

EDWARD H. LINDE
PRESIDENT

April 8, 1992

Cambridge City Council
City of Cambridge
Cambridge City Hall
Cambridge, MA 02139

Re: Trip Reduction Ordinance

Honorable Members of the City Council:

Boston Properties, as the largest commercial landlord in the City and the second largest property taxpayer in the City, welcomes this opportunity to share with you our perspective on what is at stake in your vote on the Trip Reduction Ordinance proposed by the City Manager. While you may not be surprised by our opposition to this ordinance, I hope you will agree, after listening to our reasons, that the proposal before you, while laudable in intent, will have a disastrous unintended effect.

We have had the privilege to be a part of Cambridge's successful efforts to carry out the commercial revitalization of East Cambridge. We have found the City to be an excellent place to work and an insightful and cooperative partner in guiding development to meet public goals. Indeed, the over 1.5 million square feet of space developed at Cambridge Center to respond to the goals set by the City through the Kendall Square Urban Renewal Plan was constructed at a pace that far exceeded everyone's expectations.

We attracted not just businesses already located in Cambridge but also firms from Boston and new start-up companies. This was because we had a site with the advantages of both direct service by the MBTA Red Line and the capacity to provide parking; because Cambridge had a substantial price advantage when compared to downtown Boston, both in rental rate and in City taxes, and a relatively small premium over suburban space; because the amenities of Kendall Square were rapidly expanded to include a range of restaurants and shopping and handsome new parks, plazas and open spaces; and because of whatever value we added to the project through our own skills and resources.

April 8, 1992

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However, as I am sure you know, the entire economic environment has changed profoundly in the last two years. One of the most important aspects of that change is that Cambridge's competitive advantage as a location for businesses has been drastically reduced, and in some respects entirely eliminated or worse. Rents in Boston are now as low or lower than in Cambridge, and rents are far lower in many distressed suburban buildings. Companies in every field of endeavor are now focused on reducing their operating costs by reducing the number of people they have employed (which of course reduces their need for space) and by seeking the very best economic terms for renting facilities. This has led many companies to be far less concerned about exact location than in the past, and far more ready to move from one city or town to another in order to make certain that they reduce their operating costs to levels that will best assure economic survival. And on top of this, individual cities are themselves taking unprecedented initiatives to try and attract businesses to their locations, as was recently demonstrated in the case of Genzyme.

While Cambridge still has many attractions for many businesses, it labors under the additional disadvantage of a reputation, albeit in our opinion an unfair one, for at best not having a pro-business attitude, and at worst, having an anti-business one. This has become more important than ever where the issue for many businesses is survival. It is in this setting that I urge you to consider how your vote on the proposal before you will be interpreted and what its impact will be.

I do not think anyone in the business community has the least quarrel with the objective of meeting federally mandated clean air act goals. I think you could and would have the cooperation of the business community in developing practical means to achieve these goals. But if you enact an ordinance that applies only in Cambridge, let alone one that contains provisions that many businesses believe are unfair or impractical, I can assure you that such an action will have direct results in decisions of firms to move out of Cambridge, or not to come to Cambridge in the first place. The consequences of this would be severe in terms of further reductions in rents and values in commercial property in Cambridge and reduced commercial property tax proceeds. It will have similar dire results for the hundreds of small businesses in Cambridge -- restaurants, merchants, suppliers of business services -- who depend on the business and working population of Cambridge to support their own endeavors.

April 8, 1992

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Unfortunately, you will never hear direct testimony from many of the businesses to be impacted by the measure under consideration. Most will only learn about the ordinance after it is enacted. Their response will be to consider it as one more factor, in this case a decidedly negative one, as they weigh the assets and liabilities of a Cambridge location against the many other choices available to them throughout the Boston metropolitan area.

More and more, businesses are concluding that while they enjoy being in Cambridge, they do not have to here. There is no City action that can keep all these businesses in Cambridge, but the City does have the power to tilt the playing field away from itself, and to induce businesses to leave.

What I believe is badly needed now is a vote on this ordinance that is a strong, united statement from the Council that the City is committed to a regional solution to the clean air problem, but is resolutely opposed to actions that would unfairly restrict and penalize only businesses in Cambridge, and place them at any operating disadvantage.

I thank you again for allowing us to submit our comments on this matter.

Very truly yours,



Edward H. Linde

Statement by the Massachusetts Institute of Technology
City of Cambridge State Implementation Plan
April 8, 1992

The Massachusetts Institute of Technology would like to express its support for the 1990 Clean Air Act and the adoption of a regional State Implementation Plan to achieve the goals set out by the Act.

MIT, like many other entities, has implemented a number of traffic mitigation measures in the past 18 years since the 1974 Clean Air Act. Measures such as t-pass sales, telecommuting programs, flex work schedule programs, bicycle programs and shuttle services have shown to be effective means of vehicle trip reduction at MIT and at the many businesses which have also implemented these types of efforts.

We would like to continue to work with the City of Cambridge and others to identify reasonable and productive initiatives to address the issue of clean air attainment in our city and this region. We believe that a regional state implementation plan is not only a fair and equitable answer to this serious dilemma, but also the most effective method in attempting to reach the objectives of the 1990 Clean Air Act.



Sarah J. Eusden
Assistant for Government Relations

April 8, 1992

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Ordinance Committee of the City Council
Cambridge City Council
Cambridge, MA 02139

Attn: City Clerk

Reference: Vehicle Trip Reduction Ordinance (VTR)

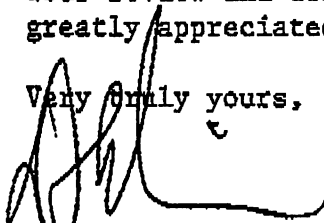
Dear Members:

As a member of the Cambridge business community I would petition the Ordinance Committee of the City Council not to adopt the proposed VTR Ordinance as it stands.

I feel that the City Council should work with and encourage the Commonwealth of Massachusetts to develop and implement a region wide program and not place Cambridge in a unique position of trying to singlehandedly address a problem that requires a unified region wide program.

Your review and consideration of this matter will be greatly appreciated.

Very truly yours,



David G. Robinson
President

DGR/rpt

Cambridge Citizens for Liveable Neighborhoods^{Inc.}

Wednesday, April 29, 1992

P.O. Box 19, Cambridge, MA 02238 / (617) 354-5670

CAMBRIDGE CITY COUNCIL / ORDINANCE COMMITTEE

Ms Alice Wolf, Councilor / Chairwoman

City Hall

Cambridge, MA 02139



Directors

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Philip Dowds
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Don MacIver
Howard Medwed
Lynne Molnar
John Reinhardt
Henry Shawah

Dear Councilor Wolf,

Thank you for your
actions regarding
State Impairment
sue the problem
giving City Council

We've worked
ourselves through
steps, we hope
suggestions.

— It's important
the City Council
resident

refuse to consider any constraints on their personal driving or parking within the City. CCLN still supports a version (the node plan, not the quadrant plan) of resident parking sub-districting, and believes that such a plan can bring actual *benefits* to City neighborhoods — not to mention reducing Vehicular Miles Traveled (VMT's) and so contributing to cleaner air. Thus we are most pleased to see that you plan further investigation and public dialogue on a resident sticker sub-districting plan centered on the rapid transit stops.

— There may be some merit to imposing restrictions on City curbside parking now deemed to be "unregulated", although we think the benefits, in terms of reducing VMT's, have been greatly over-stated. However, our reading of the Memorandum of Agreement (MOA) of 1990 does not disclose that the parking permit "bank" established by the MOA would be stocked by such an action. If you have been advised otherwise, then you ought to seek outside legal counsel on this one.

— You seek to "improve" the existing MOA. In terms of "improving" the MOA, we've made plain our views that key provisions of the MOA have gone unenforced for nearly two years now. You may recall that a point of MOA enforcement was to extract mitigations and benefits from exemption violators in exchange for continued

Dan + Debra

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Cambridge Citizens for Liveable Neighborhoods^{Inc.}

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Dear Councilor Wolf:

Thank you for your mailing describing your proposals for near-term actions relative to the City's progress in addressing the new Clean Air Act State Implementation Plan. More generally, thank you for giving this issue the prominence it deserves within the Ordinance Committee, and for giving CCLN time to present its case.

We've written and spoken on this topic at length, and won't here repeat ourselves. Regarding your proposals for near-term actions and next steps, we're in substantial agreement with your findings and recommendations. In particular, we offer the comments herebelow:

- It's more or less true that "residents" are "unalterably opposed" to the Manager's four zone (quadrant) plan for sub-districting the resident-only parking. However, it's not true that all residents refuse to consider any constraints on their personal driving or parking within the City. CCLN still supports a version (the node plan, not the quadrant plan) of resident parking sub-districting, and believes that such a plan can bring actual *benefits* to City neighborhoods — not to mention reducing Vehicular Miles Traveled (VMT's) and so contributing to cleaner air. Thus we are most pleased to see that you plan further investigation and public dialogue on a resident sticker sub-districting plan centered on the rapid transit stops.
- There may be some merit to imposing restrictions on City curbside parking now deemed to be "unregulated", although we think the benefits, in terms of reducing VMT's, have been greatly over-stated. However, our reading of the Memorandum of Agreement (MOA) of 1990 does not disclose that the parking permit "bank" established by the MOA would be stocked by such an action. If you have been advised otherwise, then you ought to seek outside legal counsel on this one.
- You seek to "improve" the existing MOA. In terms of "improving" the MOA, we've made plain our views that key provisions of the MOA have gone unenforced for nearly two years now. You may recall that a point of MOA enforcement was to extract mitigations and benefits from exemption violators in exchange for continued

CCLN

Councilor Alice
Wolf
4/29/92

operation as a commercial parking facility; this concept seems to have died a premature death. The City doing what it promised to do would be a big MOA improvement for us. More generally, if none of the old rules are ever enforced, why should the public have any confidence in future enforcement of the new SIP, whatever it may be?

- One reason the City bank of commercial parking permits is bankrupt (again) is that the IPCC gave away its scant stock of permits as fast as it could, then collapsed into lethargy. The non-CCLN majority of the IPCC does not believe in the parking freeze, nor in aggressive traffic mitigation, nor in the MOA or SIP — and hence has expended no energy on MOA enforcement, nor on studying how to make local parking management serve the long-range public interest. So: If the purpose and result of beefing up the IPCC (from three to five members) is to introduce some new energy and constructive thinking into this group, we are all in favor of it. If the new appointees are just more of the same, then don't bother.
- Implied, but not specifically described, by your proposals is a structured effort to cooperate with the State in perfecting the Cambridge component of the new SIP, and coordinating our part with the regional program. A "meeting" with State officials probably won't be enough. Instead, we think you should be calling for State cooperation in the invention and implementation of a detailed joint work plan and timetable with specific tasks, products and target dates leading to some concrete progress in the foreseeable future. Without a work plan, we fear that SIP invention will return to dormancy until the next exogenous crisis sets a fire and forces the City and State to hustle around on short notice once more. Included here-with is our letter to State on this same topic.

On the whole, we support and endorse your current efforts to deal with these issues. Please continue to keep us posted, and feel to contact us when you have questions or requests of your own.

Best wishes,
CCLN Inc



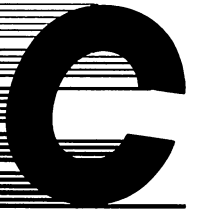
Daniel Geer
President



Debra McManus
Director

cc:

Governor William Weld, Cambridge resident
The Cambridge City Council
Cambridge ECO
Conservation Law Foundation



CAMBRIDGE CHAMBER OF COMMERCE

June 30, 1992

City Councillor Alice Wolf
City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

Dear Councillor Wolf:

I have recently had a chance to meet with members of the business community to assess the result of the newly passed ordinances dealing with the clean air issue. I wish to convey their thanks for your efforts in creating a new clean air ordinance acceptable for all parties involved. Recognizing that compromise is not always easy, thank you for creating a solution for all Cambridge communities to work together to find a solution. Your leadership has definitely allowed Cambridge to move forward in the marketplace.

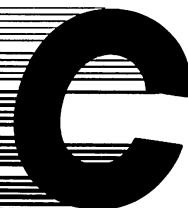
As I have stated in the past, the Chamber is pleased to create a better public-private partnership with you to make Cambridge a better place to live and work.

Bob

and

With warm regards,

Robert D. Lewis
Executive Director



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City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

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As I have stated in the past, the Chamber is always willing to work with you and others to create a better public-private partnership. I look forward to working with you to make Cambridge a better place to live, work and study.

With warm regards,

Robert D. Lewis
Executive Director

CITY OF CAMBRIDGE
Post Office Advisory Committee

1/29/91

Mr. Peter Gessell
P. O. Box 390862
Cambridge, MA 02139-0862

Ms. Jacqueline Carroll
P. O. Box 390881
02139-0881

Ms. Margaret Bailey
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Mr. Russ Tessier
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Ms. Rona Turano
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Cambridge, MA 02139-0863

Ms. Pamela Thomure
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Cambridge, MA 02139-0871

Mr. Leon Taylor
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Cambridge, MA 02139-0877

Mr. Michael Sullivan
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Cambridge, MA 02139-0872

Mr. Robert Stern
P. O. Box 390874
Cambridge, MA 02139-0874

Mr. Mark Roderick
P. O. Box 390882
Cambridge, MA 02139-0882



CAMBRIDGE CHAMBER OF COMMERCE

April 23, 1992

Mr. Fagans

Honorable Cambridge City
Cambridge City Hall
795 Massachusetts Avenue
Cambridge, Mass. 02139

Dear Councilors:

The Clean Air Committee
thank the Cambridge City
various members of the
Reduction Ordinance. We
articulated by Councillor
Committee and discussed at the Committee's April 14th meeting.

would like to
expressed by
osed Vehicle Trip
concepts

the City Council's Ordinance

The importance of clean air and taking steps to improve the quality of the air we breathe is our collective goal. We endorse the need for a regional solution to air pollution. Every business, neighborhood, and community in the region should work together to clean the air.

We oppose mandatory regulations that apply only to Cambridge and not to neighboring communities. Such regulations will only encourage the needless relocation of Cambridge companies and jobs to other communities. Such relocations are financially damaging to both the company involved and to the City of Cambridge and will not contribute to cleaner air for the region.

The Chamber's Clean Air Committee is in general agreement with Councillor Wolf's recommended three-tiered approach. By adopting measures which can be readily implemented and have wide support in the community, the Council will be taking positive steps to a cleaner environment; improving the interim ordinance will provide needed flexibility, and working together to identify potentially useful measures, our city can help move the region toward our collective goal.

Measures like expanding the commuter mobility program (including municipal employees), promoting bicycle usage, focusing on pedestrian needs, controlling visitor parking passes, encouraging local employment for Cambridge residents, pressuring the MBTA to improve public transportation schedules and routes, promoting clean fuels for vehicle fleets (including the City's own vehicles), and adopting traffic policies which differentiate street usage, will demonstrate commitment and desire to reduce air pollution.



CAMBRIDGE CHAMBER OF COMMERCE

April 23, 1992

Honorable Cambridge City Council
Cambridge City Hall
795 Massachusetts Avenue
Cambridge, Mass. 02139

Dear Councilors:

The Clean Air Committee of the Cambridge Chamber of Commerce would like to thank the Cambridge City Council for listening to the views expressed by various members of the city's business community on the proposed Vehicle Trip Reduction Ordinance. We understand and support most of the concepts articulated by Councillor Alice Wolf, Chair of the City Council's Ordinance Committee and discussed at the Committee's April 14th meeting.

The importance of clean air and taking steps to improve the quality of the air we breathe is our collective goal. We endorse the need for a regional solution to air pollution. Every business, neighborhood, and community in the region should work together to clean the air.

We oppose mandatory regulations that apply only to Cambridge and not to neighboring communities. Such regulations will only encourage the needless relocation of Cambridge companies and jobs to other communities. Such relocations are financially damaging to both the company involved and to the City of Cambridge and will not contribute to cleaner air for the region.

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Honorable Cambridge City Council
Page Two

Other steps such as sampling employee transportation needs to establish a base line will help move forward those concepts being studied for future implementation. Care must be exercised to ensure correct sampling and analytical modalities for this base line survey to be reliable.

Suggestions like increasing off-street municipal parking fees and a progressive residential parking sticker fee structure might have consequences not fully understood. They should only be implemented after careful deliberation. We welcome suggested initiatives to improve the interim ordinance. Additional spaces added to the bank and distributed fairly will support job creation and economic development efforts.

The Council, city officials, residents, and business representatives should join together to continue to pursue sensible measures in which the city can positively contribute to improving air quality. We are prepared to fully participate in regional air pollution plans and measures as put forward across the Commonwealth.

We expect and urge the City Council to require the active participation of the Cambridge Chamber of Commerce, the city's employers and employees, and the city's commercial landlords in addition to residents, in crafting future local measures to reduce air pollution.

Again, we thank the City Council for this opportunity to continue to work together to resolve these complex issues.

Sincerely,

Cambridge Chamber of Commerce
Clean Air Committee

Karl Fogans

RECEIVED BY
OFFICE OF CITY CLERK

1992 MAY 13 PM 6:47

CAMBRIDGE MA.

EDWARD H. LINDE
PRESIDENT

May 13, 1992

Honorable Cambridge City Council
Cambridge City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

M. H. H. H.

Re: Proposed

Dear Councilors:

On behalf of Boston Properties, we express our appreciation for the opinions of the members of the business community regarding a proposed action the Council took on April 13, 1992. We have taken those views into consideration and will continue to work in a balanced way in which we can address the issues in the past, and it reinforces the fact that Cambridge is a terrific place for business to grow.

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In regard to the specific issues at hand, we have seen the letter previously submitted to you by the Clean Air Committee of the Chamber of Commerce and are in agreement with many of the positions expressed there. We have, however, some additional comments, which we hope you will consider in the context of our experience and situation as a developer in Cambridge.

Specifically, since starting our first building at Cambridge Center in 1980, we have completed over 1.5 million square feet of development and become the largest commercial landlord and second largest taxpayer in Cambridge. Our objective for the future is not only to retain tenants in our existing buildings in Cambridge, but also to build additional buildings for expansion of Cambridge companies and for firms that will be started in the future or can be attracted from other parts of the Boston region.

From this perspective, we think transportation management plan requirements for new development as part of a SIP can not be categorized as a non-controversial measure. We ask that such requirements not be immediately adopted, but be deferred until they are further reviewed and assessed, for the following reasons:

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OFFICE OF CITY CLERK

1992 MAY 13 PM 6:47

CAMBRIDGE MA.

EDWARD H. LINDE
PRESIDENT

May 13, 1992

Honorable Cambridge City Council
Cambridge City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

Re: Proposed SIP Ordinance

Dear Councilors:

On behalf of Boston Properties, I would like to express our appreciation for the opportunity that the Council has given to members of the business community to express their opinions regarding a proposed new SIP Ordinance, and for the action the Council took on April 27 in passing a resolution that took those views into consideration. We see this as consistent with the balanced way in which the City has addressed such issues in the past, and it reinforces our own long held view that Cambridge is a terrific place for businesses to locate, operate and grow.

In regard to the specific issues at hand, we have seen the letter previously submitted to you by the Clean Air Committee of the Chamber of Commerce and are in agreement with many of the positions expressed there. We have, however, some additional comments, which we hope you will consider in the context of our experience and situation as a developer in Cambridge.

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May 13, 1992


Page 2

- (1) As you know, it is extremely difficult to make new development work under current conditions in the regional economy and real estate markets. If you wish to see any new development added to the City's economy and tax base, traffic management plans should be carefully designed to accommodate this, and at the very least should not intentionally or by result discriminate against new development.
- (2) Any plan that is implemented should address the specific expansion needs of existing businesses.
- (3) Traffic management requirements might best be included as part of zoning and special permit procedures (as they have been in the past) rather than added or duplicated in separate SIP requirements.
- (4) Most importantly, the amount of completed development in the City is vastly larger than whatever relatively small amount will be added in the years immediately ahead, and there is relatively little to be gained by even the most draconian measures focused on new development.

As it happens, tomorrow Boston Properties will be celebrating "World Class Commuting Day" on the plaza at Cambridge Center for the third year in a row, as part of National Transportation Week. We have initiated centralized efforts at Cambridge Center in MBTA pass distribution, car-pooling, commuter van access and the like, and believe more widespread and enhanced efforts of this sort can be implemented on a voluntary basis across the City as a whole. This can do much to achieve clean air goals, and the very limited opportunities for new development that will present themselves during the coming years should be encouraged rather than stifled by uniquely burdensome requirements.

We look forward to continuing to work with the City on measures to achieve the goals of the Clean Air Act while being careful to avoid unnecessary obstacles to new development at this particularly sensitive time, and to assure that no disadvantages are established for businesses in Cambridge that would limit their abilities to function and adversely affect the economy and tax base of the City.

Very truly yours,



Edward H. Linde

cc: Robert Healy

Cambridge Citizens for Liveable Neighborhoods^{Inc.}

P.O. Box 19, Cambridge, MA 02238 / (617) 354-5670

Thursday, April 23, 1992



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CAMBRIDGE CITY COUNCIL / ORDINANCE COMMITTEE

Ms Alice Wolf, Councilor / Chairwoman
City Hall
Cambridge, MA 02139

Dear Council

Phil

We're in receipt of your letter regarding the proposed amendments to the Clean Air Act. We appreciate your interest in the regional plan and your resolutions.

We understand the "business friendly" approach that "timely" and development "investing" our regional savings in a multitude of projects which could not hold their value. A truly "business friendly" Council (or State) will act to restrain private speculation and short-sightedness, and make public policy supporting the long-range viability of the region. We hope the Council can remember this as it proceeds to the next steps of Clean Air Act implementation.

Best wishes,
CCLN Inc

Geer

Daniel Geer
President

Dowds

Philip Dowds
Director

April 22, 1992 clarifying City Council's position with the 1990 Clean Air Act. We hope that the City, other Councilors, will continue to work together in forging a regional plan that is in the best interest of your proposed amendments.

We understand the pressure to appear "business friendly" and are compelled to point out that "timely" and development "investing" because the financial impact of the work in the '80's, "investing" our regional savings in a multitude of projects which could not hold their value. A truly "business friendly" Council (or State) will act to restrain private speculation and short-sightedness, and make public policy supporting the long-range viability of the region. We hope the Council can remember this as it proceeds to the next steps of Clean Air Act implementation.

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CAMBRIDGE CITY COUNCIL / ORDINANCE COMMITTEE

Ms Alice Wolf, Councilor / Chairwoman
City Hall
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Dear Councilor Wolf:

We're in receipt of your draft order dated for 27 April 92 clarifying City policy regarding municipal planning for compliance with the 1990 Clean Air Act. We are in complete agreement with you that the City, other communities and the State must start now to cooperate in forging a regional plan of compliance, and we endorse all three of your proposed resolutions.

We understand that the Council is under considerable pressure to appear "business friendly" in "these difficult times". We feel compelled to point out that "times are tough" *especially* in New England because the finance and development industry was permitted to run amok in the '80's, "investing" our regional savings in a multitude of projects which could not hold their value. A truly "business friendly" Council (or State) will act to restrain private speculation and short-sightedness, and make public policy supporting the long-range viability of the region. We hope the Council can remember this as it proceeds to the next steps of Clean Air Act implementation.

