

April 10, 1974

Request by the City of Cambridge for Work Items to be Included in the "Draft and Final Environmental Impact Statement and Related Preliminary Engineering" Study to Be Prepared by Sverdrup & Parcel, Consultants, for M. B. T. A.

The City of Cambridge requests that MBTA incorporate the studies identified below and/or be guided by the objectives expressed below in its forthcoming study which will include a Draft and Final Environmental Impact Statement and Related Preliminary Engineering. Many of the items cited in the City's request are already included in the scope of work set forth in the proposal submitted by Sverdrup and Parcel, Consultants, to MBTA.

This request is based on: 1) a report prepared by the Planning and Development Department, "Analysis of Station Location and Alternative Alignments for the Northwest Extension of the MBTA Red Line in the Harvard Square Area of Cambridge", (also entitled, "How to Get Out of Harvard Square in a Train"), 2) review and recommendations on the content of the report by the City Manager's Harvard Square Development Task Force, the Cambridge Transportation Forum, the Transportation Committee of the Cambridge Chamber of Commerce, and the Department of Traffic and Parking, and 3) comments from individual citizens who attended public information meetings on this subject or who received and read the report.

1.0 EVALUATION OF ALTERNATIVE LINES

Cambridge requests that alternatives A-(I), D, and G be studied further as well as the "no-build" option which is required by environmental legislation. In making this recommendation, we want to emphasize that alternatives A-(I), D, and G should be studied as general alignments with considerable latitude in the location of station platforms, station entrances and exits, related bus tunnels, vertical and horizontal alignment and so forth. We do not feel that the alignments should be reviewed exactly as they were originally presented in 1967-1969. In the forthcoming study, attempts should be made to incorporate good features from the other alternative alignments which we suggest below should be dropped from further consideration.

In requesting a flexible study of the general alignment of lines A-(I), D, and G, we feel that the three principal alignments out of Harvard Square will then be reviewed. Practically all of the alternatives which have been advocated in the past are variations of these three basic alignments.

Cambridge requests that the following lines be dropped from further consideration: C, E, F and H. These alternative lines can now be dropped because: 1) the number of alternative lines to be considered must be reduced to a manageable number, 2) some of the good features of the lines to be dropped can be incorporated into the lines selected for further study, and 3) these alternatives do not meet the development criteria set forth in the report as well as do the lines selected for further study.

We request that the station location now indicated for Line B be examined as an alternative within the general Line D alignment.

2.0 STAGING AND FOCUS OF THE M.B.T.A. STUDY

2.1 Bus Travel

Cambridge wants to stress the importance of bus travel in this study. We feel that neither MBTA nor Cambridge should view this study as solely a rapid transit station location and extension study; bus service is of nearly equal importance.

The Planning and Development Department's report points out that within Cambridge there is a need for longer-haul, cross-town bus service in which bus routes do not terminate at Harvard Square but pass by it, discharging and picking up passengers on longer routes through the City. This basic shift in the orientation of bus service will likely result in more east-west bus routes passing through the Harvard Square area and create some difficulties with the existing bus tunnel which is oriented north-south. An important objective is to have as many bus routes as possible go through underground tunnel(s) in the immediate Harvard Square area. The key objective here is the provision of underground bus tunnel(s) and not necessarily the retention of the existing bus tunnel in exactly its present location.

Furthermore, a number of the bus routes now connecting Belmont, Arlington, Somerville and Medford with Harvard Square will likely be rerouted to new MBTA stations along the Red Line extension.

While this will reduce the number of buses in the Harvard Square area, the effects on the parts of Cambridge which are presently served by those lines need to be analyzed to insure that there is no reduction in the quality and frequency of bus service available.

Whether a review of the bus service related to the change in Red Line rapid transit service is conducted by Sverdrup and Parcel or MBTA staff is not important, but Cambridge wants to emphasize the high value that we place on a thorough analysis of the bus program either as part of, or in conjunction with, the forthcoming study.

2.2 Plans of Existing Facilities

The analysis and the public discussion of this issue has demonstrated how difficult it is for the public or City officials to grasp the complexity of the possible alternatives without an understanding of the configuration of the present system of tunnels, ramps, stairs and platforms that make up the existing Harvard Square station. We request that at the very outset of this study, either MBTA or the consultants prepare and make available plans, or a simple model, that would permit City officials and the general public to understand what now exists. These plans should include the area from Sullivan-Putnam Square to: 1) the train portal entering the Bennett Street yards, 2) the south bus portal at Mt. Auburn Street, and 3) the north bus portal at Cambridge Street. A model, if one is prepared, could be limited to the immediate station complex.

