bicycle usage.

This interest in bicycling has begun to focus attention on the need to improve undesirable conditions associated with bicycling. Until



now, bicycling has suffered from the lack of sufficient legislation, funding and programs, especially at the local level, to promote and protect its use. This is largely the result of the public attitude, dominated by automobile users, who frequently view bicycles as a non-legitimate form of transportation, (e.g. not belonging on city streets and not requiring parking). The bicyclist is left to fend for himself. With increased public use, the bicyclist has been able to demonstrate the need for having bicycles planned for, accommodated for, and protected by his government. As long as bicycles are going to be using public rights-of-way, it is incumbent on the government to see to it that this mode of travel has at least equal protection and consideration. Most of the problems associated with bicycle safety can be related to the motorist's attitude about being "king of the road." A motorist somehow loses many of his human qualities when he sits behind the wheel, and this is reflected in his relative lack of regard for pedestrians, bicyclists, and his fellow motorists.

The two major deterrents to bicycling are the lack of security to the bicyclist during any trip that might include the use of city streets and the lack of security to the bicycle at either end of a trip. Only those who are hardy, quick and daring are likely to compete with a mixture of autos, taxis, trucks, buses, pot holes, poorly observed traffic regulations, etc. Of this group, only those that have a fairly decent bicycle and are sure of its security at either end are likely to make use of it to any great extent. These conditions must certainly be considered undesirable constraints by all potential bicyclists. The high rate of bicycle thefts is alarming, but also indicative of the high interest in bicycling. Thus the trip and trip-end conditions need to be carefully examined along with ways for adequately meeting the demand. If any place is suitable for bicycling, it is the dense, accessible urban core.





## CHAPTER 4 -- NEXT STEPS

### SECTION 1 - NEXT STEPS FOR IMPROVING ORGANIZATIONAL FRAMEWORK

Drawing from the thinking and conclusions that have gone into Volume One of the report, the study team has put together a list of steps that should be taken during the first six months of the pilot program with regard to improving the organizational framework for transportation planning and development in Cambridge. As defined implicitly in Volume One, the term "organizational framework" includes basic support-programs of an on-going nature, and any other underpinning to the transportation planning and development program not strictly requiring a technical study. Twenty steps are recommended, with ten to be initiated during the first three months and the remaining ten during the second three months of the period. No priority is intended within each of these two groupings.

#### Ten Steps for Initiation in The First Three Months

1. Establish "Joint Directorate". Volume One recommends that the City establish a unified transportation planning and development program within the Departments of Planning and Development and Traffic and Parking. This unified program is to be organized and managed as a joint effort by the Director of Planning and Development and the Director of Traffic and Parking. Its establishment under the auspices of the City Manager should be undertaken in the immediate future.
2. Establish interdepartmental transportation planning and development coordination unit. Volume One recommends that the City Manager pull together all City departments having functions related to transportation planning and development, and that he charge them with the responsibility of finding ways to effectively coordinate their work in the transportation planning and development area. In the study team's view, as explained in Volume One, it would be important that the Manager not tell this group of department heads how he thinks this should be done -- nor who, if anyone, should direct this effort. His charge would simply state that he intends to drop in on meetings as often as possible, to post audit the coordination efforts generally, and to make up his mind after a one-year testing period as to whether this approach is achieving the needed coordination efforts. He might also discuss alternatives to the approach that he would consider in the event that the pilot effort to achieve full cooperation on a voluntary basis were to prove unsuccessful.

3. Expand and refine the Cambridge-U.S. Department of Transportation Study products into a detailed three to five year pilot transportation planning and development program. The work of the study should be translated into a specific and detailed program to begin in July, 1973, and should be presented in a manner suitable for use in seeking funding for the program.
4. Establish the City Manager's Cambridge Transportation Forum. The steps to take in moving the proposed forum into operation are covered in detail in Volume One, Chapter 2, of the report. It is recommended that funds be made available from existing programs in order to move forward immediately.
5. Work with the Massachusetts Bay Transportation Authority to expand the Cambridge-MBTA Cooperation Agreement to include transit operations. The City Manager has already written the MBTA General Manager to ask that discussions be initiated as to the feasibility and method of expanding the Cooperation agreement to cover any major operational change MBTA may want to consider that might have significant impact on Cambridge. Such an agreement would specifically include changes in routing, scheduling and equipment. This important effort by the Manager's office should go forward in the immediate future with staff assistance from the joint directorate.
6. Work with the U.S. Department of Transportation to structure second year of Cambridge-D.O.T. Study. It is considered highly important by the study team that Cambridge and D.O.T. work to make the most of the potential involved in the proposed extension of the Cambridge-D.O.T. Study. The carrying forward of the study, even without further D.O.T. funding, will reduce the risk that many improvements in the transportation planning process that are now in mid-stream as a result of the work of the first year of the study will not advertently become lost. Further, the extension of the study will give Cambridge and D.O.T. an opportunity to explore ways in which Federal agencies (and, in particular, the U.S. Department of Transportation) can work with local governments in a technical liason capacity, to the mutual benefit of both parties.
7. Establish staffing, space and funding needs for the three to five year pilot transportation planning and development program, and seek implementation. Staffing must include, in addition to full-time personnel, a number of consultant resources (from other City departments, or from outside the City organization). Examples are legal, behavioral science, and environmental experts. The Boston Metropolitan Area is rich in such resources. With regard to funding, it is believed by the study team approximately \$75,000 to \$100,000 a year above existing funding will be needed for a three to five year period, and that an effective presentation of a pilot program will succeed in drawing to it resources in this amount. This might be accomplished through the

participation of two or more funding sources each willing to put in a given amount provided that the balance is secured from other interested parties.

8. Establish Northwest Corridor Intercommunity Transportation Planning Team. Of all the organizational framework improvements recommended in Volume One in the area of City of Cambridge relationships with other public agencies, the setting up of the already proposed Northwest Corridor Intercommunity Transportation Planning Team has the highest priority. This is because the teamwork of the cities and towns in the northwest corridor is clearly needed on a large-scale basis if effective northwest corridor participation in the BTPR Study is to be achieved. To BTPR's credit, its staff has gone out of its way to both make this point to the northwest corridor communities and to help them organize themselves to work together. A major step in this direction was the setting up by BTPR of a northwest corridor sub-committee meeting weekly following the regular meeting of the BTPR Working Committee.
9. Establish a City program for moving towards effective enforcement of traffic and parking regulations. As is generally agreed by all professionals and citizens who involve themselves in efforts to improve urban transportation, the level of achievement will remain relatively low unless a way can be found to bring about cooperation and compliance as regards traffic and parking regulations. Surface transit operations, for instance, can not hope to improve to the point of offering the needed level of competition with the private automobile as long as illegal parking is rampant. A program of education for a thirty to sixty day period (perhaps to include the issuance of "warning" tickets explaining the rationale of the forthcoming enforcement program) must be established on a team basis (e.g. Police Department, Traffic and Parking Department, Planning and Development Department, Chamber of Commerce, etc., under the leadership of the City Manager).
10. Establish a program for studying and planning to meet the transportation requirements of the bicentennial activities in prospect for 1975 and 1976. The City Manager's Task Force on the Bicentennial is already beginning to grapple with this problem. Technical assistance from the joint directorate program is needed and should be made available at an early date.

#### Steps for Initiation in The Second Three Months

1. Establish specific programs for setting up and maintaining meaningful working relationships with other governmental units involved in transportation planning and development work of concern to Cambridge. Such agencies would clearly include the Metropolitan Area Planning Council, Metropolitan District Commission, Executive Office of Transportation and Construction, Commonwealth Department of Public Works,

U.S. Conference of Mayors Transportation Committee, U.S. Department of Housing and Urban Development. (MBTA has been discussed under the Cooperation Agreement expansion effort.)

2. Establish program for identifying and exploring funding sources for transportation planning and development work. It is generally accepted by Cambridge officials that the experience of other cities (as well as of Cambridge through the operations of the City Manager's Office, the former Community Development Office, the Department of Traffic and Parking, and the Department of Planning and Development, etc.,) has demonstrated that an investment in the area of funding "research and development" can and should pay very large dividends. Revenue sharing will diminish this potential significantly, but the study team believes that it will remain substantial nonetheless.
3. Establish and operate a two-way transportation information program for the City. The study team believes that on a relatively small budget the joint directorate can accomplish an important objective by operating a transportation information system for Cambridge. It is possible that much of the work could be done ably by volunteers on a rotating basis. The information office would publish a newsletter on Cambridge transportation planning and development matters and activities, and would also be set up to answer questions and receive information and suggestions related to transportation issues and problems. This might include the operation of a round-the-clock transportation hot-line manned by volunteers.
4. Establish and maintain working relationships with Boston Metropolitan Area inner cities. As with the northwest corridor communities, this would be an alliance of great importance to Cambridge. Boston, Brookline and Somerville (with the latter also represented in the northwest corridor team) would join Cambridge in such a task force effort. The inner belt work of the late 1960's demonstrated the potential of such an organization.
5. Establish participatory planning process unit. The study team considers it of the utmost importance that the joint directorate set up a unit (probably one staff member, on a rotating basis) responsible for developing the participatory planning dimension of each project the joint directorate undertakes. A concomitant of this step would be a requirement that each project leader turn to the participatory planning process unit for help in this regard, and be guided by its recommendations.
6. Establish programming and budgeting function for City's transportation planning and development work. As discussed in Volume One of the report, it is important that the City's transportation planning and development work be put on a program budget basis.

7. Establish a Technical Information Exchange System. The experience of other cities throughout the country and world with regard to transportation planning and development can be of great value to Cambridge, and vice versa. In the study team's opinion, a practical system for exchanging relevant information can be established.
8. Work with City Manager to explore ways of monitoring the extent and effectiveness of citizen/quasi-public/public agency participation in City of Cambridge projects and programs. As stated in Volume One of the report, City departments can not be expected to slow down the production of their departments in order to make large-scale use of the participatory planning process unless the City leadership establishes clear-cut directives in this regard, and establishes a concurrent program for monitoring the results of efforts to comply with the directive. Such monitoring would, of course, also need to involve evaluation and a restructuring of the formal and informal reward system for department heads if it is to have meaning.
9. Study possibilities for funding transportation planning and development programs from local revenues. A review of the uses of the City's "parking meter fund" will be involved. A City "use tax" on automobiles must also be examined. Use taxes such as are levied in some other U.S. cities would, if applied in Cambridge on a far lesser scale, provide all the funds needed to finance the proposed expansion of the City's transportation planning and development program.
10. Establish formalized working relationships with City Manager and City Council Committee on Transportation and Parking. There is substantial evidence that a regular program for keeping the City Manager and City Council properly informed of an agency's work can be practical and effective for both parties. The joint directorate should take steps to establish the same type of program.



## SECTION 2 - AN EXPANDED TECHNICAL STUDIES PROGRAM: NEXT STEPS

### Introduction

The following list of technical studies represents the current thinking of the Cambridge - U.S. Department of Transportation study team as to the basics of an expanded technical effort at the heart of the three to five year pilot transportation planning and development program. As indicated elsewhere in the report, this set of studies will be revised and improved through the public and interdepartmental involvement recommended in Volume One. Such projected studies can give way to a quite different interpretation of what needs to be done when viewed by those most directly affected by the problems and issues. Some of these projects will be a continuation and reinforcement of what is currently being worked on, including some very important projects that have a high degree of public participation (e.g. the elderly transportation needs study, the heavy thru traffic problem). Other projects are included in the City's Capital Improvement Program for future implementation. Still others evolved from the two-day transportation work-session discussed in the previous chapter. Each of these projects will need further detailing. Where appropriate, applications will be developed for financial assistance at the earliest possible date.

Each of the projects listed was considered important enough to be started during the next 12 months. They are divided into three phases in the following pages, and it is the hope of the study team that funding, staffing, space, etc, can be secured in the near future. Ideally the total program -- most of which is seriously overdue -- can begin at an early date; however, much remains to be done in order to give this objective an opportunity to be realized.



## PHASE I STUDIES

### 1. Red Line Rapid Transit Extension Study

This study is of immediate and high concern to Cambridge. It represents a very large complex undertaking and is demanding of high quality and careful consideration. Briefly, some interrelated aspects of the study include:

- Harvard Alewife Tunneling Study (and related Task Force activities)
- Coordination with other affected Northwest Municipalities
- Harvard Square Development
- Alewife Terminal Area Development

One of Cambridge's major interests in the Red Line Extension, at least to Alewife, is the potential for reducing the regional through traffic that now comes in on Route 2 to traverse Cambridge on its way to Boston or other core cities. In this regard, it is very important to extend the Red Line beyond Alewife, eventually to 128, to intercept potential auto commuters as close to their origin as possible.

The Alewife Tunneling Study is now in progress. The overall study will have to be done as a cooperative effort between MBTA, JRTC, MDC, the State, DPW, and the Municipalities of Arlington, Cambridge, Somerville, Lexington and Belmont.

### 2. Northwest Corridor Transportation Needs Study

The overall Red Line Extension study must be done within the context of Northwest Corridor transportation needs, the downtown Boston distribution system and the regional land use and transportation framework. These issues and factors are being considered by the Boston Transportation Planning Review and require the direct, active involvement of each affected municipality. In addition, the Northwest Corridor Municipalities are finding it in their best interest to join together at the technical as well as political level to increase the potential for having their individual and joint interests resolved satisfactorily.

### 3. Participation in the Continuing Transportation Planning Process for the Boston Region

As the BTPR winds up its activity in the Northwest Corridor, it is increasingly incumbent on Cambridge to ensure that decisions regarding Northwest Corridor Transportation Alternation are based upon appropriate analysis, and that additional studies are undertaken where necessary by The Joint Regional Transportation Committee (JRTC) with a high level of input from the City. This will require considerable technical and organizational involvement on the part of the City.

At times the City will be called upon to make important policy decisions that will require significant technical ground work on the part of City staff.

The JRTC, as described in Volume One, is taking over for BTPR as the vehicle for the Continuing Transportation Planning Process for the Boston Region. Cambridge must take an active role in this process to ensure that the organizational structure and the financial support for the committee is sufficient to meet the transportation needs of the region and that the interests of Cambridge are not overshadowed by those of the rest of the region.

4. Monitor State and Regional Transportation Activities Affecting Cambridge

Either in conjunction with the JRTC or separate from this effort and as a continuing function, it is in Cambridge's self interest to keep in close touch with the Metropolitan Bay Transportation Authority Advisory Board and staff, the Metropolitan Area Planning Commission, the Metropolitan District Commission, the State Executive Office of Transportation and Construction, the State Department of Public Works, the Governor's office, the Great and General Court and Cambridge's State Representatives and Senators. Cambridge's leadership in state and regional planning efforts in the past have proven to be fruitful. Thus, it is important to continue, expand and strengthen this effort. The technical quality involved in the relationship should pay tremendous dividends.

5. Cambridge-Massachusetts Bay Transportation Authority, Cooperative Agreement

Cambridge stands to make considerable gains by working in close cooperation with the MBTA. Technical impact in these efforts will ensure that the service improvements resulting from the cooperation are appropriate to the need.

The Red Line Extension, covered above, is a planning effort going forward under the Cooperation Agreement. More recently initiated is an effort by the Cambridge City Manager -- with technical back-up from the embryo joint-directorate -- to engage MBTA in a discussion of the wisdom and feasibility of expanding the Cooperation Agreement to cover any and all major operational changes MBTA may from time to time consider in its service to and through Cambridge. If, as is anticipated by the study team, the projected expansion of the Cooperation Agreement takes place, it will require substantial technical studies by the joint directorate team in order to become meaningful for Cambridge.

6. Community Coverage Transit Service Studies

These studies, which fall generally under the umbrella structured in #5 above, will involve the need for both improving existing service and adding new local transit service. It will include improving feeder bus service to subway stations, improving intercity bus access, improving access to local community destinations and providing special purpose transit capabilities. In some cases, this may mean better use of existing vehicles, in other cases the need may be better served by a new type of vehicle (e.g. dial-a-bus) or operational arrangement (e.g. contract taxi). There seems to be considerable crosstown or circumferential transit demand that will need to be served on a coordinated basis with an effort to improve local transit coverage.

The MBTA has offered a "mini bus" to the City of Cambridge, which resulted in a joint City-Citizen effort to determine the most appropriate use of this type of vehicle.

The emphasis in improving local service should be on operational improvements rather than capital intensive new systems improvements that do not make optimum use of existing facilities.

7. Cambridge Transportation Forum Technical Support

In order for the Cambridge Transportation Forum to be effective, it is important for participants to have access to technical assistance. This assistance will help identify and clarify problem situations and will guide the participants in developing and articulating their positions. In addition, technical assistance will assist participants during the implementation and operational stages.

Technical work will be necessary in order to identify and analyze all potential participants in order to ensure that representation on the CTF is a good cross-section of Cambridge interests and is not unduly overrepresentative in any area.

8. Continued Study of Elderly Transportation Needs and Problems

Considerable effort has been made to work with and understand elderly transportation needs and problems. Fifteen small group discussions have been held all over Cambridge at Elderly drop-in centers, at which questionnaires were circulated. An all day elderly transportation workshop was held with the Mayor as moderator. The Star Market has decided to provide free bus service one day a week to stop at elderly centers. The stops, routing and timing were worked out in cooperation with the elderly.

9. Study of the Heavy Thru Truck Problem

A group of affected citizens have done considerable work in bringing to the forefront the disruption and hazards caused to their communities by large loud thru trucks. It is a complicated problem that does not have any ready solutions. Technical assistance would help bring some light to the nature of the problems. It would be important to know truck origin and destinations, to document impacts, and develop alternatives. An important effort would include developing noise legislation that could effectively control one of the major impacts. Cambridge and Somerville have recently submitted a request to the State DPW asking approval for a ban of heavy trucking on River Street, Western Avenue, Prospect Street, and Washington Street during the nighttime hours of the day.

10. TOPICS and Urban Systems Studies

These two Federal programs are an effort to improve circulation, improve conditions for pedestrians, encourage motorists to use main streets rather than residential street, and reduce personal injury and accidents (and thereby lower insurance rates). This program is providing significant benefits to Cambridge and needs to be continued.

11. Investigate Inner Belt Impact and Revitalization Programs

The area in the path of the proposed Inner Belt suffered considerably during its 20-year planning history. The Model Neighborhood and Cambridgeport residents have embarked on an effort to determine the adverse affect this has had on their communities and hopefully develop programs that will help revitalize the area. It will be important for the City to provide technical expertise to help make this effort a success.

An important byproduct of this effort would be to establish programs that can be instituted during any such planning project to ensure maintenance of community stability.

12. Continue the Work Begun by the Cambridge/D.O.T. Study

The effort initiated by this contract will need to be continued in order to reap some of its benefits. This includes technical and organizational assistance to participants of the Cambridge Transportation Forum as well as developing grant proposals for funds of important studies. It will also include monitoring for D.O.T. the progress of the pilot program.

13. East Cambridge Traffic Study

East Cambridge is seriously affected by heavy thru automobile and truck traffic. A Transportation study is now underway to analyze this traffic, its origin and destination, and provide some alternatives to reduce the volume or reduce the impacts. The study will also study the parking demand and availability of parking space.

14. Harvard Square Traffic and Parking Study

This study is "in progress" and is beginning to generate important information that will serve as a basis for choosing among various alternative ways of handling the complicated issue involved in Harvard Square.

15. North Terminal Area Study

Also a current project, the results of the study could have significant effect on both local traffic levels and the potential for desirable development in Cambridge.

16. Study of Bicycle Use in Cambridge

There is considerable interest in trying to make Cambridge bicycling safer, more convenient and more desirable. Efforts to do this will require studies for providing special bicycle lanes, special bicycle parking areas, enforcement of traffic regulations to benefit bicycles, and increasing efforts to reduce bicycle thefts. The summation of this effort should be to make bicycling enjoyable and meaningful in order to encourage its use and eventually reduce the desire to be a motorist.

17. Study of Transportation Needs of the Bi-Centennial Program

Transportation will be a key element in making the Bi-Centennial in the Boston area a success. Conversely, if transportation needs are not well thought out and accommodated, the Bi-Centennial will bring tremendous transportation-related impacts.

PHASE II STUDIES

1. Study Latent or Poorly Met Transportation Services.

A better understanding of who is and is not now being served, why, and with what consequences, is important in order to understand our transit gaps and priorities. It will also be important to study the reasons for this inequity in service distribution in order to correct it.

2. Transit Background Research

This will include such studies as:

- examining the current pricing/funding policies of transportation services and how this affects Cambridge residents.
- examining the feasibility and desirability of giving preferential treatment to transit vehicles.
- examining the possibility of an exclusive rush hour bus lane on Massachusetts Avenue in Cambridge.
- studying possibility of classifying buses as "pleasure vehicles" so that they can use MDC parkways
- examining the City's school bus policies to see if it is possible to get multiple use of these vehicles.
- developing a working relationship with the taxi industry in an attempt to increase benefits to users.

3. Research and Develop Design and Evaluation Criteria

Design and avaluation criteria will go a long way toward determining allowable and desirable solutions to transportation problems. They will also help set the stage for rational discussions of difficult situations. A good set of criteria could help in monitoring and evaluating projects that have been implemented.

4. Study the Potential Impact of Transit Stations

The acceptability of transit stations in a community will most likely hinge on the affect of the station relative to who benefits and who loses. It may be necessary to ensure orderly land development processes that preserve and enhance the existing community in order for the community to accept the station.

5. Study the Effects of Regional and Local Travel on Cambridge

Cambridge needs to understand the effects of regional travel patterns in order to determine its ability to modify these effects in Cambridge's favor. The traffic study that is now in progress for Harvard Square could serve as a model for a City-wide traffic study.

6. Improve Information Collection and Use

The City needs to improve its data base, collection techniques, and develop appropriate methodologies that can be used by Cambridge staff, and the community.

7. Study Public Interaction Processes

How do other cities interact with the public? What public interaction techniques are available that are relevant to Cambridge? What experiences does Cambridge have, and are they something that other cities should know about? What ways are there to satisfactorily resolve conflicts and protect the interests of groups? How can public attitude surverys be used?

8. Develop Information Exchange with Other Cities

It is important to develop relationships with other cities in order to exchange relevant information; such as:

- experience and use of goals and policies.
- experience with public interaction process.
- types of studies and results.
- cross fertilization of design and evaluation criteria.

9. Investigate Car Ownership in Cambridge

Whether or not a person owns or has access to a car is an important factor in the mobility of that person. It is also an important factor in that person's attitude toward public transportation. What is the extent and pattern of car ownership? Are there auto ownership and use attitudes that have negative impacts?

10. Assist Model Cities in Their Transportation Needs Study

Model Cities is embarking on a study of transportation needs of its residents. The City should participate in this effort to see how the study can relate to other residential areas.

11. North Cambridge Traffic Study

Traffic and parking conditions in North Cambridge need to be understood so that appropriate improvement programs can be instituted.

PHASE III STUDIES

1. Investigate the Interrelationship Between Transportation, Land Use and Other Social-Economic-Environmental Conditions

The interrelationships between land use and transportation need to be examined with respect to the constraints and opportunities one has for the other. What is the relationship between growth (how much land and of what kind?) and transit use? We need to develop a long range land use plan based on alternative transportation systems in order to understand the potential and consequences of increased development. It may be possible to define types of acceptable development based on acceptable transportation limitations. Transportation as it relates to housing and job location is critical. Any opportunities or limitations that develop from this investigation should be translated into land use controls and modifications of the City's zoning ordinance.

2. Define Cohesive Areas in Cambridge

A further attempt should be made to determine the "cohesive areas" of the City. This would need to be done in conjunction with residents of neighborhoods, and merchants and shoppers of commercial areas.

### 3. City-wide Parking Policy Study

There has been increasing need to approach industrial parking decisions from a city-wide perspective. One garage may not have much effect city-wide, but many such garages have a synergetically detrimental effect. A single garage in a residential area may bring its own brand of disruption. The study should investigate supply and pricing policy alternatives and the consequences of each. It should also study the effect parking has on the availability of transit. It will be important to distinguish between different types of parkers, such that longterm (commuter) parkers can be encouraged to park in a remote lot/garage and come by transit the rest of the way.

The spill-over effect on residential areas of automobiles destined for businesses, institutions, and subway stations should be discouraged. Ways of accomplishing this need to be explored.

### 4. Study of Improvements to Pedestrian Mobility

It is essential that improvements be made for pedestrian movement, if for no other reason than that there is a sizable population that does not have access to automobiles. These improvements would include: improved snow removal, especially at crosswalks and bus stops, increased police protection for the pedestrians; improved sidewalk conditions as well as improved street drainage to reduce the chances of being splashed by discourteous motorists; increased incidence of pedestrian oriented street furniture and public facilities. Of critical concern to the handicapped is the difficulty of being able to handle curbs, especially at intersections. A welcome solution, which would benefit everyone, is to provide curb cuts into all intersections. Other handicapped and elderly mobility problems need to be identified and corrected.

### 5. Study Local Truck Movement and Delivery Needs

Although local truck movement and delivery needs do not have the tremendously disruptive effect of heavy through trailer trucks carrying dangerous cargoes, they still impose a sizable problem. There are many conflicts associated with time of delivery, size of vehicle, parking and loading, and the like that need to be examined city-wide, in an effort to reduce or minimize the conflicts.

### 6. Central Square Traffic and Parking Study

The traffic and parking conditions in Central Square need to be examined and where necessary, corrected.



7. Porter Square Traffic and Parking Study

The traffic and parking conditions in Porter Square need to be examined and, where necessary, corrected.

8. Determine the Transportation Constraints and Opportunities of the Simplex Development

The traffic and parking opportunities and constraints must be carefully explored with any development potentials associated with the Simplex development.

9. Investigate the need for Community Stabilization and Compensation Programs

There should be some way to compensate people for hardships, loss of property value or business, or whatever other indicators are deemed appropriate for adverse effects resulting from public policy or inaction on a situation that clearly warrants attention and correction. The possibilities for doing this should be investigated and appropriate programs developed.