Best wishes,
CCLN Inc

Daniel Geer
President

Philip Dowds
Director

Mr. Andrew Hamilton
Conservation Law Foundation
3 Joy Street
Boston, MA 02108

Mr. Andy Rubel
9 Chauncy Street #54
Cambridge, MA 02138

Mr. Robert J. LaTremouille
348 Franklin Street
Cambridge, MA 02139

Ms. Cheryl Souza
132½ Oxford Street
Cambridge, MA 02140

Mr. Gerald L. Hathorne
Polaroid Corporation
Technology Square
Cambridge, MA 02141

Mr. Bill Zamparelli
7 Emmons Place
Cambridge, MA 02138

Ms. Sabrina Birner
8 Chatham Street #2
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Mr. Eric Benson
Polaroid Corporation
Technology Square
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Mr. John E. McCarthy
1697 Cambridge Street
Cambridge, MA 02138

Mr. Bill Cavellini
274 Brookline Street
Cambridge, MA 02139

Mr. John Pitkin
18 Fayette Street
Cambridge, MA 02139

Mr. John Natale
92 Fourth Street
Cambridge, MA 02141

Mr. Bob Lewis
Chamber of Commerce
859 Massachusetts Avenue
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Ms. Barbara Norfleet
79 Raymond Street
Cambridge, MA 02140

Ms. Carolyn Hoffman
100 Reed Street
Cambridge, MA 02140

Mr. Peter Madsen
47 Thorndike Street
Cambridge, MA 02141

Ms. Happy Green
33 Fenno Street
Cambridge, MA 02138

Mr. Michael Cantalupa
Boston Properties
8 Arlington Street
Boston, MA

Mr. Carl Olson
209 Broadway
Cambridge, MA 02141

Mr. Richard Vendetti
28 Winter Street
Cambridge, MA 02141

Ms. Sarah Eusden/M.I.T.
77 Massachusetts Avenue
Cambridge, MA 02139



BORDEN, INC.
GROCERY AND
SPECIALTY PRODUCTS
DIVISION

JOHN H. SCHIERING
VICE PRESIDENT - GENERAL MANAGER
CANDY PRODUCTS

April 8, 1992

Mayor Kenneth Reeves
Office of the Mayor
City of Cambridge
Cambridge, MA 02139

Dear Mayor Reeves:

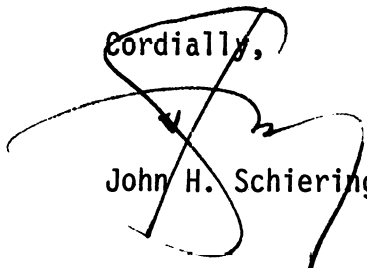
Everyone is concerned with environmental issues, however, we believe that the proposed Vehicle Traffic Restriction Ordinance (VTR), as written, does not adequately consider the impact its enactment will have on the economy of this community.

We are a manufacturing business and employ over 600 people, most of whom are Cambridge residents. We have chosen to remain in our current facility despite the logistical difficulties it presents, primarily because of the quality of our employees and our loyalty to them.

Unreasonable restrictions such as those contained in the proposed ordinance, however, may force us to re-think this decision.

In conclusion, we suggest that these issues are best addressed at the State and Federal levels. It is clearly inappropriate for one community to unilaterally "hamstring" its economy while others continue unaffected. Indeed, environmental problems do not stop at the city line. Let's get them addressed at a level that fairly benefits us all.

Cordially,


John H. Schiering

JHS:kc

134 CAMBRIDGE STREET
CAMBRIDGE, MA 02141-1819
TELEPHONE: 617/498-0504

180 EAST BROAD STREET
COLUMBUS, OHIO 43215-3799
TELEPHONE: 614/225-4484

BIOPURE[®]

April 8, 1992

Mayor Kenneth Reeves
Office of the Mayor
City of Cambridge
Cambridge, MA 02139

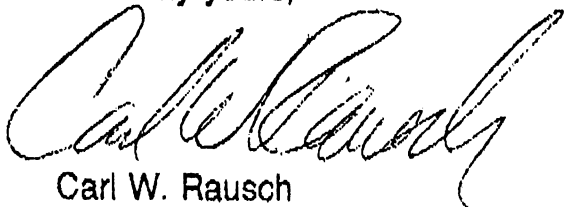
Dear Mayor Reeves:

Biopure recently completed construction of a facility in East Cambridge. We decided to locate our operations there because of the support Cambridge has given in the past to the biotechnology industry.

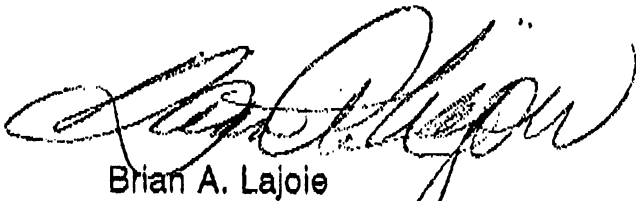
We share in your desires to make Cambridge a high quality area in which people work. However, we feel that the impact of various State Implementation Plans and Vehicle Traffic Restriction Ordinances imposed by the City of Cambridge will be a great burden to us and will place unreasonable restrictions on our operations in Cambridge. These type ordinances seem more equitably imposed, if at all, at the state level.

We look forward to discussing these issues in greater detail.

Sincerely yours,



Carl W. Rausch
Chairman, CEO



Brian A. Lajoie
Vice President - Finance

BAL/ref

SULTANA REALTY TRUST
P.O. BOX 71
CAMBRIDGE, MA 02141

April 8, 1992

Mayor Kenneth Reeves
Office of the Mayor
City Hall
City of Cambridge
Cambridge, MA 02139

Subject: Proposed Vehicle Trip Reduction Ordinance

Dear Mayor Reeves;

I am writing on behalf of Sultana Realty Trust and Tarvis Realty Trust to voice our opposition to the vehicle trip reduction ordinance that the Ordinance Committee of the City Council is now considering. As background, Sultana Realty Trust is the landlord for Borden, Inc., a manufacturing company employing over 600 people, many of whom are local residents. Among other tenants, Tarvis Realty Trust is the landlord for Biopure, Inc., a highly successful biotechnology company that recently located in Cambridge. Their pilot lab/manufacturing facility currently employs over thirty people. They plan to add more staff in the coming months.

Three rationales support our position. First, air pollution is a regional problem that should be addressed on a regional basis. Cambridge alone has not created Cambridge's air pollution problems. Therefore, although it is commendable for the City of Cambridge to take such an active approach, this problem is better addressed on a regional basis. Second, the timing for the consideration for this ordinance could not be worse from a business perspective. Suburban communities are competing fiercely for our Cambridge tenants. They are doing so, not only with lower rental levels, but also ample quantities of free parking and lower tax rates. While it can be argued that the amenities that Cambridge offers differentiate us from these towns, these tenants are trading off these amenities for the advantages of suburban economics.

Finally, and perhaps more subtly, Cambridge business people are concerned about the long term attitude of Cambridge's government toward fostering and maintaining a thriving, successful business community. While many of these entities are not active in city government on a day-to-day basis, they do follow political developments that

Mayor Kenneth Reeves
April 8, 1992
Page Two

affect their business. In our currently difficult economic environment, uncertain political support for pro business activities is an attitude that greatly concerns them, particularly when so many other communities are clamoring for their business.

Mr. Mayor, I believe that if you polled most businessmen in Cambridge including myself, they would tell you that they certainly support clean air activities. It is in our best interest as well as the interest of future generations. Practical solutions to our current air quality problems, however, must be addressed on a regional basis. I therefore urge you and the other City Councilors to work closely with state and federal officials in crafting region-wide solutions to a very pressing problem. Thank you for your courtesy and consideration.

Sincerely,



Varney Hintlian
Trustee
Sultana Realty Trust
Tarvis Realty Trust

VH:cd

HARVARD UNIVERSITY

OFFICE OF GOVERNMENT, COMMUNITY
AND PUBLIC AFFAIRS

2 GARDEN STREET
CAMBRIDGE, MASSACHUSETTS 02138
617-495-4955

April 8, 1992

The Honorable Alice Wolf
Chair, Ordinance Committee
Cambridge City Council
Cambridge City Hall
Cambridge MA 02139

Dear Councilor Wolf,

As a major employer in Cambridge, Harvard University has been an active participant in working to reduce traffic congestion and its resulting air pollution in Cambridge. And the University remains committed to this effort. However, Harvard does not support the proposed Vehicle Trip Reduction (VTR) Ordinance as currently drafted. Harvard believes that even a revised VTR Ordinance needs to be part of a regional plan in order to achieve its intended goals and in order to avoid negative economic impacts for Cambridge. Without a program of regional measures addressing air quality, the Cambridge VTR Ordinance will have little real effect on achieving the goals of the Clean Air Act.

In addition to the lack of a regional approach at this time, we are also concerned that State or Federal authorities will determine that the Parking Freeze remains in effect even after the VTR Ordinance has been adopted. Although clearly not intended by the City of Cambridge, based on recent judicial decisions, some groups argue that the new Ordinance may result in eliminating the City's Parking Freeze Ordinance, but not the Federal mandate requiring a Freeze.

Although Harvard cannot support the VTR Ordinance as currently drafted I would note that, for many years, Harvard has demonstrated a clear commitment to comprehensive and responsible management of its transportation and parking needs. Since the time that automobile traffic first became an important issue in Cambridge, Harvard has undertaken efforts to limit its traffic generation. These efforts have included items listed below:

EFFORTS WHICH HAVE REDUCED HARVARD GENERATED TRAFFIC

- *Housing approximately 70 percent of the University's Cambridge students within Harvard facilities, ensuring that they do not need to drive to and from Cambridge each day.

- *Maintaining class schedules which distribute activity throughout

the day, minimizing peak hour traffic.

- *Placing a large proportion of the parking spaces serving the main campus in lots located outside of Cambridge (i.e. in Allston), helping many employees who drive to work to avoid Cambridge streets.
- *Developing a geographically compact, pedestrian-oriented campus rather than one requiring extensive transportation.
- *Providing a subsidized MBTA transit pass program.
- *Providing a shuttle bus serving and connecting the Cambridge, Allston and Longwood Medical Area campuses.
- *Employing a faculty /staff population of which approximately one-third are Cambridge residents.

Harvard is committed to working with the City and our neighbors to have responsible traffic management, and in particular to reduce traffic in Harvard Square.

We believe Harvard's policies have resulted in a situation in which the University's Auto Efficiency Ratio ("AER") would be better than that expected to be required under the VTR Ordinance. However, the wording of the VTR Ordinance suggests that Harvard may be required to adjust its AER at the same annual rate as required of organizations that have done nothing to-date to reduce auto usage.

In the draft ordinance itself, there are significant issues left unresolved. A summary of specific concerns follows.

POINTS OF CONCERN IN PROPOSED VTR ORDINANCE

- *No target AER has yet been identified. Thus, there is no real way to anticipate the impact of the Ordinance on an individual employer.
- *With regard to zoning requirements for parking, the proposed Ordinance only invites the Planning Board to revise zoning. It is critical to the process of managing transportation in Cambridge that the result of this revision complement and coordinate with the Ordinance. Such revisions should include reductions in minimum parking requirements, and should encourage higher FARs in areas well-served by transit.
- *The VTR Ordinance does not address the issue of "customers". Retail stores generate traffic but are not dealt with at all in the proposed Ordinance. Harvard's customers are its students yet Harvard's notable achievements in limiting automobile use within its large student population is completely ignored in calculating the

AER.

*The VTR Ordinance only counts employees arriving during rush hour, so the substantial benefit resulting from the fact that many of Harvard's employees arrive at other parts of the day is completely ignored in calculating the AER.

*The VTR Ordinance counts employees who drive regardless of where they park, so the fact that many of Harvard's employees drive to the University's Allston parking lot via roads such as Storrow Drive and the Massachusetts Turnpike is completely ignored in calculating the AER.

*An employer's failure to certify the accuracy of an annual employer survey response is punishable by a daily fine. Since the response is a compilation of employee responses to survey questionnaires, no employer would want to "certify the accuracy" of the response and risk liability without independently verifying each employee's questionnaire. Such an effort is unduly burdensome and unworkable. In addition, a 75% response rate will be extremely difficult for a large employer to achieve.

*There should be some objective criteria for rejecting a VTR plan. In addition, the \$300 per day fine for failure to implement any part of a VTR plan exposes employers to immense financial risk. There is also concern about the appeal process for rejected VTR Plans.

*It is not clear why Section 10.16.020.e differentiates "employers" from "institutions."

*The definition of "worksite" should be changed so that non-contiguous portions of Harvard's campus (e.g. the Radcliffe Quadrangle) can be included as part of the Harvard University worksite. Harvard should only have to prepare one VTR Plan annually for its entire Cambridge campus.

On behalf of the University, I appreciate the opportunity to comment on the proposed Ordinance, and reiterate Harvard's commitment to work with the City to achieve responsible traffic management measures that are part of a regional plan to reduce air pollution.

Sincerely,



Happy Green
Director of Community Relations



PRAXIS

Praxis International Inc.
Four Cambridge Center
Cambridge, MA 02142-1489

(617) 661-9790 Tel
(617) 497-1072 Fax

Richard D. Stewart
President
Chief Executive Officer
Chairman

April 8, 1992

Mr. Robert W. Healy
City Manager
City of Cambridge
Cambridge City Hall
Cambridge, MA 02139

Dear Mr. Healy:

This letter is being submitted to comment on your proposed new ordinance regarding regulation of vehicle trips on behalf of four related Cambridge-based companies: Praxis International, Computer Corporation of America, Segue Partners, and MarketPulse. We are a family of companies that has evolved from Computer Corporation of America founded in Cambridge over twenty years ago. We maintain our headquarters and principal offices here, and currently have a total of 175 employees in Cambridge.

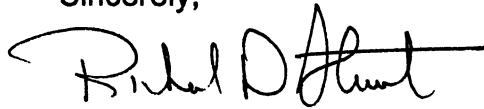
Our companies operate in the highly competitive environment of the computer software field -- which, as you know, is currently experiencing strong recessionary pressures. Through good business practices and efficient operations, however, we are a profitable and debt-free corporate citizen of Cambridge.

It is, thus, extremely disturbing to learn of proposed restrictions on how employees of Cambridge companies can commute to work. We wish to voice our strongest objection to such regressive measures as well as the bureaucratic complications they will most certainly generate.

If these are put in effect to apply only in Cambridge, they cannot possibly help to improve air quality even in Cambridge, let alone in the Boston area. We would have to take such an action as a clear indication of the city's indifference, or worse, to the challenging environment that businesses face in the 1990's. And we feel it is particularly unfair to impose such restrictions on companies like ours that have made a long term commitment to Cambridge in the form of long term leases. Were we wrong to believe that locating in Cambridge we would receive fair and equal treatment with businesses located in other cities and towns in the Boston area?

We do not normally involve ourselves in government affairs in Cambridge but we will be watching the outcome of the city's action on this proposed ordinance with close attention. We urge the city not to place these new restrictions on ours and other firms simply because we have chosen to be located in Cambridge. It will not produce clean air; it will simply be a clear statement that the city government in Cambridge can be expected to act in a way that places unique burdens on any business that operates within its borders, even when there is no real resulting benefit to the public.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard D. Stewart". The signature is fluid and cursive, with a long horizontal stroke extending to the right from the end of the name.

Richard D. Stewart



Arnold Hiatt
CHAIRMAN OF THE BOARD

April 8, 1992

Cambridge City Council
City of Cambridge
Cambridge City Hall
Cambridge, MA 02142

Re: Proposed Vehicle Trip Reduction Ordinance

Members of the City Council:

I am writing to express my strong support for the City's willingness to take a leadership role in ensuring that the Clear Air Act goals for the Boston region are achieved. I am also writing to express my deep concern over the possibility that, by acting unilaterally, the City will place unnecessary hardships on the operations of businesses in Cambridge, and place the economic well-being of the City at risk, without adequately achieving the basic goal of improved air quality.

When Stride Rite made its decision, in 1979, to move to Cambridge, the availability of parking for our employees was an important element in our selection process. We chose our Kendall Square location in large part because it is right next to the MBTA Red Line station, but we did not, and could not, know at that time what our final needs for employee parking would be after the relocation, or exactly how our employees would get to work. I know that if there had been a cloud over the certainty of our ability to provide access to our employees in whatever way was best for them, and if that cloud had hung only over Cambridge, it would have weighted our decision towards other locations that did not have such restrictions. Today, when companies in Cambridge and out have more choices over location than ever before, I must believe that the passage of an ordinance restricting business use of parking in Cambridge only would place this City at an enormous and unnecessary disadvantage in trying to retain and attract businesses.

Stride Rite stands ready to do its part in supporting and participating in the kind of regional effort that is necessary to achieve clean air goals for Cambridge and for Greater Boston. I would ask you to carefully consider how this can be done in the most productive way, without disadvantaging either businesses now

DIVISIONS:

STRIDE RITE
INTERNATIONAL CORP.

STRIDE RITE SOURCING
INTERNATIONAL, INC.

SPERRY
TOP-SIDER, INC.

THE KEDS
CORPORATION

STRIDE RITE
CHILDREN'S GROUP, INC.

Cambridge City Council
April 8, 1992
Page 2

in Cambridge or the economy of the city. And I would ask you to vote together to reject this proposed ordinance, in a way that sends the message that we are committed to working towards a regional solution and also makes decisively clear that the City of Cambridge wants businesses to stay and grow within its borders.

Sincerely,

A handwritten signature in cursive script that reads "Arnold Hiatt". The signature is written in dark ink and is positioned below the word "Sincerely,".

Arnold Hiatt

AH:ets



RECEIVED BY
OFFICE OF CITY CLERK
1992 APR -8 AM 10:11
CAMBRIDGE MA.

820 Massachusetts Avenue
Cambridge, Massachusetts
02139-3296

(617) 661-9622

April 7, 1992

The Honorable City Council
City Hall
795 Massachusetts Avenue
Cambridge, Massachusetts 02139

City Councillors:

The Cambridge Family YMCA opposes the enactment of the proposed Vehicle Trip Reduction (VTR) Ordinance being considered by the Ordinance Committee of the City Council at its meeting of April 8, 1992.

While the Cambridge Family YMCA supports "Clean Air" objectives, the YMCA believes the VTR Ordinance places this city in the unique position of trying to singlehandedly address a regional problem which requires broad multi-jurisdictional solutions.

The Cambridge Family YMCA urges the Cambridge City Council to work closely with the Commonwealth of Massachusetts to develop and implement a region-wide program to promote "Clean Air".

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Foot'.

Richard A. Foot
YMCA President

THIS AGENCY IS
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United Way

YMCA Mission:
To put Christian principles
into practice through programs
that build healthy body,
mind, and spirit for all.



EXECUTIVE OFFICES

614 Massachusetts Ave.
Cambridge, Mass. 02139
617-354-3358
FAX: 617-354-5571

SHOWROOMS

614 Massachusetts Ave.
Cambridge, Mass. 02139
617-354-3358
11 Acton Rd.
Chelmsford, Mass. 01824
508-256-9251
929 Worcester Rd.
Framingham, Mass. 01701
508-879-8383
1280 Oaklawn Ave.
Cranston, RI 02920
401-463-6360
7 Jansen Court
W. Hartford, Conn. 06110
203-953-4015
23 Daniel St.
Milford, Conn. 06460
203-877-2791

April 7, 1992

The Ordinance Committee
Cambridge City Council
City Hall
Cambridge, MA 02139

Re: Vehicle Trip Reduction Ordinance (VTR)

Gentlemen:

Please record my opposition to the proposed VTR ordinance.

Although I am a firm believer in taking the initiative on many issues, I do not believe that being the only City to implement this proposed ordinance would actually provide much relief. I feel that, when a number of other communities in our area are prepared to act in unison, Cambridge should be amongst the first to enroll and implement said proposed ordinance. Until the other communities are ready to do so, any implementation by the City of Cambridge would simply result in undue hardships for Cambridge in its entirety.

I have three showrooms operating within the City of Cambridge. I would be delighted to enjoy clean air, but my business would suffer if Cambridge did this alone, and so would a number of my employees.

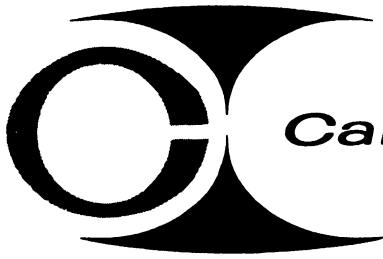
I trust that deferment of this proposed ordinance will be made. Otherwise, it would offer a severe handicap to the operation of retail businesses, particularly small ones, as well as large ones.

Sincerely,

Carl F. Barron

CFB/b.6842

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CLERK OF CITY CLERK
1992 APR -8 AM 10:24
CAMBRIDGE MA.



California Products Corporation

169 Waverly St. • P.O. Box 569 • Cambridge, MA 02139-0569 • 617-547-5300 • Fax 617-547-6934

April 8, 1992

HAND DELIVERED

City Clerk
Cambridge City Hall
795 Massachusetts Avenue
Cambridge, MA 02138

Attn: Cambridge City Council
Ordinance Committee

RE: Wednesday, April 8, 1992, 5:30pm.
Hearing on the Proposed "VTR" (Vehicle Trip Reduction) Ordinance

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OFFICE OF CITY CLERK
1992 APR - 8 PM 12: 59
CAMBRIDGE MA.

Gentlemen/Mesdames:

California Products Corporation is a Cambridge paints, stains, and coatings manufacturer employing approximately 95 people in Cambridge, and contributing over \$35 million to Massachusetts' economy. Because our factory workforce starts at 7am. and there is no frequent, close, public transportation available, virtually all employees drive their personal vehicles out of necessity. Only a few employees actually live close enough together in the same general area to even consider carpooling. If the proposed VTR ordinance were adopted we would have to seriously consider moving away from the Cambridge area to one more hospitable to our operation.

Businesses and tenants seeking to locate in Cambridge would not be apt to locate here if parking and/or commuting restrictions were more severe than other areas without such restrictions. If all communities in a region had the same "rules" it would be more fair to all concerned.

Automobile exhaust emissions generated in our neighboring cities of Boston, Watertown or Somerville don't "know enough" to stop at the Cambridge border! This is, perhaps, an indirect way of stating bluntly that the air quality in Cambridge depends on the quality of the "adjoining" air from the whole region.

We therefore believe that the proposed VTR ordinance should not be enacted because it requires Cambridge to single-handedly address a regional problem that requires a regional solution. The City Council should work closely with the Commonwealth of Massachusetts to develop and implement a regional program.

Sincerely,

Ronald B. Child
Vice President
Compliance & Regulatory Affairs

RBC:ma

Manufacturers of

CALIFORNIA® PAINTS • OX-LINE® PAINTS • STORM STAIN® EXTERIOR STAINS • WILBUR & WILLIAMS® HIGH PERFORMANCE COATINGS

TRW Fasteners Division
Controls & Fasteners Group

265 Third Street
Cambridge, MA 02142
617.494.5500

TRW

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OFFICE OF CITY CLERK

1992 APR -8 PM 3:42

CAMBRIDGE MA.

April 8, 1992

Cambridge City Council Members
c/o City Clerk
Cambridge City Hall
Cambridge, Mass

Dear Council Members,

I am writing on behalf of TRW Fasteners Division and the 140 employees working in our Cambridge Plant. We believe the VTR Ordinance should not be enacted as it is proposed.

TRW supports the goal of reducing air pollution, however, we believe a comprehensive regional plan is the only way to effectively reduce air pollution.

If Cambridge passes the VTR Ordinance, it will have little to no effect on air quality but it will have a negative impact in Employment Opportunities in Cambridge when potential sites are compared to those in Boston and other surrounding communities. As a community we can't afford to lose any more Genzymes.

Sincerely,

TRW FASTENERS DIVISION



Kathleen Schoonmaker
Operations Manager

KS/ob

CSC Index
A Company of Computer Sciences Corporation

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1992 APR -8 PM 3:45

CAMBRIDGE MA.