In addition to better understanding the present facilities, plans and/or a model would be helpful in analyzing the possible re-use of existing tunnels or other station facilities which might be rendered surplus by the selection of one or the other alternative lines. There have been suggestions received as to possible use of surplus station facilities for additional bus tunnels or as pedestrian walkways leading to the station or elsewhere in the Harvard Square area.

2.3 Early Information

In addition to the items stated above, we request that a thorough analysis be made early in the study of potential building settlement or noise-vibration effects which might be caused by the

passage of a tunnel constructed by the deep-bore method under buildings on the surface. The results of the study could be most influential in Cambridge's view of Line A(I). Already considerable concern has been expressed about the possible effects of that line on buildings on the surface.

3.0 OBJECTIVES - CRITERIA

The following represents objectives which the City of Cambridge wishes to pursue in the Harvard Square area. These objectives follow from the development criteria utilized in the Planning and Development Department's report. (See pages 78-89.)

- A. Transit Geometric Criteria - This criterion deals with technical geometric standards in which MBTA's standards will govern.
- B. Transit Criteria - These items deal with the operating characteristics of the extension and transit station once built and with the effects of transit operations during construction.
 - 1. Running Time - no comment.
 - 2. Future Bus Access and Interchange - a short walking distance from the bus loading area to the rapid transit loading area is desirable. The maximum number of bus to transit transfers should occur below ground and not on surface streets. The alignment, extension, or reconstruction of the bus tunnel(s) should be as compatible as possible with suggested longer-haul, cross-town bus service.
 - 3. "Turnback" Facilities - no comment.
 - 4. Engineering Feasibility - no comment.
 - 5. Construction Time - no comment.
 - 6. Construction Impact on Transit Operations - rapid transit service must remain as close as possible to the present levels of service during the construction period.
 - 7. Construction Impact on Bus Operations - bus service must be maintained as close as possible to the present level of service during the construction period and every effort should be made to minimize temporary bus or trackless trolley operations on surface streets.

- C. Passenger Potential - The station entrances and exits should be located to maximize the number of people within reasonable walking distance of the station, with this consideration weighted according to potential users, as follows:
1. Employees in the Harvard Square area - highest priority.
 2. Residents of the Harvard Square area using Red Line service to travel to work - second priority.
 3. Customers of Harvard Square businesses - third priority.
 4. All other purposes.
- D. Improved Bus Service - The station should be located to provide the optimum interchange with bus service as a means of increasing use of buses in Cambridge and adjoining communities. Longer-haul, cross-town through bus routings with an efficient drop-off and pick-up at a Harvard Square station, rather than terminating in Harvard Square, should be encouraged. Awkward or inefficient diversions from bus routes to serve Harvard Square should be avoided. The bus tunnel(s) in the Harvard Square station complex should be through tunnel(s) going from one side of the Square to the other. Any plan which would sever bus tunnel(s) or require turnarounds in the station complex should be avoided. Extension and/or realignment of the bus tunnel(s) to be more compatible with the east-west through bus routings is an important objective.
- In addition to the transfer of riders from transit to bus, a good system should be developed to permit transfer of riders from one bus to another, from a bus underground to one on the surface, and from one on the surface to one underground. Comfortable, safe, and pleasant all-weather bus waiting areas should be developed in or adjacent to the station complex.
- As mentioned above, the design of bus facilities and stops in the Harvard Square area should be compatible with, and result from, an analysis of bus service throughout Cambridge and projected rerouting or development of new bus lines which would affect the Harvard Square area.
- E. Cost - Each segment of the improvement in MBTA facilities in the Harvard Square area should be scrutinized for their cost-effectiveness. Cost should not be the only consideration and

improvement should not be determined on the basis which is the cheapest. On the other hand, where more expensive improvements are advocated, some palpable benefit resulting from the increased cost should be demonstrated.

Cambridge seeks transit and bus facilities at a level of service which will provide a favorable MBTA charge for "net cost of service". As with construction cost, Cambridge's choice of new facilities will not be made solely on the basis of which route would likely provide the lowest "net cost of service" charge but will consider quality and frequency of service as well. We request that MBTA or its consultants, as part of the forthcoming study, prepare an analysis of the effect of each of the alternatives and interrelated bus service on Cambridge's charges for "net cost of service". This study should be based on the then prevailing formula for apportioning "net cost of service" to municipalities within the MBTA district.