**APPENDIX    --    BIBLIOGRAPHY  
                         & INFORMATION RESOURCES**

**Section 1:    Annotated Inventory of Cambridge-  
                 Related Transportation and Land  
                 Use Plans**

**Section 2:    Additional Cambridge and General  
                 Transportation Planning Information  
                 Sources**



SECTION 1 -- ANNOTATED INVENTORY OF CAMBRIDGE-RELATED TRANSPORTATION  
AND LAND USE PLANS

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## CITY-WIDE PLANNING

### Cambridge Planning Board 1958 Cambridge Master Plan 1958

The major proposals of the 1958 Master Plan hinge on the construction of the Inner Belt, which the Plan strongly supports. These proposals include:

- (a) a rapid transit route along the expressway;
- (b) extensions of the subway and improvement of existing facilities at Harvard, Central, and Lechmere Squares;
- (c) an improved internal circulation system;
- (d) provision of off-street parking and loading facilities; and
- (e) a system for pedestrian circulation.

The plan's major policy thrusts are to conserve and enhance the central city within the expressway loop for residential, institutional and retail expansion as well as to establish new values for industrial and commercial land.

While the 1958 Master Plan is the City's most recent Master Plan, it does not reflect current policies and proposals. Hence, the Department of Planning and Development is in the midst of preparing an entirely new Comprehensive Plan for the City.

### Cambridge Planning Board Suggested Goals for a Cambridge City Plan 1965

Although it recommends general goals for land-use development in Cambridge, this report does not attempt to suggest means by which the goals might be implemented. It proposes that the City continue to preserve a majority of its land for residential and related uses and that diversity in density and type of housing structures be provided. The report anticipates modest expansion in areas used for business, office, and institutional activities, and suggests that industrial activities be limited to areas designated for such use while non-conforming uses be gradually relocated.

With respect to transportation, the goals statement supports the proposed Inner Belt and Route 2 Extension, urges the provision of more off-street parking facilities and the extension of the MBTA through Porter Square to the Alewife Brook. Thus, it is basically in tune with the transportation recommendations of the 1958 Master Plan.

Cambridge Planning Board  
Work Program for City-Wide Parking Study  
November 1969  
12 pages

This is not as much of a detailed work program as it is a general approach to problems of parking in Cambridge. The study cites the lack of any systematic analysis of how much parking is needed, where, and at what cost, and states that its purpose is to conduct an analysis and to propose a parking program to meet Cambridge's principal parking problems. The study is divided into three principal parts:

- (1) Research on the administrative, legal, and financial requirements of developing an off-street parking program.
- (2) Determination of the needs and priorities for parking facilities in different parts of the city.
- (3) Recommendation of sites and actual project plans.

The study discusses existing sources of information, original research required, the relationship of parking to such factors as commercial and residential growth, and other areas which should be investigated to support a serious city-wide parking program.

Cambridge Planning Board  
1969 Capital Budget and Capital Improvements Program 1969-1974  
64 pages

Although general land-use policies are not included in the 1969 CIP, proposals are made for business relocation costs in Wellington-Harrington, Walden Square, and Kendall Square which concern the land-use development of these renewal projects.

The Capital Improvements Program lists as the most important requirement of Cambridge's traffic program an extensive system of coordinated traffic signals. Although a 5-year program is proposed, the report notes that the rate at which new signal installations can be made is largely dependent upon the City's success in obtaining funds from the Commonwealth and the Federal government.

Cambridge Planning and Development Department  
1970 Capital Budget and Capital Improvements Program 1970-1975  
119 pages

Proposed is a continuation of a comprehensive and coordinated program for the installation of traffic signals. Parking garage facilities at Central Square (Green-Franklin Streets) and Harvard Square are recommended as well as a City-wide parking lot modernization program. Other projects considered include a branch library at Central Square, school building improvements, sewer and street improvements, urban beautification and neighborhood facilities. The 1970 CIP strongly suggests that new capital facilities serve as multi-purpose centers for the communities in which they are located.

Cambridge Planning and Development Department  
1971 Capital Budget and Capital Improvements Program 1971-1976  
134 pages

The traffic signalization program, the off-street parking garage proposals for Central and Harvard Squares, and the parking lot modernization program outlined in the 1969 and 1970 CIP's are all carried forward in the 1971 CIP. Among the projects herein proposed are neighborhood facilities for Walden Square, Model Cities, and Wellington-Harrington. A comprehensive recreational improvements and beautification plan is also programmed.

Cambridge Planning and Development Department  
1972 Capital Budget and Capital Improvements Program 1972-1977  
164 pages

Transportation elements within the 1972 CIP include the City's TOPICS Plan -- signalization improvements, right-of-way improvements, and street name re-signing -- and a strong commitment to a parking garage program -- one in Central Square, three in Harvard Square, one in East Cambridge, and one at Kendall Square.

Cambridge Department of Traffic and Parking  
Proposed Area-wide TOPICS Plan  
1971

This is a proposed traffic signalization program which is designed to lessen traffic congestion and to improve pedestrian and vehicular safety. It treats major Cambridge intersections on a priority project



basis and seeks to control traffic flow and safety on all of Cambridge's major arterials.

Massachusetts Department of Public Works  
Proposed Area-wide TOPICS Plan, Cambridge, Massachusetts  
Prepared by Tippetts-Abbett-McCarthy-Shatton, Engineers and Architects  
March 1972  
63 pages

This represents the Cambridge segment of the State-wide TOPICS program and reflects the City's input. The report concentrates on a comprehensive signalization installation and improvement program oriented toward major traffic arteries and high accident locations.

#### METROPOLITAN EXPRESSWAY SYSTEM

Joint Board for the Metropolitan Master Highway Plan  
The Master Highway Plan for the Boston Metropolitan Area  
Prepared by Charles A. Maguire and Associates, Engineers  
1948  
124 pages and exhibits

The so-called "Maguire Report" is the benchmark plan from which have evolved almost all Metropolitan Boston expressway planning and construction in the last 24 years.

The plan envisioned a system of five major expressways radiating from a "Belt Expressway" which tightly encircled the Metropolitan Core. Although the Master Highway Plan did not foresee the eventual significance of Route 128, it has survived conceptually almost intact.

The Belt Expressway would transverse Cambridge on a roughly Fayette Street-Lee Street alignment, and thence along the River front to a crossing near the Boston University Bridge. This Route, like later ones on the east-side of Harvard Square, would have cut through densely developed residential neighborhoods, although such considerations are totally absent from the Master Plan.

The Plan's Northwest Expressway finds its present day counterpart in Route 2, although original routing follows an alignment closer to Route 3. Nevertheless, the Cambridge position of this radial is very similar to most recent proposals for the Route 2 Extension, which generally hug the Boston and Maine, Fitchburg Division, right-of-way through North Cambridge.

**Cambridge Planning Board**  
**Planning for the Belt Route**  
**1951**  
**11 pages plus maps**

The report represents the first published response by Cambridge to the 1948 Master Highway Plan. While enthusiasm for the Belt is obvious, dissatisfaction with the State's proposed route is reflected in the fact that two alternative routes are examined and favored: (1) the Brookline-Elm alignment which would eventually become the Massachusetts DPW's preferred alignment; and (2) the Portland-Albany route which the City ultimately favored prior to its "no Belt" position.

**Massachusetts Department of Public Works**  
**Report on Traffic Studies for the Boston Metropolitan Area**  
**Prepared by Coverdale & Colpitts, Consulting Engineers**  
**1957**  
**127 pages plus exhibits**

This report contains the results of studies made (1) to update the data base of the Maguire Report (an origin destination study done in 1945 by the Massachusetts Department of Public Works); (2) retest the validity of the 1948 Master Plan radial concept; and (3) suggest modifications in the Master Plan with respect to general location of expressways and their respective capacities. This series of studies was able to consider recent development unanticipated in the 1948 plan, such as the emergence of Route 128 as a major element in the metropolitan highway network, the Turnpike extension into Downtown Boston, and the conception of Route 2 as a major radial expressway corridor.

The report confirmed the 1948 Plan concept, and suggested relatively minor network alterations.

Highway corridors through Cambridge remained unchanged. The Report recommends six lanes for Route 2 and eight for the Belt Expressway, noting that in the case of the latter eight lanes would be wholly inadequate but the maximum practicable.

**Cambridge Planning Board**  
**Study of the Belt Expressway through Cambridge**  
**Prepared by Bruce Campbell & Associates, Consulting Engineers**  
**1957**  
**80 pages**

This study was a major effort to evaluate alternative Belt routes through Cambridge. The three general alignments which evolved in previous

studies formed the core set of alternatives, but several variations were developed for each. Brookline-Elm was determined to be the best alternative, primarily on the basis of reasonable cost, and equally good transportation service for both commercial and industrial land uses. The report also concurred with the 1948 Master Plan with respect to the alignment of the Route 2 Extension.

A short report by Planning and Renewal Associates was appended which purported to examine land use and general planning considerations related to the Belt Expressway in Cambridge. This report makes it clear that the City viewed the prime benefit of the Belt to be as a catalyst for extensive redevelopment in Cambridge. Although the preservation of the integrity of residential neighborhoods was considered a valid objective, considerations of industrial and commercial development potential dominate the study.

Cambridge Planning Board  
Report on the Concord Turnpike Extension and West Cambridge Interchange  
Prepared by Wilbur Smith & Assoc.  
June 1957

A preliminary study of the problems of providing expressway interchanges and local circulation in West Cambridge where the proposed Expressways will intersect was performed. It was the opinion of the authors that a connection between Acorn Drive and West Rindge Avenue would solve the only problem of local circulation created by the Expressway Interchange in West Cambridge.

Cambridge Planning Board  
Supplemental Study of Locations of Belt Expressway  
1958  
40 pages

This report represents a collection of arguments and studies, old and new, which reinforce the City's position that the Brookline-Elm alignment is best for Cambridge. The report functioned primarily as additional ammunition for the City's effort to sway the Massachusetts DPW's position away from support of alignment close to that presented in the original 1948 Master Highway Plan; this alignment, which crossed the City west of Central Square, had been certified by the Federal government as a part of the Interstate System and had thus achieved some degree of finality.

Massachusetts Department of Public Works  
Pertinent Data on Studies of the Inner Belt I-695 and the Northern  
Expressway I-93  
April 22, 1960  
22 pages plus exhibits

This report represented the Massachusetts DPW's latest thinking on detailed locations of I-695 and I-93.

The report reflects an attempt to compromise with the City on the Inner Belt route through Cambridge. The DPW now supported an alignment which followed River Street, then swung east to cross Massachusetts Avenue east of Central Square, and finally went north on an Elm Street alignment -- the northern half of the City's favored route.

Cambridge Planning Board  
Interstate Route 695  
May 10, 1960  
14 pages plus exhibits

This report is a response by the City to the Massachusetts DPW's recently adopted "compromise alignment." (See April 23, 1960, Massachusetts DPW Report.) The report reiterates the City's support of the Brookline-Elm alignment and attempts to establish its superiority not only for Cambridge, but also for adjoining communities and the State and Federal governments.

Concise and in some respects shallow, the document obviously represents a "political" reaction.

Massachusetts Department of Public Works  
Publications on the Social and Economic Impact of Highways  
Prepared by the Office of Staff Economist

- #1 A list of Publications on the Social and Economic Aspects of Highways, July 1960
- #2 Suggested Areas of Research for Study of Highway Impact, August 1960
- #3 Population of Interstate Route 495 "Wedge," November 1960
- #4 Review of Important Studies and Selected Bibliographies, April 1961

By 1960 the Massachusetts DPW was facing rapidly growing and increasingly widespread opposition to its Metropolitan Highway program as

route alignment became more and more fixed and thus affected specific groups. The DPW obviously felt compelled to begin grounding its program on a foundation firmer than merely the efficient movement of vehicles. Thus the Office of the Staff began in 1960 to produce a series of reports which purported to examine social and economic impacts of urban highways.

The reports are blatant in their bias, and attempt only to bolster the pro-highway position concentrating on long-run, macro-level, primarily economic impacts. They do not confront the growing criticism of immediate, direct impact of highway construction on affected communities.

Massachusetts Department of Public Works  
Inner Belt and Expressway System, Boston Metropolitan Area  
Prepared by Hayden, Harding & Buchanan, Inc., & Charles A. Maguire & Associates  
1962

This study, like the Coverdale and Colpitts Report of 1957, represented a comprehensive effort to "finalize" route locations of all unfinished expressways in the Metropolitan Highway network. The number of alternative locations for almost every expressway had been mushrooming in cadence with the rising level of public controversy.

The Brookline-Elm alignment emerged as the preferred route through Cambridge, with the Portland-Albany alignment as the only acceptable alternative. This turn of events has been considered a major victory by the still "pro-Belt" Cambridge government, which had been pushing the Brookline-Elm alignment since 1951.

The Route 2 Extension alignment remained approximately the same. But it should be noted that this alignment had never been the subject of controversy with respect to detailed route location.

Massachusetts Department of Public Works  
Basic Design Report, Inner Belt Expressway, Cambridge & Somerville  
Prepared by Goodkind & O'Dea Inc., Consulting Engineers  
1965  
40 pages plus 75 plates

This engineering report contains detailed designs of the route alternatives for the Belt Route through Cambridge -- the final formal step prior to specific route approval. The study builds upon a major conclusion of the 1962 Inner Belt & Expressway System Report: that no route west of Central Square was feasible. Three major alternatives, with

several minor variations, were examined; each had been studied previously at one time or another. They included: Brookline-Elm; Portland-Albany, and the so-called Grand Junction, which hugged the Boston & Albany Grand Junction Branch Railroad. The recommended route was Brookline-Elm.

Although this decision reaffirmed the choice of Brookline-Elm in the 1962 report -- a choice which theoretically coincided with the City's wishes -- the intervening three years had produced significant changes in the Cambridge political climate. The rising militancy and articulateness of the nearly 5000 residents within the Belt's path, the tightening of the housing market on the City's large low and moderate income population, and increasing disillusionment with the Urban Renewal process (which supposedly would have quickly healed the wounds imposed by the Belt's construction), all combined to reverse the City's official position to one of opposition to the Brookline-Elm alignment. The finality represented by the Basic Design Report served to accelerate and strengthen the anti-highway movement in Cambridge.

#### City of Cambridge

#### Alternative Alignments for the Inner Belt through the City of Cambridge, Massachusetts

Prepared by Barton-Aschman Associates

February 1966

21 pages

This report represents the City's almost panicked response to the finality of the Brookline-Elm alignment as reflected by the Goodkind & O'Dea Report published less than two months earlier. The Report attempts to establish the superiority of a Grand Junction alignment. The rationale is that while transportation service capability is almost equivalent for the Brookline-Elm, Portland-Albany, and Grand Junction alignments, the latter choice would necessitate the loss of far fewer housing units and jobs.

#### Urban Planning Aid

#### A Critique of Transportation Planning in the Boston Area

October 1966

41 pages

Urban Planning Aid, a non-profit planning assistance organization, was the prime supplier of technical and organizational assistance to the growing numbers of anti-highway community groups, in Cambridge and in other affected communities. Its essential and significant role in the process lends, in retrospect, considerable weight to individual documents it produced along the way.

This Critique was perhaps the first report which attached in a specific and comprehensive manner both the rationality of the entire Metropolitan Highway Network (existing and proposed) and the planning process which produced that network. As such, the report injected an entirely new dimension into the highway controversy which had heretofore revolved around the choice among alternative routes: namely, should the Inner Belt, or any other expressway, be built at all?

Massachusetts Department of Public Works  
Interstate Route 695, Inner Belt Highway, Boston, Cambridge, and  
Somerville  
Prepared by H.W. Lockner, Inc.  
May 1967  
108 pages

By late 1966 the vehemence and breadth of opposition to the Brookline-Elm alignment forced Governor Volpe to withdraw approval of this route and promise a restudy of all possible routes through Cambridge by an independent consultant in a spirit of cooperation with the City of Cambridge.

The Lockner Report is this promised restudy, but it too confirmed the desirability of the Brookline-Elm route. It was viewed by the City and the anti-highway forces as a breach of faith by the Governor and served only to add fuel to the fire. The Report was probably a principal catalyst in the change of official City policy from a fight for a "better" route to total opposition to any Inner Belt at all.

Massachusetts Department of Public Works  
Interstate 695, Inner Belt, Relocation Study  
September 1967  
73 pages

An extensive survey of characteristics, needs, and desires of the people and businesses within the Brookline-Elm alignment, this study was perhaps intended to blunt some criticism by demonstrating the Massachusetts DPW's concern for those directly affected by highway construction -- the relocatees. However, the study only confirmed and quantified the magnitude of the Belt's disastrous impact on Cambridge.

Eastern Massachusetts Regional Planning Project (EMRPP)  
Recommended Highway and Transit Plan  
March 1968

The EMRPP was a theoretically a coordinated Metropolitan transportation planning project involving all relevant agencies: Massachusetts DPW, MBTA, MDC, MAPC, etc. In fact, the planning process merely glorified old methods with computer technology and an expanded data base. Furthermore, the dominance of the Massachusetts DPW in the project, coupled with the nonparticipation of local communities, made the results inevitable.

The Plan was the ultimate product. It at least had the virtue of combining, at least superficially, public transportation and highway network plans. But the actual proposal was an even thicker metropolitan expressway network than had been previously proposed (the 1948 plan plus amendments). A major new element was an Intermediate Belt, between Route 128 and the Inner Belt; this Belt cut through West Cambridge, roughly along the present Fresh Pond Parkway-Alewife Brook Parkway alignment.

Massachusetts Department of Public Works  
Basic Design Report, Relocated Route 2, Arlington, Cambridge, Somerville  
Prepared by Universal Engineering Corporation  
1968  
139 pages

This detailed route analysis for the Route 2 Extension involved alternatives which differed little in general alignment; most differences involve interchange arrangements and access.

The Report was released at a time when the high level of controversy that had been revolving around the Inner Belt for several years was spreading rapidly throughout the Metropolitan Area. The Report ended the relative dormancy which had surrounded the Route 2 question for several years and thus probably served to draw numerous North and West Cambridge elements into the center of the anti-highway movement.

City of Cambridge, Office of the City Manager, Community Development Section  
Cambridge Transportation Planning Progress Report Made to the City Council Transportation Committee  
Prepared by Justin Gray et. al.  
March 1970  
(unpublished)

This document is actually a compendium of reports, documents, statements, correspondence, and meetings covering the rapid series of events which led from widespread and vocal anti-highway sentiment in 1967 to the



report of the Governor's Task Force on Transportation, which recommended, in effect, a halt to almost all expressway construction within Route 128 pending a sweeping reassessment of Metropolitan Boston's transportation needs. (These recommendations were accepted by Governor Sargent and announced publicly in February 1970.)

Massachusetts Department of Public Works  
Inner Belt -- Task A, Traffic Forecasting Report, 2 Vol.  
Prepared by Peat, Marwick, Mitchell & Co.  
July 1970  
Vol. I: 188 pages; Vol. II (abridged): 26 pages

In 1968 the Federal Highway Administrator responded to the anti-Inner Belt communities by ordering two studies, so called Task A and Task B. Task A was to test a proposed Metropolitan Highway Network which specifically excluded the Inner Belt. (Task B proposed to examine a multi-disciplinary approach to design of the Inner Belt.) Vol. I of the Task A Report is the consultant's report. Vol. II includes the comments and reactions of the affected communities.

The consultant utilized the models and data of the EMRPP, with some projections (population, employment, etc.) being contributed by the affected communities -- Cambridge, Somerville, Boston, and Brookline. The "non-Belt" network included an alternative expressway along the Alewife Brook-Fresh Pond Parkway-Memorial Drive corridor. The Study concluded that while the overall metropolitan traffic picture was not affected by either alternative, the "non-Belt" alternative produced "significantly" higher levels of street congestion in the Metropolitan core area than did the Belt alternative.

In Vol. II, Cambridge responded by challenging specific methodologies, the whole concept of future traffic assignments as a basis for planning expressways, particularly the failure to include social costs, and numerous conclusions.

The outcome of and the reaction to the Task A study were thoroughly predictable, for both the decision-making structure and process were no different than those which produced the many previous Inner Belt studies.

Boston Transportation Planning Review, prepared for Governor Sargent  
Study Design for a Balanced Transportation Development Program for  
the Boston Metropolitan Region  
November 1970  
276 pages

The concept behind the Balanced Transportation Development Program represents a milestone in the evolution of public policy in Massachusetts and the nation. But, despite the Program's explicit revolution with respect to the transportation planning process, the concrete recommendations it produces will perhaps affect Cambridge more than any other community. At the heart of the program remain the questions: Will the Inner Belt, Route 2 Extension, and MBTA Red Line Extension be constructed as presently conceived? If so, how will they be built? If not, what, if anything, will take their place?

Metropolitan District Commission  
North Terminal Evaluation Study  
Prepared by Bruce Campbell & Associates, Inc.  
June 1971

The so-called North Terminal Area includes the confluence of several major (and proposed) transportation elements, including Interstate 95 (Tobin Bridge), Interstate 695, the Central Artery, North Station, MBTA Green Line, Storrow Drive, McGrath Highway, Memorial Drive. Planned MBTA improvements and the completion of a portion of I-695 (from I-93) lend urgency to improving the major bottleneck which now characterizes the Terminal Area. Planning work for this project is not included in the Governor's Highway Moratorium, although it will obviously be influenced by the Boston Transportation Review.

This report represents the fifth concrete proposal during the last decade. It is the first which pays specific attention to the position of Cambridge within the Area. This attention is principally manifested in a proposal to extend Memorial Drive from Cambridge and integrate it into the terminal complex. The proposal would not only open an inaccessible stretch of the River front, but also free for redevelopment the extensive Boston & Maine railroad yards behind North Station (and a portion of which lies in Cambridge). Inevitable, however, are increased traffic loads on Memorial Drive.

#### MBTA EXTENSION

Doverdale and Colpitts  
Report to the Metropolitan Transit Authority, Boston, on the Proposed  
Arlington Extension  
May 3, 1954  
18 pages

Herein is a projection of traffic volume to be carried by the proposed

extension of the rapid transit line at Harvard Square to Concord Turnpike, a distance of nearly 3 miles, and by the further extension to Arlington Heights, a distance of about 3.5 miles. Subway stations are proposed at Massachusetts Avenue near Wendell and Mellon Streets, at Porter Square and at North Cambridge. A 1000 car parking lot at the Concord Turnpike is also suggested. Gross revenue, operating costs, and net revenue are forecast.

Massachusetts Bay Transportation Authority  
MBTA Master Plan -- Program for Mass Transportation  
1966

The principal elements of the 1966 plan consisted of proposals to build five extensions to the rapid transit system. Among these extensions is the Harvard-Alewife project. As proposed by MBTA, the route would be in a cut-and-cover tunnel under Massachusetts Avenue from Harvard Square to Porter Square and then on the surface along the Boston and Maine Fitchburg Division right-of-way to Alewife Brook.

In addition, the plan proposed continuing studies aimed at developing additional programs for other major improvements.

This report was the first major product of the Master Planning Program initiated by the MBTA.

Massachusetts Bay Transportation Authority  
Revised Program for Mass Transportation  
1969  
30 pages

The Revised Program contains an itemization of proposed capital projects. Essentially, these are the same five projects outlined in the 1966 Program for Mass Transportation (MBTA).

The Harvard-Alewife proposal remains as approved in the 1966 Report, with the new terminal located in the vicinity of Alewife Brook Parkway. While this report notes that the project has met with almost universal approval and is considered to be a high priority project, it also mentions that the final design for the project has been delayed at the request of the City of Cambridge so that the City and MBTA may cooperate in achieving the objectives of each. The cost of the project is estimated at close to \$160 million.

Massachusetts Bay Transportation Authority  
Request for Added Funds: Report to Joint Committee on Transportation  
July 1969  
44 pages

What is noteworthy in this report is that the nearly \$180 million estimated for the Harvard-Alewife Brook Extension announced in the January 1969 Revised Program is identified as a preliminary figure which may be substantially below the cost of a final agreement.

AREA STUDIES: HARVARD SQUARE

Bruce Campbell and Associates  
Harvard Square Traffic and Parking Study  
October 1962  
69 pages

This is a lengthy, technically detailed report sponsored by Harvard University, the Harvard Trust Company, and the Harvard Cooperative Society. The major part of the study is oriented toward analyzing the problems of Harvard Square traffic flow and making recommendations toward their amelioration, but extensive parking data is presented also. The study's major recommendations are as follows:

1. Removal of the MBTA transfer point from its present location in Harvard Square.
2. An updated system of traffic signals.
3. The application of channelizing islands and painted lane lines on major streets, as well as striping all approaches to signalized intersections.
4. Strict enforcement of parking regulations.
5. Prohibition of all on-street loading during peak traffic hours.
6. A program of construction of off-street parking facilities.

Planning Board  
Observation on the Development of the Bennett Street Yards  
1963

This early 1960's report was done in response to four proposed alter-

native development plans for the then MBTA Bennett Street yards, the site now to be developed by the J.F.K. Memorial Library. The report treated the long-run implications to the Square and the City of the proposed developments.

**Cambridge Redevelopment Authority**  
**Harvard Square Reports, Six Volumes**  
1968

This six volume series of reports attempts to determine the optimum Harvard Square station location and route alignment of the proposed westerly extension of the MBTA Red Line consistent with a series of development objectives for the Square which are not uniformly held by local citizenry.

**The Architects Collaborative**  
**Harvard Square: A Second Level Pedestrian Network Plan**  
1968

This plan was proposed as a partial solution to the need for more pedestrian circulation space in Harvard Square. The proposal creates a second story pedestrian network with bridging across Massachusetts Avenue from Harvard Yard to the Harvard Square theatre block, and a series of shops and walkways employing second story space where available. Permission from relevant property owners and financial support could not, however, be obtained to implement the proposal.

**Cambridge Traffic and Parking Department**  
**Harvard Square and Central Square Parking Meter Study**  
1970  
16 pages

The purpose of this parking meter survey was to determine use and misuse of public metered parking spaces in the City's two major commercial districts. Parking space turnover was determined and plotted against legal turnover to establish revenues lost by illegal parking, and to validate the need for increased parking enforcement.