CSC | Index

April 8, 1992

Ordinance Committee of the City Council
Cambridge City Council
Cambridge, MA 02139

Attn: City Clerk

Reference: Vehicle Trip Reduction Ordinance (VTR)

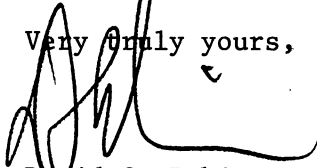
Dear Members:

As a member of the Cambridge business community I would petition the Ordinance Committee of the City Council not to adopt the proposed VTR Ordinance as it stands.

I feel that the City Council should work with and encourage the Commonwealth of Massachusetts to develop and implement a region wide program and not place Cambridge in a unique position of trying to singlehandedly address a problem that requires a unified region wide program.

Your review and consideration of this matter will be greatly appreciated.

Very truly yours,



David G. Robinson
President

DGR/rpt

Five Cambridge Center
Cambridge, Massachusetts 02142-1493
617.492.1500

Arthur D Little

Karl P. Fagans
Vice President

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OFFICE OF CITY CLERK

1992 APR -8 PM 4: 24

CAMBRIDGE MA.

Arthur D. Little, Inc.
Acorn Park
Cambridge, Massachusetts
02140-2390
USA

Telephone
617.864.5770
Telefax
617.661.1622
Telex
921436

April 8, 1992

Cambridge City Council
City Hall
Massachusetts Avenue
Cambridge, Massachusetts
02139

To The Honorable, The City Council:

Thank you for providing this opportunity to submit written testimony concerning the proposed Vehicle Trip Reduction Ordinance currently before the Ordinance Committee.

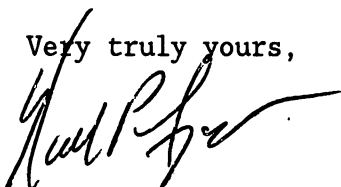
We at Arthur D. Little applaud the laudable goal of the proposed ordinance to improve air quality by reducing the pollutants emanating from automobiles. The recent award we received from the City for our recycling activities demonstrates our long standing and continuing commitment to programs to improve the environment.

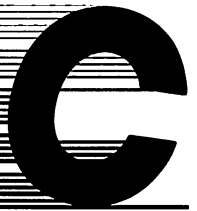
Implementation of the proposed Vehicle Trip Reduction Ordinance creates a situation where the residents and businesses of the City will commit their resources to solving a problem that originates outside of the City. In addition, adopting controls on automobile use will put Cambridge at an economic disadvantage relative to neighboring communities, which have not implemented similar programs.

Since passing this Ordinance will not reduce air pollution by measurable amounts, we urge you to delay passage until the Commonwealth has developed and implemented a region wide program for improving air quality.

Thank you very much for your attention to this matter.

Very truly yours,





CAMBRIDGE CHAMBER OF COMMERCE

April 8, 1992

Mr. Joseph E. Connarton
City Clerk
City Hall
Cambridge, MA 02139

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1992 APR - 8 PM 4: 31
CAMBRIDGE MA.

Attn Mr. Connarton

The Chamber of Commerce's Clean Air Committee has examined the State Implementation Plan (SIP) which is being considered by the Ordinance Committee. They have recommended to the Board that the Chamber, which represents approximately 800 member businesses and institutions, that the SIP not be enacted.

This letter expresses the Boards opposition to the enactment of the SIP Ordinance.

We believe that the enactment of this ordinance would create a serious economic disadvantage for Cambridge and have a disastrous effect on jobs and tax revenues. The lost of revenues and contributions will further negatively affect support for community organizations, schools, and the City's arts and cultural programs.

The Chamber supports a comprehensive region wide program to improve air quality. It is recognized and documented that the northeast corridor from Washington D.C. to Portland, ME has levels of air pollutants which are unacceptable. Governor Weld has re-enforced this concern for the State of Massachusetts. For Cambridge to "go it alone" makes no sense.

The City Council must take the leadership that is needed to protect Cambridge, its citizens, and businesses from the negative impact of this ordinance. The real effort and energy should be towards a regional solution; this is the only way to achieve the needed air quality for all.

Sincerely,

A handwritten signature in cursive script, appearing to read "R. D. Lewis".

Robert D. Lewis
Executive Director

cc Honorable Kenneth E. Reeves, Mayor
James C. Hawkins, President
Karl Fagans, Chair Clean Air Committee

Badger Engineers, Inc.
One Broadway
Cambridge, MA 02142

Telephone: (617) 494-7000
Telex: 92-1442

Badger
A Raytheon Company

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APR 8 1992 4:31 PM
CAMBRIDGE MA.

April 7, 1992

City of Cambridge
795 Massachusetts Ave.
Cambridge, Ma.


Attn: Joey Connarton
City Clerk

Subj: Proposed SIP Amendment and Vehicle
Trip Ordinance

Representatives of Badger Engineering, Inc. have been attending meetings and conferring with other businesses and institutions on the above subject matter for nearly two years.

Badger is aware of and committed to finding solutions to air quality problems.

It is our firm belief that the responsibilities for regulating unsolved air quality problems lie with the governing bodies of the State of Massachusetts as a whole and not the City of Cambridge alone.


W.J. Higgins

/kac

cc: J. Turner
E.J. Kelley
A.W. Glauner

Corporate Real Estate

Polaroid Corporation
575 Technology Square
Cambridge, Massachusetts 02139

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OFFICE OF CITY CLERK

1992 APR -8 PM 4:56

CAMBRIDGE MA.

Polaroid

April 8, 1992

Committee on Ordinances
Cambridge City Council
City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

Dear Members of the Ordinance Committee:

Polaroid Corporation hereby submits written testimony to the Ordinance Committee on the draft Vehicle Trip Reduction Ordinance dated March 20, 1992, which was submitted to the City Council by the City Manager and is currently the subject of public hearings before the Ordinance Committee.

Before making specific comments on the Ordinance, let me state that the Company understands that the 1990 Amendments to the Federal Clean Air Act will require commuting behavior changes by our employees as a contribution toward reduction of emissions from all sources in the region. We remain committed to working with the City on reasonable measures to encourage those behavioral changes.

However, air pollution and traffic congestion are regional problems we all share and we must all contribute to the solutions. For that reason we urge the Council to defer the implementation of the Cambridge Ordinance until the State has adopted equitable measures pertaining to the entire region.

Polaroid's interest in these measures relates to both its current and potential future operations in the City.

Polaroid has maintained its worldwide corporate headquarters in Cambridge for over 50 years and, as it has grown, has established a network of manufacturing and distribution facilities in the suburbs. Over 90% of the company's facilities in the United States are located here in Eastern Massachusetts. This network of facilities in Massachusetts was established by design so that the Company would not economically dominate any one community, so that its traffic was dispersed around the region, and so that its plant sites are kept to an optimum size that would not become impersonal. This network of facilities is not well served by public transportation and there is, of necessity, frequent movement from site to site during the work day. Thus, we are a company that depends on mobility to function.

April 8, 1992

The measures adopted by the Council should provide flexibility to accommodate the diverse needs of Polaroid and other Cambridge firms and should recognize that diversity may translate into different travel characteristics.

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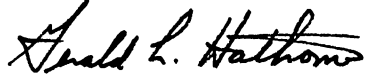
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Thank you for considering our comments.

Very truly yours,

POLAROID CORPORATION



Gerald L. Hathorne

Manager

Corporate Real Estate

GLH/jp

cc: Robert W. Healy, City Manager
Joseph E. Connarton, City Clerk
Wendy B. Jacobs, Esquire - Foley, Hoag & Eliot
Donald A. Drisdell, Esquire - Deputy City Solicitor

Polaroid:

E.V. Benson
I.M. Booth
G.M. Brown, Jr.
R.F. deLima
W.J. O'Neill, Jr.

INITIAL COMMENTS ON PROPOSED
VEHICLE TRIP REDUCTION ORDINANCE AND SIP AMENDMENT
(DRAFT DATED MARCH 20, 1992)

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Auto Efficiency Rate

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GLH/jp

MONITOR COMPANY
25 FIRST STREET
CAMBRIDGE, MASSACHUSETTS 02141

April 7, 1992

Mayor Kenneth Reeves
Office of the Mayor
City of Cambridge
Cambridge, MA 02139

Dear Mayor Reeves:

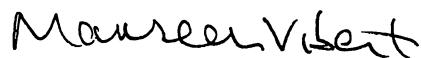
I am writing to express my concern about the proposed State Implementation Plan (SIP). While I completely agree that environmental issues cause great concern and need to be addressed by government, I do not believe that one city addressing such a major issue will accomplish anything except the vacancy of businesses from that city. I fear that businesses will find these ordinances at least inconvenient and opt for other locations.

The administrative burden which will be put on companies is overwhelming. The benefits which one city will gain will not make a material difference in the environmental situation but will create alot of frustration on the part of companies trying to conduct business in the City of Cambridge. However, if you could use the information which you have gathered to promote certain programs on a statewide or, at least, regional level, I believe such plans would have an impact on the environmental conditions in the City of Cambridge, and the administrative burden put on businesses at that point will not seem futile.

I am interested in hearing any new developments on this issue.

Thank you.

Very truly yours,



Maureen Vibert
Controller

Corporate Real Estate

Polaroid Corporation
575 Technology Square
Cambridge, Massachusetts 02139

RECEIVED BY
OFFICE OF CITY CLERK

1992 APR -8 PM 4:56

CAMBRIDGE MA.

Polaroid

April 8, 1992

Committee on Ordinances
Cambridge City Council
City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

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However, air pollution and traffic congestion are regional problems we all share and we must all contribute to the solutions. For that reason we urge the Council to defer the implementation of the Cambridge Ordinance until the State has adopted equitable measures pertaining to the entire region.

Polaroid's interest in these measures relates to both its current and potential future operations in the City.

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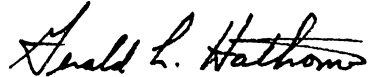
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Gerald L. Hathorne
Manager

Corporate Real Estate

GLH/jp

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Joseph E. Connarton, City Clerk
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Polaroid:

E.V. Benson
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W.J. O'Neill, Jr.

April 8, 1992

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GLH/jp



OFFICE OF THE CITY CLERK

CITY OF CAMBRIDGE

CITY HALL, CAMBRIDGE, MASSACHUSETTS 02139

JOSEPH E. CONNARTON
CITY CLERK

(617) 349-4260

JOHN E. FLYNN
DEPUTY CITY CLERK

May 26, 1992

Dear Interested Party:

Please be advised that the Cambridge City Council will conduct a public hearing on Monday, June 1, 1992, beginning at 7:00 p.m. in the Sullivan Chamber, Second Floor, City Hall.

The purpose of this hearing will be to continue discussions on proposals and recommendations as they relate to the Vehicle Trip Reduction Ordinance.

You are requested to attend at this time.

Thank you for your cooperation in this matter.

Very truly yours,

A handwritten signature in cursive script that reads "John E. Flynn".

John E. Flynn
Deputy City Clerk

JEF/pmc

PROPOSALS

PLEASE PRINT CLEARLY

NAME	ADDRESS
✓ Andrew Hamilton	Conservation Law Foundation, 3 Joy St., Boston, MA 02108
Andy Rubel	9 Chauncy St #54 Camb 02138
Bob Lewis	Chamber of Commerce
ROBERT J. LATREMOYILLE	348 FRANKLIN ST, CAMB 02139
CHERYL SOUZA.	13212 OXFORD ST. Camb 02140
GERALD L. HATHORNE	POLAROID CORPORATION TECH. SQ. CAMB
Bill Zamparalli	7 Emmons Pl. Cambridge 02138
Sabrina Berner Binner	8 Chatham St #2 02139
Hagyon Jean	33 Fenno St. 02138
Eric Benton	POLAROID
JOHN E. MCCARTHY	1697 CAMB ST. 02138
✓ Bill Cavellan	274 Brookline
✓ John Patrick	18 Fayette St

OPPOSED

PLEASE PRINT CLEARLY

NAME	ADDRESS
John NATHAN	92-4th
Bob Lewis	Chamber of Commerce
✓ Barbara NORFLEET	79 Raymond St. 02140
✓ Carolyn Hoffman + 3 kids opposite to parking districts	100 Reed St. Cambridge 02140
Peter Madsen	47 Thonike St. C. 02141
Haggen Seem	33 Fenno St. 02138
MICHAEL CANTALUPA	Boston Properties
✓ CARL OLSON	209 BROADWAY CAMB
Richard Vendetti	28 winter 02141
SARAH EUSDEN/MIT	77 MASS Ave

John E. McCarley

ORDINANCE COMMITTEE

1697 Cambridge St. Cambridge 02138

Corporate Real Estate

Polaroid Corporation
575 Technology Square
Cambridge, Massachusetts 02139

RECEIVED BY
OFFICE OF CITY CLERK

1992 APR -8 PM 4:56

CAMBRIDGE MA.

Polaroid

April 8, 1992

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City Hall
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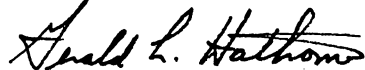
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Manager

Corporate Real Estate

GLH/jp

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Joseph E. Connarton, City Clerk
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GLH/jp



California Products Corporation

169 Waverly St. • P.O. Box 569 • Cambridge, MA 02139-0569 • 617-547-5300 • Fax 617-547-6934

April 8, 1992

HAND DELIVERED

City Clerk
Cambridge City Hall
795 Massachusetts Avenue
Cambridge, MA 02138

Attn: Cambridge City Council
Ordinance Committee

RE: Wednesday, April 8, 1992, 5:30pm.
Hearing on the Proposed "VTR" (Vehicle Trip Reduction) Ordinance

RECEIVED BY
OFFICE OF CITY CLERK
1992 APR - 8 PM 12: 59
CAMBRIDGE MA.

Gentlemen/Mesdames:

California Products Corporation is a Cambridge paints, stains, and coatings manufacturer employing approximately 95 people in Cambridge, and contributing over \$35 million to Massachusetts' economy. Because our factory workforce starts at 7am. and there is no frequent, close, public transportation available, virtually all employees drive their personal vehicles out of necessity. Only a few employees actually live close enough together in the same general area to even consider carpooling. If the proposed VTR ordinance were adopted we would have to seriously consider moving away from the Cambridge area to one more hospitable to our operation.

Businesses and tenants seeking to locate in Cambridge would not be apt to locate here if parking and/or commuting restrictions were more severe than other areas without such restrictions. If all communities in a region had the same "rules" it would be more fair to all concerned.

Automobile exhaust emissions generated in our neighboring cities of Boston, Watertown or Somerville don't "know enough" to stop at the Cambridge border! This is, perhaps, an indirect way of stating bluntly that the air quality in Cambridge depends on the quality of the "adjoining" air from the whole region.

We therefore believe that the proposed VTR ordinance should not be enacted because it requires Cambridge to single-handedly address a regional problem that requires a regional solution. The City Council should work closely with the Commonwealth of Massachusetts to develop and implement a regional program.

Sincerely,

Ronald B. Child
Vice President
Compliance & Regulatory Affairs

RBC:ma

Manufacturers of

CALIFORNIA® PAINTS • OX-LINE® PAINTS • STORM STAIN® EXTERIOR STAINS • WILBUR & WILLIAMS® HIGH PERFORMANCE COATINGS



EXECUTIVE OFFICES

614 Massachusetts Ave.
Cambridge, Mass. 02139
617-354-3358
FAX: 617-354-5571

SHOWROOMS

614 Massachusetts Ave.
Cambridge, Mass. 02139
617-354-3358

11 Acton Rd.
Chelmsford, Mass. 01824
508-256-9251

929 Worcester Rd.
Framingham, Mass. 01701
508-879-8383

1280 Oaklawn Ave.
Cranston, RI 02920
401-463-6360

7 Jansen Court
W. Hartford, Conn. 06110
203-953-4015

23 Daniel St.
Milford, Conn. 06460
203-877-2791

April 7, 1992

Mr. Joseph E. Connarton, City Clerk
Office of the City Clerk
City of Cambridge
City Hall
Cambridge, MA 02139

RECEIVED BY
OFFICE OF CITY CLERK
1992 APR -8 AM 10:24
CAMBRIDGE MA.

Re: Hearing of the Ordinance Committee of the City Council
April 8, 1992

Dear Joe:

I would greatly appreciate your forwarding a copy of this letter to each member of the Ordinance Committee of the Cambridge City Council so that my views in opposition to the proposed VTR ordinance might be made known.

Thank you very much for your anticipated cooperation.

Sincerely,

Carl F. Barron

encl.

CFB/b.6843

Corporate Real Estate

Polaroid Corporation
575 Technology Square
Cambridge, Massachusetts 02139

RECEIVED BY
OFFICE OF CITY CLERK

1992 APR -8 PM 4: 56

CAMBRIDGE MA.

Polaroid

April 8, 1992.

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Cambridge City Council
City Hall
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Cambridge, MA 02139

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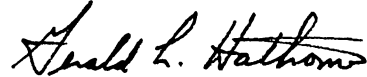
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GLH/jp

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GLH/jp

RECEIVED BY
CITY CLERK
Badger
A Raytheon Company
APR 9 1992
CAMBRIDGE MA.

April 7, 1992

City of Cambridge
795 Massachusetts Ave.
Cambridge, Ma.

Attn: Joey Connarton
City Clerk

Subj: Proposed SIP Amendment and Vehicle
Trip Ordinance

Representatives of Badger Engineering, Inc. have been attending meetings and conferring with other businesses and institutions on the above subject matter for nearly two years.

Badger is aware of and committed to finding solutions to air quality problems.

It is our firm belief that the responsibilities for regulating unsolved air quality problems lie with the governing bodies of the State of Massachusetts as a whole and not the City of Cambridge alone.


W. J. Higgins

/kac

cc: J. Turner
E.J. Kelley
A.W. Glauner



Conservation Law Foundation

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TESTIMONY OF THE
CONSERVATION LAW FOUNDATION
ON THE PROPOSED ORDINANCE
AMENDING THE INTERIM PARKING FREEZE

June 1, 1992

Stephanie Pollack
Senior Attorney

The Conservation Law Foundation ("CLF") is pleased that the City Council is continuing to contemplate the difficult questions surrounding the best way for the City of Cambridge to serve as a leader in regional efforts to reduce automobile air pollution and congestion. We do not, however, believe that the proposed changes to the interim parking freeze ordinance are the best means of tackling this thorny problem. While CLF has concerns about many of the proposed changes to the interim parking freeze ordinance, our primary concern is with the provision that would allow unlimited increases in the parking freeze "bank" in the amount of one space for every two on-street parking spaces regulated by the City.

There is no justification for Cambridge getting any air pollution control "credit" for regulating on-street parking spaces, since the City should have completed all efforts at such regulation fifteen years ago. The State Implementation Plan's "Regulation Limiting On-Street Parking by Commuters" required the City of Cambridge to "adopt all necessary administrative and enforcement procedures and regulations to effect a prohibition of on-street parking . . . within the City of Cambridge between the hours of 7 a.m. and 10 a.m. except Saturdays, Sundays and legal holidays." 40 C.F.R. § 52.1134(b). The only exceptions to the on-street parking ban during these hours are for cars bearing resident parking stickers, cars with handicapped license plates, vehicles with commercial license plates and spaces subject to metered parking with a maximum allowable time limit of one hour. Id. at § 1134(c), (g).¹ The City was to have finished eliminating all such on-street parking by March 1, 1977, id. at § 2234(b), and both the 1982 State Implementation Plan (at page 203) and the 1983 Transportation Element of the State

¹ The City of Cambridge is also permitted to issue special parking stickers to employees upon a finding that they would experience "substantial hardship" from the on-street parking restrictions; such stickers are, however, subject to a number of restrictions. See 40 C.F.R. § 52.1134(f).

Implementation Plan (at 34) refer to this program as having been completed.

Thus, there should currently be no unregulated on-street commuter parking in Cambridge. To the extent the City has not taken the necessary administrative and enforcement actions to effect the required prohibition, it should not be rewarded for doing so fifteen years late by being permitted to further increase the size of the already over-sized freeze bank.

I assume that the proposed ordinance language is modelled on language in the parking freeze, as codified in the Code of Federal Regulations, which states that the size of the freeze bank in Cambridge can be increased by two spaces for every on-street space eliminated. This provision does not, however, support the proposed ordinance changes. First, this leniency was made subject to the proviso that "such additional spaces do not result in an increase of more than 10 percent in the total commercial parking spaces available for use on October 15, 1973." This 10% limit has already been exceeded, so the "trade-in" provision of paragraph (n) of the parking freeze is no longer available.

I am well aware that the City solicitor's office rejects this interpretation of the State Implementation Plan ("SIP"), arguing that either (i) the SIP doesn't mean what it says; (ii) the City isn't bound by the SIP because it didn't know about the 10% limit, and/or (iii) the terms of the freeze aren't enforceable because they have gone unenforced for so long. I am quite confident that such arguments would not stand up in court should CLF be forced to bring a lawsuit to enforce the parking freeze (and/or the on-street parking restriction regulations). A similar set of arguments was rejected by Judge Woodlock last year in CLF's federal court lawsuit against the Commonwealth and DEP for failure to implement various provisions of the SIP. In particular, Judge Woodlock rejected the Commonwealth's arguments about its "subjective intent with respect to the 1982 SIP," noting that "[u]nexpressed intentions, even if they could be established, are irrelevant given that SIP strategies are mandatory and enforceable upon EPA approval." Conservation Law Foundation v. Commonwealth of Massachusetts, No. 87-0651-WD, slip op. at 11 (D. Mass. Jan. 2, 1991). The Court also admonished that a defendant in a SIP enforcement suit cannot "rely on the . . . failure to implement the [SIP] commitment in question to establish that there isn't one." Id.

The second problem with the attempt to borrow the "trade in" concept from the parking freeze is that the proposal in the draft ordinance does not even meet the regulatory standard for such trade-ins. Under the parking freeze regulation, the burden of proof is on the City of Cambridge to

demonstrate to the satisfaction of the Governor that (1) specific on-street parking spaces in use as of October 15, 1973, were being legally and regularly used as of such date for parking by commuters (as that term is defined in § 52.1161(a)(6)² who are not residents of Cambridge and that (2) effective measures have been implemented (including adequate enforcement) to prevent such spaces from being used by such commuters.

40 C.F.R. § 52.1135(n). The proposed ordinance, however, would give the City spaces in the freeze bank for one-half of the spaces identified in an on-street parking inventory (which DEP is not given the right to review or reject). The City released such an inventory in April purporting to identify more than 4,300 unregulated on-street parking spaces. An analysis of this list prepared by transportation consultant Charles Bahne estimated that perhaps 1,500 of the spaces are actually used by commuters. If the City of Cambridge is going to attempt to benefit from its past, illegal inaction on restricting on-street parking and to increase the freeze bank further beyond the limits established in the SIP, the ordinance should at least embody the regulatory standard in the parking freeze to ensure the City is only receiving credit for spaces actually used by commuters.

In summary, CLF simply does not see how the current parking freeze can be read to allow continuing "trade ins" of on-street spaces, given that all unregulated on-street parking before 10 a.m. should already be illegal and given the 10% cap on increases in the freeze limit. The proposed ordinance would further puncture the already leaky parking freeze.

The City Council should keep in mind that the City already has the means at its disposal to substantially increase the number of spaces in the freeze bank if you so desire, by taking enforcement actions against illegal off-street parking spaces. The August 15, 1990 Memorandum of Agreement places no limit whatsoever on the number of spaces that can be banked as a result of enforcement actions. Further, half of the freeze bank "credits" can be claimed by filing a lawsuit to enforce an administrative order without even waiting for the court to order the physical closure of the illegal spaces. The real reason that the freeze bank has run out of spaces is that the City has chosen not to use this enforcement authority for the past year and one-half, a choice that the City has made and must live with.