Parenthetically we recognize the formulas for apportioning "net cost of service" are being revised and there is now activity at the national level which suggests the Federal government may participate in sharing operating deficits. By 1980, the whole deficit apportionment picture may be substantially changed, but Cambridge wants to know what might result from the then prevailing system of apportioning the deficit.

- F. Red Line Strategical Considerations - The extent and expense of improvements in the Harvard Square station complex must be viewed in the context of Cambridge's other objectives for the Red Line Extension which are outlined in the Planning and Development Department's report. (See page 83 or pages 20-21 of the Summary.)
- G. Compatibility with the Harvard Square Comprehensive Policy Plan - The Harvard Square Comprehensive Policy Plan, Volume Seven in the Planning and Development Department's series of reports on Harvard Square, sets forth policy objectives for the Harvard Square area. These are summarized in both the Department's reports on the Harvard Square-Red Line Extension issue -- in the unabridged copy at pages 70-77 and 84-85, and in the Summary at pages 21-22.
- H. Construction Impact - While subway construction invariably will cause some delays and traffic congestion, Cambridge requests

that every effort be made to minimize the adverse effects of construction and to maintain traffic circulation and pedestrian circulation as near normal as possible. Similarly detrimental effects on property not acquired by MBTA, such as by minor settlement resulting from deep bore tunnel construction or, accessibility to businesses and other properties, should be held to the absolute minimum. Any public open space or street or sidewalk through which construction passes should be restored to its previous condition (and hopefully better).

4.0 STUDY ELEMENTS RELATED TO CAMBRIDGE OBJECTIVES - CRITERIA

Cambridge requests that the following items, which relate to policy objectives, be included in the Environmental Impact Statement and Related Preliminary Engineering Study.

4.1 Policy 1, Enhance the Role of the Pedestrian

For each of the alternatives studied, analyze the effects of rapid transit station location, bus facilities, and ramps-escalators-stairs-passageways on pedestrian movement to and from the station, both above ground and below ground with respect to visual attractiveness, safety, convenience, and comfort (with respect to weather conditions). This analysis should extend beyond MBTA property to include the quality and characteristics of present or proposed walking routes to public transportation facilities.

Within the station complex, we request that consideration be given to such diverse factors as: a) use of public transportation facilities by disabled persons, b) in-station customer services such as the sale of convenience goods, the provision of rest rooms, information systems oriented to persons unfamiliar with the transit system (perhaps providing information not only on the scheduling and operation of MBTA equipment but on activities in the Harvard Square area as well), and c) emergency exits and avoidance of hazards which might be created by fire, collision, or other accidents within the station complex.

We feel special attention should be given to security and public safety indicating what measures, such as closed circuit TV, patrol, or other measures can protect riders from crime, or the station complex from vandalism. Particular attention should be paid to instances where there may be long tunnels or inter-connecting ramps that are somewhat removed from the main loading platforms.

City officials have received a number of suggestions as to the desirability of "people movers" within the station complex. We request that the study make a generalized review of the current state of technology of so-called "people movers" to indicate their feasibility within the Harvard Square station.

4.2 Policy 2 - Reinforce Brattle Square as the Heart of the Commercial Core

Cambridge requests that the study include an analysis of the economic impact of the station locations and the entrances-exits of each of the alternatives considered. At issue are possible changes in customer shopping patterns, and the characteristics of shoppers resulting from changes in the location of the station and entrances-exits, as well as changes in the number of riders using the station.

We request that the potential effects on real estate and economic development activity resulting from a change in the location of the station and entrances-exits, be analyzed.

4.3 Policy 3 - Environmental Improvement

Cambridge requests that the study analyze the effects of the construction and operation of MBTA service on air quality, noise levels, ground water and the water table, and foundations-pilings for buildings.

We request that the study analyze the potential effects of new construction and MBTA operations on the commercial environment, the adjoining residential environment and institutional environment.

4.4 Policy 4 - Explore Opportunities for Joint Venture Between the City of Cambridge and the MBTA

In conjunction with MBTA, the City of Cambridge wishes to analyze the potential for new building development on air rights above existing, or to be acquired, MBTA property. The continued use or re-use (if rendered surplus) of MBTA property in the Bennett Street and Brattle Square area should be examined. In analyzing joint venture proposals, we should jointly develop a preliminary line of demarcation between costs potentially attributable to MBTA and costs potentially attributable to the City of Cambridge or a private developer.

4.5 Construction Impact

We request that a reasonably detailed projection of disruption during the construction period be developed indicating a projected time schedule and a likely program of temporarily altering motor vehicle and pedestrian traffic circulation, removal of on-street parking, and access to private property. Similarly, requirements of utility relocation or service adjustment should be studied.