**Moriece and Gary**  
**Harvard Square for People Improvement Plan**  
1970  
15 pages

This short report and plan for Harvard Square has as its objective the solution of the pedestrian-vehicular conflict in the core area. The method chosen is to close Brattle Street to traffic from the Harvard Square kiosk to Church Street. It emphasizes the needs of pedestrian users of Harvard Square and re-establishes the "pedestrian core" principle first proposed for Harvard Square by the Planning Board in the early 1960's.

#### AREA STUDIES: EAST CAMBRIDGE AND KENDALL SQUARE

Cambridge Planning Board  
East Cambridge Traffic Study  
January 1962  
20 pages

This report is composed of studies of traffic conditions in East Cambridge conducted over a two year period. Study objectives were threefold:

1. To examine congestion and inadequate parking facilities.
2. To suggest a traffic pattern in keeping with the residential character of the neighborhood, while providing easy circulation for businesses and industries in the area.
3. To relate traffic proposals for East Cambridge and adjacent neighborhoods.

The report recommends how these objectives might best be achieved.

Cambridge Redevelopment Authority  
General District Improvement Plan Application for Eastern Cambridge  
District Improvement Area  
1967

This application covers the whole eastern part of the City, including what is now the Model Cities area, Lechmere Canal, the East Cambridge neighborhood, and the Wellington-Harrington Urban Renewal Area. The specific conditions which entitle the area to consideration for a General Neighborhood Renewal Plan Grant are documented. However, the application was not submitted to HUD.

Cambridge Redevelopment Authority  
Basic Development Information: Kendall Square Urban Renewal Program  
1968

This is a package designed to aid developers in preparing proposals for the development of Kendall Square. Included in the package are the urban renewal plan, marketability studies, circulation studies and general space-use allocations. Primary site-uses identified are office space (300,000 sq. ft. - 2,000,000 sq. ft.), hotel (200,000 sq. ft. - 400,000 sq. ft.), apartments (max. 800,000 sq. ft.) and general commercial (200,000 sq. ft. - 400,000 sq. ft.). These space-use allocations are largely obsolete, and will be revised on the basis of a marketability re-study now underway. A revised circulation plan is also being prepared.

Cambridge Planning Board  
Development Guidelines for the Surplus NASA Land  
1970

Development Guidelines for the Surplus NASA Land is a report prepared by the Cambridge Planning Board at the request of the Cambridge Redevelopment Authority. The report discusses the feasibility and desirability of six development alternatives for the eleven acre surplus NASA site in Kendall Square. The six alternative land uses considered are office uses, retail use, industrial uses, municipal facilities, institutional uses and housing. Conclusions and recommendations found in the report were based on information available in the fall of 1970 and are tentative in nature, requiring further study and consideration. Among the most significant of the Guidelines report conclusions are:

1. The importance of a swift resolution of the question of legal status of the surplus acres.
2. The desirability of reserving the surplus land for development of low- and moderate-income housing.

Metropolitan District Commission  
Preliminary Plans for Lechmere Square Traffic Improvement: Evaluation of Alternative Schemes  
Prepared by Parsons, Brinckerhoff, Quade and Douglas, Inc.  
June 1971

Alternative schemes for roadway and traffic improvements in the Lechmere Square area are evaluated. A portion of the work is devoted to the development of alternative plans for the modification of MBTA facilities and operations at Lechmere Square.

**AREA STUDIES: CAMBRIDGEPORT AND CENTRAL SQUARE**

**Cambridge Redevelopment Authority**

**The Cambridgeport Memoranda**

**Prepared by the Planning Services Group and the Architects Collaborative  
1961**

The Memoranda is composed of a series of reports that are part of an Urban Renewal eligibility study done for the CRA. Conclusions are that structurally sound housing in the area should be rehabilitated, utilities should be replaced or expanded, through-traffic minimized, and Central Square developed as a CBD-Civic Center.

Neighborhood reaction caused the CRA to cease preparation of a renewal plan application for Cambridgeport.

**Development Committee for Central Square, the City Manager and the  
Cambridge Redevelopment Authority**

**Draft Feasibility Survey Application**

**Prepared by the Cambridge Corporation  
1967**

This is an outline of the studies required to determine the feasibility of a Central Square Urban Renewal Project. The report was commissioned in response to fears that the construction of the proposed Inner Belt through Central Square would adversely affect businesses in the Central Square area. Of particular concern is the feasibility of air rights development above the Inner Belt.

**Cambridge Redevelopment Authority**

**Feasibility Survey Application: Central Square Feasibility Survey Area  
1968**

This report documents the eligibility of Central Square for Title I survey and planning funds on the basis of a preliminary examination of both building and environmental conditions.

Rejected for Title I funding by HUD.



#### AREA STUDIES: INMAN SQUARE

Cambridge Planning Board  
Inman Square Parking Study  
1963  
6 pages

This is a short study of parking deficiencies in the Inman Square commercial district, an old local shopping district serving Cambridge residents primarily. The study is divided into six areas:

1. Definition of the area
2. Use of land and buildings
3. Population base
4. Parking space available
5. Parking space usage and needs
6. Potential sites for new parking areas

Three main sources of information were used. From office material a knowledge of the physical make-up of the area was developed. Field work involving two sets of parking usage studies and other observation supplemented office knowledge. And a questionnaire was prepared, distributed to 97 Inman Square businesses, and the returns analyzed. Studies determined that 34 additional spaces were required, and a recommendation was made to acquire two contiguous marginally developed parcels near the center of the district, to demolish their structures and provide parking on the land.

#### AREA STUDIES: ALEWIFE BROOK PARK

Cambridge Corporation  
Prepared by Arthur D. Little  
Alewife Brook Park  
1971  
19 pages

This is a brief report on the feasibility of linking business-residential-office development to the proposed MBTA facilities at Alewife Brook Park.

Consideration is given to air rights over highways and public transit facilities for a mixed office-business-residential development.

### MODEL CITIES

Cambridge Redevelopment Authority  
Wellington-Harrington Urban Renewal Plan  
April 1965

The renewal plan for Wellington-Harrington emphasizes voluntary repair and rehabilitation of structures to meet sound property conservation standards. Acquisition and clearance is recommended only for seriously blighted structures and uses. Hence, the rehabilitation thrust of the plan accords well with the COBI report and the Model Cities submissions.

The plan also contains provisions for widening, closing, and extending streets, as well as provision for off-street parking and loading facilities. A primary objective is the separation of local and through traffic, thereby alleviating the encroachment of commercial through traffic on the residential area.

The Conference of Blocks and Individuals (COBI)  
Ideas for Part of Neighborhood #4  
1967

The Conference, an antecedent of the Cambridge Model Cities Program, strongly opposed what it perceived as the further intrusion of non-residential land-uses in Neighborhood #4. It propounded a policy of promoting residential and related uses, such as parks, playground and neighborhood centers. While retail commercial uses serving the neighborhood were also favored, especially multiple-use developments, the report advocates converting the scattered parking lots that dot the neighborhood to uses that serve the neighborhood, such as recreation or housing.

City of Cambridge  
Application for Model Cities Planning Grant, May 1, 1967  
1967

A resounding theme of the Model Cities application is preservation of the existing residential character of the neighborhood in the face of a

variety of development pressures, including the Inner Belt. The application argues for more stringent control of conversion of housing units by means of specialized zoning provisions and special controls to inhibit unrestrained real estate speculation in the Model Cities area. Development of a clearly defined land-use policy to insure that the area will be maintained for current residents, to preserve the pre-dominantly residential environment, and to limit industrial and institutional uses is strongly recommended.

Model Cities Agency  
1968 Model Cities Report (First Year Submission)  
1968

While endorsing the goals elaborated in Application for Planning Grant, this document goes on to propose three major transportation objectives for the Model Cities area:

1. to reduce the number and seriousness of auto accidents.
2. to provide off-street parking.
3. to increase traffic flow efficiency.

To achieve these objectives, program activities and sources of funding are outlined. Prompted by the imminence of the Inner Belt, the report is also quite concerned with opportunities for air rights development.

Model Cities Agency  
The Second Year Model Cities Planning Report, 1969  
1969

For the second action year, the Cambridge CDA proposed limited physical improvements, and instead emphasized the provision of coordination and the development of network systems of cooperation. Developing planning and evaluation skills among residents was also awarded high priority. Thus, this report has little to say about transportation. Aside from recommending badly needed street improvements and a traffic study, the report does not deal with transportation issues.

Cambridge Department of Traffic and Parking  
Webster Avenue Traffic Study  
June 1970  
14 pages

This study of traffic problems on surrounding streets caused by the closing of Webster Avenue recommends steps to be taken to compensate for the re-routing of traffic around Webster Avenue.

Model Cities Agency  
State of the Neighborhood, April 15, 1971  
1971

This report outlines the current position of Model Cities on the major transportation issues facing Cambridge. Opposition is expressed to the proposed D.P.W. alignment on the Inner Belt and to the Route 2 Extension. Participation in the Governor's transportation restudy by Model Cities is requested.

Numerous suggestions concerning parking and traffic conditions within the boundaries of the Model Cities Neighborhood are offered.

Model Cities Agency  
Inner Belt Impact -- Community Facilities Model Cities  
July 1971  
4 pages

This memorandum documents the severe impact upon community facilities and housing in Model Cities that would be realized if the Inner Belt is constructed along the proposed route.

The values and replacement costs of structures in the path of the Inner Belt are considered as well as the blighting influence the expressway would have on the neighborhood.

#### MISCELLANEOUS

Cambridge Planning Board  
Community Facilities for Cambridge: A Plan, A Program, A Budget  
1967  
23 pages

This document was intended to fulfill requirements of the Federal government for a community facilities plan, which is a prerequisite for urban renewal and public housing funds. It shows the location, type, capacity, and area served by present and projected community facilities in Cambridge.

Charles A. Maguire & Associates  
Sewerage and Drainage Facilities  
1968  
105 pages

This is a report on the existing sanitary and storm drainage system in Cambridge, with recommendations for improvements. In general, the existing drainage and sewerage system are found adequate in size for future needs, although a five-year, \$10 million program is recommended to abate pollution in the Charles River Basin and Alewife Brook, and to reduce maintenance problems.

The 1972 CIP recommends implementation of the five year program in 1972.

Cambridge Planning Board  
Zoning: Housing, Density, Tax Base  
June 1969  
16 pages

In response to a City Council Order, the Planning Board evaluated the relationships between zoning and new housing construction and between zoning and expansion of the tax base. A principle conclusion was that the degree of development permitted by the Zoning Ordinance was basically sound and should not be changed appreciably. Revision of the text of the Zoning Ordinance, but not the Zoning Map, was suggested.

Seven of the twelve articles in a revised Zoning Ordinance already have been drafted by the Department of Planning and Development, the remainder to be completed in 1972.

Cambridge Planning Board  
Policy on Zoning and Low- and Moderate-Income Housing  
December 1969  
22 pages

This policy statement considers zoning insofar as it might facilitate the construction of housing for low and moderate income families. The Planning Board concludes that changes in the Zoning Map to promote such housing should be made sparingly and generally when other procedures are not available. An exception to this principle is re-zoning of land to a residence district from an industrial district, where new housing is not permitted by the Zoning Ordinance.

Camp, Dresser, & McKee  
Needed Improvements to the Cambridge Water System  
July 1970

This comprehensive report of the City's water system details specific recommendations, including improvements to the distribution system, the water treatment plant, and the necessity for providing for an increasing demand. The 1972 CIP groups projects according to these areas. It is planned that all the improvements will be on a pay-as-you-go basis, except for the larger projects which might be needed.

Cambridge Planning Department  
Elementary School Buidling Study, Volume 5, Site Selection, Multiple-Use Development  
1970  
143 pages

The Elementary School Building Study consisted of seven volumes which comprehensively analyzed the City's elementary education facilities needs for the next 10 years. Volume 5, concerned with finding school sites and examining possible types of multiple-use development, has some specific relevance to transportation planning.

Adequately sized sites for schools (or other public facilities) are extremely scarce in Cambridge. Thus, in developing potential sites, the Study looked hard at the potential of air rights development over transportation facilities, which are relatively underdeveloped. Sites were proposed over streets, railroad rights-of-way, an MBTA trolley storage yard, and parking lots.

Cambridge Historical Commission  
Survey of Architectural History in Cambridge, 3 Volumes  
1965-1971

Since 1963 the Cambridge Historical Commission has been carrying out an inventory of Cambridge buildings and doing extensive research on individual works of architecture and areas of the city. The Commission is publishing a series of reports of the Survey of Architectural History in Cambridge. Three reports have been completed: Report One: East Cambridge (1963), Report Two: Mid Cambridge (1965), and Report Three: Cambridgeport (1971). Reports on Old Cambridge and Northwest Cambridge are in preparation.

Several buildings which are located along the proposed highway routes are included in these reports because of architectural merit or historical

significance. Two in the Inner Belt area have been proposed for inclusion in the National Register, a listing of buildings whose importance merits certain federal protection. In addition, many of the streets in the area retain a human scale and pleasant residential character worth preserving.

In general the Commission feels that new highways cut through Cambridge neighborhoods would be damaging to the architectural character of the areas and to the community as well. In the conclusion to the Cambridgeport report, the authors state that "the one development which -- fortunately -- has not come about as predicted six years ago is the Inner Belt Highway, which would have seriously divided the Cambridgeport community." (p. 153)

## CURRENT TRANSPORTATION RELATED PLANNING ACTIVITIES

1. New Comprehensive Plan - The City's Comprehensive Plan was last revised in 1958. A new Comprehensive Plan is an absolute necessity to tie together the numerous individual projects and planning and development activities in various parts of the City. Transportation and circulation will of course be critical elements of the Plan.
2. Zoning Revision - Late in 1969 work was begun on a comprehensive revision of the Zoning Ordinance. Although work has been interrupted several times, seven of twelve articles have been drafted, and the remainder should be completed during 1973.
3. Boston Transportation Planning Review - The Planning and Development Department is representing Cambridge as a participant in the State's \$3.5 million restudy of its plans for transportation facilities construction within Route 128. Three of the six major state plans under review affect Cambridge (the Inner Belt, the Route Two Extension, and the Red Line transit extension to Alewife). The principal thrust of the Planning Review is to determine the extent to which public transportation and traffic engineering can and should be greatly strengthened as an alternative to further construction of new or widened highways within Route 128. Cambridge participation in the Restudy, while limited to a review/react function, has involved a leadership role in maintaining the restudy's principal objective in sharp focus. Currently, Cambridge is working with Somerville, Arlington and Lexington to respond to the Planning Review request that the Northwest Corridor cities and towns prepare a work program for survey, analysis and planning needs in their sector of the overall study area.
4. Harvard-Alewife Tunneling Study - The Planning and Development Department, Traffic and Parking Department, Cambridge Advisory Committee and a number of other public and quasi-public agencies are working as the City Manager's Task Force on the Alewife Tunneling Study. This MBTA-sponsored study has as its objective a determination of costs involved in a tunnel extension of the Red Line from Harvard Square to Alewife Brook over three alternative alignments. Principal among these alternatives is a direct route by deep bore (shield driven) construction, with no intermediate stations. The Cambridge task force has approved MBTA's work program and choice of consultant for the study, and has arranged with MBTA for monthly or frequent meetings with the consultant to review completed and projected work.
5. MBTA Cooperative Planning - A formal cooperation agreement has been signed by the Massachusetts Bay Transportation Authority and the City of Cambridge to plan jointly the extension and improvement of the MBTA's Red Line Rapid Transit service and other transit facilities in Cambridge. During the 1971 Legislative session, the MBTA was authorized additional bonding capacity and grants had been sought from the Urban



Mass Transportation Administration of the U.S. Department of Transportation for planning on the Red Line Extension to West Cambridge. The MBTA, with the approval of the City of Cambridge, has awarded a contract to Sverdrup and Parcel and Associates, Inc., consulting engineers, to conduct tunneling and route studies for the extension. The critical issues are: 1) the alignment and method of construction of the extension from Harvard Square to West Cambridge and 2) the station location and configuration of Harvard Square and at the proposed new Alewife Brook terminal.

6. Inter-Community Alewife Terminal Study - The Planning and Development Department is working with Arlington planning and redevelopment officials to establish an intercity planning program for an Alewife transit terminal and related development. Arlington has previously approved a Planned Unit Development on its side of Route 2 permitting a multi-million dollar development. The participation of the Cambridge Redevelopment Authority will become possible if the U.S. Housing and Urban Development Department rules that the 47-acre triangle served by Rindge Avenue Extension is eligible for federally-financed urban renewal action. A major planning problem involved will be the determination of how extensive a development can be accommodated in the Alewife area and the surrounding Cambridge/Belmont/Arlington area without impinging on conservation and other environmental objectives.
7. Northwest Corridor Transit Extension - The Planning and Development Department is working with Somerville, Arlington and Lexington to establish an inter-city team of all Northwest Corridor communities willing able to participate in the planning of a Red Line extension to Route 128. It is an Arlington objective that the extension can be completed at least as far as Arlington Center in time for service during the 1976 Bicentennial activities. One of the many tasks of the inter-city team will be to either itself perform or ensure State performance of a thoroughly comprehensive cost/benefit study of the extension -- such a study to take into account savings in highway construction and maintenance, highway accidents, pollution costs, and many other essential factors not included in traditional cost/benefit studies.
8. Harvard Square Parking Studies - As a means of countering the long-standing deficiency of off-street parking spaces in the Harvard Square area, the City Council in January 1972 appropriated \$225,000 for parking studies and garage design in the area. The parking studies are for specific engineering-architectural work to implement the general parking study of the area conducted by the Planning and Development Department and the Department of Traffic and Parking. The studies include: 1) the design of the first public parking garage in the Harvard Square area; 2) coordination of the site planning and multiple-use land development program, including one or more public parking

garages, in the area in and adjacent to the proposed Kennedy Library; 3) determination of the economic-engineering feasibility of constructing a garage under the Cambridge Common; 4) preliminary analysis of other potential garage sites in the Harvard Square area, each incorporating the multiple-use development concept in which commercial or residential activity would share the site of the public parking garage. These studies will be coordinated with general Harvard Square planning.

9. Eastern Cambridge Transportation Study - This study is designed to provide general information and specific data relative to the severe competition for parking, street use and public transportation between competing land uses and activities in East Cambridge. The study objective is to provide a greatly improved transportation system in East Cambridge and to reduce the level of negative impacts resulting from transportation activity.

Work began in the fall of 1972 and is now in the data collection phase. All work will be coordinated with general planning for the East Cambridge Neighborhood and in a close working relationship with area residents.

10. Cambridge - U.S. Department of Transportation Study - Municipal Level Planning Study - This study is being carried out under a \$50,000 contract awarded to the City of Cambridge by the Transportation Systems Center of the U.S. Department of Transportation. Principal participants are the Planning and Development Department, Traffic and Parking Department, and Police Department. The basic thrust of the study is to develop and recommend more effective ways of doing transportation planning at the municipal level. Specific work products called for are: 1) an annotated inventory and evaluation of prior Cambridge transportation and land use planning, 2) a sketch master plan for Cambridge land use and transportation and 3) a proposal for a three to five year prototype transportation planning program in Cambridge.

A major recommendation of the study to date is the formation of a City Manager's Cambridge Transportation Forum. This permanent organization of twenty-five to thirty persons is intended to fill an identified need for a single-broadly-representative group of citizens, and appropriate public/quasi-public agencies whose concern with transportation problems produces a capability for valuable two-way communication with Cambridge government staff and officials.

11. Off-Street Parking Program - Two significant prerequisites for a parking program have been accomplished. Chapter 844 of the Acts of 1970, a home-rule bill, allows Cambridge to do whatever is necessary to develop more off-street parking. Secondly, in spring 1971, the City Council, by ordinance, created a Parking Fund, which provides the financing mechanism for an expanded parking program.

The development of a city-wide parking program requires analysis of present parking demands and utilization of existing parking spaces throughout the City, projections of future parking needs, investigations of a residential parking system and development of specific recommendations as to the location, size, financing and operation of addition off-street parking facilities.

At present, attention is focused in three areas of the City -- Central Square, where the Green-Franklin garage is nearing construction, Harvard Square, where an appropriation of \$225,000 for parking studies has been made by the City Council, and in the eastern part of the City. In each case, the multiple use development concept, i.e., other public or private uses sharing the site with the garage, will be investigated.

12. North Terminal Area Study - The Planning and Development Department is representing Cambridge on the Technical Advisory Committee of a North Terminal Area planning study being conducted by the Metropolitan District Commission and the State Department of Public Works. The area involved is the Charles River Basin downstream from the dam (connecting Monseigneur O'Brien Highway with Leverett Circle). Major purpose of the study is to determine what cross-Charles River and related thoroughfare improvements will be needed to accommodate the large anticipated traffic to be generated by the completion of Interstate #93 and probable increase of Interstate #95 (North) capacity. A concomitant objective is to determine how the needed thoroughfare improvements might both integrate with and stimulate desirable redevelopment of Cambridge, Somerville and Boston land within the study area. The Planning and Development Department has played a key part to date in preventing the study from diverting traffic from the Boston side of the River and transforming Memorial Drive into an expressway.
13. Inner Belt Impact Study - Following the 20-year controversy over the construction of the Inner Belt highway, the planning staff of the City Demonstration Agency is conducting an analysis of the impact of the lengthy dispute on the Model Neighborhood area. Particular attention is being focused on the consequences to those parts of the Model Neighborhood area which were designated to lie within one of the proposed alignments for the highway. The condition of buildings, the revision or absence of public services, the effect on public and private investment in upgrading the property within the proposed alignments and the consequences for business development within the alignment will be contrasted with other areas not affected by any proposed alignment for the Inner Belt.
14. Transportation Need Study - Special Population Groups - In conjunction with the work on the Boston Transportation Planning Review

and the Department of Transportation municipal planning study being conducted by the Department of Planning and Development, the CDA is analysing transportation needs of certain groups in the population, i.e. the elderly, young people, welfare recipients and low-income persons, who are not felt to be adequately served by the existing public transportation system. The intent of the study is to document needs of these special population groups and to prepare a demonstration-transportation proposal to be submitted to the Urban Mass Transportation Administration which has a block of money allocated to Model Cities Program throughout the country.

15. Alewife Brook Park Feasibility Survey - The potential for development as outlined by the Cambridge Corporation and Arthur D. Little, Inc. near the proposed Alewife Brook terminus of the MBTA Red Line extension is enormous. On May 20, 1969, HUD approved \$254,375 to conduct a feasibility survey on the project area. During 1970 and 1971 a study was conducted to determine the eligibility of the area for urban renewal treatment. During 1972, the basic eligibility study was submitted to HUD for review. If HUD approves the eligibility of the project area, additional studies, which are part of the survey, will be conducted including analysis of soil conditions, utilities, land values and land assembly, and business relocation needs.

Close coordination of the feasibility survey with the MBTA's proposed construction of the new terminus for its Red Line and Alewife, and of the Boston Transportation Planning Review's work on highway planning, and the inner city effort toward an MBTA extension in the northwest corridor is imperative.

16. Department of Traffic and Parking - The Cambridge Department of Traffic and Parking conducts ongoing planning activities related to the efficient and safe movement of motor vehicles in and through the City: signilization, channelization, traffic signs, and other traffic control activities. In addition, the Department is planning a system of "bikeways" for possible implementation next year.

The Department participates in the TOPICS Program (Traffic Operations Program to Increase Capacity and Safety), which provides funding (50% Federal, 50% State) for coordinated improvements to improve efficiency of existing street systems. The City's inputs to TOPICS is altered as necessary to reflect changing conditions or priorities.



SECTION 2 - ADDITIONAL CAMBRIDGE AND GENERAL TRANSPORTATION  
PLANNING INFORMATION SOURCES

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## A. PLANNING

### 1. Metropolitan or Sub-Regional Transportation Information

Travel in the Boston Region, 1959-1980. Studies of Urban Transportation, Seminar Research Bureau, Boston College, 3 Vol., Jan. 1960-April, 1961.

The Boston Regional Survey, Mass. Transportation Commission, April, 1963

EMRPP. Guides for Progress: Development Opportunities for Metropolitan Boston, prepared by MAPC with the Department of Commerce and Development, DPW and MBTA, April 1968

BRA. The Lab is the City: A Proposal to Develop a Central Area Distribution System, May 1968.

BRA. Transportation Facts for the Boston Region. 1968-1969 Edition.

Governor's Task Force on Transportation. "Report to Governor Sargent, Parts I and II, January 1970 and June 1970.

A New Framework for Transportation Planning in the Boston Region, Fred Salvucci and Jim Morey, February 1970.

BTPR, Themes for the Future, December 1971

BTPR, Northwest Progress Report, Phase I, Dec. 1971.