² In that section, the term "employee" is defined to include both students who live off-campus and persons who work full-time (at least thirty-five hours per week for at least twenty weeks) for compensation. 40 C.F.R. § 52.1161(a)(3), (4) and (6).

The Conservation Law Foundation views the proposed ordinance as an attempt to seriously weaken the interim parking freeze ordinance, which is itself a weaker version of the SIP parking freeze that was validated by Superior Court Judge Owen Todd not long ago. CLF had been prepared to settle the remainder of that parking freeze lawsuit, but has informed the City Solicitor that it is withdrawing from settlement negotiations until such time as the City ceases its efforts to weaken the provisions of the interim parking freeze ordinance. I am saddened by this development because I believe that a settlement of that litigation might well have eliminated existing legal uncertainties and cleared the way for all of our energies to focus on preparing a new and better transportation control measures for the SIP. Nevertheless, the City's actions leave us no choice but to withhold our consent to a settlement until the City Council turns its attention away from changing the interim parking freeze and toward developing a meaningful SIP amendment, regulations for the management of off-street parking supplies, that can someday supplant the interim parking freeze ordinance.



CITY OF CAMBRIDGE

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EXECUTIVE DEPARTMENT

ROBERT W. HEALY

City Manager

RICHARD C. ROSSI

Deputy City Manager

March 20, 1992

To: The Honorable City Council

From: Robert W. Healy, City Manager

Re: Proposed Cambridge Vehicle Trip Reduction Ordinance
and SIP Amendment

Executive Summary:

This memorandum describes the program of transportation control measures contained in the proposed Cambridge Vehicle Trip Reduction Ordinance ("Ordinance"). It also describes the objective, impacts, and schedule for implementation of the proposed Ordinance. Finally, this memorandum contains the elements of a proposal for an amendment of the State Implementation Plan. The proposed Ordinance and this memorandum are supported by the attached Technical Appendix prepared by Cambridge Systematics, Inc.

The objective of the City of Cambridge (the "City") in proposing the Ordinance and proposing an amendment to the State Implementation Plan ("SIP") as described herein is to promote the attainment and maintenance of national ambient air quality standards for protection of human health in the Metropolitan Boston Intrastate Air Quality Control Region (the "Region"). The proposed Ordinance and SIP amendment will accomplish that objective by reducing the number of vehicle trips currently travelled to and within the City and reducing the air emissions associated therewith. The program will also constrain future growth of vehicle trips and associated air emissions. While the City currently has a full-time, City-funded Commuter Mobility Coordinator and program for facilitating and coordinating voluntary measures by employers, more systematic and comprehensive measures involving all segments of the City's government, business, institutional and residential populations would advance this effort.

Specifically, the proposed Ordinance would reduce the vehicle miles travelled ("VMT") in connection with existing jobs in the City, restrict parking which is currently unregulated, discourage cross-town trips during the work week, facilitate opportunities

for residents to find jobs in the City, expand the Commuter Mobility Program, and create a Bicycle Mobility Program. Together, these measures are expected to eliminate between 104,500-170,500 daily VMT. This translates into a reduction of approximately 3 to 5% of Cambridge-based daily VMT. This is a significant achievement in view of the data which indicates an annual growth in VMT of 3% in the Region.

In addition to the reductions of existing VMT quantified above, the Ordinance also contains measures to constrain future growth in VMT associated with new development. Furthermore, the Ordinance would reward businesses and institutions which have already or henceforth achieve significant changes in commuter travel behaviors and encourage fleet owners to convert their fleets to cleaner fuels, thereby encouraging and promoting further improvements in regional air quality.

The scientific literature and data are clear: the degradation of air quality is a regional problem that requires global and regional solutions. This is particularly the case with ozone. Every community within a region must contribute to the solution. In the past, Congress directed the force of the Clean Air Act primarily toward the regulation of emissions of air pollutants from stationary sources. In the 1990 Amendments to the Clean Air Act, Congress is requiring increasingly strict controls on emissions from and the movement of automobiles.

Cambridge is committed to being a leader in this movement. Cambridge cannot, however, singlehandedly improve the Region's air quality. Notably, approximately 33% of all traffic on Cambridge streets is attributable to "throughtrips," trips that neither originate nor end in Cambridge. Cambridge has virtually no control over these trips. The program set forth in the Ordinance must therefore be supplemented, complemented and, in accordance with the amended Clean Air Act, replaced by a transportation control program of regional applicability.

Toward that end, the proposal for a SIP Amendment contained herein identifies regional measures necessary to supplement and complement the Citywide measures in the Ordinance. The City's Ordinance should be replaced by a comprehensive regional program of transportation control measures; otherwise, the City's Ordinance could put the City at a competitive disadvantage in the Region, cause an increase in the number of vehicle miles travelled in the surrounding cities and towns, and/or cause the relocation of businesses or institutions to other areas. Genzyme's choice to locate in Allston rather than in Cambridge is a concrete example of the need for a regional plan. Such a result contravenes the mandates of the Clean Air Act and results in no net gains for air quality. Therefore, this proposed Ordinance and SIP Amendment would operate as an interim transportation control plan until 1996 by which time the Commonwealth is expected to have adopted a comprehensive transportation control plan of regional applicability. This proposed Ordinance and SIP Amendment will be

more effective in promoting the air quality objectives of the 1990 Clean Air Act than and therefore would replace the commercial parking freeze regulation set forth at 40 C.F.R. 52.1135.

Recommended Revisions of State Policy and Programs:

If the state is serious about achieving the objectives set by the Clean Air Act, it cannot rely on transportation control measures alone. It must also change certain taxing and pricing policies. Specific recommendations for inclusion in a SIP and revision of state policy are as follows:

Tax Policy. Given that many transportation control measures depend upon changes (some radical) in driving behaviors, a key first step is to force drivers to recognize and bear the costs of their driving patterns. This can be accomplished in several ways through changes in tax policies. Depending upon the type of policy, the Commonwealth could assume direct responsibility for levying and collecting the tax or it could enact enabling legislation to allow individual municipalities to enact local taxes.

Taxes applied to automobile use are an effective demand management tool which can encourage drivers to switch to alternative modes of travel while at the same time raising new revenues to support these alternative modes. Some approaches to be considered include:

- Increase in the gasoline tax.
- Changes in tax policy to eliminate the favored treatment accorded to subsidies of employee single occupant vehicle parking and to favor increased employer subsidies of other, cleaner travel modes. This could include treating a parking subsidy as income and treating financial incentives for alternative travel modes as a deductible business expense and/or as non-reportable income.
- Provision of tax incentives to encourage conversion of vehicles (fleets and otherwise) to cleaner fuels, such as accelerated depreciation.
- Adjustment of the sales tax applied to automobiles to favor the purchase of clean fuel vehicles and disfavor the purchase of gas guzzlers.

Clean Fuels. To demonstrate a genuine commitment to improvements in air quality, the state should commit to an immediate study of alternative (cleaner) fuels and implement a clean fuels program in connection with public fleets, including MBTA buses.

Improved Mass Transit. Critical to any attempt to shift drivers from their cars to public transit is an improved public transit system. Although Cambridge is currently served by local MBTA buses and the Red Line, review of commuting characteristics of employees in the City reveals that large numbers of commuters (particularly those who live to the west and north of Cambridge) do not have ready access to public transit which would bring them into Cambridge. Accordingly, specific recommendations for improvements to the public transit infrastructure serving Cambridge include:

- Circumferential Transit. This project would provide direct transit service connecting Cambridge to the Orange Line North and Green Line's Riverside Branch to the West. The large number of people commuting to Cambridge from the I-93 corridor and the Mass. Turnpike corridor would then have an excellent transit option to travel to Cambridge. Since construction of the Circumferential Transit Line is probably many years away, express bus service into Cambridge should be provided in the I-93 and Mass. Turnpike corridors in the interim (for example, a bus link between the Green Line at Riverside and points in Cambridge). Such service is currently provided into Boston.
- Express Buses and Other Local Service. The MBTA should rearrange local bus services, both within Cambridge and into Cambridge from nearby communities, to provide through service to Cambridge destinations without a transfer, for the largest number of users, wherever feasible.
- General Operational Improvements. The City and the MBTA should undertake cooperative efforts to actively promote bus ridership within and into the City - including, but not limited to:
 - installation of MBTA-endorsed or recognized bus stop signs
 - relocating bus stops to locations which will facilitate transfers between buses, or between buses and the subway (especially in Harvard and Porter Squares)
 - preferential treatment for buses on City streets, where feasible
 - changes where necessary in street patterns or curb cuts, including possible bus-only lanes, to facilitate bus access to transit stations (such as at Kendall Square)

- community workshops to receive input from transit users on potential bus route improvements and changes
 - establishment of new or extended bus routes as necessary
 - installation of bus shelters
- o Relocated Lechmere Station. By relocating this facility to the north side of Msgr. O'Brien Highway, First Street can be extended to Msgr. O'Brien Highway and the roadway constraining columns supporting the existing Green Line can be eliminated. This will help ease traffic flow in the Lechmere Square area.
 - o Additional Transit Improvements. Additional transit improvements to facilitate increased transit usage in Cambridge and the Boston Metropolitan area include:
 - proposed improvements at North Station Green Line to facilitate transfers between commuter rail and the Green Line to Lechmere
 - additional local circumferential bus service
 - extension of trackless trolley from Watertown to Newton Corner
 - a bus to link North Station to Kendall Square/Kendall Square Station

Fringe Parking. In addition to improving the public transit system within and around Cambridge, it is also imperative that long-distance commuters have ample parking at the fringe of the public transit system. These facilities should be charging prices which encourage and favor high occupancy vehicle travel to and from the parking facility. In addition, fringe parking facilities served by public transit should provide ample, convenient, and safe storage for bicycles to encourage bicyclists to ride from home to the public transit system.

* * * * *

Contribution of Mobile Sources to Regional Air Quality Problems:

Motor vehicles are the dominant source of several air pollutants which cause significant damage to the environment and human health. As shown in the attached figure, 54.3 percent of the volatile organic compounds (VOCs), 42.6 percent of the Oxides of Nitrogen (NOx), and between 66.1 percent (winter) and 75.8 (summer) percent of the Carbon Monoxide (CO) emitted into the atmosphere in Massachusetts in 1987 were produced by transportation sources. A large share of the total emissions of

these pollutants that are released in the State -- 23 percent of the VOCs, 14 percent of the NOx, and 21 to 22 percent of the CO -- are attributable to Middlesex County. The City of Cambridge, as one of Middlesex County's major centers of population and employment, is a significant generator of vehicle travel and, as a result, is a significant contributor of these pollutants.

Volatile organic compounds (VOCs) are compounds of carbon and hydrogen. VOCs are primarily unburned fuel which escapes through motor vehicle exhaust and fuel evaporation. Oxides of Nitrogen (NOx) represent a number of compounds produced during the combustion process. NOx is a pulmonary irritant and short exposures may increase susceptibility to acute respiratory diseases. NOx in combination with VOCs, through a reaction with sunlight, forms Ozone (O3). Because the chemical process of ozone formation is, in large part, dependent upon available sunlight, ambient ozone levels are highest during warm weather periods. Ozone forms naturally in the stratosphere and helps filter infrared rays of sunlight. However, in the atmosphere, ozone and related "photochemical oxidants," is referred to as "smog." Ozone is a strong pulmonary irritant which can affect lung functions. These effects are not limited to individuals with pre-existing respiratory problems, but also affect people in good health by producing measurable reductions in normal lung functions. Ozone also causes eye irritation, is toxic to plants, and damages non-living materials as well.

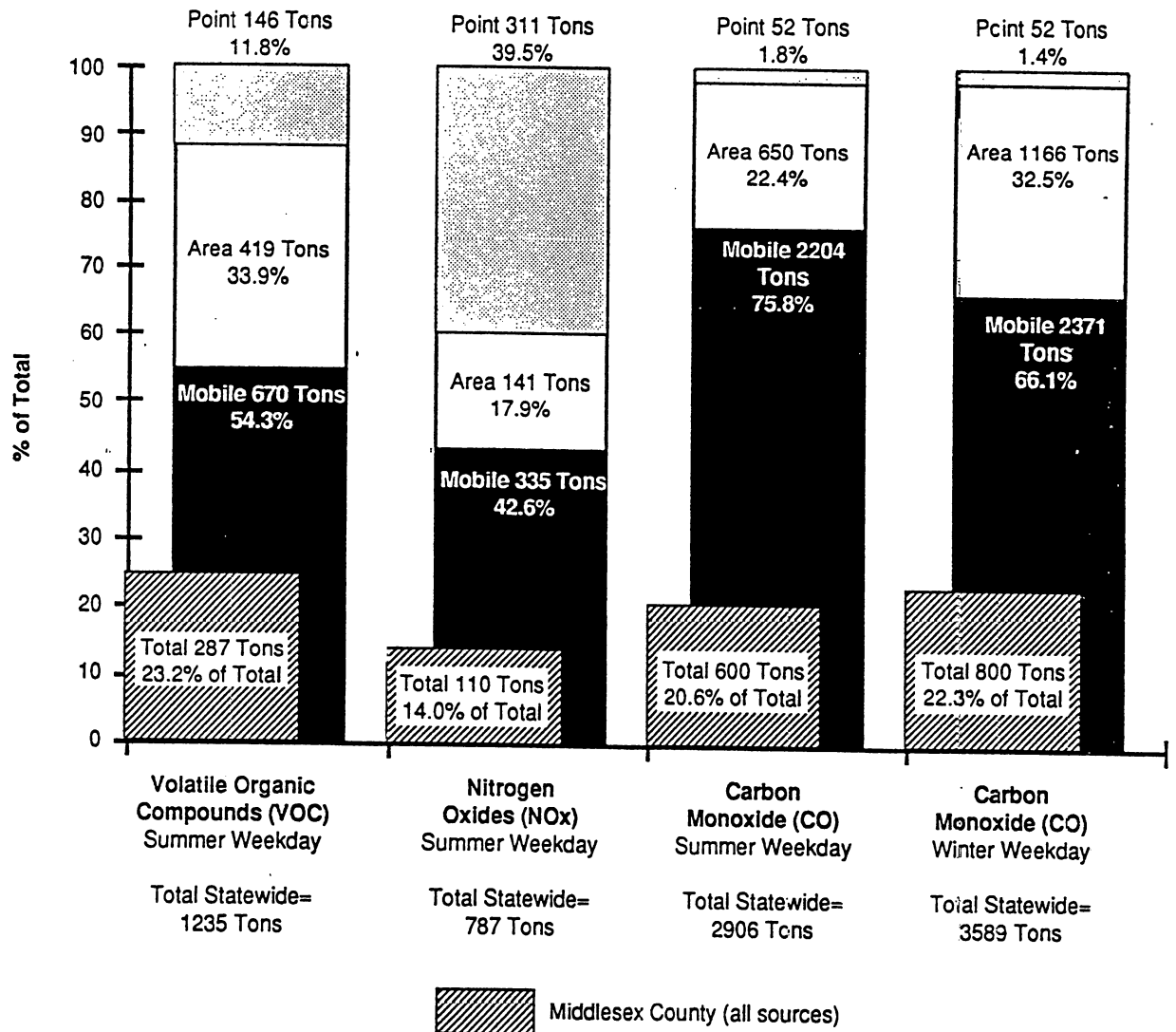
Carbon monoxide (CO) is a colorless, odorless gas produced through the incomplete combustion of organic fuels. Due to the effect of cold weather operating conditions on engine combustion characteristics, CO levels are highest during cold weather. CO combines with the hemoglobin in the blood, reducing the ability of blood to carry oxygen. At high concentrations, CO can be fatal to humans. At lower concentrations, CO can aggravate cardiovascular diseases and impair mental functions.

Vehicle Trips and Miles of Travel:

Passenger cars represent a large fraction of the total motor vehicle fleet, representing over 90 percent of the total vehicle trips made in the Boston metropolitan area. As such, they are also large contributors to ozone precursor and carbon monoxide emissions.

In 1987, Cambridge generated nearly 3.3 million vehicle miles of travel per day, which represented 8.2 percent of the total vehicle miles traveled in the Boston Metropolitan Region. Work-related trips represent the largest share of total travel in Cambridge, comprising over 57 percent of the total travel market. This share includes both Cambridge residents working inside or outside Cambridge and non-Cambridge residents who commute to Cambridge to work. Other non-work related trips that are based from the home represent the next largest travel share at 27 percent. Non-home based related travel represents the other 16 percent share of

Summary of Massachusetts 1987 Base Year Emissions Inventory by Source Category and Middlesex County Share



Source: Massachusetts 1987 Base Year Emissions Inventory, Department of Environmental Protection, Division of Air Quality Control

travel in Cambridge. Cambridge' importance as a major regional employment center is reflected in its relatively high share of work trip based travel as compared to the regional average for work related travel.

Not reflected in any of these totals of vehicle miles of travel are vehicles which pass through the City without stopping. Travel data provided by the Central Transportation Planning Staff for several major and minor arterials in Cambridge indicate that about 33 percent of the total daily traffic on these roadways are throughtrips which have no point of origin or destination in Cambridge.

The vehicle travel in Cambridge includes a large proportion of very short trips as shown on the figure. The overall average trip length for work trips is 6.4 miles and 5.1 miles for non-work related trips. Included in these averages is a large number of vehicle trips of 2 to 4 miles in length.

Overall Trends Affecting Travel:

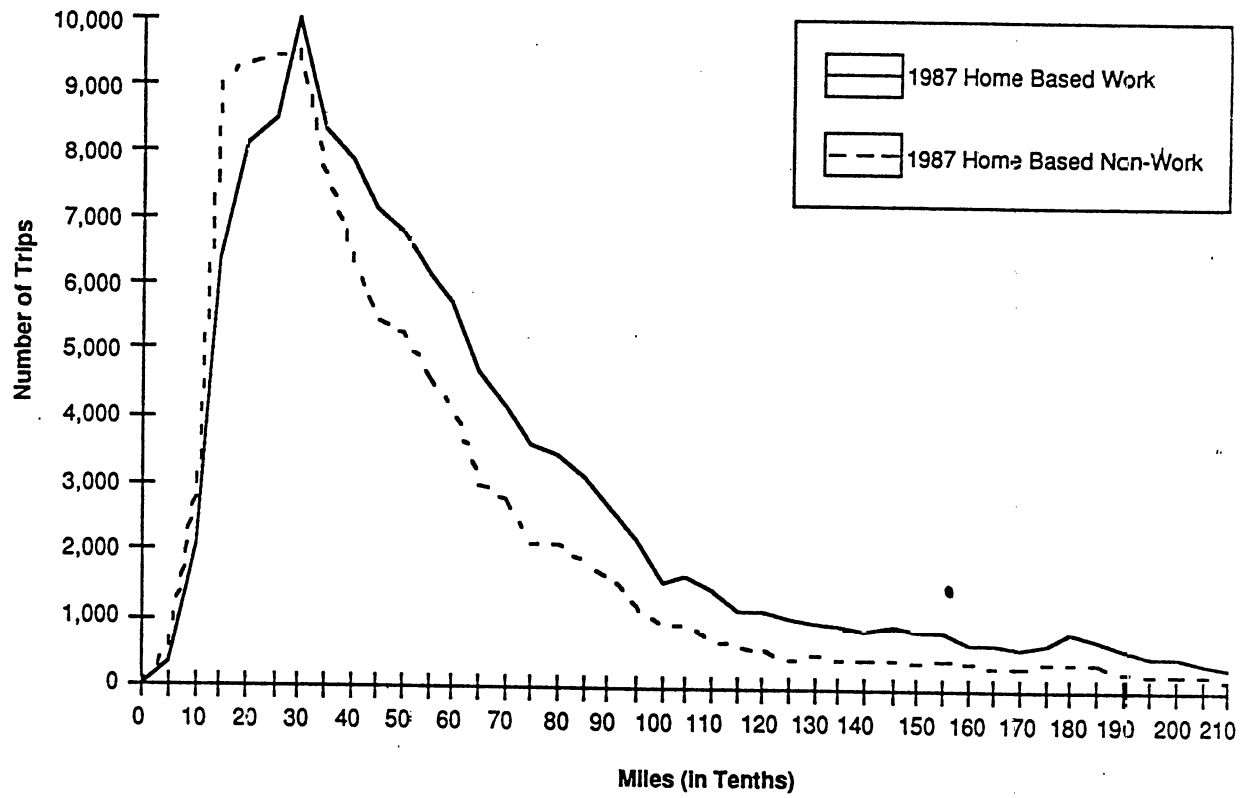
The population of Cambridge has remained relatively stable over the past twenty years, with a 1970 population of 100,000 and 1990 population of 96,000. However, while the City's population has changed little, other factors have contributed to a large increase in vehicle travel. These factors have included higher employment, rapidly increasing household formation and automobile ownership per households. In 1980, Cambridge employed 92,000 people. By 1990 employment had risen to over 102,000 people or 11 percent in 10 years, and had undergone a considerable transformation from an industrial base to a service sector oriented market that attracts employees from throughout the region.

Automobile ownership has also undergone great change in Cambridge and throughout the nation, with a clear pattern of rapidly rising rates of auto ownership per household. From 1980 to 1987, the number of cars registered in Cambridge rose by nearly 40 percent, despite relatively little change in population and a major investment in expanding and improving the region's transit system. Traffic data available from the Massachusetts Department of Public Works (MDPW) indicate that use of the automobile has risen considerably during the 1980's, and that the City and Boston Metropolitan Region have experienced a considerable growth in vehicle miles traveled averaging about 3 percent per year.

The Need for Better Management of Traffic and Vehicle Miles of Travel:

Although significant emission reductions have been achieved in recent years as a result of requirements for emission control equipment on cars, trucks, and other vehicles, it has not been sufficient to eliminate motor vehicle emissions as a problem. Even if existing and potential new emission control devices operate at maximum effectiveness, national trends show that the

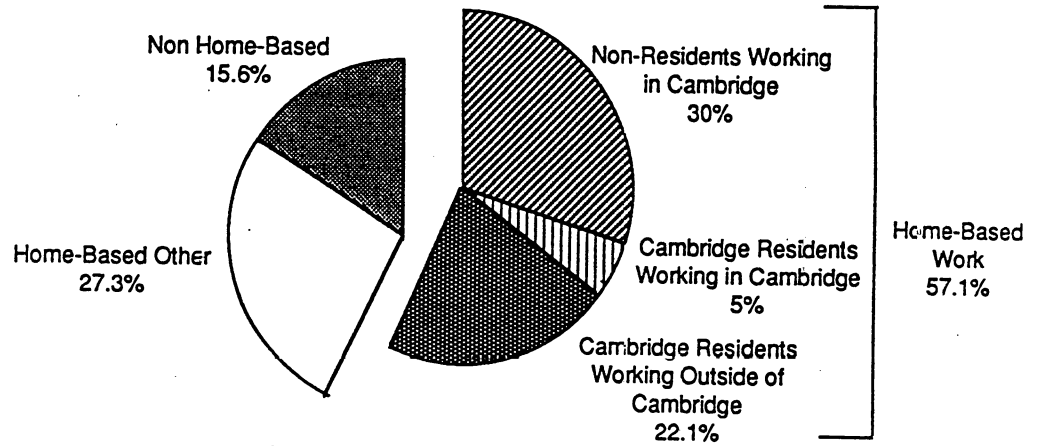
Cambridge Related Vehicle Trip Length by Purpose



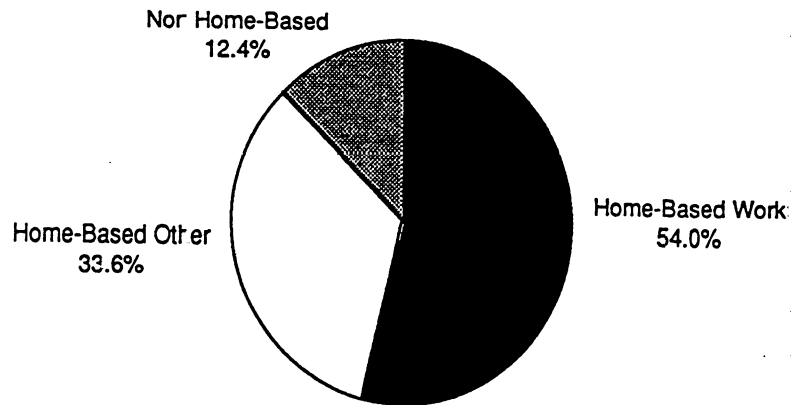
Source: Central Transportation Planning Staff

Vehicle Miles of Travel by Trip Purpose (1987)

Cambridge



Eastern Massachusetts



Trip Purpose	Cambridge		Eastern Massachusetts	
	VMT	% of Total	VMT	% of Total
Home-Based Work	1,874,680	57.1%	34,562,384	54.0%
Home-Based Other	896,947	27.3%	21,507,019	33.6%
Non Home-Based	533,447	15.6%	7,912,970	12.4%
Total	3,285,074	100.0%	63,982,373	100.0%

Source: Central Transportation Planning Staff

growing number of vehicles in use and increases in vehicle miles of travel (VMT) will result in a net increase in auto pollutant emissions. In short, growth in VMT and resulting emissions are expected to overtake the benefits of emission control technology and the reductions in emissions it has produced.