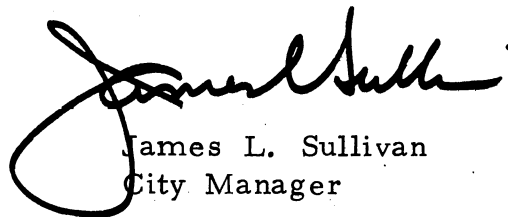
4.6 Projected Ridership

Cambridge requests that an estimate be prepared of ridership after completion of the Red Line Extension to Arlington Heights and after adjustments to bus service in Cambridge and adjoining communities and that the mode of access to Harvard Square for that ridership be estimated. The study should indicate what facilities would be provided for each mode of access: a) by bicycle -- storage area for bicycles, b) bus -- bus stops and lay-over areas, if any, and c) by kiss-and-ride or taxi -- drop-off and pick-up area.

We request that the study analyze the likelihood, if any, for crowding of station facilities during peak use periods, either morning or evening rush hour or special events in the Harvard Square area, such as the Kennedy Library, football games, music concerts, etc. The maximum number of people the station could accommodate at one time or for particular events should be estimated.

4.7 MBTA Employees

We request the study, or MBTA indicate the number of full-time and part-time employees that MBTA will have in the Harvard Square area after completion of construction and what parking or other facilities, if any, will be required for them.



James L. Sullivan
City Manager

April 12, 1974

Mr. Joseph C. Kelly, General Manager
Massachusetts Bay Transportation Authority
500 Arborway
Boston, Massachusetts 02130

Dear Mr. Kelly:

I am pleased to transmit to you a request (attached) that certain work items be included in the Authority's forthcoming study in the Harvard Square area. I make this request under the City of Cambridge - MBTA Cooperation Agreement dated October 16, 1970.

As I understand the forthcoming study, the next stage of work on the Red Line in the Harvard Square area is to prepare a draft and final Environmental Impact Statement and to conduct related preliminary engineering studies.

Sverdrup & Parcel has been selected to conduct the study and is about to begin work. Cambridge was requested to select from all the various alternative alignments and stations locations which have been proposed during the last eight years, those alternative alignments which should be considered further and those which should be dropped from further consideration. The objective is to reduce the various alternative alignments to the serious contenders which could then be evaluated as part of the environmental impact process. In brief, we are requesting that lines A-(I), D, and G be subjected to further study and that the other alignments be dropped from further consideration. Our requests are spelled out more fully in the attached " Request by the City of Cambridge for Work Items to be Included in the 'Draft and Final Environmental Impact Statement and Related Preliminary Engineering' Study to be Prepared by Sverdrup & Parcel, Consultants, for M.B.T.A. "

April 12, 1974

Upon returning to Cambridge as City Manager on April 1, 1974, I am pleased to find a cooperative working arrangement exists among MBTA staff and citizen groups and the City's staff. I am particularly pleased that, on the Cambridge end, the Harvard Square Development Task Force and the Department of Planning and Development took the initiative to analyze all previously suggested station locations and tunnel alignments in the Harvard Square area, to conduct public informational meetings on the subject, and to submit recommendations to me. Throughout that period, I understand that MBTA staff, particularly Donald Graham, were most helpful in meeting with Cambridge groups and reviewing drafts of reports.

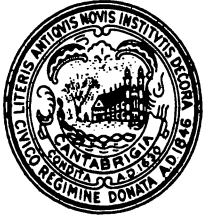
Cambridge recognizes there are some extraordinarily difficult issues to be faced in the Harvard Square area and hopes, by the efforts made already, to gain a running head start on the resolution of these problems. I look forward to a continuation of the constructive joint effort which is currently underway.

Sincerely yours,

James L. Sullivan
City Manager

JLS:ngw

Enc. (1)



CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139
Tel. 876-6800

EXECUTIVE DEPARTMENT
JAMES L. SULLIVAN
City Manager

April 22, 1974

To the Honorable, the City Council:

I transmit herewith for your information a copy of communication forwarded to Joseph C. Kelly, General Manager of the Massachusetts Bay Transportation Authority, together with a copy of the work items to be included in the Authority's forthcoming study in the Harvard Square area.

Very truly yours,

James L. Sullivan
James L. Sullivan
City Manager

JLS/b

20. Transmitting copy of communication to MBTA from City Manager
re: Harvard Square study by MBTA

219

4/22/74

Placed on file