Boston Transportation Development Strategy, Discussion Draft Ralph Gakenheimer, Department of Urban Studies and Planning, MIT, March 1972

BTPR, Goods Movement Interim Report, April 1972

### 2. City-Wide Transportation Planning Information

Progress Report to Transportation Systems Center, DOT Cambridge Planning and Development Department, and Traffic and Parking Department, January 1972

### 3. City-Wide Planning Information

Social Characteristics of Cambridge 1971, Vol. I. Cambridge Planning and Development Department, 1971

The Elderly: Housing Needs in Cambridge, Vol. I. Cambridge Planning and Development Department, June 1971

Planning Information Directory, A Guide to Sources of Planning Information in the City of Cambridge, Cambridge Planning & Development, October 1971

Revised Work Program and Study Design, Community Development Program, Cambridge Planning and Development Department, January 1972

Elderly Persons in Cambridge: Analysis of Available Data, Cambridge Planning and Development Department, Jan. 1972

The Family: Housing Needs in Cambridge, Vol. 2, Cambridge Planning and Development Department, March 1972

4. Legislation, Administration, Finance

Effective Government for Cambridge, David McNally and Howard Mantel, Institute of Public Administration, April 1970

5. Other Planning Related Information

EMRPP Comprehensive Land Use Inventory Report (Vogt-Ivens and Assoc.) March, 1967

MAPC, Economic Base and Population Study, 3 Vol., 1968

EMRPP, Historic Sites Study Report, (DPW)

EMRPP, Inventory of Water and Sewer Facilities (Camp, Dresser and McKee)

EMRPP, Recreation Tourism and Vacationing in Eastern Massachusetts (DCD)

EMRPP, Evaluation of Existint Data and Information Systems Relevant to Planning (DCD)

MAPC, - Open Space and Recreation Plans and Programs for Metropolitan Boston, 4 Vol., 1969

MAPC, Housing Demand and Housing Supply 1950-1980, Vol. 1, 1969



MAPC, Subsidized Housing in the Boston Region as of Dec. 1971

**B. HIGHWAYS AND PARKING**

**1. Metropolitan and Cambridge Expressways**

Boston Regional Project. Comprehensive Traffic and Transportation Inventory, prepared by Wilbur Smith & Associates, 1965

DPW. Basic Design Report: Interstate 95 Boston (Charlestown), prepared by Fay, Spofford & Thorndike and Charles A. Maguire & Associates, 1965

DPW. Basic Design Report: Southwest Expressway Interstate 95, Route 128 (Canton to Jackson Square, Boston), prepared by Brown Professional Engineers, Inc., 1966

DPW. Report on Engineering and Architectural Elements: Inner Belt, Interstate 95 (Roxbury), 1967

Massachusetts Turnpike Authority. Preliminary Feasibility Study: Third Crossing Boston Harbor, prepared by Estabrook & Company Coverdale & Colpitts, Sverdrup & Parcel and Assoc., Inc. and Howard, Needles, Tammen & Bergendoff, June 1968

DPW. A Statewide Highway Transportation Plan; Road and Street Responsibilities, September 1968.

DPW. A Statewide Highway Transportation Plan: Program Costs to 1990, January 1969

DPW. A Statewide Highway Transportation Plan, Financial Requirements to 1990, June 1969

DPW. A Report to Governor Francis W. Sargent on the Status and Progress of the Highway Program, January 1 - March 31, 1969; April 1 - June 30, 1969

DPW. Semiannual Report to Governor Francis W. Sargent on the Highway Program, July 1 - December 31, 1969

Cambridge Highway Study, Harvard Urban Design, Dec. 1970  
MDC, North Terminal Evaluation Study, (Bruce Campbell and Assoc.), 1971

2. Cambridge Streets and Traffic

List of Streets and Ways in the City of Cambridge, City Engineer, 1969

Lechmere Traffic Study for Cambridge Traffic and Parking Department

3. Parking: Cambridge and Metropolitan Area

EMRPP. Parking: A Regional View, prepared by DPW with the Department of Commerce and Development, MBTA, and MAPC, March 1969

Master Parking Strategy for the Boston Metropolitan Area, Study Design, for DPW, Wilbur Smith and Assoc., 1971

Position paper on Harvard Parking Garage at Broadway and Felton, City Councillor Francis Duehay, 1972

4. Legislation. Administration. Finance.

Legislation, Rules and Regulations Related to Motor Vehicles Registry of Motor Vehicles, Jan. 1971

Cambridge Parking Fund

Traffic Regulations, City of Cambridge, Cambridge Traffic and Parking Department, 1971

5. Other Traffic and Parking Related Information.

Cambridge Truck Committee, Position Paper, April 1972

EMRPP. A Guide for Improvements in Traffic Performance, prepared by DPW, July 1968

C. PUBLIC TRANSIT

1. MBTA Rapid Transit and Red Line Extension

Harvard-Alewife Tunneling Study (in progress by) Sverdrup and Parcel, 1972

Transit '81, A Master Plan for Urban Mass Transit in the Eastern Massachusetts Area, Students of Industrial Management Wentworth Institute, Boston, Gerald Pieri, Instructor, 1971

2. Bus Transit, fixed route

The Trackless Trolleys of Boston, Bradley Clarke, 1970

Service Modification Procedures for MBTA Local Bus Operations,  
Working Papers, H. Wilson, W. Peckmold, B. Kullman, March 1972

MBTA. "Cass Report," Volumes I and II

3. Demand Responsive Transit

The Taxicab Industry in Boston, Paul Ronka, Harvard Graduate  
School of Government, Harvard, May 1970

4. Legislation. Administration. Finance.

An Evaluation of Free Transit Service, Charles River Assoc.  
Cambridge, Aug. 1968

EMRPP. Top Management and Organization Study of the MBTA,  
(Booz-Allen and Hamilton)

MBTA. "Special Commission to Study Finances and Operations  
of MBTA," Interim Report, December 1969

MBTA. "Budget Data and Transit Facts," MBTA Board of Directors,  
1969-1970 Issue

MBTA. Funds for Transit: Report to the Governor and the  
Great and General Court, Dec. 1970

Financing Transit in Boston in the 1970's; Lanry, Pressler,  
Harvard Law School, 1971

MBTA Legislative Statutes, MBTA, 1972

MBTA Bonding Authorization of 1972

5. Other Public Transit Related Information

MBTA. Comparison of Vehicular Transit Systems in the Greater  
Boston Area, prepared by Gibbs & Hill, Inc. 1965

MBTA. Foster, C.D. and Neuberger, H. Manual for the Social  
Evaluation of Projects in the MBTA, Revised July 1970

D. CAMBRIDGE AREA STUDIES AND RELATED INFORMATION

Harvard Square Traffic Studies (yet unpublished) Cambridge Planning and Development Department 1972

Status of Kennedy Library and Planning Activities in Harvard Square Area, Cambridge and Development Departments, Jan. 1970

Riverside Press Site Study for Riverside-Cambridgeport Community Corp., Joint Center for Inner City Changes 1972

Riverfront Study, unpublished collection of maps, data, papers etc., Cambridge Planning and Development Department 1972

E. GENERALIZED PLANNING RELATED INFORMATION RELEVANT TO CAMBRIDGE

1. Data Sources and Transportation Models

EMRPP. Development and Calibration of the EMPIRIC and the Forecasting Model for 626 Traffic Zones (Traffic Research Corp.)

EMRPP. The Development of a Travel Forecasting Model, prepared by the Massachusetts Department of Public Works (DPW) in conjunction with the Massachusetts Area Planning Council (MAPC), Metropolitan department of Commerce and Development, and the Massachusetts Bay Transit Authority (MBTA), February 1969

MAPC. The Empiric Model and Land Use Forecasting

EMRPP. The Development of a Traffic Forecast and Model (DPW)

2. Participatory and Political Process

Urban Transportation Decision Making: Political Process of Urban Freeway Controversies, Kenneth Geisa, Jr., Department of Urban Studies and Planning, and Urban Systems Lab. MIT 1970

The Policies of Urban Transportation in Metropolitan Boston 1960-1970: Cambridge, Somerville, and Jamaica Plain, William Bruce, Yale, May 1971

Rites of Way: The Politics of Transportation in Boston and the U.S. City, Alan Lupo, Colcord, and Fowler, 1971

3. User and Latent Travel Needs

Mobility of the Poor, Aaron Fleisker and Philip Herr, MIT

Elderly Transportation Survey (unpublished questionnaire, papers, etc.), Terry Lane, Cambridge Planning and Development Dept., 1972

4. Economic and Political Systems

The Public Financing of Transportation in Greater Boston, Elliott Sclar, Thesis for Ph. D. Tufts University, Sept 1971

Differential Taxation, Transportation and Land Values in a Metropolitan Area: The Political Economy of Suburbanization in Boston, 1890-1970. Matthew Edel, and Elliott Sclar, Nov. 1971

5. Social, Economic, and Environmental Impacts

VI Speak - Interviews with Six Families in the path of the Cambridge Inner Belt, Barbara Cohn, Cambridge Civic Association, 1966

Neighborhood Protest of an Urban Highway, Gordon Fellman, AIP, March 1969

The Physical, Social, and Economic Impact of Proposed Highway Construction in the Boston Metropolitan Area, Urban Planning Aid, Cambridge, 1970

**IMPROVING THE TRANSPORTATION  
PLANNING PROCESS IN CAMBRIDGE  
AND OTHER SMALL CITIES**

**VOLUME I -- THE ORGANIZATIONAL FRAMEWORK**  
**Volume II -- The Planning Program**  
**Volume III -- Recommendations for Small Cities**

**A Municipal Level Planning Study**  
**Prepared by the City of Cambridge, Massachusetts**  
**For the U. S. Department of Transportation**  
**Under Contract No. DOT-TSC-296**

**Department of Planning & Development**  
**Department of Traffic & Parking**  
**City of Cambridge, Massachusetts**

**December 1972**

The contents of the report reflect the views of the City of Cambridge, which is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policy of the Department of Transportation. This report does not constitute a standard, specification or regulation.

## DEDICATION

This report is dedicated to O. Hugo Schuck of the U.S. Department of Transportation, Transportation Systems Center in Cambridge, Massachusetts. Mr. Schuck passed away on December 21, 1972, just prior to the completion of this study. Mr. Schuck's able and sensitive counseling to the City of Cambridge in the conduct of the study is greatly appreciated, and his guidance in the further implementation of the study recommendations will be missed.





## FOREWORD

The study from which this report developed was made possible by a U. S. Department of Transportation contract awarded to the City of Cambridge Department of Planning and Development in 1971. The purpose of the study was to find ways of improving the transportation planning process in Cambridge, and -- as a second step -- to distill those findings into a report that might help other cities similar to Cambridge improve their own transportation planning process.

At the conclusion of the first year of the study, a draft report entitled "Improving the Transportation Planning Process in Cambridge and Other Small Cities" was delivered to the U. S. Department of Transportation at its Transportation Systems Center in Cambridge for review and comment. Following the review, D.O.T. asked Cambridge to proceed immediately with the completion of the draft report's Part Three, entitled "Recommendations for Small Cities", and with the addition of enough supplementary material to make this part of the draft report meaningful when published as a separate report in its own right. The result is presented in the following pages. A later publication by the City of Cambridge will present the completion of the draft report's Part One entitled, "The Organizational Framework", and Part Two, entitled "The Planning Program".

The Funding for the study emerged from a strong interest shown by the U. S. Department of Transportation's Office of Environment and Urban Systems and its Cambridge-based Transportation Systems Center in the concept that the transportation planning process in cities like Cambridge too frequently functions in a void falling between the sophisticated broad-brush techniques of regional transportation planning programs and the fine-scale traffic engineering of local traffic departments. It was noted that Cambridge is a rather typical city of 100,000 population lying immediately outside an urban core and directly in the path of commuters moving daily by the thousands between the core and the suburbs. It was also noted that while Cambridge had made substantial and perhaps atypical progress in learning to cope effectively with specific threats to its environment by highway construction, no permanent planning framework had emerged that could deal with the problem on a continuing basis.

Consequently, the emphasis in the study was placed on developing an improved organizational framework for transportation planning, rather than on technical procedures to be applied within that framework.

Many experiences in Cambridge transportation planning were reviewed as a basis for developing recommendations, and a selection of these are summarized in Appendix B of this report. The need for establishing and operating, on an ongoing basis, a transportation planning forum that would bring together a valid cross-section of citizens, organizations and public agencies having transportation concerns has been strongly brought out by these experiences.

The study was carried out under the joint-direction of the City's Director of Planning and Development, Robert A. Bowyer, and the Director of Traffic and Parking, George Teso. Day to day supervision was exercised by their Assistant Directors, Edward A. Handy and Lauren M. Preston. There was substantial participation by Chief James F. Reagan and Captain Nicholas I. Fratto of the Cambridge Police Department. Important technical inputs were made by Peter R. Helwig and Stephen E. Zecher of the Planning and Development Department.

Michael M. Bernard, transportation consultant and former senior staff advisor to the Governor's Executive office for setting up the Cabinet Office for Transportation and Construction in Massachusetts, served as a major contributor to this report, both in its final draft version and in preparing the expansion that follows in these pages. Other consultants whose contributions were of great value included Marvin E. Manheim and Tunney F. Lee of the Massachusetts Institute of Technology, Michael A. Powells of Barton-Aschman Associates, and James L. Morey of the Cambridge Institute. Contract supervision and technical counseling by the U. S. Department of Transportation was ably and sensitively provided by Mr. O. Hugo Schuck of D. O. T. 's Transportation Systems Center.

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## INTRODUCTION

It has been customary in the past to consider the transportation planning process principally in technical terms, where the centralized development of each mode is individually promoted. Thus, a given agency, once mandated, is expected to unify and maximize its particular transportation "system." The impact of a transportation project, however, especially in the more highly urbanized areas, has seriously opened to question the validity of this approach. In a number of instances throughout the country, transportation construction has been halted or dramatically altered by ensuing political and social repercussions, evidencing, if anything, a great waste of resources due to the misjudgment of public acceptance. The problem may be assumed to be serious from either a technical or political standpoint: There is inadequate understanding of public needs, or lack of consensus on important matters of public policy. Even worse, both conclusions may prove to be true. It is the purpose of this report to explore the possibilities of improving and broadening the transportation planning process so that it may meaningfully include those most directly affected by it, providing both for better clarity with regard to public objectives and a fuller technical understanding of the human needs involved. In a sense, the City of Cambridge has been a leading testing ground for many of these problems and considerations. The experience gained by government officials and the citizens of Cambridge in attempting to improve the transportation planning process in their area has been a most valuable one. To the extent this is possible, the attempt will here be made to summarize some of the more important organizational considerations that should be taken into account by other cities in dealing with this complex and difficult problem.



## CHAPTER 1 BASIC ORGANIZATIONAL CONSIDERATIONS

### Evolution of Planning Structure -- Obtaining Historical Perspective

One of the first steps to be taken in the effort to improve transportation planning organization at the municipal level, as well as any other, for that matter, is to record and summarize the various planning organization structures that have existed over a significant period of time. For these purposes, a period beginning sometime after World War II seems most appropriate, when significant new development changes began after demobilization. In other words, a 20 to 25 year period seems sufficient here. It would then be valuable either to narrate the structural changes and results as they occurred, or to take several "cross-sections" over that period to give a sense of the differences in functional characteristics. Very few communities, with their constant changes in administration and personnel, have available a clear summary of what has been tried before and the ensuing results. Often, a few hardy souls do have this information, but the important thing is to get it where it will do the most good: before the public, as well as other persons in government dealing with transportation-related problems. A sense of historical perspective is also important to understanding the evolution of the present structure--and how to proceed to improve upon it.

### Inventory of Plans and Programs

A companion effort to tracing the development of planning structure is the even more important recording of plans and programs over a similar period. It is most valuable to have an annotated inventory of the most pertinent transportation reports developed by or for the municipality. In addition, a review of state and regional - and in some cases federal - government plans should be made to determine the extent to which sections of these reports have local impacts or applicability. Aside from state plans such as those for highways, many land use plans have significant transportation components. It is of greatest importance that material of this sort be made publicly available, since the evolution and effect of certain transportation policies is essential to an intelligent understanding of the problems and our future courses of action with regard to them.

### Local Consensus and Public Transportation Investment

In recent years, government has experienced a new form of dis-economy: the designing of an ostensibly efficient transportation system



that is later met with severe citizen dissatisfaction--after substantial, irretrievable public investment has been made in construction as well as design. The problem is one of consensus--either a misunderstanding, or change, or an ignoring of the true public interest is involved. Whatever the mismatch, the consequences appear to be too expensive to be ignored. San Francisco, New Orleans, Milwaukee, Baltimore, the District of Columbia, Memphis and more recently the Boston Metropolitan Area, have challenged government transportation investments amounting to hundreds of millions of dollars. Wherever the fault may lie for any of these situations, the government and public can no longer afford to "find out later" that a given facility is undesirable for reasons that might have been predetermined by fuller public participation.

In this regard, it seems most sensible to approach the problem from the ground up, so to speak. The local community, from the point of view of both needs and impact, is the proper place to start. The practice of making too many judgements from the "top down" is, and has proven itself to be, a very risky business. The use of a local forum as an active participant in the development of overall transportation policies is the only way to assure that investments hereafter are soundly based in fact. Such an institution has been developed in concept by the Cambridge study team responsible for this report and is discussed fully in both Chapter 4 and Appendix A. Central to the forum concept is the public's growing insistence that it has both the right to know what is going on in its city affairs and the right to participate in the city's decision-making process. No less important is the public administrator's growing awareness that strong doses of citizen participation in public planning efforts inevitably forge a better product. In an extension of the study, the Cambridge team is moving ahead to make the concept operational.

It is important that estimates of needs be generated from local sources, since that is where the services are delivered. The so-called "secondary" or "indirect" effects or impacts are particularly felt at the local level: their true extent must therefore be evaluated at that level. There is also the consideration that the local consequences of any investment may justify not building or carrying out an action at all or delaying it for an indefinite period of time. We must not forget that there are usually other pressing and non-risk expenditures needed in any community at a given time. It would obviously be better to care for them first in a world of limited resources.

## "Top-Down" Transportation Planning vs. the Reconciliation of Locally Generated Objectives

A close analysis of the various matters of concern in transportation planning indicates that there are few in fact that require a highly-centralized organizational structure. The matters that do critically require that kind of structure--such as public investment considerations and overall system operational efficiency are, ironically, the least likely to be so treated. Instead, it is far more common for judgements and estimates to be made from the "top-down" as to what is desired by and desirable to a given community. The unfortunate multiplication of public hearing requirements has left both the planning technician and the public frustrated. The technician, in his own and the public's view, is not necessarily the most appropriate person to be given extensive responsibilities in conducting public forums; yet he has reluctantly inherited this onerous task as part of his job. The public, on the other hand, instinctively mistrusts the technician in a political role-playing function, acting both as legislative committee and judge, as it were, to its petitions. There is therefore a need for an institutionalized public forum as part of the traditional political structure that does not further burden the already crowded legislative branch and that relieves the technician from the conflicting roles that undermine his usefulness and credibility.

Wherever possible, repetitive public hearing requirements should be reduced on the one hand, and more attention given to providing local forums for consensus-building. It is then more appropriate and effective for the higher levels of government to exercise their rightful function of reconciling local, state and federal objectives--a task which, if well done, should be a sufficient enough challenge. In this regard, the attempt to centrally "estimate" local objectives as well as needs is viewed as essentially a self-defeating exercise.

The public hearing, experience has shown, tends to mainly offer a "confrontation" option. The objective should be to develop an orderly process for issue and problem definition at an early enough time to provide for constructive adjustments by all parties.



## CHAPTER 2 LOCAL GOVERNMENT CONSIDERATIONS

### Basic Structural Options for Municipal Transportation Planning

The question of how to organize best for transportation planning in the municipality suggests several basic structural options which should be considered. They may be enumerated as follows:

- a. Planning Department leadership, with other city agencies as participants. Here, the Department head may or may not act as chairman to a Transportation Forum if it exists.
- b. Traffic or related Department leadership, perhaps with an expanded role in transportation, with other city agencies as participants. Here again, the Department head may or may not act as chairman to a Transportation Forum if it exists.
- c. A "Joint Directorate" -- where the Department of Planning and the Department of Traffic or related Departments serve as co-equals in exercising a leadership role with regard to other city agencies as participants. Here, they also may or may not act as co-chairman to a Transportation Forum, if it exists.
- d. The Committee on Transportation of the municipal legislative body as exercising a leadership role. This option would relate more appropriately to a Transportation Forum as part of the legislative structure.
- e. Mayor's or City Manager's Office leadership -- Particularly with a Deputy Mayor or Manager assigned to act for the Executive as coordinator of transportation-related agency activities.
- f. Strong Transportation Forum -- to structure the Forum so that it is as independent as possible within the government structure.
- g. Agency Council -- a council of agency heads or "Interdepartmental Planning Team" responsible for transportation-related decisions. Here, all parties would serve more or less as equals, acting as a functional "cabinet".

Each of the above options, while not exhaustive, will serve to highlight the different emphasis that can be placed upon the transportation planning process by means of varying leadership structures. In a sense, there is no "right-course" to follow, but experience has shown the need for combining both strong executive oversight with joint departmental responsibilities. Other options do tend to either diffuse, or make too self-serving the necessary authority to do the job.

#### The Concept of a "Joint Directorate" or "Interdepartmental Planning Team"

The compromise between assigning a leadership role in transportation planning to a single municipal department, and that of diffusing responsibility, is the concept of a "Joint Directorate" where the most involved agencies work as co-equals with the executive to guide the process.

A modified version of this concept might be termed an "Interdepartmental Planning Team", where a more inclusive group of agencies is formed, short of being an all-inclusive "council", to act in a similar role. Membership on a "Joint Directorate" would include, for example, the Planning Department and Traffic Department Directors.

An Interdepartmental Planning Team, on the other hand, might in addition include as co-equals, the Police Department, Redevelopment Agency, and Model Cities Agency. A more inclusive group, such as a "Departmental Council" would include the Fire Department and Public Works Department as well as other agencies.

The effectiveness of a smaller group is perhaps apparent, but on the other hand, it should be the executive's ultimate discretion that decides who are the most important participants and what their role should be.

The overall responsibilities of such a group might be:

- a) coordination and administration of comprehensive transportation planning, operations programs and development, including appropriate attention to the planning of related land use;
- b) securing of necessary funds and staffing to carry out programs;
- c) assisting in implementing interdepartmental planning procedures;
- d) assisting in implementing demonstration projects;
- e) assisting in the development of cooperation agreements;
- f) overseeing referrals between departments and interdepartmental reviews prior to referral to the executive;

- g) liaison to Forum staff, work committees, appropriate advisory boards, and task forces.

Whatever the format or specific responsibilities, it will be of great importance that the participants be housed in close proximity to each other.

### Transportation Decision-Making Categories -- Their Relationship to Local Structure

In the evolution of a local transportation planning process, it would be worthwhile to consider certain categories of transportation decision-making that may have differences in their effect upon local government structure. A significant division occurs along the following lines, for example:

- a. Transportation Investment Decisions
- b. Transportation Management Decisions (e.g. - transit schedules, routes, fare structure, operations or equipment changes)
- c. Community Development Decisions.

This range of activity points to the need for more flexible arrangements with regard to participation by the various agencies involved in the transportation planning process. It argues for the setting up of functional committee - type working meetings that include as many interested local citizen groups as participants as possible. This working arrangement could proceed to identify specific problems, priorities and the appropriate channels for developing solutions. In certain cases, it would be more appropriate for certain agencies or persons to take leadership roles, or be more heavily relied upon for their expertise, than in others. An example would be a Traffic Department, with relation to management, and a Planning Department, with relation to investment. Thus, the structure in operation should not be cast too rigidly, but accommodate somewhat to the nature of the subject matter.

### Internal Cooperation Arrangements

With regard to the "Staging" or evolution of improvements within the local structure, it must be recognized that many changes will require a good deal of time and difficulty to effectuate, since as in the case of external relationships, there may be a "freezing" of organizational structure in legislation. It is for this reason that more attention should also be given to the use of internal cooperation agreements and in certain cases, administrative or executive guidelines or orders for setting up flexible, informal working arrangements between the city agencies. This too can serve as a testing device for the effectiveness of the various internal arrangements that are tried. As these prove worth-

while, it may also be appropriate to seek to make them more permanent. This would be the essential arrangement with regard to the operation of a Transportation Forum and its relationship to the various Departments and the local Executive.

#### The Value of "Work-in-Progress" Reporting - Government and Private

Another key activity that relates closely to the "Agenda" distribution procedures for the Forum, discussed in Chapter IV below, is the concept of "Work in Progress" reporting by the various transportation-related agencies within the municipality. This procedure might also be extended to various private organizations, as for example, universities or hospitals, with regard to their development objectives and activities. Under this arrangement, periodic reporting of important projects, studies, or activities under way that affect transportation planning in the area would be circulated to participants requesting to be so informed. The reporting could take place with the Forum serving as the clearing-house for such information, or the executive's office itself might make this a regular service that it oversees through one of its staff. This arrangement provides needed information and understanding of the various activities in progress essential for effective participation by the parties. In its own right, it may well serve to eliminate duplication and promote good intra-governmental communications.

#### Under-Utilized Agency Resources for Transportation Planning

There are a number of agency activities within the municipality that lend themselves well to cooperative or "double-duty" use for transportation planning. Notable among these is the Police Department, with its direct contact with traffic movement, accident reporting, business activity patterns, pedestrian mobility problems and parking needs and effects. The use of official reporting requirements provides a number of exceptional opportunities for obtaining important reliable information on transportation-related problems. Use of the accident report and accident map by other agencies is an example of this kind of function that has already shown some success, and which can be expanded by interdepartmental requests for information. Where citizens can be more fully and directly involved in this process, results can be expected to be more productive. The Fire Department is another agency with good potential in this area, as is the assessor or collector of taxes.

### Improvements in Municipal Budgeting

The consideration of budget proposals is a delicate matter in government, but the question of whether or not true involvement in policy development exists must always be answered ultimately in terms of how money and other resources are allocated. The mayor or manager must to a certain extent preserve his prerogatives with regard to budget review; however, how and why moneys are being spent must come under more public surveillance to assure broad-based local planning. In this respect, the Transportation Forum should be made aware of agency work items and assigned priorities in order to make meaningful contributions to the planning process. The problems that the transportation-related agencies have to deal with should, on the other hand, be made fully known to the public, including other agencies as well. It is after all to the agency's advantage to have their programs backed by public support and the effectiveness of their activities as seen by their "clients" brought out. In this regard, we must give consideration to the essential value of a "Program Budget" or "Performance" budgeting procedures in providing the necessary format for intelligent public participation in the spending process. This should clearly show program objectives and procedures on an annual basis. When tied to a 5 or 6-year capital budgeting procedure administered by the Executive's office and Planning Department, this can provide an effective basis for evaluating spending and investment performance -- something which has not been really possible under the present line-item budget as it usually operates -- with only total costs being shown, without relationship to the achievement of objectives.

Without thus affording the opportunity for full public evaluation of spending results and program productivity, there can be little basis for public support.