Control strategies aimed at transportation-related emissions are intended to reduce the growth of vehicle trips and VMT. These strategies are called transportation control measures or TCMs. The objective of TCMs is to reduce emissions from on-road motor vehicles by reducing the use of motor vehicles, by making the road system operate more efficiently, and by switching to motor fuels that produce comparatively less emissions.

Experience has shown that it is not easy to change automobile travel behavior. Surveys show that most people understand that automobiles significantly contribute to air pollution. Yet automobile use continues to grow. For a program of TCMs to succeed, it must consist of a balance of incentives and disincentives to encourage use of alternative travel modes. To substantially change travel behavior, a TCM program must also include measures to promote alternative means of travel that are improvements or, at a minimum, are comparable in cost and convenience to the single-occupant automobile. It is also imperative that these TCM programs are applied area-wide and have regional applicability. The following program proposed for the City of Cambridge is designed to help meet these criteria until the Commonwealth supplants it with a program of regional applicability.

Cambridge Attributes:

To develop a program of Transportation Control Measures for the City of Cambridge that can be successfully implemented, it is important to identify and take into account the unique characteristics of the City of Cambridge.

These key attributes include:

Land Use:

- High residential densities distributed throughout City.
- Close geographic proximity to downtown Boston which results in a large proportion of trips that pass through Cambridge without stopping.
- Clusters of high density office development concentrated at limited number of locations (East Cambridge/Kendall Square, Alewife, University Park); additional office development dispersed at lower densities primarily along Mass. Ave. corridor between Harvard Sq. and Central Sq.

- Two (2) large educational institutions serving a primarily non-commuter population (Harvard University, Massachusetts Institute of Technology); various other smaller educational institutions; some commuting by faculty and non-resident students.
- Retail/commercial activity dispersed throughout City with few locations of high concentrations (Cambridge Galleria, Harvard Square, Central Square, Porter Square, Fresh Pond Shopping Center, Mass. Ave. corridor).
- Two (2) major hospitals (Mount Auburn and Cambridge) which are located in predominantly residential areas with limited parking availability.
- Cambridge is second to Boston in number of jobs provided in the region. Since 1980, employment has increased by over 10,000 jobs, an increase of 11%.
- Between January 1980 and March 1990, over 8 million square feet of office, retail, and industrial space, nearly 2,000 new housing units, and nearly 1,000 new hotel rooms were constructed in Cambridge. This development has generated about 16,000 additional person trips daily in Cambridge with about 56 percent of the total, or about 9,000 trips, using an automobile to make the trip. Since March 1990, an additional 1 million square feet of office and retail space has been constructed or has begun construction. An additional 7 million square feet of non-residential development has been proposed or planned; although, due to economic conditions and other circumstances, not all this proposed or planned development will necessarily be constructed. However, if all this proposed development were to occur, a similar increase in the number of vehicle trips made daily in Cambridge would be expected.
- Although population has remained constant in Cambridge since 1980, the rate of auto ownership has increased. Data available from 1970 to 1986 show a 40 percent increase in the number of passenger vehicle registrations in Cambridge. From 1982 to 1986, a period of only four years, registrations increased by over 12 percent.
- Given current and projected trends, along with the current downturn in the regional economy, Cambridge employment and development is expected to stabilize for the foreseeable future.

Transportation:

- Served by several major arterials and highways which are not subject to controls by the City of Cambridge (Alewife Parkway, Fresh Pond Parkway, Memorial Drive, and McGrath Highway). These roadways handle a high proportion of through trips to Boston and other communities, as well as work trips to Cambridge employers and non-work trips to Cambridge retail and entertainment facilities.
- Provided transit service by MBTA via local buses and the Red Line and some limited service via the Green Line and commuter rail. The radial nature of the MBTA system, which is oriented to downtown Boston, results in considerably more opportunities to use transit to access Cambridge from the south (downtown Boston) than from the either the north or west.
- Congestion is experienced at various intersections/roadways and is anticipated to continue at a number of locations into the future; however no measured violations of CO standards currently or projected for future (based on limited available data).
- Extensive supply of primarily privately developed off-street parking serving employees (41% of supply) and commercial (19% of supply).
- Current transit use within the City is relatively high compared with national averages, with nearly 20% of daily home-based work trips to Cambridge destinations being made by transit; use of non-motorized transportation for worktrip travel is much higher than national averages, with nearly 17% of daily home-based work trips made by bicycle or walking (according to Central Transportation Planning Staff data).

Management:

- City has history of action to downzone residential and non-residential areas by reducing the allowable Floor Area Ratio ("FAR"), resulting in a reduction in the potential size of development compared to what would have been allowed under prior zoning regulations.
- One-zone residential permit parking program in place, affecting supply/utilization of on-street parking.
- Citywide commuter mobility program is staffed by a full-time, City-funded, Commuter Mobility Coordinator who provides transportation management services to major employers and developers.

- Many of the City's employers already provide alternative work hour programs as an employee benefit, thereby reducing peak hour traffic.
- The City and several major institutions and private employers historically have implemented a variety of Transportation Control Measure (TCM) programs including parking restrictions, carpool programs, and traffic flow improvements, in addition to supporting programs such as privately-sponsored shuttle bus services and mass transit improvements by the MBTA.

**MEASURES IN CAMBRIDGE VEHICLE TRIP REDUCTION ORDINANCE
PROPOSED FOR INCLUSION IN REVISION OF STATE IMPLEMENTATION PLAN**

A. GENERAL MOBILITY-BASED MEASURES

1. Implement Expanded Commuter Mobility Program

Description:

Various programs/activities would be implemented through the Commuter Mobility Program within the Cambridge Community Development Department, including, but not limited to:

- A program to encourage commercial establishments in Cambridge to offer discounts to patrons who have an MBTA transit pass.
- Establishment of residential-based trip reduction programs at apartment complexes and condominium developments of 50 or more units; such programs could include provision of information about combining trip purposes, available transit and ridesharing services, ridesharing among residents, shopper shuttles, etc.
- A study of potential utilization of jitney services or shuttles to MBTA services, major shopping complexes, and major employment centers where no MBTA service is currently available.
- Creation of a bicycle commuter program, in conjunction with the Cambridge Traffic and Parking Department, including consultation with Cambridge residents and businesses.
- A program to assist employers in identifying and implementing appropriate incentives to encourage employees to commute by bicycle.

Fifty (50) percent of the revenues raised through sale of Residential Parking Stickers and all revenue raised from fees paid by employers with the filing of the Annual Employer Survey and by developers with the filing of Transportation Management Plans would be used to support these and other activities of the Community Development Department in conjunction with the Commuter Mobility Program, as set forth in the Ordinance.

Impact:

Dependent upon program applications and extent of participation. Based on a voluntary and area-wide application of commuter mobility measures, including community education programs on alternative modes of travel and implementation of shuttle services linking the MBTA and major employment centers, Cambridge-based vehicle miles of travel could be reduced by an estimated 0.41 percent or 13,500 daily VMT.

Implementation Responsibility:

Commuter Mobility Coordinator, Cambridge Community Development Department

Schedule:

Upon the effective date of the Ordinance.

2. Implement Citywide Bicycling Incentive Program

Description:

The City of Cambridge would commit an initial annual budget of \$25,000 for use by the Cambridge Traffic and Parking Department toward development of a program to encourage greater use of bicycles. As a first step in development of the program, a Bicycle Coordinator will be appointed within the Cambridge Traffic and Parking Department. The Bicycle Coordinator will devote at least 50 percent of his/her time to developing and implementing this program. The budget allocated to this program will be in addition to, and not be applied toward, the salary of the Bicycle Coordinator. The program will include the following:

- Creation of a Bicycle Advisory Committee.
- Development of a Cambridge Bicycle Master Plan.
- Provision of bicycles for use by police and Traffic and Parking Department Staff.
- Funding of improved bicycle amenities and storage facilities.

- Consultation with Cambridge residents and businesses.
- Development and evaluation of recommendations for a regional network of bicycle paths and bicycle priority streets favoring bicycles and pedestrians.

Impact:

Increased bicycle use as an alternative to other travel modes, primarily for short-distance/local trips during the peak ozone season (warmer weather period).

Implementation Responsibility:

Cambridge Traffic and Parking Department, with assistance from the Commuter Mobility Coordinator.

Schedule:

A Bicycle Mobility Coordinator would be appointed within one month of the effective date of the Ordinance.

B. PARKING SUPPLY-BASED MEASURES

1. Implement Parking Restrictions on Currently Unregulated Streets

Description:

The City of Cambridge Traffic and Parking Department would prepare an inventory of all currently unrestricted on-street parking spaces throughout the City and, after consultation with Cambridge residents, businesses, and the City Manager, determine and implement the most appropriate form of regulation, by location, to discourage use of these spaces for long-term parking. Approximately 4,700 on-street parking spaces in Cambridge are currently unrestricted. Regulation can be in the form of parking meters, time restrictions, or residential permit requirements.

Impact:

Reduction in long-term, commuter-related work trips. For the purpose of analysis, it was assumed that this measure would apply to the entire supply of currently unregulated on-street spaces and that restrictions would be applied in the form of residential parking permit requirements. At this time, there is limited information available concerning the usage of these unregulated spaces. Therefore, two scenarios were tested to determine the potential impact of this measure. For the first scenario tested, it was assumed that all available spaces are currently used for long term commuter parking (or would be used for long-term parking as a result of other measures in the Ordinance). In this case, this measure could reduce Cambridge-based vehicle miles of travel

by an estimated 2.67 percent or 88,000 daily VMT. For the second scenario tested, it was assumed that 60 percent of the currently unregulated spaces are used for long-term commuter parking and that, as a result of the new restrictions, 33 percent of these commuters would continue to drive but would find alternative parking. In this case, Cambridge-based vehicle miles of travel would be reduced by 1.07 percent or 35,000 daily VMT.

Implementation Responsibility:

Cambridge Traffic and Parking Department

Schedule:

Cambridge Traffic and Parking Department would be required within six months of the effective date of the Ordinance to inventory all unrestricted on-street parking and submit to the City Manager a written draft recommendation as to appropriate forms of regulation for each inventoried space. The City Manager will make the draft available for public review and discussion prior to finalization.

2. Increase Off-Street Municipal Parking Fees

Description:

In order to discourage the use of City of Cambridge-owned parking facilities for parking by single-occupant vehicle users, the rates for daily and monthly parking at all municipal off-street parking garages would be increased by 25 percent over currently charged rates.

Impact:

The City of Cambridge currently operates two off-street parking garages. The Green Street garage in Central Square provides 290 spaces and the East Cambridge garage (55 First St.) provides 1110 spaces. An analysis of a 25 percent increase in the cost of long-term parking at these facilities was conducted which assumed that the rates at non-municipal facilities in the vicinity of these garages would be unchanged and that any spaces made available at these facilities as a result of the rate increases would not be subsequently filled as a result of latent demand. Based on these assumptions, this strategy would result in an estimated 0.13 percent reduction in the current daily total Cambridge-based vehicle miles of travel, equal to 4,000 daily vehicle miles of travel (VMT).

Implementation Responsibility:

Cambridge Traffic and Parking Department

Schedule:

Within 60 days of the effective day of the Ordinance, the Cambridge Traffic and Parking Department would implement a revised rate structure at municipal off-street parking facilities, consistent with the requirements of the Ordinance.

C. CITY OF CAMBRIDGE-BASED MEASURES

1. Implement Controls on Use of Citywide Visitor Passes

Description:

The City of Cambridge would substitute stickers for the Citywide visitor passes currently used by authorized individuals. The sticker shall display the vehicle registration number of the vehicle to which it is assigned and an expiration date. Stickers will be distinct in appearance from residential parking permit stickers.

Impact:

Unspecified

Implementation Responsibility:

Cambridge Traffic and Parking Department

Schedule:

The Traffic and Parking Department would be authorized to issue stickers immediately upon passage of the Ordinance. Citywide visitor passes will be invalid thirty days after the effective date of the Ordinance.

D. RESIDENTIAL-BASED MEASURES

1. Implement Residential Parking Permit Sticker Zones

Description:

The City of Cambridge currently allows a vehicle with a parking sticker to park in any signed residential parking area throughout the City. A zoned parking program would restrict use of parking stickers to the designated zone where the vehicle is registered. This would ensure that the resident will retain the ability to park a vehicle near the address at which the vehicle is registered, but restrict the ability to park in other residential areas of the City during the work week.

The use of a valid residential parking sticker would be restricted to the zone for which it is designated from midnight Sunday to 7:00 p.m. Friday (5 days of the week). From 7:00 p.m. Friday to midnight Sunday, a valid residential sticker would allow legal parking in all residential parking zones throughout the City of Cambridge.

Four (4) zones would be established for the purpose of implementing this measure and are defined as follows:

- Zone 1: Cambridge-Somerville border to north, Cambridge-Arlington-Belmont border to west, Concord Avenue to south, Kirkland Street to east (includes Cambridge Common)
- Zone 2: Concord Avenue to north to Garden Street along Cambridge Common, JFK Boulevard to east, Charles River/Watertown-Belmont border to south and west
- Zone 3: Massachusetts Avenue to north, JFK Boulevard to west, Charles River to south and east
- Zone 4: Massachusetts Avenue to south, Kirkland Street to west, Somerville-Charlestown-Cambridge border to north, Charles River to east

A special buffer zone would be established within one block on either side of streets designated as zone boundaries, running the full length of the zone boundary, to allow parking by residents of both abutting zones.

Signs designating residential permit parking areas would be modified to clearly identify the zone in which the residential parking is located. Buffer zones will be indicated by signs to allow parking by residents of the appropriate abutting zones. Fines for vehicles which park in zones other than the zone for which a sticker is valid will be administered consistently with current parking violation policies.

Impact:

The strategy would reduce intra-Cambridge home-based work and non-work trips on weekdays. Based on travel and parking characteristics observed throughout the metropolitan area, it is estimated that this measure could reduce internal Cambridge average weekday home-based work and home-based other vehicle miles of travel by 8.7 percent. This would result in an estimated 0.21 percent reduction in the current daily total Cambridge-based vehicle miles of travel, equal to 7,000 daily VMT.

Implementation Responsibility:

City of Cambridge Traffic and Parking Department

Schedule:

Signs designating the four zones would be erected within 6 months of the effective date of the Ordinance. Stickers would be issued according to zone designations beginning with the next-scheduled annual renewal date for current residential sticker holders.

2. Progressive Fee Schedule for Residential Parking Stickers

Description:

The fee charged for residential parking stickers would be adjusted to raise the fees charged to households with multiple vehicle ownership. The proposed fees would conform to the following schedule:

1st Sticker per Household	\$ 8.00
2nd Sticker per Household	\$ 12.00
3rd Sticker per Household	\$ 50.00
4th Sticker per Household	\$100.00
5th and additional Stickers per Household	\$200.00

For the purpose of this measure, all vehicles registered to the same address shall constitute the vehicles registered to a household.

Fifty (50) percent of all revenues raised through the Residential Parking Sticker program would be made available to the Commuter Mobility Program within the Community Development Department to support programs mandated by the Ordinance. The remaining fifty (50) percent would be used by the Traffic and Parking Department for enforcement and other activities required of it under the Ordinance.

Impact:

The measure would act to discourage marginal vehicle ownership, particularly households with three or more per household. Funding generated by this measure would be used to support other programs under the Vehicle Trip Reduction Ordinance.

Approximately 36,000 parking stickers were issued by the Cambridge Traffic and Parking Department in 1990, generating approximately \$152,000 in revenue. Based on data provided by the Cambridge Traffic and Parking Department, derived from a sample of households and used to determine approximate distribution of single versus multi-sticker households, approximately 17 percent of Cambridge households (that have resident parking stickers) have 3 or more vehicles registered to their household. Estimated

revenue from the revised schedule, based on the number of stickers issued in 1990 would increase by approximately \$148,000 per year. (Waivers or reductions for handicapped or elderly would reduce this amount somewhat.)

Implementation Responsibility:

City of Cambridge Traffic and Parking Department

Schedule:

Stickers would be issued beginning with the next-scheduled annual renewal date for current residential sticker holders.

E. EMPLOYER-BASED MEASURES

1. Implement Regional Trip Reduction Program

Description:

Given that Cambridge roadways serve as a throughway to other employment centers, employer-based measures are most effective when adopted and enforced on a region-wide basis. The measures proposed herein for Cambridge should be adopted and applied by the Commonwealth on a region-wide basis. Only trip reduction measures that are applied on a region-wide basis (and, in some instances, in other states throughout the Northeast Ozone Transport Region) will enable the Commonwealth to achieve attainment of the Clean Air Act air quality standards. Furthermore, only a regional program will:

- Assure that Cambridge is not placed at a competitive disadvantage with other communities in the region as a result of stricter controls on vehicle trips;
- Prevent the diversion of traffic currently oriented toward Cambridge origins and/or destinations to other areas in the region which have more limited public transit availability, thereby increasing regional vehicle miles of travel, a result that is prohibited by the 1990 Clean Air Act amendments;
- Reduce the high volumes of through traffic on Cambridge roadways which are beyond the ability of this ordinance to control.

Impact:

A regional program would provide for area-wide trip reductions, particularly related to work trips.

Implementation Responsibility:

Various State, regional, and local agencies

Schedule:

A regional program of transportation control measures for the Commonwealth is expected to be prepared and submitted to EPA as an element of the Commonwealth's plan for attaining a 15 percent total reduction in VOC emissions by 1999, as required by the 1990 Clean Air Act Amendments. A regional program of transportation control measures would replace this interim SIP Amendment for the City of Cambridge.

2. Encourage Local Employment Opportunities

Description:

The City of Cambridge would commit to:

- Continuing and expanding the Cambridge Employment Program within the Community Development Department.
- Sponsoring an annual job fair to inform residents of opportunities for local employment.
- Sponsoring and coordinating educational partnerships between Cambridge employers and schools in Cambridge.
- Developing a Local Employment Opportunity Plan intended to achieve these objectives.

To demonstrate and further its commitment to increase the number of Cambridge residents employed by Cambridge businesses, the City would increase its annual budget for this effort to \$130,000.

Impact:

Potential increase in share of Cambridge residents employed by Cambridge employers, resulting in reduced work-trip commute distances and reduced vehicle miles of travel. As of 1989, Cambridge employers provided jobs for over 102,000 employees, accounting for nearly 6 percent of the total employment in the Boston SMSA. Approximately 28 percent of Cambridge's employment base is composed of Cambridge residents. The employment base of other major job centers such as Waltham, Bedford, Framingham and Lynn is composed of 35 percent or more local residents. The City of Boston has a 40 percent local resident employee population.

Given unique characteristics of Cambridge, such as its large student population, and uncertainties about expansion of job opportunities due to the current economy, it may not be feasible to increase the residential-employee base to the Boston level.

However, based on local employment rates at other major employment centers (as indicated above), an increase in the rate of local employment in Cambridge appears feasible. An analysis was performed which assumed a growth in Cambridge-based job share to 31 percent of total employment to evaluate the potential effectiveness of this measure. The results of this analysis indicated that Cambridge home-based work vehicle miles of travel could be reduced by an estimated 3.4 percent or 33,000 daily VMT. This would produce an estimated 1.0 percent reduction in total Cambridge-based vehicle miles of travel.

Implementation Responsibility:

Cambridge Community Development Department in conjunction with the Cambridge Department of Human Services.

Schedule:

A plan to encourage local employment opportunities for Cambridge residents would be prepared within one year of passage of the Ordinance.

3. Annual Employer Survey - Developing the Baseline on Employee Commuting Characteristics

Description:

An annual survey would be conducted by all Cambridge employers of 50 or more employees at a single worksite (including institutions and City of Cambridge departments) to determine the number of employees per worksite, their commuting characteristics, modes of travel, places of origin, work schedules, trip volumes, and progress toward meeting the Citywide Auto Efficiency Rate (AER) Goal. This program is estimated to affect approximately 240 employers, including the City, representing nearly two-thirds of the total employment base of Cambridge.

By analyzing employee commuting characteristics the survey will provide the basis for determining if an employer is required to develop a Vehicle Trip Reduction Plan in order to achieve the Citywide Auto Efficiency Rate Goal. Data derived from the survey will provide the basis for preparation and updating of the Vehicle Trip Reduction Plan. An employer who cannot certify achievement of the Citywide AER Goal at its worksite would be required to prepare, implement, and submit to the City a Vehicle Trip Reduction Plan as part of the Annual Employer Survey Response.

The Annual Employer Survey would be based on a survey of employees at each worksite of 50 or more employees. A response rate of at least 75 percent would be required to ensure accuracy of the data. Based on the data obtained through the employee survey, an actual Auto Efficiency Rate will be calculated by each employer for its

worksite and compared to the Citywide Auto Efficiency Rate Goal to determine the need, if any, for an employer to reduce commuter vehicle trips through a Vehicle Trip Reduction Plan.

A processing fee, based on the number of employees at a given worksite, would be submitted to the City each year with the completed Annual Employer Survey Response. Proposed fees are:

\$500 for employers with 500 or more employees
\$300 for employers with 100 to 499 employees
\$100 for employers with 50 to 99 employees

Failure to submit a completed and properly certified Annual Employer Survey Response on the scheduled date would result in a fine of \$200.00 per day to be levied until the required Survey Response is submitted. Knowingly submitting false information would result in a fine of \$300.00 per day to be levied until a corrected, certified Survey Response is submitted and accepted.

The survey would be performed annually to monitor progress toward meeting the Citywide Auto Efficiency Rate Goal and to provide the basis for amendments to an employer's Vehicle Trip Reduction Plan.

Impact:

Would provide annually updated database on employee commuting characteristics, employer vehicle trip reduction programs, and certification of progress toward achieving the Citywide Auto Efficiency Rate Goal. Revenue generated through the filing fees for the Annual Employer Survey response will be used by the City to carry out the tasks and implement the programs required by the Ordinance.