### The Problem of Departmental and Citizen Board Differences

There are a number of agencies with citizen boards that will develop divergent opinions or positions from time-to-time. The problem of how to resolve these differences has not always been an easy one to deal with. However, it is well to point out here that the boards do tend to vary one from another in their composition, nature of outlook and constituency. It is seen as a worthwhile objective to aim at eventually eliminating any tendency toward factionalism in individual boards and instead, to make citizen representation as broad as possible. While we cannot and should not hope to eliminate differences of opinion of this sort, we should try to avoid arrangements that result in arbitrary alignments of citizen vs. departmental interests. In this respect, a



Forum-Mayor or Manager arrangement can make great contributions, where there is a single, more representative base provided for achieving consensus.

#### Local Implementation of the Citizens' "Right to Know"

At the state and federal level, measures have been taken through executive orders or "Freedom of Information" Acts to permit greater access by the public to government data. This appears to be an essential step toward providing for true democratic participation in government and providing for a healthy surveillance of government policies and activities by our citizens. In no less degree, this objective should be pursued at the local level, where some of the most important information necessary for effective public involvement resides. Particularly in the area of transportation planning, the citizen's "right to know" often becomes crucial. It is quite true that in certain circumstances, some information must be held confidential, as for example, where speculation would be possible on land takings. But on the whole, a great deal more should be readily available to the public, with adequate procedures set up so as not to place an undue burden upon public officials. (Such provisions have already been enacted by the Commonwealth of Massachusetts. See Massachusetts Executive Order No. 75 of 1970 and Administrative Bulletin No. 71-3 of 1971).

## CHAPTER 3 INTERGOVERNMENTAL RELATIONS

### Federal-State-Regional and City Transportation Planning Relationships

Unfortunately, a municipality's transportation planning relationships differ not only as to the level of government involved, but also as to the mode and program. While the points of contact are varied and complex, an effort will be made to briefly summarize some of the more important areas.

#### A. Federal - City

Except in an informal way, a city has had little or no "standing" with regard to the federal Department of Transportation in the development and administration of its programs. Contact between the two governments has existed through political representatives; these contacts are usually for the purpose of arranging or negotiating participation with state, regional or independent agencies involving federal funding of programs. Some demonstration grant money has required more direct local involvement, as have certain forms of Urban Mass Transit Administration and airport assistance, but this has generally been the exception. Another exception has been the federal TOPICS (Traffic Operations Program to Improve Capacity and Safety) program, which was more recently conceived as the kind of program that should be initiated locally as a matter of future policy. This would also be true of the projected "Urban Systems" Program (Class D) which would extend this policy. Whether intended or not, many cities have felt that their concerns have been "by-passed" by the present arrangement. This is no doubt the concern to which federal revenue-sharing has addressed itself, a subject that will be discussed further.

#### B. State - City

Recently, more contact points between the State and municipality have developed as a consequence of federal requirements for local participation, a subject discussed separately below. They are, in summary as follows: a) on the "Policy Committee" for an urbanized area, in order to fulfill the continuing, coordinated, comprehensive planning requirements of the federal aid highway

act; b) to a certain extent, with regard to the development of local transportation needs under the National Transportation Needs Study; c) in TOPICS-type programs, where federal policy has cast the procedures in terms of local initiative; d) with regard to public hearings requirements for the various modes, the highway act requirements being somewhat prototypical, although there is considerable variation as to details in the various other modes. Considerable contact has been generated through special "transportation crisis" studies, such as those initiated in Washington, D.C., Baltimore, New Orleans and Boston. These have involved re-evaluations of plans, and have received mainly ad hoc funding from other program sources. With regard to local planning assistance by the State under the so-called "701" Program (U. S. Department of Housing and Urban Development under the Housing Act of 1954) this program has usually not provided significantly for state-city transportation planning relationships through the designated State Planning Agency, but it does have certain potentials for that use, particularly with regard to related land-development policies.

A good deal of potential contact is available, and in some cases used, between the municipality and state legislature -- more particularly the legislative committees on transportation, which do engage in certain de facto transportation planning activities to which a city may have access. When the Legislature and Executive are strongly divided along political lines, this kind of participation may take on a partisan character that must be given close attention in the consideration of these problems.

#### C. Regional/ Metropolitan - City

State and federal program structure contemplate, at least in theory, that city participation in transportation planning activities take place at the regional or metropolitan level of government. This has usually meant dealing with a regional transportation study set up for those purposes, or with an authority, such as a transit authority, that has metropolitan jurisdiction. In a number of instances the regional planning agency is the "701" Planning Agency for the Area for the purposes of HUD supported community planning assistance (Housing Act of 1954). It may also be the Regional Clearinghouse for Sec. 204 (Demonstration Cities and Metropolitan Development Act of 1966) Planning Review purposes, and for companion reviews under the Intergovernmental Cooperation Act of 1968 and OMB (Office of Management and Budget) Circular A-95. This means that all federal grants (including transportation grants) covered by the Acts are to be sent to the Regional Agency for review

and comment. Under the concept of the review process, it is the Regional Clearinghouse (not the State Clearinghouse, which has parallel review responsibilities for state agencies) that is charged with the responsibility of notifying local communities within its geographical district of federal grant applications that affect its jurisdiction. The essential purposes of the Act are to avoid conflicting federal grants and planning policies, in addition to serving an informational function.

Whether due to lack of staff, or other administrative difficulties, it is often the case that the process does not adequately keep the municipality fully informed of all grants that are of interest or concern to it. Often, if notice is given, it is not timely enough for effective action or response. This is a matter for particular concern, since, as we have pointed out, the Regional Agency is the theoretical "contact point" for municipal involvement within the concept of our state and federal system. The region is also important to the municipality with regard to certain programs and certain administrations, such as the Urban Mass Transit Administration, since municipally-targeted grants would preferably be channeled through a Regional Agency, as a matter of administrative policy.

Often municipalities are represented on the "Advisory Boards" of metropolitan authorities or other regional agencies for purposes of "taxation with representation". In fact, this has appeared to result in minimal participation for planning purposes, and it is doubtful that the arrangements were really constructed for those purposes. However, the municipality can and has made its weight felt, if often only in a negative or defensive way.

What is needed is a device for introducing municipal participation at an early enough stage to be effective and productive. This will be discussed further below.

### The Problem of Independent Authorities

A serious problem exists in transportation planning with respect to the so-called "independent authorities" set up to be responsible for a particular mode. These are structured along corporate lines, and were intentionally insulated by their enabling legislation to avoid "politics" in their operation. Like many correctives of that nature, there is the tendency to swing too far, and in this case, over-insulate oneself from community and public involvement. There is also the tendency to become self-perpetuating and self-serving. Being set up in many cases under

bonded indebtedness and strict trust agreements, the policy rigidities of these organizations can be notorious. It is only indirectly through political pressures, appointments and possibly, review and comment opportunities with regard to federal grant applications by the authorities (i. e., through the Regional Clearinghouses) that communities may make their voices heard. Obviously, some middle-ground must be reached with respect to achieving good management structure and being responsive to the public. It is perhaps in the area of cooperation agreements that this objective may be realized. As indicated, this will be discussed in more detail.

### The Regional Planning Problem

From what has already been said we may conclude that an essential ingredient for successful local participation in transportation planning is an effective inter-community organization with which to relate. Many regional organizations that have been formed in the past are of an ad hoc nature, having been funded for limited periods or purposes. And very often, it should be pointed out, regional designations have more or less been decreed "from the top" with little discussion or exploration of mutual interest by the communities involved. As such, their credibility, political base and functional justification are often called into question. An interesting alternative to this procedure may be found in a number of local groups that have voluntarily formed themselves into an area unit to deal with transportation problems. Although originally concerned with one specific crisis or another within their jurisdictions, these groups have proven to be cohesive in dealing with other transportation problems on a continuing basis. In this respect, they might well be seen as a model for a self-generated coalition of communities providing true local participation on broader issues. Moreover, the problems that typically arise in these groupings are indicative of the considerations that must go into making a regional arrangement work: as they deal with other transportation issues, they find that their membership may lack certain important localities effected by new problems. Also, some problems do not relate at all to some of the existing membership. Realignments are then sought. The lesson that appears to be urging itself upon us is this: In order to work effectively, community grouping must not only be self-generated, but avoid rigidity and inflexibility. In fact, flexibility is the key to meaningful inter-community participation. Perhaps the mistake of the past has been to try to fix regions or sub-regions as if they were immutable. The evil was then further compounded by enlarging the district further and further (to be more "inclusive") until it became virtually unmanageable. It would seem far more wise to permit the issues and interests to generate their own alliances than to attempt to impose them

(and estimate them also) from above. The natural format for these arrangements is the cooperation agreement. Beyond this, community groupings might be loosely structured in a more traditional regional organization. In technical terms, for example, it has been observed that some cities have both "circumferential-" and "radial-" oriented transportation problems, dictating at least two geographic regional arrangements for a given city.

### The Use of Cooperation Agreements

The need for flexibility in governmental organization and governmental relationships requires the recognition that many institutions set up by specific legislation are extremely hard to change, or at least, require extensive amounts of time and effort to readjust. The same is true for setting up wholly new relationships. It is for this reason that the use of the cooperation agreement should be given great attention as a means for structuring or adjusting governmental transportation planning relationships. Most relationships require some formalization, but many do not need to be "die-cast". Often, negotiations on organizational or procedural arrangements break down with the thought by participants that they are making commitments that will indefinitely lock them into disadvantageous positions. It is in the spirit of "testing" possible workable arrangements (that are stated clearly enough to prevent misunderstanding) that cooperation agreements are best applied. Agreed-upon planning review procedures between an "independent" transportation authority and a city are a good example of the application of this device.

### Decentralizing Certain Planning Functions

From what has been said about the value of determining transportation needs at the local level, it is also worthwhile to consider the decentralizing of a number of planning functions to communities where there is no special purpose in having them performed elsewhere at a "higher" level of government. As already indicated, there are enough burdensome responsibilities in developing sound public investment policy and assuring overall transportation system consistency and efficiency at the "top" to warrant a greater involvement and assumption of locally-related transportation planning responsibilities by the community. In fact, the most effective means for developing transportation planning options would appear to be through the flexible community groupings that have been discussed, as for example, along a corridor or other logical transportation sector. The overall "system" relationships can then be resolved at the state or larger regional level. It is particularly with regard to accommodating urban impacts and considering local

social implications that the municipal planning involvement can make the most significant planning contributions. Where a certain amount of uniform quality control is feasible, it may also be possible to delegate more of the data-gathering or other special duties from the state to the municipal level. Municipalities might well contract to do these services for state reimbursement, as-if consultants to the state. It must be recognized that we are assuming that there is a potential for high-level municipal performance in these matters; an assumption that is of course basic in any move toward federal revenue-sharing.

### Organizational Consequences of Federal Requirements for Local Community Participation

There are several federal transportation programs that more recently call for substantive community participation in state transportation planning. These provide both challenges and opportunities to the municipality to structure effective means for involvement in the process. The more important federal programs are as follows:

- a. Under the Federal-Aid Highway Act. In meeting the requirements for a continuing, coordinated comprehensive planning process carried out cooperatively between state and local governments, while the State is obligated to show the federal D. O. T. that localities in each urbanized area participate on a policy committee that has been provided for them, it is also important for each municipality to decide how its position will be represented. This could conceivably come from the executive's office, the local legislative body, or one of the Department heads (e. g. Planning or Traffic).
- b. The National Transportation Needs Study. Recently the U. S. Department of Transportation has requested that the states report transportation needs in a multi-modal format, for the purpose of submission to Congress and the President. (It had previously only received highway classification and needs reports.) The concept of the National Transportation Needs Study relies heavily upon local participation in the development of needs estimates to the state executive office. Usually, regional planning agencies are used as the vehicles for assembling local needs -- they being given the responsibility of finding out what each municipality within the urbanized areas in their jurisdiction has determined. At present, the procedure is extremely tentative with little direct input from the municipalities. Since it is of great importance that a determination of needs be originated and

estimated at the source, this federal requirement should be actively pursued by the municipality and accurate, thorough recommendations presented to the Needs Study biennially. If this is not done, the crudest types of estimates will be aggregated by the usually inadequately staffed Regional Agencies for the many localities within their jurisdiction. The opportunities here are therefore exceptional for building truly citizen-responsive transportation policy for all levels of government. The value of a transportation Forum with regard to this responsibility is also quite obvious.

- c. Transportation Work Program Reviews. The trend toward multi-modal transportation planning is reflected in the development of a Unified Work Program for federally-funded transportation planning, and the extension of the continuing, coordinated comprehensive transportation planning requirements of the Highway Act into other modes -- as urban mass transit. Thus, opportunities for local participation will essentially be broadened, and require greater responsibilities on the part of the municipality in transportation planning. The development of an institutional arrangement to deal with these responsibilities at the local level is therefore crucial.
- d. Clearinghouse Reviews. As we have mentioned previously, the municipality must devise a means for obtaining timely notice of federal grant applications affecting transportation in its area of concern. In many areas there are no strong indications that the Regional Agencies will be able to fully perform that role as the currently functioning Clearinghouse. This may be due to inadequate funding or staffing, or in some instances, a divergence of interests between the agency and the interested communities.
- e. Federal Urban Systems ("Class D") Roads and TOPICS - type programs. These programs, which will be discussed further, are based on the concept of locally generated transportation planning. The increased involvement of Planning Departments and other local transportation-related departments in initiating local plans and programs as part of state and federal transportation plans must therefore be expected and encouraged. Here it is important for the locality to actively seek to improve federal guidelines for local participation requirements in present and future programs as they evolve. The internal structure for



municipal planning must also be made ready to accept the increasing responsibilities generated by these policies.

- f. Public Hearing Requirements. The various federal public hearing requirements, as they have been more strictly administered, have tended to force greater community involvement. In many cases in the past, participation occurred "after the fact". Now, as is the case of the federal-aid highway program, there is both a corridor and design hearing requirement which impells local involvement at an early state. Under the so-called "4-(f)" reviews (Department of Transportation Act of 1966, as amended) and the Environmental Policy Act of 1969, where parks or similar public areas may be involved, even more stringent requirements result.

#### Extending the Federal, State and Regional "Clearinghouse" Concept

The reviews that are set up under the terms of Sec. 204 of the Demonstration Cities and Metropolitan Development Act of 1966 and the Intergovernmental Cooperation Act of 1968, with procedures outlined by OMB (Office of Management and Budget) Circular A-95 are aimed at the purposes of assuring planning consistency, eliminating federal grant duplication, and providing for a central data clearinghouse for federal program data. A logical extension of this valuable concept is to tie local government into the process. The "Forum" Concept is itself a "Clearinghouse" and the knowledge of what is being funded and an understanding of its purpose is just as valuable at the local level as it is elsewhere. As a matter of fact, the extension of the clearinghouse has already begun to proceed to non-federal grant programs, and it is more than appropriate to suggest that all levels of government should have a two-way flow on grant information. It is at the local level that it must be more directly available for public purposes. As already indicated, the Regional Clearinghouse structure is intended to perform this function, but the particular arrangements between the localities and the Regional agency need to be developed more effectively. This is even more true with regard to state or local programs not "covered" by present clearinghouse procedures.

#### TOPICS and Urban Systems - Type Programs

The federal TOPICS (Traffic Operations Program to Increase Capacity and Safety) and Urban Systems (Class D) Programs, which have already been mentioned above, are in a sense the new prototypes for community-initiated transportation programs. Depending heavily

upon local determinations of need, they are closely tied to coordination of state-wide transportation planning. In this sense, they afford the community ready-made programs for testing and building broader participatory community-planning relationships. The TOPICS program requires, under federal procedures, not only local project initiation, but a policy committee composed of active community participants for each urbanized area and coordinated plans by the State Highway Agency assuring consistency for the various municipal programs. The organizational structures developed for these activities can well serve to provide the means for further extension of this approach to other transportation planning activities. More effective internal participation in local government may also be promoted, as through inclusion of the police and fire departments in this aspect of community planning.

### Relationship to Federal Revenue-Sharing Proposals

In the event that one or another of the proposed forms of federal revenue-sharing come into existence, an improved structure for local transportation planning becomes all the more important. The consolidation of categorical grants, and the massive "pass-throughs" of federal funding to local as well as state governments will require the ability to develop strong program structure in the municipal departments and an equally strong local consensual base with the citizenry.

Those who have in fact been the strong opponents in Congress of the concept of revenue-sharing have aimed their most effective criticism at the inadequacy of existing local government structures to make effective and responsible use of funds of the magnitude involved in the revenue-sharing proposals. It is quite true that there has been a lack of experience in dealing with extensive program management at the local level. Also, the citizen has found that in order to make his voice heard he must often seek other forums to do so.

In view of these great challenges and opportunities presented by the prospect of greater decentralization of federal spending, there is further cause for the introduction of a "program-budget" or "performance-budgeting" procedure tied to a capital budget, which has already been discussed above.

As to the other shortcomings, the proposed concept of a "Transportation Forum" -- and the broader concept, perhaps, of a more evolved "Community Development Forum" -- seems most promising and attractive to improving municipal performance. It could serve as the necessary vehicle for achieving consensus on local planning policies, and also afford the needed integrity for large undertakings by full public

disclosure of issues and actions to be taken; and their consequences. This proposal appears to hold great promise for building the needed local capabilities and responsibilities where they are in fact most lacking.

#### Coordination of Transportation Planning with State and Federal Timetables

Any attempt to make the municipality a more effective participant in transportation planning must take into account the necessity for staging and timing of programs, grant application submissions, hearings, approvals and other related actions so that they conform to federal and state departmental and legislative schedules and timetables. This would be particularly important for example, with regard to budget review and filing deadlines for legislation and legislative committee hearings, which may impose year-long delays if missed. It would be valuable, in this regard, to set up 3-level timetables to show the relationship of municipal, state and federal work-flows with special regard to transportation activities.

## CHAPTER 4

### THE "TRANSPORTATION FORUM" CONCEPT

#### Introduction

The idea of a public forum for a particular function such as transportation arises from the rapid growth of urban-related problems and the inability of traditional local government institutions to cope with demands for public contact and interaction in their solution. In many communities neither the executive or legislative branch, as presently structured, appear capable of keeping up with the volume of business. The Forum concept, with a period for evaluation that permits staging and testing, should seek to supplement the existing structure by providing an open-ended institution that will both accommodate and channel public and government activity in the most constructive ways. It is intended to be on-going, rather than crisis-oriented, and aimed at consensus-building with regard to local transportation policies and programs. It should be aimed at serving both the legislative and executive branches of government, as well as the public in general. In fact, it will be particularly helpful where branches of government are split by party differences and communication is a serious problem. It is also an opportunity to permit effective interaction between professional or technical government staff and the public. Often, technical staff have become "locked in" by their own alternatives. The Forum can provide other options that break through these constraints.

It is in the area of accurate needs identification that a Forum can make a real contribution to the effective operation of local government. In a sense, it can serve to provide operating agencies with a "better client", so to speak, while providing the public with a "one-stop" agency for their transportation-related problems. Appendix "A", attached, outlines in more specific detail guidelines for the operation of a Transportation Forum.

#### Democratic Problems of "Executive Leadership"

Where there is a "strong mayor" or "strong manager" form of government -- that which is predicated on the value of "executive leadership" -- certain potential shortcomings with respect to public participation and responsiveness to local needs and objectives may develop. By effecting a strong division of responsibilities between the two branches of government, something may in fact be given up in the

way of public involvement. With regard to this problem, the Forum proposal is seen as a corrective to the tendency toward isolation of this nature in local government. Having recognized this weakness, it would appear wise to adapt and develop our present structure to assure that "grass roots" contact is maintained. The Forum can function as a "first round" testing ground for both legislative and executive branches, providing for a more orderly form of interaction, particularly where the executive branch is concerned. Further, local government institutional arrangements are not really set up to provide for extensive public involvement on functional issues, such as transportation. With the assistance of an institution capable of this role, the traditional structure could operate with much greater effectiveness. In fact, the suggested arrangements might be compared to the use in the legislative and judicial branch of fact-finding boards, referees, and the like for relief from business that cannot effectively be handled -- thereby preserving essential time for fulfilling those responsibilities that are more important for it to discharge.

#### Basic Functions of a Transportation Forum

For purposes of clarity, one may define five basic functions of a Transportation Forum that affect its working structure. These functions indicate that a certain amount of skill and flexibility in its internal organization will be required. While these functions are not intended to be "definitive" they do point to significant characteristics in the essential operation of a Forum of the kind here contemplated. These functions are as follows:

- a. As an Information Source or "Source of Data" Clearinghouse --  
A place where both citizens and government agencies may apprise one another as to the source of vital statistics and other essential transportation-related information. (A news-letter or even newspaper clipping-service suggest themselves here as valuable service functions.)
- b. As an "Early Warning"-or "Town Crier"-type function --  
where crisis-decision needs may be made known. As a one-stop, open-entry point to the government structure, it provides for both public and government awareness of issues and the appropriate routing for action.
- c. Coordination of Program Development -- to provide information on the relationship between local, state and Federal transportation programs to public needs and to each other with regard to those needs. In a sense, the federal Model Cities Program was developed somewhat along this concept.

- d. Development of cooperative working relationships -- the Forum can here serve as an instrumentality for identifying the need for developing cooperation agreements and working relationships between cities, independent agencies, metropolitan or regional entities and state and federal government agencies.
- e. Assist in the development of consensus in private groups -- here the Forum could serve as a focal point for caucusing between divergent private interest groups. In fact, it is essential that the Forum provide the means for the negotiation and resolution of differences so that more effective government action may be possible with regard to complex transportation issues.

#### The Transportation Forum Concept and the Role of the Municipal Executive Office

To a great extent, the successful operation of a Forum will depend upon the municipal executive office. The relationship to the departments, the effective flow of work, and the implementation of many essential decisions will need to take place by virtue of the mayor's or manager's commitment to the efficient functioning of the institution. There is much to be gained by him through such commitment, in terms of finding strong public support for executive programs, and the accurate identification of the more important problems in the community. Thus, while a successful Forum requires executive leadership in one sense, it can provide the sound foundation for achieving it.

It will be essential for the executive to appoint an effective "convenor" or "coordinator" to oversee the Forum. Preferably, he should not be tied to any Department or Agency to maintain a sense of fairness and neutrality.

Municipal government membership on the Forum should preferably include certain "permanent" members designated by the executive. These might be the Planning Department, Traffic Department, Model Cities' Agency, the Police Department and the Redevelopment Agency. For these, regular participation is essential. Membership must also assure representation by persons having decision-making authority, in order for the Forum to be effective.

Ultimately, it should be remembered, decisions on questions addressed to the Forum must be the Executive's.

### Effective Powers of a "Forum"

Where a Citizens Forum is to be set up, as contemplated, it is essential to deal directly with the problem of its effective powers. The more independent the Forum is of the government structure, the less authority there will be for it to exercise governmental-type powers. It is only to the extent that a Forum acts as part of an existing office that it may justify exercising governmental responsibilities. The most appropriate power for it to exercise under these considerations is the power of referral. For these purposes, theoretically, the Forum may be lodged in either the Executive or Legislative branch. In each case, however, referral basis will be somewhat different, since the power that is in fact delegated would be different. Here we should note that the legislative branch, through its committees, already exercises these powers and the question arises, why should a Forum duplicate these? Other reasons for placing the Forum in a position closely identified with the Executive's office are discussed elsewhere. From the point of view of referral powers, however, these would most appropriately be exercised by the Forum as an arm of the executive office.

### Problems of Staffing a "Forum"

The operational success of a Transportation Forum depends to a great extent upon the staff capabilities it receives. Where this staff comes from is an important consideration in the organizational framework for transportation planning. Several options may be considered:

- a. Independent Staff - here, the Forum would have its own staff, paid for from as yet unspecified funding sources, but in any case budgeted or earmarked for that purpose.
- b. Agency Loan Arrangement - "Guaranteed Draw" on Departmental Staff/Time. Here, each agency would commit specific work days and personnel to be drawn upon by the Transportation Forum. These would need to be reasonable amounts that are not subject to reassignment, but in a sense guaranteed or committed to the Forum. This would allow close coordination between the Department and the Forum although the problem of conflict of loyalties may come up from time-to-time as a shortcoming of this arrangement.
- c. Executive Office Staff Commitment - Conceivably, the Forum may be seen as in fact and in theory as very close to the Mayor's or Manager's Office -- in which case it may be

logical to assign staff from his office as the Forum staff. This may require increasing the manager's staff positions for this purpose -- and as mentioned previously, might justify a position of stronger leadership in the form of a Deputy City Manager assigned to this function for a substantial part of his working time.

- d and e. Volunteer Staffing Possibilities; Sub-Committees of the Forum as Working Committees - Volunteer staff, while subject to many uncertainties, may be necessary if budget support is not otherwise available. This might be utilized more directly, or in what would appear to be a more feasible arrangement, through sub-committees as working committees of the Forum. In fact, some Committees could well develop into standing functional committees dealing with work flow to the Forum that need not necessarily go directly to the floor of regular Forum meetings.

#### Publication of a Transportation Forum "Agenda"

Management of a Forum Agenda for Transportation will be the vital link to the success of the new transportation planning structure. Both citizens and government agencies must have timely access to the agenda in order to have adequate opportunity for preparation and participation in the various matters that may need to come under their consideration. Each participating organization should register its responsible agent for receiving the agenda with a clerk in the executive office. Referral of matters to regular Forum meetings, or to working committees, will then be necessary. The clerk could also serve as a referral point to the various agencies or citizens' groups in preliminary dealings on Forum business. In fact, as mentioned, a good deal of business may be directed to working committees or negotiated and resolved outside of formal meetings in order to keep the time of those meetings (perhaps two per month) available for the most important matters.

Publication of the Agenda in the news media is also a necessary procedure to provide full public notice. It would be desirable that a standard form for petitioning the consideration of matters on the agenda be developed, so that a record of these matters can be made publicly available and account kept of their disposition. The Mayor's or Manager's chairman or coordinator would be responsible for recording the disposition of items.



### The Role of Private Organizations

Aside from the role that has already been mentioned in keeping the public informed of their own developmental plans and objectives whenever possible, private organizations can also make extensive contributions to the general informational or data base for transportation planning. Often, this may take the form of direct research or surveys that relate to the subject matter under discussion. In another respect, they may aid by their direct assistance to the Forum working committees. As regular participants, they serve as representing interest groups that should be taken into account in achieving a meaningful consensus.

### The Role of Citizen-Action Groups

Citizen action groups in the community can play an extremely valuable and constructive role in identifying community interests, helping to caucus various factions, and helping to achieve consensus. When made part of an open governmental process they can provide a good deal of the necessary energy for suggesting meaningful programs and clarifying local objectives. In this sense, they can be a valuable supplement to the government process, in addition to being its constructive critic. On the regional level, they can also provide building blocks for flexible cooperative arrangements, a matter that has already been discussed.

### Future Evolution of the "Forum" Concept - Staging and Testing Institutional Change

The setting up of a Transportation Forum should be seen as a staging and testing operation in the broadening of local government participation -- that is to say, both inside and outside the municipal structure. Since transportation is in a sense a service function, it is to be expected, for one thing, that other issues such as community development objectives will begin to take precedence over the immediate crisis issues that are the cause of the present intense interest in transportation matters. Over the coming years, it would probably be healthy to encourage the evolution of the Forum into a broader subject matter, as a "Planning Forum" or "Community Development Forum". Thus, the shift in purpose might be seen more as treating causes rather than effects, or seeking to prevent the ailments rather than searching for the cures. The shift in subject matter might, for example, consider the question of the location of traffic generators in city development rather

han transportation facility location. Further, it might also be desirable to seek to integrate the functions of the various "Citizens Boards" that are intended to provide public participation and/or representation, into a planning Forum -- as that institution is able to prove its flexibility, working efficiency, and credibility.

The same considerations would be true with respect to internal departmental structure -- where the concept of a "Joint Directorate" or "Interdepartmental Planning Team" is tested, particularly in its relation to broadened means for public participation.

### "Substitutability" of Transportation

It must be recognized that transportation is essentially a "service" function. As such, it really only serves other primary goals, such as employment, health (service accessibility), and the like. It may be seen as having an objective of efficiency, but as such it may become self-serving. Consequently, it must be related to other substantial, broader human values. Thus, it may be more desirable to reduce or eliminate the trip to work by better housing and employment location planning, or substituting other forms of communication for hauling people to and fro. Seeing transportation as part of a broader field of communication relates very closely to the evolution of the "Forum" concept. It is the substitutability of other forms of communication for transportation that may become a primary concern in community planning activities.



## APPENDIX A

### GUIDELINES FOR THE OPERATION OF A TRANSPORTATION FORUM

#### I. Administration and Authority of the Forum

1. The Executive will administer and be the nominal head of the Forum. He will delegate the necessary authority to a Coordinator of his own choosing, who will serve as the convenor and moderator of the Forum meetings, as well as the Executive's representative. The executive will preside at the Forum meetings when it becomes necessary to move issues along, resolve deadlocks, or explain a course of action that may be contrary to the consensus of the Forum.
2. The Executive will allocate a budget to the Forum for staff assistance and resource needs. The Coordinator will be responsible for selecting and administering the staff assistance, for deciding other resource needs, and recommending a budget and program to the Executive.
3. The Executive in conjunction with the Coordinator will develop and maintain a set of guidelines governing the Forum that reflect the needs and capabilities of the Forum to deal effectively with issues. These guidelines will define the principles, goals, objectives and ground rules necessary for the effective operation of the Forum, and will be mutually agreed to by the Forum and the Executive. This set of guidelines will be the basis for a memorandum of understanding and cooperation between the Executive and the Forum, and will be subject to change by mutual agreement.
4. The Executive will establish and maintain the Forum and its Working Committee, will be responsible for the initial membership of the two groups, and will be responsible for monitoring the representativeness of the two groups as their membership changes. The Executive will be careful to ensure that the Forum and its Working Committee are representative of the major significant areas and interests of the municipality and that they are not unduly over- or under-represented. Additional groups can be added where the Executive decides that they are needed to fill a gap in the coverage of the interests.

5. The Forum will be delegated sufficient authority by the Executive to be able to carry out its mandate effectively. It should function as follows:
  - (a) The Forum, through the Coordinator, will be able to receive substantial staff assistance from appropriate departments upon request (both subject to specific maximums established in the budgets for each of the participating departments).
  - (b) The Forum will have the authority to review and comment on all transportation and related matters sent to the Executive or the legislative body for their considerations, with sufficient time before decisions are to be made to allow the Forum to make its own recommendations. This review-and-comment provision relates to all recommendations sent to the Executive and Legislative body on transportation and related matters from whatever source (e.g. municipal department, state agency, neighborhood association) and includes documents dealing with transportation policy matters, projects, priorities, and substantive issues.
  - (c) The Executive will be urged to carefully protect this provision, as it is crucial to the credibility of the process and the continued cooperation of its participants. The Forum will have certain rights to waive a review, or to hold up a decision for a limited period pending its own deliberation on the matter. Where time is of essence--pending deadlines, unexpected emergency issues, etc.--the Executive may choose to work the issue through the Working Committee of the Forum. All those planning to submit recommendations to the Executive and/or Legislative body will be advised of the Forum review and encouraged to discuss issues with the Forum at the earliest possible stage.
6. The Forum will be prepared to share responsibility in the Municipality for coordinating with other state or regional entities that handle transportation matters. It will also develop and maintain relationships with other forums that may deal with transportation-related matters.
7. All existing and future committees, task forces, and the like, that deal with special transportation issues and ad-

vise the Executive will have representation on the Forum. These committees will be encouraged to become standing, or ad hoc committees of the Forum.

8. The Forum will be encouraged to provide input to, and to review and comment on the Municipal budget and capital improvement program.

## II. Procedures of the Forum

1. The Forum will be representative of all interests within the community that are involved in or affected by transportation and related matters. These interests include neighborhood, community-wide and special interest groups (e. g., see Sec. V., below) municipal departments, the Executive Office, and knowledgeable individuals representing specific transportation modes. Members of the legislative body or other politicians will be welcomed at all times and will be sent special invitations depending on issues to be discussed. Each group will be invited to designate a Forum Representative and sufficient alternates to ensure attendance at Forum meetings. The importance of the Forum will be stressed in order to encourage groups to send leaders and spokesmen actively involved in their organizations and able to accurately represent their interests. Municipal departments will be expected to send their directors or alternates who can speak and make commitments for their departments. Some departments will be permanent members of the Forum; others will be "on call," depending on the issues to be discussed. The Executive and/or the Forum Coordinator will be able to determine which of the latter departments need to be present for a discussion, and in what official capacity they should be represented.
2. Meetings of the Forum will be open on an "observer" basis, with the understanding that citizens will seek to have opinions voiced through a Forum Representative. These meetings may be organized into three parts:
  - (a) initial discussion by delegates on agenda items; (b) followed by discussion from the floor, limited to new ideas only; (c) followed by further discussion by the Forum Representatives on agenda items or new business. If the Coordinator determines that all significant opinions have not been adequately presented, the Coordinator may then take steps

to see that such opinions gain a hearing.

3. Since the Forum can only recommend or advise the Executive of its deliberations, the Executive will encourage the Forum to reach agreement through consensus rather than deliberating by vote. Decisions by vote tend to bypass the careful consideration of various arguments and establish voting blocks that are not sensitive to minority or special interests. Consensus-building involves full and informed discussion of the issues and may take the form of an agreed-upon set of common goals or alternatives, or the limits of a range of options. The Coordinator will be responsible for accurately reflecting the sense of the discussion surrounding an issue and formulating a consensus for the Executive's consideration. The Coordinator will review this formulated consensus with the Forum Working Committee, making any necessary revisions before giving it to the Executive. In the effort to have greater influence upon the Executive's decisions, the incentive will be for the Forum to arrive at a well developed consensus that resolves most of the major conflicts. Where significant disagreements remain unresolved, the Forum representatives related to the different sides of the issue may choose to present their positions to the Executive to inform his decision. Where a Forum recommendation is not initially accepted by the Executive, he will necessarily make a concerted effort to learn more about the Forum position through direct discussion--as a basis for making his decision.
4. The Coordinator will encourage the representatives to develop their positions in writing for wide distribution and review at least a week before the meeting at which an issue is to be discussed. Where such working papers are distributed, they will acknowledge the authorship and status. Papers that do not have the endorsement of the Executive will be considered "informal papers" and carry no weight other than that of the author(s).
5. The decision as to how the Forum will allocate its resources among the many issues it will encounter is to be made by the Forum Representatives on the recommendations of the Working Committee. In general, the Forum's full efforts will be needed simply to respond to the Executive's request for advice on transportation-related matters

he is dealing with, including (a) reports he receives for his information or action; (b) other issues on which he is preparing to make his own decision or refer a recommendation to the legislative body. Occasionally, however, the Forum may want to use its prerogative to initiate a dialogue with the Executive regarding a transportation issue that has been brought to its attention through channels other than the ongoing referral process. It is unlikely that the Forum will ever return an Executive's referral with no comment, but the level of resources applied to the preparation of replies will necessarily vary heavily from one referral to another. The Working Committee's recommendations as to where Forum resources should be applied must be based on criteria developed and approved by the Forum. Considerations reflected in the criteria should include the following questions about the issue under review:

- (a) Has it community-wide implications, or is it a purely neighborhood issue?
- (b) Has it a built-in potential for becoming a critical issue with long-term, widespread and/or severe impacts?
- (c) Is it a short-term and manageable issue offering good prospects for successful and meaningful resolution?
- (d) What demands will be placed on the Forum participants at various levels of consideration of the issue?
- (e) How satisfactorily can the issue be expected to be resolved by the existing decision-making processes without any Forum participation (i. e. based on the state of current community manpower resources, departmental priorities, etc.)?
- (f) What linkage does the issue have to other critical issues for which the community is seeking resolution?

### III. The Working Committee and Other Committees

1. The Working Committee will consist of 6 to 10 members of the Forum to be selected by the Executive and approved by the full Forum membership. Together the members must be representative of the whole Forum, have at least one-half day a week during working hours to devote to the task and have a flexible schedule. (It is recognized that many Forum representatives may only be able to perform this



service on a rotating basis--perhaps for 3 months in each year.) The Coordinator of the Forum will be a member, perhaps the Chairman, and will advise the Executive as to who should be on the Working Committee and when its membership should be revised. The Forum Staff Assistant will serve the Working Committee as an executive secretary and in a technical capacity insofar as his/her background and experience permit.

2. Specific functions of the Working Committee will be:
  - A. To review and approve the Coordinator's final draft of a Forum consensus report, prior to its submittal to the Executive.
  - B. Upon request by the Executive or other Municipal staff official for a Forum consensus report within a matter of hours or a very few days, to decide whether (1) to call a Forum meeting; (2) to poll as many Forum Representatives as possible in order to get a Forum decision as to whether a meeting is practical; (3) to proceed to develop a consensus report on behalf of the Forum, on the grounds that (a) the tight schedule makes a full Forum meeting impractical, or (b) the issue is too small to warrant a full Forum meeting.
3. In the B(3) situation described above, to develop the report on behalf of the Forum, submit it to the appropriate individual or group, and then have it distributed to the full membership by the Forum Staff Assistant, together with an explanation of the basis for the decision to act on behalf of the Forum, and a request for an immediate reaction from any Forum Representative who disagrees either with the decision by the Working Committee to act for the entire Forum or with the content of the consensus report it developed, or both.
4. To meet with the Executive, the Forum Coordinator, or Staff Assistant or any citizen or official who may request a meeting with the Forum which the Working Committee decides cannot (due to time problems), or should not (due to the nature of the agenda), involve a calling together of the full Forum. (In such cases, to report to the Forum as provided under #3 above).

5. Working Committee meetings will normally be open to observers, who will be able to speak at the discretion of the Working Committee Chairman. Only under special circumstances may the Committee exercise a prerogative to hold a closed-door session, and only if it announces the general nature and reason for the session. The full contents of such a meeting must later be reported for the Forum Representatives and a "post-audit" made by the Forum as to whether the closed session was warranted.
6. Other standing and ad hoc committees can be established jointly by the Forum, the Working Committee and the Coordinator, to further the scope and purposes of the Forum. Membership on these committees will be decided by the Coordinator acting on the advice of the Forum. Such committees will be encouraged to develop their own momentum and to coordinate their efforts with other interests within the Forum. The staff, budgetary resources and other benefits vested in the Forum will be made available to the Forum committees, provided the committees keep the Coordinator and Working Committee adequately informed of their activities and decisions.

#### IV. The Coordinator and Staff Assistant

1. The Forum Coordinator is to be appointed by the Executive, and to serve for agreed-upon periods of not less than six months or more than one year. The Coordinator must (a) have a thorough knowledge of transportation planning issues, and (b) have superior ability to function as an effective leader and catalyst in the identification, analysis and resolution of issues by heterogeneous groups.
2. The Forum Staff Assistant (initially one, perhaps two or more later--possibly with volunteer help involved) will have substantial technical functions to perform, including (a) reading, summarizing, evaluating and preparing recommendations to the Forum Working Committee on all Executive referrals to the Forum; (b) pulling together information on transportation planning and development activities and issues in the community or affecting the community--and writing up the essentials in a meaningful and brief manner for Forum use; (c) helping Forum groups (on a between-meeting basis, via telephone or at their own

group meetings) to better understand the issues coming up for discussion at the next Forum meeting. Education and experience appropriate to these technical functions will be necessary. The executive secretary functions (e.g. records keeping, preparation of minutes and agendas, notifying participants of regular or Working Committee meetings) should also be handled at the outset (perhaps the first year) by a technically-qualified staff assistant. These latter functions might eventually be found appropriate for handling by paraprofessional personnel with a deep interest in and devotion to the goals of the Forum--but this should not be attempted until the Forum is well established.

#### V. Participation in the Transportation Forum

1. A Forum membership of 25 to 35 participating groups or interests is anticipated as necessary to provide the broad-gauged representation necessary for Forum success. The membership will consist of three categories of participants (probably more or less equal in number), as follows:
  - (a) community and neighborhood groups (e.g. the neighborhood associations, neighborhood planning teams, Model Cities);
  - (b) community-wide or special-interest groups (e.g. Chamber of Commerce, civic organizations such as the League of Women Voters, the elderly, students, the handicapped, Welfare recipients, foreign language and ethnic groups, blacks, the public housing "Tenant Senate", market-housing tenants, clergy, truckers, transit interests, bicycle and pedestrian interests, major institutions such as universities and hospitals);
  - (c) the relevant municipal agencies (e.g. Traffic; Planning; Public Works; the Redevelopment Authority; the legislative transportation committee; Health and Hospitals, Aging, School Department, Conservation, Recreation, Fire).
2. It is expected that perhaps two or three times as many organizations and interest groups will participate in the Forum as will actually be given seats. Those not having seats will be known as Forum Advisors (as contrasted with Forum Representatives) and will receive all agendas and minutes, and be welcome to attend meetings as observers

(with the opportunity to speak during the second part of the three-part meetings). Forum Advisors will also be specifically invited to Forum meetings for participation in discussions involving issues about which they are particularly knowledgeable or concerned.

3. The work of selecting "delegate" and "advisor" participants will begin by developing an inventory and analysis of all the Community's public, quasi-public and private groups/ organizations/interests having transportation concerns and/or qualifications for making contributions to the solution of transportation problems. This inventory will also encompass organizations outside the Community whose interests or potential inputs would possibly qualify them as appropriate Advisor Participants.
4. The term "interests" as used above refers to unorganized groupings of individuals having transportation concerns. Transit users provide an example. Other examples include students and young people generally (i. e. non-drivers) and welfare recipients.

#### VI. "Rights" of the Forum

The following 14 specific rights are recommended by the study team and study consultants to assure the credibility and effectiveness of the Forum:

1. To receive from the Executive monthly summaries (no later than two weeks following end of month) from the Planning, Traffic, Public Works, and Police Departments, and the Redevelopment Authority, covering all transportation and related planning and development activities of major significance, and specifically including:
  - (a) List of projects worked on;
  - (b) Brief statement of progress on each project;
  - (c) Estimated date of completion for projects still underway;
  - (d) List of projects that need doing but are not underway, with a statement on each of these as to the Director's thinking on the relative need for getting the project started, and the hurdles to be cleared in order to get it underway.

2. To receive from the Executive copies of reports on transportation and related planning and development issues sent to the Executive from municipal departments or other public or quasi-public sources, including the legislative body or its committees.
3. To receive from the Executive annual budget proposals by departments with regard to transportation and related planning and development activities (with sufficient explanatory material to provide a program budget, listing projects and their dollar allocations).
4. To be accorded a request from the Executive for a Forum "consensus report" on all referrals from the Executive (per items #2 and #3 above)--with a statement from the Executive as to the length of time he can give the Forum for its response.
5. As in #4 above, to be accorded requests from the legislative body or its committees for consensus reports on transportation and related planning and development issues (subject to such requests being transmitted to the Forum through the Executive).
6. To meet with the Executive where he does not concur in a Forum consensus report and intends to take action in whole or in part contrary to the Forum recommendations.
7. To have the Executive forward to the Legislative Body the Forum view, along with his own report to the Legislative Body, re: transportation or related planning and development matters on which the Executive makes a recommendation to the legislative body and to have the Executive request the Legislative Body to allow a presentation by the Forum of its own view, where it may differ from the Executive's conclusion.
8. To release its consensus reports together with minutes of its meetings to all public and quasi-public groups receiving agendas of Forum meetings (making clear the status of such reports as being advisory only).
9. To initiate discussion of transportation and related planning and development issues (where no specific referral of a report, etc. has been made by Executive or Legislative

Body); to prepare and send its consensus report to the Executive on such issues; and to receive a response from the Executive by a date specified (and justified) in the Forum report.

10. To request that the Executive and/or other municipal staff participate in specific meetings of the Forum, and to have those requests honored by the Executive (subject always to the requirement that the meeting time be workable for the official(s) whose participation is requested).
11. During the start-up year, to have a minimum staff consisting of a full-time staff assistant funded by the municipality, together with a part-time Coordinator--with the option to request additional staff assistance from the Executive if needed and to make a proposal to the Executive for incorporation into the succeeding budget based on the start-up year's experience. Further, to have sufficient start-up and succeeding budget to cover typing, reproduction, mailing of minutes, etc.
12. To have the Coordinator and/or Staff Assistant participate in meetings set up by groups represented on the Forum.
13. To have the Forum staff Assistant do fact-finding work for the delegates, on approval of the Coordinator, or alternatively to have such work done by municipal department staff members who have been budgeted to perform this function within specific limits.

## VII. Responsibilities of the Forum Member Groups

The following Forum responsibilities have been proposed by the study team for the Forum Members:

1. To select a Forum Representative and two alternates who are acceptable to the Executive in terms of their position in the group they will represent (and therefore in terms of their potential for being able to accurately reflect the views of their group)--and who are themselves willing and able to commit themselves to their group and to the Executive to always have one of their delegate/alternate team present and participating for the full period of a Forum meeting.

2. To have a Forum Representative or alternate at all Forum meetings for the full period of the meeting, and to have such person report back promptly to his/her group the results of the meeting.
3. To work to make the Forum a positive force in the Municipality's efforts to overcome its transportation deficiencies; to work to this end in six-month incremental trial periods (with reviews at the end of each six months) and not to give up along the way (i. e. between review points) because everything is not going as well as expected or hoped for.
4. To give procedural suggestions to the Staff Assistant (on a between-meeting basis) for his/her research and thought, for discussion with the Coordinator and Executive, and for eventual discussion with the Forum at six month review points (or earlier if thought necessary by the Executive).

#### VIII. Start-up Steps to be Taken

The following basic steps are recommended by the study team as appropriate for moving forward with the establishing of the Forum.

1. Study team inventories all identifiable Community and Community-related groups and interests having transportation concerns.
2. Each identified group and interest is analyzed by study team in terms of (a) the range and depth of its concerns; (b) its potential (in terms of people resources, etc.) for contributing to the analysis and resolution of issues; and (c) the size of its constituency, and its "fit" (i. e. in terms of filling gaps, or, alternatively, overlapping of constituencies).
3. Study team prepares tentative list of "Forum Representative" and "Forum Advisor" groups based on above criteria, and the Executive reviews and revises as necessary.
4. Study team and Executive prepare letter for Executive to send to all groups on tentative list, advising them of the full background and history of the Forum concept and asking them to attend an informal meeting to discuss it. The

letter includes considerable background documents, and invites groups to call him as to any questions these documents generate that they may want answered prior to the meeting.

5. Informal meeting is held. Executive and his team seek views, and answer questions. Executive states that he will firm up a proposal for a one-year "pilot" Forum operation reflecting as closely as possible the comments received. He invites additional comments for submittal within a specified period (perhaps 2 weeks--unless participants want more time).
6. Based on meeting results, study team and Executive prepare recommendations for pilot Forum operation, mail these, and hold second meeting.
7. This process is repeated as many times as necessary to achieve a consensus on a pilot operation. During the entire process, the Executive encourages the meeting participants and the media to put him together with groups and/or interests not included on the list to date--and whose transportation concerns might be such as to make them want to join the "Forum Advisor" group.
8. With the pilot operation approved, study team and Executive collaborate on "memorandum of understanding" confirming the agreements, and Executive hires Coordinator.
9. Coordinator hires staff assistant, and operation begins.

#### **IX. How Forum Meetings will be Run**

The following constitutes the study team's prototype of a Forum meeting. It is the team's intent that it serve as a working model for review and adjustment by the Executive, Coordinator and Forum participants.

1. Meeting is called by either (a) the Executive; (b) the Working Committee; or (c) the entire membership.
2. Once called, the meeting is set up by the Forum Staff Assistant, who contacts delegates by mail or phone, depending on time available.



3. The Forum entity calling the meeting (Executive, Coordinator, or Forum Representatives will have specified to the Staff Assistant which among the "Forum Advisor" group are also to be asked to attend. These additional participants are then invited by the Staff Assistant in the same manner as the Forum Representatives.
4. All other members of the "Forum Advisor" group are then notified of the meetings by the Staff Assistant through a mailed announcement. The general public is notified through public media announcements.
5. The Staff Assistant assumes responsibility for making certain that every Forum seat will be covered by a Forum Representative or alternate; it being understood that without 10% participation there will be no meeting.
6. To the extent possible, the Staff Assistant circulates pertinent background material to the entire membership prior to the meeting, and meets with member groups and/or their Forum Representatives, as requested, to go over the issues.
7. The meeting is run by the Forum Coordinator, who, after finding that all member groups are represented, introduces the subject and reviews the "ground rules" for discussion. (These are meeting procedures already developed and agreed to by the Forum participants, Coordinator and Executive).
8. Unless the meeting ground rules are then modified by the Forum to meet the needs of this particular meeting, the meeting goes forward for approximately three and one-half hours (e. g. 7 p. m. to 10:30 p. m.), generally as follows:
  - 15 minutes. Ascertain full representation. Circulate agenda and background materials. Allow brief period for reading by participants who were unable to do their "homework" in advance.
  - 15 minutes. Coordinator or someone else he has selected presents the topic, its background, related facts--and, in particular, the reasons the topic was selected; the deadline for developing a Forum position; and the "ground rules" for working to develop the position.

- 60 minutes. According to the ground rules, this one hour period is devoted to discussion by the Forum Representatives. Each Forum Representative (or Forum Advisor who has been invited to this particular meeting) on being recognized by the Coordinator is allowed a maximum of three minutes to speak on the subject.
  
- 30 minutes. According to the ground rules this 1/2 hour period is devoted to discussion (comments or questions) from the public (i. e. general public, or Forum Advisors not specifically invited to attend), if any are in attendance and interested in participating. However, in beginning this period, the Coordinator stresses the ground rule that points made by the public must consist of new ideas, rather than just affirmations of support for ideas already put forward by one or more Forum Representatives. (If public participation does not take place or is less than 30 minutes in duration, the Coordinator moves on to the next phase.)
  
- 45 minutes. According to ground rules, during this 3/4 hour period, the Coordinator or someone else he has selected works to develop a consensus, or if this is not forthcoming, a clear agreement as to what major (divergent) opinions are held, and which groups support them.
  
- 15 minutes. In this final 15 minutes of discussion the meeting's main topic, the Coordinator sums up the results of the discussion and arranges for a review of his written summary by the Working Committee prior to submittal to the Executive.
  
- 30 minutes. The final 30 minutes of the meeting is devoted by the Coordinator to discussion of new business and procedural matters. A working Committee-new-business report (already sent out to the membership for its review) is reviewed and discussed. The report covers all referrals received from the Executive, and the Working Committee's recommendations to the Forum as to these referrals. Consensus positions are developed by the Forum Representatives regarding the recommendations. Also discussed are reports from the Working Committee on the content of meetings it has held, and on the specifics of decisions it made, if any, on behalf of the Forum (i. e. what the issue and decision were, and why the Working Committee found it necessary to make a decision for the Forum rather than to refer the issue to a regular or special meeting).

9. In closing the meeting, the Coordinator points out that  
(a) minutes will be mailed in draft to all Forum Representatives, together with a finalized "consensus statement" as approved by the Working Committee and sent to the Executive;  
(b) delegates are urged to telephone the Staff Assistant between meetings as to their thoughts about meeting content or procedures--or as to their need for further discussion of the issues (possibly requiring a meeting of the Forum Representative's own group, at which the Coordinator and/or Staff Assistant will be present if requested).
10. Since many delegates may want to go back to their own groups and discuss an issue further before taking a position on behalf of the group, any Forum Representative will have the right to delay the Working Committee's submittal of a "Consensus Report" to the Executive by as many days as the Coordinator determines to be practical--for the purpose of going back to the group for discussion. The Working Committee will then (upon receiving supplementary opinions) have the option of amending its report on behalf of the Forum, or requesting more time from the Executive, in order to make possible a reconvening of the Forum for further discussions.