Implementation Responsibility:

Assistant City Manager for Community Development

Schedule:

An employer survey kit, including employee survey forms, administration plan and AER calculation sheets, would be prepared by the City and distributed to all employers of 50 or more employees at a single worksite no later than 6 months from the effective date of the Ordinance. These employers would then be required to submit a completed Survey Response, which will include the AER calculation sheet, certification, processing fee, and, where required, a Vehicle Trip Reduction Plan, within six months of distribution of the Survey kits by the City. Subsequent and similar surveys will be administered annually.

4. Employer-Based Vehicle Trip Reduction Plan - Citywide Auto Efficiency Rate

Description:

Each Cambridge employer of 50 or more employees at a single worksite (including institutions and City of Cambridge departments) who cannot certify and demonstrate achievement of the Citywide Auto Efficiency Rate Goal would be required to prepare, implement, and submit a Vehicle Trip Reduction Plan as an element of its Annual Employer Survey Response. The Plan will specify a program of measures intended to reduce vehicle trips to achieve the specified Citywide Auto Efficiency Rate Goal. Each year, an employer will certify implementation of the Vehicle Trip Reduction Plan and progress toward meeting the Citywide Auto Efficiency Rate Goal. The Vehicle Trip Reduction Plan will be amended and modified as required through subsequent Annual Employer Survey Responses.

Each employer's Auto Efficiency Rate (AER) will be calculated through the Annual Employer Survey for each worksite and updated annually. The Auto Efficiency Rate is calculated by dividing the number of employees who report to the worksite in Cambridge between 6:00 a.m. and 10:00 a.m. (inclusive Monday through Friday) by the number of vehicles used by these employees. As the AER increases, use of single-occupant vehicles for commuting is reduced. The AER calculation requires that a five consecutive weekday average be used. Vehicles counted shall exclude bicycles, public transit vehicles, and approved clean fuel vehicles. Motorcycles and light trucks would be counted as automobiles. An example form (subject to modification) and sample calculation of Auto Efficiency Rate, is shown in Attachment 1.

The Citywide Auto Efficiency Rate Goal would provide for progressive, annual reductions in vehicle trips and vehicle miles of travel compared to baseline travel characteristics. The current AER for Cambridge ("Base AER") will be derived from 1990 U.S. Census modal share data and travel statistics, which are expected to be available shortly. The Citywide AER Goal for the first year of the Ordinance will be the Base AER plus 2.5 percent. The Base AER for Cambridge may be recalculated after review and analysis of the first Annual Employer Survey Response.

Each employer required to submit an Annual Employer Survey Response would be required to calculate its own Auto Efficiency Rate (on a calculation sheet provided by the City) and compare its rate to the Citywide Auto Efficiency Rate Goal (also to be specified on the calculation sheet). Employers whose AER is below the Citywide AER Goal would be required to develop and implement a Vehicle Trip Reduction Plan which provides strategies and incentives to modify their Auto Efficiency Rate to achieve the Citywide Goal. An employer who demonstrates through the Annual Employer Survey and certifies that the worksite is in compliance

with the AER Goal as of the submittal date of the Survey Response would not be required to submit a Vehicle Trip Reduction Plan for that year.

The Citywide AER Goal is designed to provide for progressive, annual reductions in single occupant vehicle use. Specifically, the AER Goal will be increased annually by 2.5 percent. As a result, employers who may be exempted from a requirement to file a Vehicle Trip Reduction Plan in the first year of this program may be required to do so in subsequent years as the Citywide AER is increased.

The concept of a Citywide Auto Efficiency Rate is consistent with the approach developed in Los Angeles through "Regulation XV" and in Phoenix by federal regulation. These programs require area businesses to "aggressively" encourage ridesharing and transit use by their employees. The goal of these programs is to significantly reduce the number of vehicles on the road, particularly during heavily congested commuting periods.

The strategies and incentives specified in an individual employer's Vehicle Trip Reduction Plan would be based on the difference between the Citywide AER Goal and the employer's AER as computed on the calculation sheets to be provided by the City. Appropriate trip reductions for an individual employer will be determined as a function of the employer's AER in the employer's first Annual Employer Survey Response and Vehicle Trip Reduction Plan. Employers with an AER substantially below the target will be expected to develop a Vehicle Trip Reduction Plan which identifies a more extensive program of strategies and incentives than employers with smaller AER deficits. Subsequent submittals of the Annual Employer Survey Response and Vehicle Trip Reduction Plan will certify progress toward meeting the AER target and also upgrade the Vehicle Trip Reduction Plan as needed to achieve vehicle trip reductions.

A variety of measures and incentives may be implemented to assist in achieving the target AER, including, but not limited to:

- Providing information on available transit service - posting in a conspicuous place or places the schedules, rates, and routes of transit services in the immediate vicinity of the facility.
- Employee transit-pass programs - advertising and making available to all employees any pass program offered by the area transit authority, including but not limited to, making all administrative arrangements for commuters to purchase the pass and encouraging commuters to participate by publicizing the availability and cost advantages of the pass program.

- Incentives to commute by bicycle - including but not limited to, providing secure bicycle storage facilities and shower/changing facilities.
- Employer-sponsored rideshare programs.
- Preferential parking for carpools and vanpools.
- Transportation allowance programs.
- Alternative work schedules - including 4-day work weeks and flexible schedules which would facilitate rideshare arrangements.
- Elimination or reduction of employee parking subsidies.
- Eliminator or reduction of employee parking spaces.
- Provision of shuttle vans to public transportation services.

Employers would be responsible for developing their own Vehicle Trip Reduction Plans. The Commuter Mobility Coordinator would be available to assist employers in identifying and developing appropriate trip reduction measures. The Vehicle Trip Reduction Plan is performance based to achieve specified trip reduction objectives. The measures by which trips are reduced are to be determined by the employer based on individual needs and operations.

The adequacy of a Vehicle Trip Reduction Plan to meet the necessary trip reduction goals for a specific worksite will initially be determined by the Commuter Mobility Coordinator. If a Plan is found to be insufficient to achieve the required vehicle trip reductions, the Assistant City Manager for Community Development, in consultation with the Commuter Mobility Coordinator, may disapprove a plan and require its resubmittal within thirty days. If, on resubmittal, the Plan is again rejected, penalties would be assessed. An employer may appeal as provided in the Ordinance.

The Vehicle Trip Reduction Plan is to be submitted as part of the Annual Employer Survey Response. Failure to submit an acceptable Plan (where the Plan is required) will render the Survey Response incomplete and subject the employer to penalties consistent with the penalties for non-submittal of a complete and certified Annual Employer Survey Response. Failure to implement the provisions of a Vehicle Trip Reduction Plan will subject the employer to fines of \$300.00 per day until found by the Assistant City Manager for Community Development, or his designee, to be in compliance. Enforcement of this program would be the responsibility of the Assistant City Manager for Community Development.

Impact:

This measure will achieve reductions in single-occupant work-related vehicle trips. It is estimated that there are approximately 240 firms within the City of Cambridge that employ 50 or more employees. As a result, this program is estimated to apply to approximately 65,000 employees based on 1990 employment records.

Based on a 2.5 percent annual improvement in AER compared to current Cambridge travel characteristics (based on available information), total daily Cambridge-based vehicle miles of travel could be reduced by an estimated 0.3 percent or 12,000 daily VMT in the first year and by 0.7 percent or 25,000 by the second year.

(An analysis of program impacts if applied to firms of 25 or more employees was also conducted to determine what the potential for additional effectiveness would be if program coverage was expanded. An additional 270 firms would be covered by the Ordinance if applied to firms with between 25 and 49 employees. However, in Cambridge, these firms employ an estimated total of only 9450 employees. As a result, although the number of firms covered would increase by 112 percent, the number of employees covered would increase by only 15 percent, causing a disproportionate administrative burden and expense.)

Implementation Responsibility:

Assistant City Manager for Community Development

Schedule:

The Vehicle Trip Reduction Plan would be specified in the first Annual Employer Survey Response and updated on an annual basis according to the schedule for submittal of the Annual Employer Survey Response.

F. NEW DEVELOPMENT-BASED MEASURES

1. Development-Based Transportation Management Plan

Description:

For all new development of 50,000 square feet or greater, regardless of use, or 50 or more residential units, a Transportation Management Plan approved in writing by the Assistant City Manager for Community Development would be required. The Cambridge Building Inspector would not be permitted to issue the necessary building permits without evidence of such written approval. The Transportation Management Plan would be required to include:

- a processing fee of \$1,500;
- a traffic analysis that demonstrates that for affected locations with existing traffic level of service (LOS) of D or worse, reasonable traffic mitigation measures will be implemented to improve traffic operations to the extent feasible and for affected locations with existing LOS of C or better, the project will not degrade such location below a LOS of C.

For all new mixed-use or non-residential development subject to the requirements of this measure, the Transportation Management Plan must also include:

- a description of development design elements and vehicle trip reduction measures to be implemented by the developer in order to assist non-residential tenants in the development, collectively, to achieve the Citywide AER Goal.
- a monitoring program to demonstrate annual plan compliance and calculate the annual AER associated with non-residential tenants of the development. The monitoring program must account for all non-residential site-generated traffic between the hours of 6:00 a.m. and 10:00 a.m. Where tenants include employers of 50 or more employees at the worksite, the monitoring program may utilize data from a tenant's certified Annual Employer Survey Response.
- a commitment to update and supplement the Transportation Management Plan if, based on the monitoring program, it is determined that the non-residential tenants of the development, collectively, are not achieving the Citywide AER Goal.
- a commitment to future compliance with Transportation Management Plan requirements following transfer of property from developer to other parties.

Developments which have already been issued building permits from the City of Cambridge or which are subject to City-approved traffic mitigation or trip management plans as of the effective date of the Ordinance would be exempted from these requirements.

The requirements applicable to new developments would not exempt individual employers from compliance with other elements of the Ordinance. Employers of 50 or more employees at a worksite located within a development subject to a required Transportation Management Plan would be required to submit the Annual Employer Survey Response, and, if applicable, a Vehicle Trip Reduction Plan. The Vehicle Trip Reduction Plan will complement and contribute toward attainment of the Citywide AER Goal for the development site.

Measures to be considered for inclusion in the Transportation Management Plan include without limitation the following:

- Hiring a Transportation Management Coordinator, responsible for distribution of information and coordination of traffic management programs within the new development.
- Discouraging or restricting use of parking spaces by commuters in single-occupant vehicles.
- Funding a local or area-wide shuttle van to public transit stations and/or shopping centers.
- Encouragement of staggered or flexible work hours for employees of all tenants.
- Promotion of the use of public transportation by providing transit information and participation in the MBTA commuter pass program.
- Operation of a computer-based ridesharing information bank or coordination of ridesharing promotional programs with the City's Commuter Mobility Coordinator.
- Reserving spaces at preferential locations for carpool and vanpool parking on the site.
- Establishing reduced parking fees or providing subsidies for carpool and vanpool parking.
- Encouragement of employment opportunities by Cambridge residents by tenants of the new development.
- Providing safe, convenient, sheltered bicycle storage facilities and/or shower facilities for bicycle commuters.

The plan would have to receive written approval from the Assistant City Manager for Community Development before the Building Inspector may issue building permits for the project. Annual certification of plan compliance would have to be submitted to the Assistant City Manager for Community Development. Failure to implement provisions of the Transportation Management Plan or to provide the annual certification would subject the developer or subsequent property management firm or owner to fines of \$300.00 per day until found by the Assistant City Manager for Community Development to be in compliance.

Impact:

The measure will reduce the growth in vehicle trips and miles of travel generated by new development projects of 50,000 square feet or 50 or more residential units. The measure will also provide reasonable mitigation in an effort to prevent degradation in traffic LOS as a result of new project development.

An analysis was performed to determine the impact of this measure as applied to new non-residential development in Cambridge, based on a potential for 7 million square feet of new non-residential development. For the purpose of this analysis, it was assumed that all 7 million square feet of potential new development would be subject to this measure. The data shows that this measure could reduce Cambridge-based vehicle miles of travel by an estimated 27,000 daily VMT compared to the VMT that would otherwise be generated by this new development in the absence of this measure. This is equivalent to a 10.6 percent reduction in VMT that would otherwise be generated by the new development.

Implementation Responsibility:

Assistant City Manager for Community Development

Schedule:

The measure would go into effect immediately upon passage of the Ordinance.

2. Study of Zoning Revisions

Description:

The Cambridge Planning Board would be directed to consider revisions to required parking space ratios specified in the City of Cambridge Zoning Ordinance and analyze the impacts of these revisions. Possible revisions to be analyzed would include elimination of minimum parking requirements and/or a reduction of maximum parking requirements for all or specific categories of development. Special allowances should be considered to provide for high occupancy vehicle (HOV) parking, in excess of allowable unrestricted spaces. Zoning requirements to encourage mixed-use development should also be considered.

Impact:

Modifications in zoning requirements could reduce rate of new parking development, resulting in change in ratio between vehicle trips and parking availability.

Implementation Responsibility:

Cambridge Planning Board

Schedule:

Consideration of potential revisions to required parking space ratios in the City of Cambridge Zoning Ordinance would commence promptly after the effective date of the Ordinance. The Cambridge Planning Board would publicly report its recommendations within one year of the effective date of the Ordinance.

G. CLEAN FUELS-BASED MEASURES

1. Promote Clean Fuel Use by Fleets of Ten or More Vehicles

Description:

The City of Cambridge would commit \$15,000 to fund a study to be conducted one year after enactment of the Ordinance to promote the use and determine the impacts of the use of Clean Fuels as designated by the EPA. The study will include fleets of ten or more vehicles operated and/or maintained within the City of Cambridge. The study will analyze the use of appropriate clean fuels in Cambridge, including but not limited to methanol, compressed natural gas (CNG), and reformulated gasoline, and be based on fleet characteristics, implementation costs, and recommended implementation strategies. The study will also identify reasonably available incentives which could be offered by the City, such as tax credits, to encourage use of clean fuels by fleet operators. Results of the study will be provided to all fleet operators. Results of the study will be available to the public upon request.

Impact:

The study would promote the use of Clean Fuels and provide information to fleet operators concerning potential benefits of Clean Fuels for fleet operations. Air quality improvements will result if and when fleets are converted to Clean Fuel operation.

Implementation Responsibility:

Cambridge Department of Public Works

Schedule:

The results of a study of the advantages and opportunities to utilize Clean Fuels by Cambridge fleet operators would be publicly reported and distributed to owners and operators of vehicle fleets within one year of enactment of the Ordinance.

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SUMMARY OF ORDINANCE PROGRAM IMPACTS

The attached table summarizes the various measures included in the Ordinance and lists their potential to reduce vehicle miles of travel and emissions of VOCs, CO, and NOx. As indicated, some measures do not directly result in measurable reductions in VMT or emissions of pollutants. Some of these measures support other strategies which do result in measurable improvements. An example would be the Annual Employer AER calculation (E.3) which is a necessary step in the development of the Vehicle Trip Reduction Plan (E.4). Other measures, such as the Bicycle Incentive Program (A.2), the zoning study (F.2) and the Clean Fuels Study (G.1) involve a commitment to define and implement programs to promote future improvements in air quality. Until the details of these programs and, in particular, the incentives which may be included in the programs are defined, it is not practical to quantify their beneficial impacts.

Based on the programs that are measured, the strategy to encourage local employment opportunities (E.2) has the potential to have a significant impact. The measure assumes a 3 percent change in the resident composition of Cambridge's employee population. This objective could be facilitated and/or achieved through other strategies, such as land-use mixing and housing-jobs balances. Another program shown to have a significant impact, despite varying assumptions for the analysis, is the application of parking restrictions to currently unregulated on-street spaces. The analysis of this measure assumes, through examination of two scenarios, that these spaces are currently used for long-term parking and that this use would be eliminated by the application of resident parking restrictions. If these spaces were controlled by meters or time restrictions, thereby allowing for more frequent turnover per space, impacts would be less.

The Vehicle Trip Reduction Plan measure applied to existing development (E.4) would achieve progressive impacts due to the change in the Auto Efficiency Rate (AER) target from year 1 to year 2 of the program. These reductions are not additive but individually represent a change in VMT and emissions from the baseline 1990 travel characteristics.

The program to require a Transportation Management Plan for new development (F.1) would effectively constrain future growth in VMT. The analysis assumes approximately 7 million square feet of new non-residential development to occur in Cambridge during the analysis period. The reduction shown in VMT represents the reduction which would be possible over the VMT generated by this new development in the absence of this measure. If less than the projected amount of development occurs the extent of the measure's impact would be reduced (the amount of newly generated VMT resulting from new development would also be less).

In summary, the strategies shown to have measurable VMT and emission reduction impacts can reduce total Cambridge-based vehicle miles of travel by approximately 104,500 to 170,500 daily VMT. For the strategies which apply to current VMT (excluding the Transportation Management Plan for New Development), this results in a reduction of 3 to 5 percent in Cambridge-based vehicle miles of travel. This translates into a reduction of approximately .7 tons of per day or 185 tons per year of VOCs, 6.1 tons per day or 1590 tons per year of CO, and .3 tons per day or 73 tons per year of NOx. Based on the extent of Cambridge's contribution to pollutant emissions statewide and the City's ability to affect change in Cambridge-based travel behavior, primarily through reductions in work-trips, these reductions make a substantial contribution to overall improvements in air quality.

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SUMMARY OF PROGRAM IMPACTS

MEASURE	YMT REDUCTION	% CHANGE IN YMT(1)	REDUCED VOCs(2) TONS/DAY	REDUCED CO(3) TONS/DAY	REDUCED NOx(4) TONS/DAY
A.1 Expanded Commuter Mob. Program	13,500	0.41	0.08	0.50	0.02
A.2 Bicycle Incentive Program	NA				
B.1 Park Restrictions on Unreg. Streets					
Scenario 1	88,000	2.67	0.38	3.23	0.15
Scenario 2	35,000	1.07	0.15	1.28	0.06
B.2 Municipal Parking Fees	4,000	0.13	0.02	0.15	0.01
C.1 Universal Visitor Passes	NA				
D.1 Resident Parking Zones	7,000	0.21	0.03	0.28	0.01
D.2 Progressive Res. Parking Fees	NA				
E.1 Regional Trip Reduction Prog.	NA				
E.2 Local Employment Opportunities	33,000	1.0	0.14	1.21	0.06
E.3 Annual Employer Survey	NA				
E.4 Vehicle Trip Reduction Plan					
Year 1	12,000	0.3	0.05	0.44	0.02
Year 2	25,000	0.7	0.11	0.92	0.04
E.5 Credits for Excess Trip Reduct.	NA				
F.1 New Devel. Trip Reduction Plan	27,000	(5)	0.12	0.99	0.05
F.2 Modification of Parking Rates	NA				
G.1 Clean Fuel Study	NA				
G.2 Clean Fuel Incentives	NA				

NOTES:

NA: No direct impacts or impacts are unmeasurable

(1): % Change based on current (1987) YMT only

(2): Assumes rate of 3.88 g. of VOCs per mile at 19.6 mph, 78.1 (F)

(3): Assumes rate of 33.27 g. of CO per mile at 19.6 mph, 30.0 (F)

(4): Assumes rate of 1.54 g. of NOx per mile at 19.6 mph, 78.1 (F)

(5): Based on projected new development of 7 mil. sq. ft.

Attachment 1

Sample Auto Efficiency Rate (AER) Calculation Sheets

Los Angeles "Regulation XV"

Sample AVR Calculation, continued.

Weekly Employee/Vehicle Calculation

Section IV must be completed by employers filing both new and updated plans. This is a sample.

		TOTAL EMPLOYEE TRIPS		TOTAL VEHICLES	
Mode		Column 1	Column 2	Column 3	
A	Drive alone*	2680	A divided by 1	2680	
B	Motorcycle	25	B divided by 1	25	
C	2 person carpool	150	C divided by 2	75	
D	3 person carpool	60	D divided by 3	20	
E	4+ person carpool	80	E divided by 4	20	
F	Vanpool	120	F Total vans used	15	
G	Buspool	0	G Total buses used	0	
H	Public transit (bus/rail)	10			
I	Walk	10			
J	Bicycle	10			
K	Telecommute	5			
L	Report at another site	10	L divided by 1	10	
L1	No survey response	75	L1 divided by 1	75	
			S Subtotal	2920	
Compressed Work Week Credit (days off)					
M	3/36 work week	10			
N	4/40 work week	5			
O	9/80 work week x 0.5	5			
W	Total employee trips:	3255	T Total vehicles**	2853	
Days Off					
P	Vacation	10			
Q	Sick	5			
R	Other	5			

* Refer to the next page for explanation of how to calculate drive alone trips.

** If clean fuel vehicles are used for commuting from home to work, use Appendix B to calculate credits.

Sample AVR, continued.

Explanation of Drive Alone Calculation

505	Employees drove alone for 5 days	2,525
5	Telecommuters drove alone 4 days	20
5	3/36 Employees drove alone 3 days	15
5	4/40 Employees drove alone 4 days	20
10	9/80 Employees drove alone 9 days	45
5	VAC/ Drove alone 3 days	15
5	Sick Leave/ Drove alone 4 days	20
5	Out of Town/ Drove alone 4 days	20
	Total Drive Alones	2,680

Sample AVR Calculation, continued

AVR Planning Form

Section IV must be completed by employers filing both new and updated plans. This is a sample.

1. Total employee trips generated Monday through Friday between 6:00 am - 10:00 am inclusive (Column 1 (W) Form IV-3). 1. 3255
2. Total vehicles arriving at the worksite Monday through Friday between 6:00 am - 10:00 am. (Column 3 use (T) if claiming clean fuel vehicle credit, otherwise use (S) Form IV-3) 2. 2853
3. Divide line #1 by line #2 for current AVR 3. 1.14
4. Enter AVR target here. 4. 1.5
5. Divide line #1 by line #4 to compute your Regulation XV allowable vehicles. 5. 2170
6. Subtract line #5 from line #2. This is your necessary vehicle reduction to reach your AVR target. 6. 683
7. Divide line #6 by the averaging period of 5 days used to calculate necessary vehicle reduction to reach your target AVR per day. 7. 136
8. Current AVR 1.14 (line 3 above)
9. Target AVR 1.5 (line 4 above)
10. Prior year AVR 1.12 (leave blank if filing for the first time)

After evaluating your survey, adopt incentives which would allow you to reduce the number of excess commute trips in order to attain your target AVR.

All calculations are rounded off to two decimal places.

PROPOSED
03/20/92

AN ORDINANCE

In amendment to an Ordinance designated as the "Cambridge Municipal Code."

WHEREAS, the City of Cambridge ("City") and the Massachusetts Department of Environmental Protection ("DEP") have agreed to cooperate in an effort to amend the State Implementation Plan under the Clean Air Act, 42 U.S.C. § 7401, et seq., as amended, regarding the measures to be taken by the City toward attainment and maintenance of the National Primary Ambient Air Quality Standards necessary to protect public health in the Boston Metropolitan Region; and

WHEREAS, the City and DEP were parties in a legal dispute pertaining to the terms and implementation of a parking freeze in Cambridge; and

WHEREAS, the City, as part of a settlement of said dispute, passed Ordinance No. 1112 on November 26, 1990 (the "Interim Ordinance"); and

WHEREAS, the Interim Ordinance requires the City Manager to present to the City Council an Ordinance to implement a proposed amendment of the State Implementation Plan that includes a program of transportation control measures directed toward attainment and maintenance of the National Primary Ambient Air Quality Standards to protect public health in the Boston Metropolitan Region; and

WHEREAS, the 1990 Clean Air Act Amendments specifically prohibit states and localities from implementing transportation control measures which will relocate traffic from one city or one area of a region to another; and

WHEREAS, the elements of this Vehicle Trip Reduction Ordinance are consistent with the policies of the City, the Interim Ordinance, and the federal Clean Air Act to reduce vehicle miles travelled and encourage and develop greater use of public transit, bicycles, walking, and other alternative modes of travel; and

WHEREAS, implementation of this Vehicle Trip Reduction Ordinance will demonstrate the commitment of the City to promote the objective of the Clean Air Act by discouraging automobile traffic within and to the City; and

WHEREAS, enforcement of this Ordinance will achieve a reduction in vehicle miles travelled and promote attainment and maintenance of the National Primary Ambient Air Quality Standards for protection of public health in the Boston Metropolitan Region; and

WHEREAS, the City has authority to enact the provisions of this Ordinance pursuant to G.L. Chapter 111, § 31C, as well as by authority derived from the City's general police power.

NOW, THEREFORE, be it ordained by the City Council of the City of Cambridge as follows:

Title 10 of the Code (Vehicles and Traffic), Chapter 10.16 (Parking Freeze) is hereby superseded and replaced by the following new Chapter 10.16:

Chapter 10.16

Vehicle Trip Reduction Ordinance

Sections: 10.16.010	Time Period of Chapter
10.16.020	Findings
10.16.030	Definitions
10.16.040	General Mobility-Based Measures
10.16.050	Parking Supply-Based Measures
10.16.060	City Of Cambridge-Based Measures
10.16.070	Residential-Based Measures
10.16.080	Employer-Based Measures
10.16.090	New Development-Based Measures
10.16.100	Study of Zoning Revisions
10.16.110	Clean Fuels-Based Measures
10.16.120	Use of Fees
10.16.130	Sunset Clause
10.16.140	Certification of Implementation
10.16.150	Non-Severability

Section 10.16.010 - Time Period of Chapter. This Chapter shall take effect sixty (60) days after final approval by the City Council.

Section 10.16.020 - Findings. The City of Cambridge finds and determines that:

a. High levels of vehicle traffic and congestion add to air pollution, noise, and inconvenience and erode the quality of the living and working environment.

b. An increasing number of automobile registrations and jobs in the City has resulted in growth of traffic in and around Cambridge.

c. While the City has pursued programs to mitigate these conditions, new measures are required involving the participation of all sectors of the community to make more efficient use of mass transit, bicycling, walking, and other alternatives to trips by single-occupancy vehicles.

d. Increasing the use of commuting alternatives and reducing the number of trips by single-occupancy vehicles is beneficial in reducing vehicle miles travelled, traffic and associated air pollution, fuel use, noise, and congestion.

e. Programs offered through employers, institutions, owners of multiple-tenant buildings and complexes and other organizations to encourage the use of mass transit, bicycling, walking, and other alternatives to commuting by single-occupancy vehicles are effective and should be expanded.

f. The approach best suited to accommodate the diverse needs and capabilities of the governmental, business and institutional communities in the City is a flexible approach

which establishes performance goals and permits government and private employers, institutions, and automobile owners to select from among a variety of measures designed to contribute toward reaching the goals.

g. The vehicle trip reduction program contained in this Ordinance should give credit to those employers which have already made substantial progress in encouraging the use of mass transit, bicycling, walking, and alternative means of commuting and in providing such alternatives.

h. Measures to discourage, and provide alternatives to, vehicle trips and trips by single-occupancy vehicles made by residents of and visitors to Cambridge are also necessary to further the City's goals.

i. A large portion of vehicle traffic on Cambridge streets is attributable to trips that neither originate nor end in Cambridge ("throughtrips"). The City of Cambridge has virtually no control over these throughtrips.

j. Throughtrips and other traffic in the Metropolitan Boston Intrastate Air Quality Control Region (the "Region") over which Cambridge has no control contribute significantly to the degradation of air quality in the Region. The degradation of air quality, particularly ozone, is a regional problem which requires global and regional solutions.

k. The Clean Air Act Amendments of 1990 call for the attainment of compliance with the National Ambient Air Quality Standard for Ozone within the Commonwealth and the Region by 1999.

l. Attainment of the Ozone Standard will require increased control of vehicle-related air pollution ("transportation control measures") throughout the Commonwealth and the Region, as well as the Nation.

m. This Ordinance will operate as an interim measure in Cambridge to promote the attainment of air quality objectives until November 1996, by which time the U.S. Environmental Protection Agency should have approved, pursuant to the 1990 Clean Air Act Amendments, a State Implementation Plan for Massachusetts containing transportation control measures of regional applicability.

Section 10.16.030 - Definitions

a. Affected Employer shall mean an employer of fifty (50) or more people at a Worksite located within the City of Cambridge.

b. Annual Employer Survey Response shall consist of (i) a completed, signed, and certified Automobile Efficiency Rate calculation sheet; (ii) payment of the applicable Processing Fee; and (iii) a Vehicle Trip Reduction Plan when required from an Affected Employer pursuant to Section 10.16.080.c and d.

c. Automobile Efficiency Rate ("AER") shall mean the figure calculated by dividing the number of employees who report to a Worksite within the City of Cambridge between 6:00 a.m. and 10:00 a.m. (inclusive Monday through Friday to achieve a five consecutive weekday average) by the number of vehicles used by those employees to reach the Worksite during those hours. Bicycles, public transit vehicles, and approved Clean-Fuel Vehicles shall be excluded from the vehicles counted. Motorcycles and light trucks shall be included in the vehicles counted.

d. Base AER for the City of Cambridge shall be derived from the 1990 census modal share data and travel statistics. The Base AER is subject to recalculation as provided in Section 10.16.080.c.

e. Carpool shall mean a private motor vehicle occupied by two to six employees travelling together for at least 75% of their commute trip distances.

f. City shall mean the City of Cambridge, Massachusetts.

g. Citywide AER Goal shall mean as to the first Annual Employer Survey Response, the Base AER plus 2.5 percent. Thereafter, it shall mean the Citywide AER Goal established pursuant to Section 10.16.080.c, which provides for an annual improvement of 2.5% in the Citywide AER until the earlier of the

attainment of the Ozone Standard within the Region or the expiration of this Chapter by its own terms pursuant to Section 10.16.130.

h. Clean Fuel shall mean any fuel or power source used in a vehicle that complies with the applicable standards for clean fuel vehicles contained in Sections 241-245 of the Clean Air Act, 42 U.S.C. §§ 7581-7585.

i. Clean-Fuel Vehicle shall mean a vehicle in a class or category of vehicles which has been certified to meet the applicable clean-fuel vehicle standards as defined by and pursuant to the federal Clean Air Act Amendments of 1990.

j. Commute Alternatives shall mean carpooling, vanpooling, use of public transit, bicycling and/or walking.

k. Employee shall mean any person hired by a public or private employer, including part-time and seasonal employees, who reports to work at least two (2) days a week during five (5) or more months of the year.

l. Fleet shall mean ten (10) or more vehicles which are (i) owned, leased, controlled or operated by a single person or entity; or (ii) parked at the same location, excluding vehicles held for lease or rental to the general public, vehicles held for sale by dealers, vehicles used for law enforcement or emergency purposes.

m. New Development shall mean any proposed or planned construction for which building permits have not been issued by the Cambridge Building Department as of the effective date of this Chapter and involving construction of (i) 50,000 square feet or more regardless of use or (ii) 50 or more residential units.

n. Ozone Standard shall mean the National Ambient Air Quality Standard for ozone established pursuant to Section 109 of the Clean Air Act, 42 U.S.C. § 7409.

o. Processing Fee shall mean the fee required to be paid to the City annually in connection with the Annual Employer Survey Response pursuant to Section 10.16.080.c, in the following amounts:

<u>For Employers Of</u>	<u>Fee</u>
50-99 employees	\$100
100-499 employees	300
Over 500 employees	500

p. Region shall mean the Metropolitan Boston Intrastate Air Quality Control Region as defined at 40 C.F.R. § 81.19.

q. Throughtrips shall mean vehicle traffic on City of Cambridge streets attributable to trips that neither originate nor end in the City of Cambridge.

r. Transportation Control Measures are transportation control strategies aimed at reducing transportation-related emissions of pollutants and controlling the growth of future vehicle trips and vehicle miles travelled.

s. Transportation Management Plan shall mean the plan required under Section 10.16.090 for analyzing and reducing vehicle traffic associated with New Development.

t. VMT is an abbreviation for vehicle miles travelled.

u. Vehicle Trip Reduction Plan ("VTR Plan") shall mean a plan prepared by an Affected Employer and submitted to the City pursuant to Sections 10.16.080.c-d which describes the Affected Employer's program of measures intended to reduce vehicle trips and achieve the Citywide AER Goal at the Affected Employer's Worksite.

v. Worksite shall mean a building or grouping of buildings which are located within the City of Cambridge and are on physically contiguous parcels of land or on parcels separated solely by private or public roadways or rights-of-ways and which are owned, operated, or leased by the same Affected Employer.

Section 10.16.040 - General Mobility-Based Measures

a. Expanded Commuter Mobility Program. The Assistant City Manager for Community Development, in consultation with the City Manager, shall have authority to hire additional staff to implement the tasks and programs specified in this Chapter. In addition to continuing activities currently in progress, the Commuter Mobility Coordinator shall develop a schedule for implementing such additional programs as:

- * a program to encourage commercial and retail businesses to offer discounts to patrons with MBTA transit passes;
- * a residential trip reduction program for apartment and condominium complexes of 50 or more units;

- * a bicycle commuter program, in conjunction with the Cambridge Traffic and Parking Department, involving consultation with Cambridge residents and businesses;
- * a program to assist employers in establishing bicycle commuting incentives; and
- * a feasibility study of the potential use of jitney services or shuttles to transit locations, areas of major employment, and major commercial/retail destinations.

b. **Bicycle Incentive Program.** The position of Bicycle Coordinator is created within the Cambridge Traffic and Parking Department. The City Manager shall, within one month of the effective date of this Ordinance, designate the Bicycle Coordinator. The Bicycle Coordinator shall devote at least 50% of his/her time to carrying out the tasks required by this provision. The Bicycle Coordinator shall, in conjunction with the Commuter Mobility Coordinator, design and implement a program to encourage greater use of bicycles as alternatives to single-occupancy vehicles within the City. The program will include, but is not limited to:

- * development of a Cambridge Bicycle Master Plan;
- * creation of a Bicycle Advisory Committee;
- * development and evaluation of recommendations for a regional network of bicycle paths and bicycle priority streets favoring bicycles and pedestrians;
- * consultation with Cambridge residents and businesses;
- * funding of bicycle amenities and storage facilities; and
- * provision of bicycles for use by police and Traffic and Parking Department staff.

The program shall be funded at an initial level of \$25,000 annually; these funds shall be in addition to, and not utilized for, the salary of the Bicycle Coordinator.

Section 10.16.050 - Parking Supply-Based Measures

a. **Expansion of Parking Regulation.** Within six (6) months of the effective date of this Ordinance, the Traffic and Parking Department shall prepare a written inventory of all unregulated on-street parking in the City and submit to the City Manager a written draft recommendation specifying appropriate restrictions to discourage the use of these spaces for long-term commuter parking. These restrictions may include, without limitation, the installation of parking meters, time restrictions, and/or the use of residential permits to restrict long-term parking to residents. The City Manager shall make the draft recommendations available for public review and shall schedule one or more public meetings, as appropriate, for public discussion of the draft recommendations. Within one month of the public meetings, the Traffic and Parking Department shall submit a final recommendation to the City Manager. The City Manager shall promptly review the recommendation, revise it as appropriate, and direct the Parking and Traffic Department to implement it within three months.

b. **Municipal Parking Rates.** The rates for daily and monthly parking at all City-owned off-street parking facilities shall be increased by twenty-five percent (25%) over current rates, to be effective within sixty (60) days of the effective date of this Ordinance.

Section 10.16.060 - City of Cambridge-Based Measures.

The Citywide visitor passes that have been distributed to authorized individuals will be invalid thirty (30) days after the effective date of this Ordinance. The Cambridge Traffic and Parking Department is authorized to issue stickers to individuals who would be authorized to receive a Citywide visitor pass. In order to be effective, a sticker must be affixed to a vehicle and must display the vehicle registration number and an expiration date.

Section 10.16.070 - Residential-Based Measures

a. **Residential Parking Zones.** Four (4) residential parking zones are hereby established as follows:

- * Zone 1: Cambridge-Somerville border to north, Cambridge-Arlington-Belmont border to west, Concord Avenue to south, Kirkland Street to east (this zone includes the Cambridge Common);
- * Zone 2: Concord Avenue to north to Garden Street along Cambridge Common, JFK Boulevard to east, Charles River/Watertown-Belmont border to south and west;
- * Zone 3: Massachusetts Avenue to north; JFK Boulevard to west, Charles River to south and east;
- * Zone 4: Massachusetts Avenue to south, Kirkland Street to west, Somerville-Charlestown-Cambridge border to north; Charles River to east.

Residents will be permitted to purchase residential parking stickers which will authorize parking (1) within the designated zone from midnight on Sunday to 7 p.m. on Friday and (2) within any zone at all other times.

The Traffic and Parking Department is directed within six (6) months of the effective date of this Ordinance to modify current signage as necessary to clearly identify each residential parking zone. Beginning immediately thereafter, zoned stickers will be issued at the first annual renewal date for current residential sticker holders and to all new qualified applicants for residential parking. The signs shall clearly demarcate a buffer zone on both sides of each street designated as a zone boundary, which will run the full length of the zone boundary, in order to allow parking by residents of both abutting zones in the buffer zone.

Fines and penalties for parking in unauthorized zones shall be consistent with current parking violation policies.

b. **Fees For Residential Parking Stickers.** The fees for residential parking stickers shall be as follows:

1st Sticker per Household	\$ 8.00
2nd Sticker per Household	\$ 12.00
3rd Sticker per Household	\$ 50.00
4th Sticker per Household	\$100.00
5th and additional Stickers per Household	\$200.00

For the purpose of this measure, all vehicles registered at the same residential address shall constitute the vehicles registered to a household. Reductions and waivers available under current law to elderly and handicapped residents shall remain in effect.

Section 10.16.080 - Employer-Based Measures

a. **Regional Vehicle Trip Reduction Program.** In order to ensure that the employer-based vehicle trip reduction measures mandated by this Ordinance achieve their intended effect of reducing vehicle miles travelled in the Region and enhancing air quality, the City shall include in its submittal to the Metropolitan Planning Organization ("MPO") recommendations for region-wide amendments to the State Implementation Plan under the federal Clean Air Act and revisions of state taxing policies directed at a minimum toward (1) preventing the diversion of traffic oriented toward Cambridge to other areas with more limited transit availability, (2) assuring that Cambridge is not placed at a competitive disadvantage within the Region, and (3) reducing the growth in volume of throughtrips on Cambridge roadways which is outside the control of the City.

b. **Expansion Of Local Employment Opportunities.** To demonstrate and further its commitment to increase the number of Cambridge residents employed by Cambridge businesses, the annual budget for expansion of local employment opportunities shall be increased to \$130,000. That budget shall be applied as follows:

1. To continue and expand the Cambridge Employment Program within the Community Development Department;
2. To sponsor an annual job fair to inform residents of local employment opportunities;
3. To sponsor and coordinate educational partnerships between Cambridge employees and schools in Cambridge;
and
4. To develop a Local Employment Opportunity Plan.

These functions shall be coordinated and carried out by the Community Development Department in conjunction with the Department of Human Services and under the supervision of the Assistant City Manager for Community Development. The Local Employment Opportunity Plan shall be developed within one year of enactment of this Chapter.

c. Annual Survey of Employee Commuting Characteristics.

The City shall develop an Employer Survey Kit which will include an Employee Survey Form, administration plan, and Automobile Efficiency Rate ("AER") calculation sheet, designed to elicit commuting data and actual AER from all Affected Employers. The Employer Survey Kit shall be prepared and distributed to Affected Employers within six (6) months of the effective date of this Ordinance and on an annual basis thereafter. Each Affected Employer shall distribute copies of the standard Employee Survey Form to and collect completed forms from a minimum of seventy-five percent (75%) of its employees.

Each Affected Employer shall no later than six (6) months from the date the Employer Survey Kit is distributed to the Affected Employer and on an annual basis thereafter submit to the Assistant City Manager for Community Development an Annual Employer Survey Response, consisting of:

1. a report of the results of the employee survey on a standard AER calculation sheet, signed and certified as to its accuracy;
2. payment of the applicable Processing Fee (as set forth at Section 10.16.030); and
3. where required by paragraph d below, a completed, signed, and certified VTR Plan.

Copies of the completed Employee Survey Forms, AER calculation sheets, and VTR Plans shall be retained by Affected Employers for a minimum of three (3) years and shall be made available to the Assistant City Manager for Community Development or his designee, upon request. The Assistant City Manager for Community Development or his designee may direct an Affected Employer to use an independent third party to perform or certify the Annual Employee Survey Response.

Failure timely to submit a completed and certified Annual Employer Survey Response or to pay the applicable Processing Fee will be subject to a fine of Two Hundred Dollars (\$200). Each day, beyond the due date, that an Affected Employer fails to submit the Response or Processing Fee shall be deemed a separate

violation of this section, subject to an additional fine of Two Hundred Dollars (\$200). Knowingly reporting false data shall be punishable by a fine of up to Three Hundred Dollars (\$300). Each day that an Affected Employer fails to submit a certified Response correcting such a knowingly false submission shall be deemed a separate violation of this section subject to an additional fine of up to Three Hundred Dollars (\$300).

Responsibility for collection and review of Annual Employer Survey Responses and levying fines shall be with the Assistant City Manager for Community Development or his designee.

The Assistant City Manager for Community Development shall make arrangements with the Commuter Mobility Coordinator to coordinate: (i) preparation and distribution of the Employer Survey Kits; (ii) calculation of the Base AER; (iii) review and tabulation of the Annual Employer Survey Responses; (iv) recalculation of the Base AER based on review and analysis of the first Annual Employer Survey Responses; and (v) establishment of the Citywide AER Goal for subsequent years, provided, however, that the Goal shall provide for an annual improvement in the Citywide AER Goal of at least 2.5% until the earlier of attainment of the Ozone Standard within the Region or the expiration of this Chapter by its own terms pursuant to Section 10.16.130. The Assistant City Manager for Community Development is authorized to engage technical consultants to assist with these tasks.

d. Employer-Based Vehicle Trip Reduction Plans. The VTR Plan component of the Annual Employer Survey Response shall describe the Affected Employer's program of measures intended to reduce vehicle trips and achieve the applicable Citywide AER Goal at the Affected Employer's Worksite(s). The extent and nature of the VTR Plan will depend on the difference between the Citywide AER Goal and the Affected Employer's actual AER, as computed on the annual AER calculation sheets, for a given year. The VTR Plan must be signed by a representative of the Affected Employer who is authorized to approve the expenditures necessary to implement the VTR Plan and who certifies that the VTR Plan will be implemented as written. An Affected Employer whose actual AER meets or exceeds the Citywide AER Goal shall not be required to submit a VTR Plan for that year.

A VTR Plan may include a variety of measures, including, but not limited to:

- * dissemination and periodic updating of information on all available transit service to and from the Worksite;
- * advertising, promoting and making available for purchase on the Worksite any pass program offered by transit authorities;
- * incentives and assistance for bicycle commuting including secure parking facilities, shower/changing facilities, and education and training programs;
- * coordinating, facilitating and providing subsidies for employer-sponsored rideshare programs;

- * preferential parking for carpools and vanpools;
- * transportation allowances;
- * expanding opportunities for alternative work schedules including 4-day weeks and flexible schedules to facilitate ridesharing;
- * elimination or reduction of parking subsidies for single-occupant vehicles;
- * shuttle service to transit stops; and/or
- * elimination of employee parking spaces.

In developing these programs, affected employers may propose to implement certain measures jointly with other employers. The Commuter Mobility Coordinator shall be available to provide assistance to employers in developing VTR Plans.

The Assistant City Manager for Community Development or his designee may reject any VTR Plan that is inadequate to demonstrate a good faith effort by an Affected Employer to achieve the Citywide AER Goal at the Worksite. The Assistant City Manager for Community Development or his designee shall notify the Affected Employer in writing of the rejection. The Affected Employer shall have thirty (30) days in which to revise and resubmit the VTR Plan before a penalty will be assessed. An Affected Employer may appeal the rejection of a VTR Plan following the procedures in paragraph e of this Section.

Failure of an Affected Employer to implement any part of a submitted VTR Plan shall result in a penalty of Three Hundred Dollars (\$300). Each day that an Affected Employer fails to implement any part of a submitted VTR Plan shall be deemed a

separate violation of this section subject to an additional penalty of Three Hundred Dollars (\$300). Enforcement of this section shall be the responsibility of the Assistant City Manager for Community Development or his designee.

e. Appeals. An Affected Employer whose VTR Plan has been rejected shall have the right to appeal. Such appeal shall be presented to the Appeals Committee, a body to be appointed by the City Manager. The Appeals Committee shall be comprised of: (i) the Assistant City Manager for Community Development or his designee; (ii) two representatives of the City's residential population; (iii) one representative of an employer of 50-99 employees; and (iv) one representative of an employer of more than 200 employees. The decision of the Appeals Committee regarding appropriate revisions to the subject VTR Plan shall be final and binding. The Appeals Committee shall, in every case, determine whether the appeal is frivolous. In the event the Committee determines an appeal to have been frivolous, the Assistant City Manager for Community Development shall levy a penalty of Three Hundred Dollars (\$300). Upon such a determination by the Appeals Committee that an Employer's appeal is frivolous, each day that the VTR Plan was on appeal and each day until an acceptable VTR Plan is submitted shall be deemed a separate violation of this section subject to an additional penalty of Three Hundred Dollars (\$300).

Section 10.16.090 - New Development-Based Measures

a. This section shall apply to all New Development, as that term is defined in Section 10.16.030, except as provided in paragraph d below. The Cambridge Building Department shall not issue a building permit for New Development without evidence that the Assistant City Manager for Community Development (or his designee) has approved in writing a Transportation Management Plan for such New Development. To qualify for approval from the Assistant City Manager for Community Development (or his designee), a Transportation Management Plan for New Development must include:

1. A processing fee of \$1500; and
2. A traffic analysis that demonstrates that (i) for affected locations with existing traffic level of service ("LOS") of D or worse, reasonable traffic mitigation measures will be implemented to improve traffic operations to the extent feasible, and (ii) for affected locations with existing LOS of C or better, the project will not degrade such location below a LOS of C.

b. In addition to the requirements of paragraph a, to qualify for approval, a Traffic Management Plan for New Development consisting wholly or partially of commercial, industrial, or retail uses must also include the following four components:

1. A description of development design elements and vehicle trip reduction measures to be implemented by the developer in order to assist non-residential tenants in the development, collectively, to achieve the Citywide AER Goal. Measures to be considered for inclusion in the Transportation Management Plan include without limitation the following:

- Hiring a Transportation Management Coordinator, responsible for distribution of information and coordination of traffic management programs within the new development.
- Discouraging or restricting use of parking spaces by commuters in single-occupant vehicles.
- Funding a local or area-wide shuttle van to public transit stations and/or shopping centers.
- Encouragement of staggered or flexible work hours for employees of all tenants.
- Promotion of the use of public transportation by providing transit information and participation in the MBTA commuter pass program.
- Operation of a computer-based ridesharing information bank or coordination of ridesharing promotional programs with the City's Commuter Mobility Coordinator.
- Reserving spaces at preferential locations for carpool and vanpool parking on the site.
- Establishing reduced parking fees or providing subsidies for carpool and vanpool parking.
- Encouragement of employment opportunities for Cambridge residents by tenants of the new development.
- Providing safe, convenient, sheltered bicycle storage facilities and/or changing or shower facilities for bicycle commuters.