APPENDIX B  
PROBLEMS, OPPORTUNITIES AND EXPERIENCES IN THE  
CITY OF CAMBRIDGE RELATING TO RECOMMENDATIONS  
FOR A TRANSPORTATION FORUM

The following are short descriptions of various problems, opportunities and experiences in the City of Cambridge that have been considered in terms of the recommendations contained in this report. In some cases they have already been described more fully in the main report, "Improving the Transportation Planning Process in Cambridge and Other Small Cities". In any event, they will provide a helpful background to understanding the discussion in this, and the main report.

The Inner Belt and Route 2 Extension

For over twenty years, the Commonwealth of Massachusetts expended vast amounts of funds for planning and engineering work on two expressways through Cambridge -- the so-called "inner belt" (I-695), and the Route #2 Extension, a radial road that would connect the "inner belt" to the northwest sector of the metropolitan area. Over two thousand dwelling units were to be removed to make way for these highways -- comprising over 6% of the entire Cambridge housing stock, with the city experiencing a minimal vacancy ratio. The basic purpose of the expressway has always been open to question, but its benefits appeared to relate mainly to the convenience of the surrounding suburban communities. The effect of the expressways on the Cambridge neighborhoods through which they were to run, particularly on the thousands of dwelling units remaining and abutting the proposed construction, was extremely disruptive. Due to the lack of an adequate organizational framework for participatory planning, the project consumed vast resources in time, effort and money before the forces of opposition organized and eventually caused the projects to be abandoned.

The Proposed MBTA "Alewife" Rapid Transit Extension

During the mid-1960's, the Massachusetts Bay Transportation Authority (MBTA) worked on the planning and engineering of a 2-1/2 mile rapid transit extension which was estimated to cost over 100 million dollars. Although some working contact with a city department existed, there was in fact little formal or informal arrangement for keeping city officials and citizens well-informed of the progress of the work, of the findings or the technical conclusions, or for significantly involving the citizens, and other interested public officials in essential aspects of the planning work. After two years had elapsed, and

approximately one-half million dollars spent; after the extension had been substantially planned and carried through the preliminary engineering stages, information on the MBTA's plan was discovered by citizen groups whose residential areas were to be adversely impacted by the proposed transit extension. When this information was presented to the City Council, the severe reaction that occurred brought about a quick abandonment of the costly planning and engineering work and resulted in the postponement of project planning for about three years.

### The Cambridge Truck Problem

In the years following the construction of the Massachusetts Turnpike Extension from Route #128 into central Boston, a major truck route has developed through the "Prospect-River/Western" residential corridor of Cambridge. This de facto established route connects the Turnpike Extension south of Cambridge with the heavy industrial areas to the north and northeast. While no comprehensive origin and destination data exists for those cross-Cambridge truck movements, it is generally believed they would be substantially well-served by an alternative route east on the Turnpike Extension and thence north via Interstate 95, were it not for several obstacles: First, "dangerous cargo" shipments are excluded from the Turnpike tunnel beneath the Prudential Center; second, the alternate route requires payment of a toll; and third, the increased mileage resulting in some cases. For many years heavy trucks (e. g. , 1300 tractor-trailers and heavy "flat trucks" in a 1971, 23-hour count) have rolled along the Prospect-River/Western street route creating great disturbance and safety problems for the abutting residential areas. Recently, the Massachusetts Housing Finance Agency withdrew a proposed mortgage insurance guarantee for rehabilitation of dwelling units on Western Avenue and declined to insure mortgages for new dwelling units on River Street, citing the truck problem as a major factor in the decision in each case. No action was taken on this problem by the City until a small group of citizens living along the route decided to set up an organization called "HALT" (Humans Against Loud Trucks). The group effectively marshalled data for the City Council, the City Manager, and the City departments to provide a sufficient basis for effective action. The experience made clear a serious weakness in the City's organization for transportation and related land-use planning: the lack of an on-going institution where citizen and public agency representatives, working together, could identify environmental problems, help set priorities regarding them, and assist in developing the resources for effectively dealing with the situations.

### The Broadway-Felton Parking Garage

Harvard University's 450-car parking garage now under construction at the Felton-Broadway intersection in Cambridge provides an example of transportation (and land-use) planning failures that result from the lack of an organizational framework for involving -- at an early stage -- citizens, quasi-public, and public agencies with a legitimate interest in, and concern with, a major development issue. In this instance, Harvard University sought to build a parking garage in compliance with the Cambridge Zoning ordinance, which required the provision of 450 parking spaces in conjunction with the new educational facilities under construction by the University. Compliance with the ordinance -- at a cost of \$2,000,000 -- uncovered the serious inadequacy of the City's parking policy and the provisions of its zoning regulations controlling the location and design of parking garages. After information on the already-completed planning and design of the garage was released, a few citizens attempted to bring the implications of the project to the attention of the City. Nine months later, the City Council's Transportation and Parking Committee chairman recommended that the well-advanced construction be stopped. However, by this time it was too late. As a result, a 5-story, open facility will now be located immediately adjacent to three apartment buildings, and two high schools, in an area already severely congested with traffic. Further, Cambridge lost a major opportunity to experiment with various parking substitution possibilities, in line with the spirit of the zoning ordinance, but in lieu of new parking facility construction.

### The MBTA Bus Fleet Replacement Proposal

The Massachusetts Bay Transportation Authority (MBTA) had recently devoted sizable resources to the work of planning and seeking federal funds for replacing the remainder of its electric bus fleet with diesel buses. This fleet of nearly sixty electric buses has principally served the City of Cambridge. However, the attitude of Cambridge officials and citizens, as might be expected, was to prefer the moderate unsightliness of overhead wires required by an electric bus fleet to the air pollution and noise generated by diesel-powered vehicles. The cooperation agreement for transportation planning between the City of Cambridge and the MBTA signed about two years ago did not, however, cover joint review of equipment changes, and as a result, could not provide the means for bringing the preferences of the Cambridge residents to the attention of the MBTA at an early enough stage in the planning of the project. The MBTA has now acquired a vested interest in the plan for replacing the electric buses with diesels; the city, on the other hand -- upset at having learned about the plan at a late stage --

has been forced into taking a strong defensive position against the plan, initiating what may have been an unnecessary battle.

#### Mayor's Advisory Committee on The Inner Belt

In mid-1967, the Mayor of Cambridge appointed a 16-member blue-ribbon task force known as the Mayor's Advisory Committee on the Inner Belt. The mandate given this task force was to review the methodology used by the Commonwealth of Massachusetts Department of Public Works in its determination of the need for the "inner belt" -- an expressway it proposed to build through Boston, Brookline, Cambridge and Somerville as a loop around the Metropolitan Area's urban core. Within a matter of months it made a finding that the methodology was inadequate and it recommended that a new study be made, using new, specified approaches. The recommendation was accepted by both the State Department of Public Works and the Federal Highway Administration, and the so-called "Task A" Study was developed on the basis of the recommendation.

Altogether, the Mayor's task force was a success in dealing with the particular problem at hand. The calibre and credentials of the sixteen members -- involving such prestigious persons as John Galbraith, Harvard Professor, noted economist, and former Ambassador to India; Robert Alberty, Dean, School of Science, Massachusetts Institute of Technology; and Daniel P. Moynihan and Lewis Mumford, both highly-regarded and internationally-known urbanologists -- must certainly have been effective in bringing the highest levels of the State and Federal transportation planning agencies (including Lowell Bridwell, Federal Highway Administrator) to pay attention to and ultimately concur in the Cambridge position. However, it was a substantially undemocratic body, as the involvement of the general citizenry in its deliberations was limited to the attendance of two observers from Cambridge groups concerned with the inner belt issue. As such, its credibility would not have survived in the context of a broader range of issues, and it failed to serve as a model for an ongoing participatory planning structure -- but it nonetheless did serve as a step in the right direction, and as a bridge to the current Cambridge concept of a permanent citizen/quasi-public/public agency transportation forum serving the City Manager.

#### The Arlington-Cambridge-Lexington-Somerville Coalition on Public Transportation

Arlington, Cambridge, Lexington and Somerville currently share a common interest in the planning of the long-proposed extension of MBTA's "Red Line" subway from Harvard Square northwest. Under

consideration are extensions to the Cambridge-Arlington line, and thereafter into Arlington, to Lexington, and possibly out to Route 128. In regional terms, it would seem that the Metropolitan Area Planning Council (MAPC) would serve as an appropriate vehicle for bringing these four jurisdictions together to work toward their common objectives. However, for one reason or another, this relationship had not in fact developed. The four jurisdictions did finally come together as a result of Governor Sargent's "highway moratorium" within Route 128, and the setting up of budget items in the Boston Transportation Planning Review for "community liaison" work. The underlying principle of the coalition has been flexibility: Belmont and other towns may join later if they decide that their interests make this advisable; Lexington -- a less active member -- may drop out, if it develops that its interests in the transit extension do not involve the need for active participation. Thus, the coalition will at all times be made up of actively involved and concerned jurisdictions, and the progress of cooperative effort not impeded by indifference on the part of member jurisdictions having no real interest in the project. (This may become the case if the four jurisdictions are trying to work through a large regional machinery of 101 cities and towns.)

#### The Star-Market-Bus-For-The-Elderly Project

Recently the Star Market -- a major supermarket chain -- inaugurated a Thursday bus service for elderly persons in Cambridge wanting to shop at one of Star's three supermarkets in the city. The special buses are now serving close to 100 elderly citizens per week, with the number of riders and quality of service steadily increasing. Comment in the public media has been most favorable to this effort by the Company. However, as Star pointed out, the idea was developed and the principal work done by citizen, quasi-public, and public entities working together in a cooperative manner. The idea originated in a discussion between some elderly citizens and a Planning and Development Department member working in a "Human Development Program" which until recently had been under a separate "Office of Community Development". The merger of that office with the Planning Department into a Department of Planning and Development placed transportation planners and human development planners under the same director and resulted in their working together to develop the idea. At the same time, the improved coordination of transportation planning activities of the Cambridge Traffic and Parking Department with those of the Cambridge Planning and Development Department through means of a "joint-directorate" for transportation planning further improved working relationships for planning new bus routes. Finally, on the initiative of the City Manager, a coalition of



all public and quasi-public agencies having an interest or active part in serving the elderly was formed a year ago, and it was the interchange of ideas made possible by this coalition that helped further the project.

An Opportunity for Future Cooperation: Community-Responsive Management of Bus Routing, Scheduling and Equipment Use

The City of Cambridge has in the past lived with two extremes in regard to public transportation operation: The lodging of disorganized complaints by individual citizens and various ad hoc groups dissatisfied and frustrated with service, and the attempt on the part of the operating agency to deduce, through whatever technical means can be afforded by it, what the theoretical needs of the population might be. Here it is felt that an institution such as a Transportation Forum could serve as a great help and much-needed relief for the Operator from the "frustrated complaint" method of doing business, and in serving to bring the real needs and possibilities for improved transit in the community into a process for constructive consideration. This would be particularly valuable where the needs of the handicapped, the elderly, the very young and those others with special mobility needs are involved. If each community were to bear the burden of developing a sound program for best providing for its inhabitants, not only would time, waste and frustration be reduced, but a much better service and community relationship result. Bus routing, scheduling and the use of equipment (including the need for things such as shelters, etc.) could be constructively discussed and presented by the residents as a group effort.

An Opportunity for Future Cooperation: Bicycling as a Viable Mode of Transportation

Cambridge and its surrounding residential, educational and employment areas have long had a large potential bicycle-user population. While precise figures are not known as to how many cyclists there actually are, it is certainly considerable and deserves serious attention as a viable alternative mode of transportation for commuting, shopping, and other purposes. Severely limiting the more extensive use of this mode are the following important considerations:

1. Safety - Inadequate traffic control considerations for bicycles; lack of adequate right-of-way.
2. Security - Lack of facilities for storage free from theft or vandalism.
3. Route Continuity - Lack of continuous pathway necessary for access to areas of destination.

There is unfortunately a persistent attitude in many public quarters that bicycling is not a serious mode of transportation: this is reflected in the lack of provision for the above-mentioned items. The growing difficulty in obtaining good public transit services -- especially in off-peak hours and in areas that are off the line-haul -- and the growing congestion in automobile traffic and parking, makes the availability of this alternative mode more and more attractive. While there have been some attempts at organizing the bike-riding public (as for example, the Association for Bicycle Commuters, in the Boston area), the actual extent of its needs and the potential demand is little known. The use of a Transportation Forum to identify and crystalize the possibilities of adequately providing for an alternative mode such as this presents an unusual opportunity.



## APPENDIX C

### CAMBRIDGE: HISTORY, PROFILE AND TRENDS

Cambridge began as a colonial settlement called Newtowne at approximately the present location of Harvard Square. Lying south of the overland route from Charlestown to Watertown, Newtowne was selected as the original seat for Massachusetts Bay Colony Administrative Functions (and later judicial) due to its strategic location. Because of the possibility of sea attack, Newtowne's upriver location seemed more defensible to early settlers than the less well-protected ports of Boston or Charlestown. It was only later when Boston's generally superior location was realized and invasion fears subsided that Bay Colony offices crossed over the Charles River to Boston.

Access to Boston from Cambridge was, during the 17th and 18th centuries, far more difficult than it is today. Large parts of Boston and Cambridge were then unfilled marshy areas, and crossing from one to the other required uncomfortable overland treks and a ferry crossing. At that time Cambridge included all or parts of present day Arlington, Bedford, Billerica, Belmont, Brighton, Carlisle, Lexington, Lincoln, Newton, Tewksbury and Watertown. Newtowne life was village-oriented and the economy was agriculturally dominated. Even the building of a bridge crossing the Charles at what is now Boylston Street did not change that basic orientation. There was a largely speculative effort later in the 18th century to create a substantial port for Cambridge in Cambridgeport, but these efforts went unfulfilled.

Only with the building in the late 18th and early 19th centuries of the West Boston (Longfellow) and Craigie (Charles River Dam) bridges did Cambridge's village orientation change as travel to Boston became far more convenient. The city then began to assume one of the transportation roles it now plays as conduit between Boston center and suburban hinterlands. Parts of East Cambridge grew rapidly with succeeding immigrations, and the subsequent industrialization of that part of the city pulled exclusive political control away from Harvard Square interests.

Throughout the later 19th and 20th centuries, Cambridge was ever more closely tied to Boston; first by horse-drawn omnibus and later by horse-drawn "street railway" over the East Cambridge

bridges. In 1912, the subway tunnel was completed, linking Boston and Cambridge by rapid transit. Cambridge now lies on one of the heavily travelled regional spokes of the Boston hub, and its life is inexorably bound up in Boston and regional developments.

### Cambridge Population

Population is declining in Cambridge and has been declining for many years. Since 1950, when the city's population was 120,740, it has declined 17% to 100,361 people (including university dormitory residents) counted in the 1970 Census.

More significant than the population decline, however, are the changes in the composition of the city's population. Families, especially those of moderate means, are leaving the city. Enrollments for the city's 14 elementary and two high schools are, with some exceptions, projected to decline. People moving into Cambridge tend to be young professionals able to afford the increasing cost of living in the city.

In 1950, 95.3% of the city's population was white, 4.3% was black, and 0.4% was classed in other racial categories. In 1970 those respective figures were 91.1%, 6.8% and 2.1%. The most significant increase however was in the other-racial-group category, which increased absolutely from 437 in 1950 to 2,170 in 1970, or 400%. Additionally, Cambridge is a culturally diverse city having large numbers of citizens with Italian, Polish, Portuguese, French, Greek, Indian, and more recently Puerto Rican backgrounds--complementing its basically Irish and English stock.

The age of the city's population has also been undergoing changes in the last 20 years. In 1950, 20.4% of Cambridge's population was between the ages of 0-14 years while 9.2% was over 65 years old. In 1970 those % figures were respectively 16.6% and 11.7% indicating that at the extreme ends of the population pyramid Cambridge is losing its very young and increasing the number of its older citizens. However, in the 15-34 year age group Cambridge has shown a percentage increase in 1970 over previous census years. In 1950, 36.9% of the city's population was in this group, while in 1970, 46.6% were from 15-34 years old. This reflects the observable fact that Cambridge now has many more young, well-educated, professional people than it did in 1950.

The shifting orientation of Cambridge's population is further demonstrated by the statistics for 1950 and 1970. While in 1950, 52.3% of the city's population was married and 37.1% was single, by 1970, 42.4% were married and 46.1% single. Percentage figures for widowed and divorced persons show no substantial change over that period. The statistics clearly indicate that Cambridge is losing population absolutely, and that this population loss is heaviest among the city's families, especially those with school-age children. From 1950 to 1970, when Cambridge's population fell from 120,740 to 100,361, Cambridge's married population fell from 50,903 to 35,957. While experiencing a total population decline of about 17%, the married population fell by 29% or 14,946 people. Of a total population loss of 20,379 from 1950-1970, 73% were married.

Cambridge neighborhoods are becoming more forceful and articulate in their opposition to these trends and tend to see the universities as particularly responsible for them. Clearly, in view of mounting neighborhood pressures and expected continuation of these population trends, some considerable need exists for a positive articulation of city objectives with respect to its population characteristics and related housing stock.

### Cambridge Economic Conditions

The economic problems which beset the city of Cambridge are largely typical of those problems afflicting other built-up urban areas with strong but declining industrial-manufacturing bases. As a local firm has to confront the need to expand, it often finds expansion opportunities minimal within the city. Additionally, as the city becomes built-up, burgeoning problems of taxation, transportation and safety beset the local firm and often it is confronted with the need to decide whether to continue operations in Cambridge or to move elsewhere. Numbers of firms have had to leave Cambridge because of these expanding problems associated with doing business in the city. The subsequent loss of jobs, purchasing power and tax base obviously depresses the economic life of the city.

What sets Cambridge aside from other largely industrial-manufacturing urban economies is the presence here of several major educational institutions, especially Harvard University and Massachusetts Institute of Technology. While providing many jobs, producing much secondary tax income and attracting many firms to the city, and while producing a large but unquantifiable income

multiplier effect (as money is earned and spent in the city), the universities also constitute a significant economic burden for Cambridge as they utilize city services such as fire and police, and they preempt local housing resources for which incoming students and faculty can successfully outbid older city residents in a very tight housing marketplace.

The juxtaposition of the older industrial-manufacturing base with the more recent growth in light industries and professional services attracted (directly or indirectly) by the universities' presence confronts the city with the need to decide in which direction it would best proceed: should it attempt to retain the older employment base best suited to its established blue-collar population, or rather allow current economic forces to progressively displace manufacturing jobs and so leave the men and women who hold them without employment in their own city. To a large extent implementing whatever decision made would be difficult for Cambridge, because local employment conditions are so heavily affected by forces operating regionally or even nationally. Today, less than half of all Cambridge workers are employed within the city. The number of Cambridge residents in the work force is approximately 46,000. About 22,500 of those Cambridge residents work within the city and the other 23,500 work outside Cambridge. Thus 51% of Cambridge's resident work force is employed outside the city. Also based on a current estimate that the city has about 78,400 total jobs, only 28% of those jobs are filled by Cambridge residents. Economic forces in the Boston region then play as important a role in the city's manpower conditions as would any local policies that Cambridge might adopt.

Cambridge's total retail sales as a percentage of the Boston SMSA (less the Boston C.B.D. and Cambridge) have declined from 9% to 8% while rising absolutely from \$182,565,000 in 1958 to \$210,900,000 in 1967. It would appear that Cambridge has generally held its competitive position within the S.M.S.A. during that 10 year period. However, during that same period there were important changes in the composition of those sales. In 1958 approximately 41% of the city's retail sales were in convenience goods (food, eating and drinking, drug and proprietary goods, etc.). In 1967, convenience goods represented about 1/3 of total sales. In 1958, shopping goods (including apparel, general merchandise, furniture, home furnishings, equipment, etc.) accounted for 25% of Cambridge retail sales whereas in 1967 they accounted for over 37% of those sales. Finally, about 34% of 1958 retail sales were

in other goods. Hardware, building materials, automotive supplies, books, cameras, jewelry, optical goods and other goods are included in this category. Cambridge changed significantly in that 10 year period, and can reasonably be assumed to have evolved further since then from a retail emphasis on the sale of convenience goods to the sale of shopping goods. To a significant extent, this probably reflects the general availability of more disposable income on the part of Cambridge residents as well as the changes in Cambridge's population characteristics described above.

The city's operating budget has increased approximately 25% in the last 4 years from \$30,499,398 in 1968 to \$38,340,734 in 1971. The largest part of that increase is represented by the School Department which rose from a budget of \$7,493,495 in 1968 to \$11,722,967 in 1971, a 57% jump. While the budget increased 25%, the assessed value of real and personal property in the city rose from \$303,491,200 in 1968 to \$319,696,000 in 1971, an increase of only 5%. For that reason the city's tax rate has jumped from \$82.50 in 1968 to \$132.40 in 1971, an increase of 60%. In per capita terms, the Cambridge tax levy has risen from \$249 in 1968 to \$422 in 1971. While Cambridge has been able to pay its bills, it is clear that such a continuing increase in the tax is both financially and politically unfeasible. Either expenditures must be moderated and brought into line with increases in assessed values or other forms of municipal financing must be sought.

### Cambridge Housing

Reflecting the significant changes in the composition of Cambridge's population over the last 20 years, important changes have occurred in the composition of the city's households and housing stock. Population in households has declined from 107,676 persons in 1950 to 88,502 people in 1970, a decline of 17%. Over the same period population in group quarters declined 9%, from 13,064 in 1950 to 11,859 in 1970. Significantly, persons per household dropped from 3.27 in 1950 to 2.43 in 1970.



Dwelling Units in Cambridge Categorized by  
Household Size -- 1950, 1960, 1970

<u>Year</u>	<u>1-person househld.</u>	<u>2-person househld.</u>	<u>3-person househld.</u>	<u>4-person househld.</u>	<u>5+person househld.</u>
1950	3,944d. u.	9,206d. u.	7,299d. u.	5,557d. u.	4,556d. u.
1960	8,082	10,617	6,058	4,313	5,183
1970	11,785	11,857	5,430	3,509	7,370
1950	12.9%	30.1%	23.9%	18.2%	14.9%
1960	23.6	31.0	17.7	12.6	15.1
1970	29.5	29.6	13.6	8.8	18.4

The preceeding figures indicate the number of dwelling units in Cambridge by household size both absolutely and as a percentage figure from 1950-1970. What the figures clearly show is that there has been a dramatic change in the numbers of 1 and 2 person dwelling units in the city. From 1950 when there were 13,150 1 and 2 person units to 1970 when the number had jumped to 23,642, the increase was approximately 80%. The increase is even more significant in 1 person units where it approximated 300% from 1950-1970. In 1950 1 and 2 person units accounted for 43% of total city housing units whereas in 1970 it was 59% of all Cambridge units. Again, the single person units were responsible for the jump. While there has been a gain in the numbers of dwelling units in the city from 1950-1970 of from 30,562 to 39,951, these density figures indicate a trend which complements the population decline and dwelling unit increase: a substantial jump in 1 and 2 person units. As family size and numbers have declined substantially, the housing market has responded with smaller sized units. Non-subsidized, non-university private construction during the 1960's confirms this finding. Of the 1,738 new dwelling units privately constructed between 1960-1970, 1569 of them were in 45 structures with over 10 units apiece. For the most part these were dwelling units with 1 or 2 bedrooms. There has been a decline in the size of units being marketed, either through new construction or "re-conversion" of existing dwellings. On the other hand, the concurrent rise in the number of dwelling units containing five or more persons reflects the banding together of single persons for dense occupancy of units previously occupied, in general, by families of smaller size.

The competition for housing units in the city is partially reflected in changes in the cost of housing, and those costs have risen substantially over the last 20 years. In 1950 the median contract rent for apartments in Cambridge was \$43. The median value for a house was \$12,600. By 1970, those dollar figures were \$119 and \$24,000, respectively. Costs for apartments increased 177% and housing costs averaged a 90% rise during those 20 years. Median income for families and unrelated individuals rose 74% in this period, from \$2933 in 1950 to \$5114 in 1970. Obviously in some parts of the city these changes were far greater than in others, but general trends indicate that there have been substantial city-wide housing cost changes during the last 20 years.

### Cambridge Government

Cambridge adopted a Plan E Council-Manager form of government during the early 1940's. Essentially the Massachusetts Plan E system places all governing legislative authority in an elected City Council (in Cambridge's case consisting of 9 members), and all administrative authority in the hands of a Council-appointed city manager. The Council elects from among its membership a mayor who functions as chairman of both the City Council and the School Committee. The city manager administers city government, encompassing all its departments and commissions (with the exception of the School Committee, whose members are elected, and the Housing and Redevelopment Authorities, whose members he appoints subject to Council approval. All city workers are his subordinates rather than the Council's. The city manager can be appointed or removed by a simple majority vote of the Council.

Cambridge elects its Council and School Committee by a system called Proportional Representation. This means that candidates are elected at large by the voting population, and that in order to be elected a candidate must reach a certain quota (depending upon the number of candidates running and people voting) established before votes are tallied. Once a candidate reaches the quota, he or she is elected. People can vote for all candidates in order of their preference, so that, if a voter's preferred candidate has already been elected when that voter's ballot is tabulated, his vote can be passed on to a second preference. However, if a voter names only 2 or 3 candidates, and when his ballot is tabulated they have already been elected, his ballot is voided and his vote has no effect. Therefore the voting system rewards those making com-

plete ballots and penalizes those who do not indicate all voting preferences--a circumstance which has contributed to continuing criticism and referendum challenges of the proportional representation method for electing the City Council and School Committee.

Expressing political choices at election time is one way, the traditional one, of recording preferences. Much happens of concern to citizens between elections, of course, and Cambridge lately has indicated more of a predisposition to cull citizen opinion on particular issues and to respond to citizen group concerns where expressed. A more responsive city government could be the result of such subtle changes in the local political process. Two recent examples in Cambridge serve to highlight a growing change in approach by elected officials. At the recommendation of the City Manager, the City Council recently appropriated \$16,000 for an umbrella community group, the Cambridgeport-Riverside Community Corporation, in order that they might hire consultants to determine reuse feasibility of an old neighborhood-located publishing company. In another example the City Council solicited city-wide group interest and participation in the city manager nomination process. In effect, the Council sought public opinion preferences on the several city manager candidates. Both examples of city government responsiveness auger well for Cambridge's resolution to face and solve the difficult problems it now faces.

Cambridge is part of Middlesex County, a governmental unit whose principal functions are judicial but include law enforcement and the operation of a major penal institution and health facility. Relationships with the State have a greater impact on the city--in terms of city facilities and services, as well as in terms of city finances. Through state-wide or regional agencies it has created, the State provides Cambridge with major highways, public transportation, recreation facilities and programs, sewer trunks and treatment, water as needed, regional planning, and an increasingly broad range of social and other direct services or financial assistance for local provision of facilities and services. Financing of this state help is accomplished in part through state taxation (principally levied against sales and income) but also through direct charges to cities and towns. Depending upon many factors and formulas, a locality may receive more grants-in-aid from the State than it pays back in charges, or vice versa. In 1968 Cambridge, for instance, received \$1,472,600 more than its payments, while in 1972 its payments to the State exceeded grants-in-aid by \$4,144,000--a source of deep concern to the City Manager and City Council in light of rapidly escalating city costs and tax rate.

APPENDIX D

EVOLUTION OF A CAMBRIDGE TRANSPORTATION PLANNING  
PROCESS: A TWENTY-YEAR OVERVIEW

The time was early December, 1967.

The speaker was John Kenneth Galbraith -- Professor of Economics at Harvard, former U. S. Ambassador to India, and fresh off the plane from Switzerland, a day earlier than scheduled in order to attend this meeting.

".....so we are in agreement. The planning process for the Inner Belt has been marked by serious deficiencies and inconsistencies.

"These weaknesses must be the starting point of any future effort aimed at reviewing rationally the metropolitan area's (Boston) transportation system.

"Let us telephone Lowell Bridwell."

Lowell Bridwell, whom Mr. Galbraith was about to telephone, was the Federal Highway Administrator.

The meeting was one of a series held by the members of the Cambridge Mayor's Advisory Committee on the Inner Belt. The sixteen committee members--all peers of Mr. Galbraith--included Robert Alberty, Dean, School of Science, M.I.T.; Ross A. McFarland, Guggenheim Professor of Aerospace, Health, and Safety, School of Public Health, Harvard; Daniel P. Moynihan, Professor of Education and Urban Politics, Graduate School of Education, Harvard; Lewis Mumford, critic and in residence, Leverett House, Harvard; Talcott Parsons, Professor of Sociology, Harvard; Jack Ruina, Vice-President of Special Laboratories, M.I.T.; Benson R. Snyder (Dr.), Psychiatrist-in-Chief, M.I.T.; and James Vorenberg, Professor of Law, Harvard Law School.

Prior to the formation of the Mayor's Advisory Committee, technicians employed by Cambridge had studied in depth the methodology used by the State Department of Public Works to justify the construction of the Inner Belt and Route 2 Extension. The City became convinced that the state's methodology had serious deficien-

cies. Cambridge had presented these findings to the State Commissioner of Public Works and the Federal Highway Administrator but they had not accepted the City's analysis.

Cambridge decided to form a committee of senior professors from Harvard and M.I. T. --all experts in research methodology. The City felt that any review of the Boston metropolitan planning process by such a qualified committee would support inevitably Cambridge's contention that the planning process did not justify the recommended construction program.

The Presidents of Harvard and M.I. T. were asked to submit suggestions for membership on the committee. All names submitted by the Presidents were invited to join the committee. Only one refused; he would be out of the country at the time of the committee's deliberations.

On February 6, 1968, Lowell Bridwell, the Federal Highway Administrator, met with the Mayor's Advisory Committee and the Cambridge City Council and Mr. Bridwell reviewed the Committee's documentation of "deficiencies and inconsistencies." On March 7, 1968, he agreed that the past twenty years of transportation planning in the Boston metropolitan area did indeed have its limitation and that the process required serious re-examination. Mr. Bridwell ordered the Massachusetts Department of Public Works "to analyze and attempt to develop traffic assignments to a highway network which specifically excludes the Inner Belt."

As significant as was the day in mid-December in 1967 when Mr. Galbraith made his summation and the later ordering of a restudy by Mr. Bridwell in March, 1968, this involvement of the academic community was only a minor episode in the twenty-three years of effort that it has taken the citizens and the government of Cambridge, in alliance with the citizens and governments of many cities and towns in the Boston area, to succeed in modifying the metropolitan transportation planning process.

These years of effort finally were climaxed on December 29, 1971, when Francis Sargent, Governor of Massachusetts, officially announced that the Inner Belt and the Route 2 Extension were obsolete transportation concepts and these highways would not be built.

Notwithstanding this successful conclusion, Cambridge was unable during this twenty-three year period to effectively organize

its own municipal transportation planning process. The evidence is convincing that for most of this era, the City's performance in the policymaking and administration of its own transportation planning effort must be described as for the most part administratively uncoordinated, and, often, politically contradictory. It is truly a miracle that the inner belt battle was won, given the City's internal lack of organization for transportation planning.

The roots of this weakness go deep and lie in Cambridge's diverse citizenry and its diffuse municipal governmental operation. Cambridge is known for its heterogeneity in population and interests.

Cambridge, also, is many things to many people. It is a residential community--1,700 acres of it. It uses 1,000 of its acres for intensive industrial purposes. It is headquarters for many research industries. On the other hand, much of the community's industrial inventory is a relic of an earlier century and perilously close to obsolescence in light of today's needs.

Cambridge has its national institutions--Harvard University, the Massachusetts Institute of Technology, and the Polaroid Corporation. It has historic sites of national prominence--its Common where Washington took command of the Continental Army. But, it is also a community of relatively insular neighborhoods whose long-time residents have deeply-established roots and limited contact with the world beyond.

Cambridge has households at both ends of the income scale. The Census indicates that 20.7% of the City's households fall below the \$3,000 annual income level, while an almost equal number (15.6%) claim incomes in excess of \$15,000.

Cambridge's diversity is both an asset and a liability. It has been a bulwark against the sterile homogeneity that characterizes many of the nation's moderate-size communities and rural areas. But it also natures in Cambridge a social fragmentation among its citizenry that makes the policy-making process remarkably complex and diffuse. This lack of capacity for policy-making within Cambridge's citizenry is reinforced unfortunately by the nature of the City's governmental operation.

Cambridge is governed by an elected City Council; a Mayor, elected by the Council from its own ranks; a City Manager, appointed by the City Council; and line departments, whose person-

nel are appointed by and responsible to the City Manager. In theory, the elected City Council decides all policy matters and the appointed City Manager, charged with implementing the Council's decisions, directs the line departments in carrying out the Council's policies.

In actual practice, however, Cambridge's municipal operation is as fragmented as its citizenry and its policy-making capacity as diffuse. The elected City Council has no technical staff and as a result finds it difficult to deal profoundly with the wide range of policy questions that face the City. The appointed City Manager, with or without strong policy direction, tends to be policy maker as well as implementor. And the line departments, more often than not, operate administratively free from the direction of either the City Council or the City Manager.

The record speaks for itself--and it is full of noncoordination and contradictions.

Official city policy, articulated many times by every City Council during the past twenty-three years, has been vigorous in its opposition to all expressways through the City, particularly the Inner Belt, which in its final form, as planned by the State, cut through much of Cambridge's working class residential community.

One problem with these City Council statements is that they have frequently not had the benefit of technical documentation nor were they accompanied by constructive alternatives. Nevertheless, the policy has been clear for all within the City to hear and understand.

The City Council's policy position, opposing the highway proposals of the state and federal agencies, has been consistently supported by Cambridge's Representatives in the State legislature, as well as by Congressman "Tip" O'Neill, Cambridge's Representative in Washington.

On the other hand, with notable exceptions the City Managers that served during this period largely accepted the inevitability of the proposed state and federal highway system and either ignored the City Council's policy position or quietly worked against it. It is, therefore, hardly startling to discover that the critical line departments responsible for carrying out, under the direction of the City Manager, the City's transportation planning activities felt free to ignore and even oppose the City Council's directives.

The single most important City officials, during much of the twenty-three year period in which the City Council opposed the interstate highway system, were the Planning Directors. They were specifically charged with the responsibility of acting as liason between the City--its Council, Manager, line departments, and citizens--and the transportation agencies at the metropolitan, state, and federal levels. During all of this period the previous City Planning Directors overtly proselytized for the construction of all highways proposed by the state in Cambridge, particularly the Inner Belt.

The opposition of earlier Planning Directors to the City Council's policy on interstate highways also reflected itself in the activities of the City's Code Enforcement and Review Committee. This Committee brought together all of the City's inspection agencies--fire, health, building, and planning. During the Inner Belt controversy the Planning Director acted as Chairman. Annually, this Committee prepared, as part of the City's Workable Program for Community Development, code enforcement programs on both sides of the Inner Belt's presumed alignment, but never did the committee initiate inspectional services within the route's anticipated boundary.

Seemingly a contradiction, the City Council approved all Workable Programs submissions to the HUD Regional Office in New York City. Further, the City Council funded code enforcement programs, as organized in these Workable Programs, that left the structures within the boundaries of the alleged Inner Belt route unenforced. The results were predictable. Deterioration flourished where the state wanted the highway to be constructed, property values dropped, and acquisition costs for highway purposes were reduced.

Similarly, the Cambridge Redevelopment Authority, legally autonomous but by local tradition responsive to the City Council on policy matters, defined the Wellington-Harrington Urban Renewal Project boundary so as to leave the Brookline-Elm Street Inner Belt alignment free for highway purposes. As with the code enforcement programs, the City Council approved the project boundaries and authorized sending the Survey and Planning Application to the HUD Regional office in New York.

The Cambridge Model Cities program, on the other hand, defined its boundary to include all the then-known Inner Belt align-



ments, thereby alerting both HUD and DOT that it supported the City Council's policy by striving to protect the neighborhood from any highway encroachments. Concurrently, Cambridge's Urban Beautification Program applied for and received federal (HUD) funding for the improvement of a play area that was located within the presumed Inner Belt alignment. And, also, at about the same time, the City Manager's office applied for and received from Washington \$90,000 in amendatory Community Renewal Program (CRP) funds to help the City question the implications of the State's highway plans.

In still another situation, the deteriorated Fletcher School was not replaced by the Cambridge School Committee because the logical site for the new school building was adjacent to the Elm Street Inner Belt alignment.

This list could be lengthened almost indefinitely.

Many City officials -- an example might be Cambridge's earlier representatives to the Metropolitan Area Planning Council--largely were silent during the critical years of the highway controversy. Their silence, of course, could be presumed to mean support for the City Council's position. In actual practice, however, their silence probably better served those who opposed the City Council policy position.

What is clear is that when the City Council made a policy, some City officials followed it -- many did not. And on occasion, the City Council even negated its own policy.

Not only was Cambridge unable to effectively organize itself in support of City Council transportation policy, the City also was unable to create a coherent administration for the direction of the Cambridge transportation planning effort. In the past, responsibility for separate transportation tasks was assigned, at one time or another, to the City Manager, the Planning Director, a City Councillor, an Assistant to the City Manager, the Director of Traffic and Parking, the Redevelopment Authority Director, the Cambridge Advisory Committee, and even, the Mayor. But overall responsibility for the transportation effort was never placed in the hands of one person.

Inadequate as the City's transportation policy-making and administration may have been for two decades, Cambridge was

most effective, in the later years of the 1960's, in creating a city-wide anti-highway coalition that skillfully blended policy-making, funding, technical assistance, political acumen, and citizen involvement. While limited in scope, as it was oriented only to highway issues, this experience would well serve as a model for the administration of an intermodal transportation planning process for Cambridge and other cities in the future.

By 1966 Cambridge and the other municipalities in the Boston area found themselves confronted by a metropolitan transportation design system that proposed the construction of a spider-web of major highways through the Region -- all apparently completely unrelated to proposals for parallel mass transit extensions. For Cambridge, the State's proposals called for the construction of three major highways -- I-695 (the Inner Belt), the Route 2 Extension, and an Intermediate Belt; related interchanges; and, inevitably, major arterial improvements to supplement commuter flows along Memorial Drive, Putnam Avenue, and a Harvard Square ByPass. In addition, there was planned an extension of mass transit parallel to the Route 2 Extension beyond Harvard Square.

As in the past, contradiction prevailed within the City Government. On the one hand the City Council joined with the City's representatives in the State legislature and Congress and articulated the danger to the City if the State was permitted to go ahead with this construction program. On the other, the City's then Planning Director and the Code Enforcement Committee fostered support for the State's plans. And the City Manager and most of the remaining line departments remained silent. Indecision and inaction on the City's level resulted. All evidence suggested that the highways and their ancillary facilities would be built as the State planned them.

Intruding into this almost hopeless situation a group of citizens organized themselves into a Committee called Save Our Cities. Focusing its energies against the Inner Belt and banding behind the catchy slogan "Cambridge is a City Not a Highway" the citizens soon discovered they needed help in breaking through the disorder at the City level and in countering the massive documentation offered by the State in justification of its highway proposals. Save Our Cities enlisted the help of Urban Planning Aid (UPA), a group of economists, architects, lawyers, planners, and organizers, largely from M.I.T. and Harvard, who had organized themselves earlier in the year to provide just such technical help to neighborhoods in need.

With the help of UPA, Save Our Cities began dramatizing the highway issue throughout the City and particularly in those neighborhoods threatened by the State's Inner Belt proposals. Mass meetings were held. Petitions were circulated. Organizational membership was recruited. The Governor was pressured for a change in State policy. Delegations were sent to Washington to meet with Congressmen, Senators, and Federal officials. Most important, critiques of the State's proposals were developed, supported by impeccable social, economic, and engineering data. Within a year, Save Our Cities and UPA had prepared an alternative location for the Inner Belt so persuasive in its feasibility that the Governor, just prior to the 1966 election, was forced to defer approval of the State's preferred route for the Inner Belt.

By mid-1967, the organizational pressure exerted by Save Our Cities, backed by the technical expertise of UPA, began having its impact on the administrative and political scene within Cambridge. The City Council, supported by Save Our Cities, found itself more and more able to get the City Manager and the line departments to accept its anti-highway position. The City Manager's office was directed to lend its technical capacity to work alongside UPA in support of Save Our Cities. Line department personnel that opposed the City Council's policy position were relieved of their transportation responsibilities, which were taken over by an Assistant to the City Manager. Additional personnel, equipped to give intellectual and technical breadth to the City Council's policy, were employed by the City Manager. Before the year ended, funds were allocated from the City Manager's office to pay for UPA's services and that of other consultants required by Save Our Cities. It was the City Manager's office that took the leadership in organizing the Mayor's Advisory Committee on the Inner Belt, the academic group that negotiated a restudy of the feasibility of the Inner Belt with Lowell Bridwell.

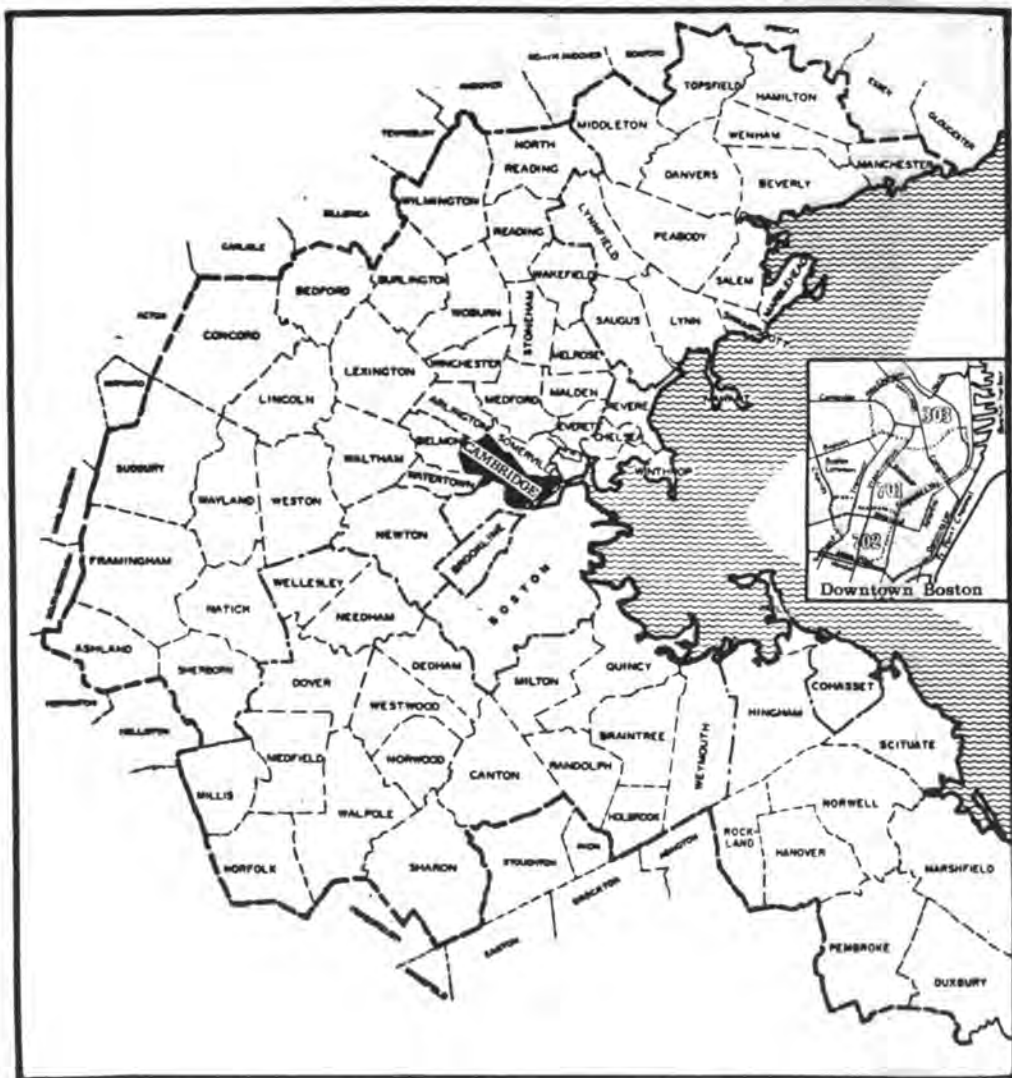
In January, 1968, Save Our Cities, UPA, and the City Manager's office mounted a huge demonstration financed by the Cambridge City Council that brought together, for the first time, the full range of Cambridge's diverse citizenry and the municipal administration to march on the State House to demand that the Governor halt not only the Inner Belt through Cambridge but all highways within Route 128. Joining Cambridge's delegation in marching on the State House were nineteen other community and neighborhood organizations in the metropolitan Boston area--from Lynn in the North, to East Boston, the South End, and Mattapan

in Boston, to Milton in the South. This demonstration was the stimulus for the formation of the Greater Boston Committee on the Transportation Crisis, which now leads the metropolitan effort for the creation of a transportation system with an emphasis on mass transit, not highways.

By mid-1968 the City Council's anti-highway policy was clearly supported by Cambridge's citizenry and its municipal operation. When it came time for the City Council to appoint a new City Manager, a prerequisite was that he strongly implement the City Council policy. From that moment the City Manager's office became a central force in all matters affecting the highway planning process -- including the development of a coalition with the governments of Boston, Brookline, and Somerville; participating in the Bridwell restudy and, later, questioning the validity of its results; influencing the Governor to declare a moratorium on highway construction in the Boston metropolitan area; and, finally, directing Cambridge's participation in the Boston Transportation Planning Review, the current study ordered by the Governor to develop an intermodal transportation planning process and plan for metropolitan Boston.

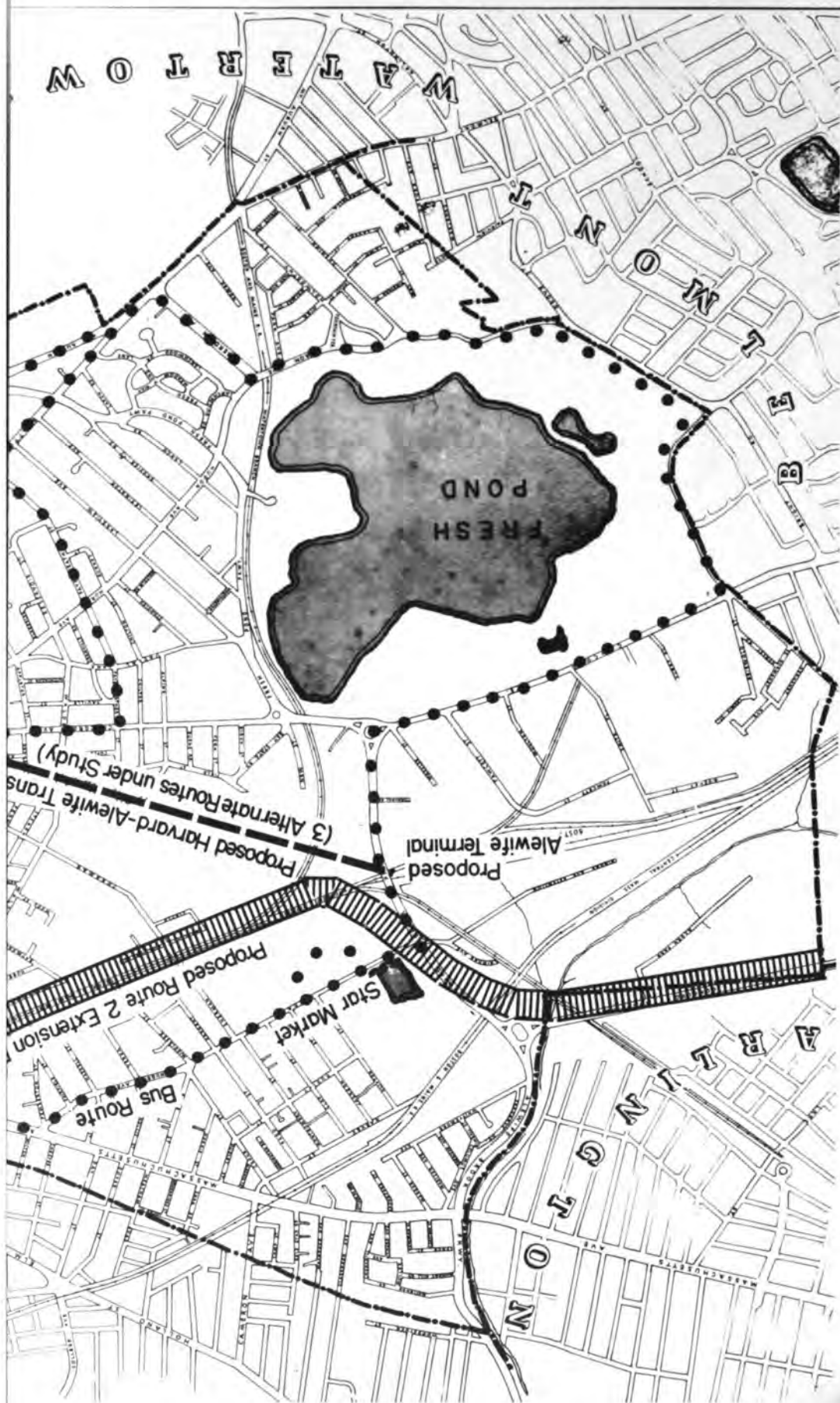
Space prevents telling the full story of Cambridge's evolving transportation planning process. It is self-evident, however, that Cambridge's experience in the later years of the 1960's clearly shows that effective policy-making and administration at the City Council level must be combined with a citizens' organization -- securely based in the neighborhoods, knowledgeable in the transportation planning process, and skilled in the art of political action -- if the City of Cambridge is to be able to cope with the complexities of transportation planning in the future.





### Cambridge Location in Boston Metropolitan Area









## BIBLIOGRAPHY

Metropolitan Transportation Planning Seminars, U. S. Department of Transportation, December 1971.

Broad and Columbia Subway Development Study, U. S. Department of Transportation, Office of the Secretary, 1971.

Urban Transportation Decision Making: Political Process of Urban Freeway Controversies, Kenneth R. Geiser, Jr., Department of Urban Studies and Planning, and Urban Systems Laboratory, M.I. T., 1970.

Alternative Styles for Citizen Participation in Transportation Planning, Melvin M. Webber, Center for Planning and Development Research, Working Paper No. 143, January 1971.

The Politics of Urban Transportation in Metropolitan Boston, 1960-71: Cambridge, Somerville and Jamaica Plain, William Blaikie Bierce, Yale College, May 1971.

Study Design for a Balanced Transportation Development Program for the Boston Metropolitan Region, Steering Group of the Boston Transportation Planning Review, for Governor Francis W. Sargent, November 1970.

A Critique of Transportation Planning in the Boston Area, James Morey, Urban Planning Aid, October 1966.

The Urban Transportation Planning Process, Organization for Economic Cooperation and Development, Paris, 1971.

Community Values in Highway Location and Design: A Procedural Guide, Marvin L. Manheim, et al., Urban Systems Laboratory, Report No. 71-4, M.I. T., September 1971.

The Impacts of Highways Upon Environmental Values, Marvin L. Manheim, et al., Urban Systems Laboratory, Report No. USL-69-1, M.I. T., March 1969.

Augmentation and Meta-Process: A Strategy for Responsive and Responsible Decision-Making by Public Agencies, Hans Bleiker, for degree of Doctor of Philosophy, Department of Urban Studies and Planning, M.I. T., September 1971.

Social, Economic and Environmental Factors of Transportation, Highway Research Record No. 356, Highway Research Board, 1971.

Transportation and Community Values, Special Report No. 105, Highway Research Board, 1969.

Transportation Planning in the District of Columbia, 1955-1965: A Review and Critique, A. D. Little, 1966.

