2. A monitoring program to demonstrate on an annual basis compliance with the Transportation Management Plan and to calculate the annual AER associated with non-residential tenants of the New Development. The monitoring program must account for all non-resident site-generated traffic between the hours of 6:00 a.m. and 10:00 a.m. Where tenants include employers of 50 or more employees at the Worksite, the monitoring program may utilize data from a tenant's certified Annual Employer Survey Response.
3. A commitment to update and supplement the Transportation Management Plan if, based on the monitoring program, it is determined that the non-residential tenants of the development, collectively, are not achieving the Citywide AER Goal.
4. A commitment to maintain future compliance with the Transportation Management Plan requirements following transfer of the New Development from the developer to other parties.
 - c. On an annual basis after receiving approval of a Transportation Management Plan, the developer, subsequent owner or property manager of the New Development covered by such Plan, shall submit to the Assistant City Manager for Community

Development or his designee an annual certification of plan compliance, which shall include information and data collected by the monitoring program pursuant to paragraph b.2.

d. The requirements of this Section shall not apply to any development which has already been issued building permits from the City of Cambridge or which is subject to a City-approved traffic mitigation or trip management plan as of the effective date of this Chapter.

e. The requirements of this Section do not exempt any person or any Affected Employer from compliance with other provisions of this Chapter.

f. Failure to implement an approved Transportation Management Plan or failure to submit the annual compliance certification required under paragraph c of this Section shall subject the developer, subsequent owner, or property management firm, whichever owns or operates the New Development, to a fine of Three Hundred Dollars (\$300). Each day that the owner or operator of a New Development fails to implement the approved Transportation Management Plan or to submit the annual compliance certification shall be deemed a separate violation of this section subject to an additional fine of Three Hundred Dollars (\$300). The Assistant City Manager for Community Development or his designee shall be responsible for enforcing this Section and levying applicable fines.

Section 10.16.100 - Study Of Zoning Revisions

The Cambridge Planning Board (the "Board") shall consider revising the required parking space ratios specified in the City of Cambridge Zoning Ordinance and shall evaluate the effectiveness of such revisions in reducing VMT and traffic congestion and encouraging the increased use of Commute Alternatives. Consideration shall be given, without limitation, to such potential revisions as reduction of minimum and maximum parking requirements, special provisions for carpools and vanpools, and encouragement of mixed-use developments.

The Board shall publicly report its recommendations within one year of the effective date of this Ordinance.

Section 10.16.110 - Clean Fuels-Based Measures

The Department of Public Works shall commission a study of the means available to promote, encourage, and provide incentives for the use of Clean Fuel in fleets of vehicles operating within the City. The study shall include an evaluation of the use of such fuels as methanol, compressed natural gas, and reformulated gasoline based on characteristics of fleets in Cambridge and implementation costs. The study shall also identify reasonably available incentives which could be offered by the City, such as tax credits, to encourage use of Clean Fuel in fleets of vehicles. The sum of \$15,000 shall be appropriated for this study. The results of this study will be publicly reported within one year of the effective date of this Ordinance and will

be distributed to all owners and operators of vehicle fleets in the City. The results of the study shall promptly be made available to members of the public upon request.

10.16.120 - Use of Fees

The fees paid to the City pursuant to Sections 10.16.070, .080, and .090 shall be used as follows:

a. One hundred percent (100%) of the processing fees collected by the City in connection with (i) review of the Annual Employer Survey Response as set forth in Section 10.16.080 and (ii) review of Transportation Management Plans for New Development as set forth in Section 10.16.090, and fifty percent (50%) of the funds raised through the sale of residential parking stickers under Section 10.16.070(b), will be dedicated to the continuation and expansion of the Commuter Mobility Program within the Community Development Department and shall be used for implementing the tasks and programs specified in this Chapter.

b. Fifty percent (50%) of the funds raised through the sale of residential parking stickers under Section 10.16.070(b) shall be used by the Traffic and Parking Department for enforcement and other activities required of it pursuant to this Chapter.

Section 10.16.130 - Sunset Clause

The provisions of this Chapter shall cease to be effective on November 15, 1996 if as of that date (a) the Commonwealth of Massachusetts has failed to submit to the U.S. Environmental

Protection Agency ("EPA") a proposed revision of its State Implementation Plan pursuant to Section 182(b)(1) of the Clean Air Act, 42 U.S.C. § 7511a(b)(1), to provide for reductions in emissions of volatile organic compounds to be achieved in part by means of transportation control measures applicable throughout the Region; or (b) the EPA has either rejected or failed to approve such regional transportation control measures proposed by the Commonwealth to achieve a reduction in volatile organic compound emissions.

Section 10.16.140 - Certification of Implementation

The City shall, on or before May 15, 1996, submit to the Department of Environmental Protection a statement certifying that the City is implementing the terms of this Chapter. If this Chapter has ceased to be effective pursuant to Section 10.16.130, the City shall not be required to submit a certification to the Department of Environmental Protection.

Section 10.16.150 - Non-Severability

If any provision of this Chapter is held invalid, the entire Chapter shall cease to be effective and shall be repealed by the City Council.



CITY OF CAMBRIDGE
CAMBRIDGE, MASSACHUSETTS 02139

TEL 349-4300
FAX 349-4307

EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

March 20, 1992

To The Honorable City Council:

Pursuant to the terms of Ordinance No. 1112, I am hereby presenting to you for your consideration and approval a draft Vehicle Trip Reduction Ordinance. Also enclosed for your review and consideration are (1) a detailed memorandum which describes the comprehensive program of transportation control measures contained in the proposed Vehicle Trip Reduction Ordinance and (2) a Technical Appendix prepared by Cambridge Systematics, Inc. which describes the technical analyses performed and documents the impact of the proposed Ordinance in reducing the number of vehicle miles traveled to and within Cambridge and the associated air quality improvements. I call your attention in particular to the summary of program impacts on pages 30, 31, and 32 of the Memorandum. I also urge you to review sections 4 and 5 and figures 4.1-4.4 of the Technical Appendix.

The proposed Vehicle Trip Reduction Ordinance, together with the Memorandum and Technical Appendix, represent the culmination of a lengthy process and substantial effort. During the past year and a half, the City's technical and legal consultants developed a comprehensive menu of potential transportation control measures and participated in a series of meetings with a community advisory committee comprised of representatives of the City's residential, business, and institutional communities. The advisory committee provided comments on the menu of measures and assisted the City's consultants to develop additional ideas and identify items as to which there was consensus about transportation control measures appropriate for the City. The City's consultants then prepared and circulated a draft Vehicle Trip Reduction Ordinance and supporting Memorandum for comment by both the community advisory committee and the Department of Environmental Protection. The current versions of these documents reflect written and oral comments generated by the community advisory committee as well as comments provided by the Department Environmental Protection during several meetings and telephone conversations.

The proposed Ordinance will effectively reduce by a substantial number the vehicle miles traveled to and within Cambridge and will thereby measurably improve regional air quality. The proposed Ordinance contains a variety of transportation control measures involving all segments of the City's government, business, institutional and residential populations. Specifically, the proposed Ordinance would reduce the vehicle miles travelled ("VMT") in connection with existing jobs in the City, restrict parking which is currently unregulated, discourage cross-town trips during the work week, facilitate opportunities for residents to find jobs in the City, expand the existing Commuter Mobility Program, and create a Bicycle Mobility Program.

Together, these measures are expected to eliminate between 104,500-170,500 daily VMT. This translates into a reduction of approximately 3 to 5% of Cambridge-based daily VMT. This is a significant achievement in view of the data which indicates an annual growth in VMT of 3% in the Region.

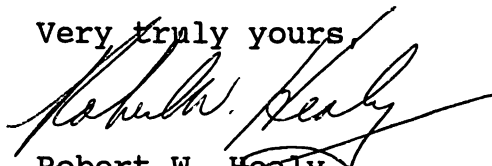
In addition to the reductions of existing VMT quantified above, the Ordinance also contains measures to constrain future growth in VMT associated with new development. Furthermore, the Ordinance would reward businesses and institutions which have already or henceforth achieve significant changes in commuter travel behaviors and encourage fleet owners to convert their fleets to cleaner fuels, thereby encouraging and promoting further improvements in regional air quality.

The scientific literature and data are clear: the degradation of air quality is a regional problem that requires global and regional solutions. This is particularly the case with ozone. Every community within a region must contribute to the solution. Cambridge is committed to being a leader in this movement. Cambridge cannot, however, singlehandedly improve the Region's air quality. Notably, approximately 33% of all traffic on Cambridge streets is attributable to "throughtrips," trips that neither originate nor end in Cambridge. Cambridge has virtually no control over these trips. The program set forth in the proposed Ordinance must therefore be supplemented, complemented and, in accordance with the federal Clean Air Act, replaced by a transportation control program of regional applicability.

Toward that end, the enclosed Memorandum identifies regional measures necessary to supplement and complement the Citywide measures proposed in the Ordinance. Upon approval of this proposed Ordinance by the City Council, the Ordinance, supporting Memorandum, and Technical Appendix would serve as the basis for a proposal by the City of Cambridge to amend the State Implementation Plan for achieving air quality in the Commonwealth of Massachusetts.

To The Honorable City Council
March 20, 1992
Page 3

Very truly yours,

A handwritten signature in black ink, appearing to read "Robert W. Healy". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Robert W. Healy
City Manager

RWH/jml
Enclosures

CONSENT AGENDA # 3
PROPOSED SIP revision.

In City Council,

March 23, 1992

*Referred to the
Ordinance Committee
Copy sent to Ordinance
Committee 3/24/92 (cc)*

COUNCILLOR WOLF'S PROPOSED AMENDMENTS TO SIP ORDINANCES

June 15, 1992

REPLACEMENT AMENDMENTS TO INTERIM PARKING FREEZE ORDINANCE

Delete from 10.16.060(A) the last two sentences.

Add to Section 10.16.060(D): The IPCC shall hold hearings on applications for Controlled Parking Permits once in each calendar quarter. The IPCC shall establish a deadline for receipt of applications in each quarter. All applications received by the quarterly deadline established by the IPCC shall receive equal consideration.

10.16.060 (F) Add after 1st sentence:

In evaluating applications and making determinations of award, the IPCC shall assign greatest priority to those applicants and projects which best demonstrate compliance with the following criteria as it relates to the parking facility for which the spaces are sought:

- (1) The applicant requests ten or fewer permits.
- (2) The applicant will provide and maintain a program of vehicle trip reduction mitigation.
- (3) The applicant provides a plan to make a good faith effort to hire qualified Cambridge residents as employees and commits to participate in the Cambridge Employment Plan.
- (4) With respect to any project seeking 100 or more CPFs, the project has developed and documented a transportation mitigation plan with a particular emphasis on mitigating impacts on nearby intersections and the plan satisfies the criteria applied by the Planning Board to comparable projects needing a Special Permit.

The IPCC shall request evidence and documentation as it deems appropriate for substantiation of compliance with the above criteria.

Controlled Parking Permits shall remain in effect for two years. If the applicant fails to obtain a building permit within that time, the Parking Permits will revert to the bank. If the building permit expires before the spaces are built, the CPFs also revert to the bank.

Delete 10.16.070(c) in its entirety and replace with Fifty percent (50%) of those unrestricted on street spaces identified in the City's on street parking space inventory which become

subject to restrictions on use pursuant to section 10.16.071. Provided that the unrestricted spaces are in a nonresidential zone or in a residential zone within five hundred feet (500 ft.) by public or private way of a MBTA bus or subway line. Provided further that the IPCC shall issue CPFPS during the first year after the effective date of this amendment as follows:

(i) The number of Controlled Parking Permits available for award in any single quarter shall not exceed 25% of the total number of Controlled Parking Permits remaining in the bank or up to 100 permits ("quarterly limit"), whichever is greater, but not more than the total number of permits remaining in the bank. Those permits not awarded in a quarter remain in the bank; these permits may be awarded in future quarters in addition to the quarterly limit.

(ii) The limitations on issuance of Controlled Parking Permits described in subsection (i) shall apply only to spaces added to the bank pursuant to this subsection 10.16.070(c) and shall apply only for the first year after the effective date of this amendment.

CITY MANAGER'S AMENDMENTS TO INTERIM FREEZE ORDINANCE

In the 7th whereas clause, replace May with June __, 1992.

In 10.16.071 after the word "restrictions" in the second sentence replace the phrase "may include, without limitation," with "shall include, among others, the following types of restrictions:"

In 10.16.090 strike the entire section and replace with the following:

The provisions of this Chapter shall continue in effect for the interim period.

10.17.160 - Add ^{new 4 at end of section} ~~as last sentence~~

Notwithstanding the foregoing, The City in its
submittal shall note the absence of
consensus about the Vehicle Trip
Reduction Ordinance as originally
proposed. The City ~~will~~ shall
engage in a further consultative
process as outlined in 10.17.140.
The City shall continue to update
the State concerning that process.

City Mgr. Neal's Recommendation.

VIV
/ 9

Cambridge Citizens for Liveable Neighborhoods^{Inc.}

P.O. Box 19, Cambridge, MA 02238 / (617) 354-5670



March 22, 1992

To The Honorable City Co

For the past year an Implementation Plan (SIP) Act. Several Board and R formed by the City Manag Although the plan had ma growth in Vehicle Miles T will further degrade air q destination capacity as req Conservation Law Founda recent ruling by Judge Toc

s to develop a new State d under the Federal Clean Air ted in the SIP Committee completed one year ago. y, it permitted a citywide nd 129,000. This, of course, tion, the plan did not restrict greement between the mental Protection and the

The proposal submitted by City Manager Robert Healy is virtually unchanged from the draft of one year ago. During this period, we became concerned that the issue had languished. The Citizen participants of the SIP Committee and others have drafted a SIP proposal for your consideration and for that of the Department of Environmental Protection and the Regional Office of the Federal EPA. In addition, we have enclosed a comparative analysis of the two proposal and the comments by the Conservation Law Foundation on the City Manager's draft of one year ago.

We look forward to an active role in assisting you with a Clean Air Initiative that will insure the health and prosperity of our City. Cambridge should be proud to be the model for the region.

Sincerely,

Debra McManus
Co-Chair

Dan Geer
Co-Chair

Cambridge Citizens for Liveable Neighborhoods^{Inc.}

P.O. Box 19, Cambridge, MA 02238 / (617) 354-5670



March 22, 1992

To The Honorable City Council;

For the past year and a half we have been active in efforts to develop a new State Implementation Plan (SIP) for improving air quality as required under the Federal Clean Air Act. Several Board and Resource members of CCLN participated in the SIP Committee formed by the City Manager. The work of that Committee was completed one year ago. Although the plan had many components beneficial to air quality, it permitted a citywide growth in Vehicle Miles Traveled (VMT) of between 68,000 and 129,000. This, of course, will further degrade air quality rather than improve it. In addition, the plan did not restrict destination capacity as required and reinforced by the recent agreement between the Conservation Law Foundation and The Department of Environmental Protection and the recent ruling by Judge Todd in the Jones vs. Teso case.

The proposal submitted by City Manager Robert Healy is virtually unchanged from the draft of one year ago. During this period, we became concerned that the issue had languished. The Citizen participants of the SIP Committee and others have drafted a SIP proposal for your consideration and for that of the Department of Environmental Protection and the Regional Office of the Federal EPA. In addition, we have enclosed a comparative analysis of the two proposal and the comments by the Conservation Law Foundation on the City Manager's draft of one year ago.

We look forward to an active role in assisting you with a Clean Air Initiative that will insure the health and prosperity of our City. Cambridge should be proud to be the model for the region.

Sincerely,

Debra McManus
Co-Chair

Dan Geer
Co-Chair

Cambridge Citizens for Liveable Neighborhoods^{Inc.}

P.O. Box 19, Cambridge, MA 02238 / (617) 354-5670



Cambridge Citizens' Plan for Clean Air

Submitted as an Amendment to the State Implementation Plan Under the Policies and Procedures of the Federal Clean Air Act

Executive Summary

The Cambridge/Boston core area has a serious problem with air quality. Sanity and law mutually require that we reduce carbon monoxide and ozone substantially for each of the next several years. These problems come from cars almost entirely. This clean air plan will effectively reduce pollution by changing the role cars play in Cambridge. It uses a combination of regulations and incentives. The eleven key elements of this plan are:

1. No growth in how many cars can or do come into Cambridge
2. Strict limits on commercial parking
3. Earmarked revenue for local transit
4. Important City initiatives on MBTA transit
5. Bicycle and pedestrian facilities
6. Strengthening the residential parking permit program
7. Taxicab related improvements
8. Zoning changes
9. Real traffic policy
10. Economic growth for Cambridge citizens
11. A formal Trip Reduction Ordinance
12. Tailpipe standards enforcement

This plan is real; it contains no half-measures, window-dressing or flim-flam. This plan provides powerful incentives for change. It is self funding. It is quantitatively verifiable. This is a strong, visible local initiative. It will make regional solutions much more likely through its leadership. It attends to the needs of our citizens for clean air and economic opportunity without the big and common lie that one must be bargained against the other.

Cambridge Citizens for Liveable Neighborhoods^{Inc.}

P.O. Box 19, Cambridge, MA 02238 / (617) 354-5670



State Implementation Plan: Cambridge Citizens' Proposed Amendment

Abstract

Under the Federal Clean Air Act as amended, the Boston core area has been given a "serious nonattainment" rating. This rating means that we must reduce the priority pollutants for this area, carbon monoxide (CO) and ozone (O₃), 3% per year for the next several years.¹ Most of these priority pollutants come from mobile sources,² mostly cars. This Cambridge Citizens' Proposed Amendment offers a plan to effectively achieve the reductions mandated by regulations, to do so in a quantitatively verifiable manner, and to make the administration of the plan self funding.

Assumptions

1. Mobile pollutant discharge is linearly proportional to vehicle miles travelled (VMT), or trip count times average trip length.
2. Those parts of personal vehicle usage that are regular, daily, and routine are most amenable to reduction or diversion to other transportation modalities.
3. Incentives are preferable to regulations, but incentives, absent regulation, are incapable of effecting the 3% reduction goal.
4. Regional solutions are made more palatable through the leadership of strong, visible local initiatives

¹ The Boston Basin has a "serious non-attainment" designation, which, under the Clean Air Act, requires these reductions and this schedule.

² For CO, 66-76% are from mobile sources (depending on season). For Volatile Organic compounds, 54% are from mobile sources. For Nitrogen Oxides, 43% are from mobile sources. Source: Massachusetts 1987 Base Year Emmission Inventories, Department of Environmental Protection, Division of Air Quality Control, December, 1990.

1. No growth in vehicular flow capacity of the infrastructure

It is the paramount principle of this proposal that traffic volumes not increase as measured by VMT. The history of the past decade shows that tailpipe emission improvements have been more than wiped out by increased VMT (averaging 3% per annum).³ This plan categorically states that no net traffic capacity growth is the foundation of a purposeful step towards air quality improvements. Capacity enhancements are very expensive, destructive of other urban amenities and ultimately counter-productive.

This means explicitly that no attempt will be made to improve the morning performance of class D and F intersections within Cambridge unless there is a quantitative verification that said improvements will not result in increased VMT due to the apparent capacity increases of diminished bottlenecks. Improved flow in the afternoon, to more speedily flush cars from the city, is likely worth consideration, and this will be studied carefully. Similarly and in addition, no road widening efforts will be made (except for bicycle lanes), nor will there be any effort to improve morning arterial capacity (such as might be accomplished with morning rush hour parking bans).

Cambridge will aggressively use all means at its disposal to contain traffic to arterials and not involve residential and side streets as thoroughfares, *e.g.* addition of new one-way streets with patterns that discourage through traffic; "traffic calming" measures such as woonerfs⁴, expanding sidewalks at intersections to neck-down intersection size, *etc.*

These issues have special significance in East Cambridge, the Kendall Square redevelopment district, and the Alewife area, including Alewife Center and Quadrangle and Triangle areas west of Route 2 between Concord Avenue and the Alewife Reservation. Technically, Alewife Brook Parkway, if upgraded at all, would be built to parkway standards, not highway standards.

2. Stable destination capacities

It is widely understood in planning circles that the strongest

³ Traffic data from the Massachusetts Department of Public Works.

⁴ A Scandinavian commonplace, woonerfs are mid-block "lateral speed bumps" or, putting it differently, jogs in roadways whose purpose is to reduce the practical speed of drivers. Especially popular in residential areas as a safety and liveability measure.

constraint on commuter traffic volumes is the amount of destination capacity available.⁵ "Destination capacity" can be thought of as some combination of flow capacity and parking. Point 1 addresses the former; this point addresses the latter. This plan categorically states that no increase in parking capacities will be allowed. Parking capacity may be rearranged in patterns of use or ownership, but no increase will be permitted. As the parking in Cambridge is already at saturation, this will provide a powerful incentive to switch trips from private automobiles to other, less polluting alternatives.⁶

This means explicitly that a parking supply restriction no less strict than that set by the current ordinance (#1112) will be in place permanently. It also means that increases in parking that may be deemed desirable as an incentive City policy goals will only be available from reassignment of the existing pool, not by the creation of new parking. It also means that residential parking, on-street parking, and MBTA park and ride will continue to enjoy the only exemptions from supply restrictions.

To complete the circle, all on-street parking will be regulated via meters or residential-parking-only stickers. Where meters are used, the time period of the meters can be fit to the circumstances, *e.g.* the meters can be 10-hour meters in industrial areas where public transit service is limited or non-existent. For those commercially zoned areas which are nonetheless used for residential purposes (Concord Avenue for example), residents who have a sticker allowing parking on that street would be exempt from the meter fee.

3. Earmarked revenue for paratransit

A fee will be assessed on all "controlled parking"⁷ in the City. Such

⁵ Many studies have substantiated this finding (Bhatt, 1990; Higgins, 1990; Pratt, 1990; Shao, 1991; Shoup & Willson, 1990; Valk, 1990; Willson, Shoup & Wachs, 1990). Stable destination capacity is also a feature of many SIPs in other areas, such as Seattle, Washington (where no principal use facilities have been built since 1976) and Portland, Oregon (where there is no required parking for new development and an absolute limit on aggregate downtown capacity, excepting only lodging).

⁶ For years, the prevailing rule that limited the number of cars into Manhattan was the reputation of the unavailability of parking and the existence of a comprehensive transit program. The city in the 1950s had the image of a place where people would be crazy to bring a car in. Downtown Boston has generated this image in recent years, so that bringing even a motorcycle into the city is fraught with parking worries. Only Harvard Square carries this image today for Cambridge.

⁷ Controlled parking is defined by the Memorandum of Agreement, dated 10 August 1990, between the City of Cambridge and the Massachusetts Department of Environmental Protection, and subsequently enacted into Cambridge Ordinance No. 1112, enacted 26 November 1990. Basically, it says that all spaces are subject to control except for those that are exclusively residential, on-street, or MBTA park-and-ride. Technically, a controlled parking space is any space in "any lot, garage, building or structure, or combination or portion thereof, on or in which motor vehicles are parked, except (i) a parking facility, the

fees are now common in major metropolitan areas.⁸ This fee will average \$1 per day per space. Fees will be higher than the average in the vicinity of those City locations that are transit hubs, and be lower than the average in those areas ill served by public transit. Charges at city-owned metered parking will also be increased by an average of \$1.00 per day, or approximately 10¢ per hour, depending on the location of the meter. The majority of these funds will be earmarked for a paratransit system that will support the local trips of citizens of Cambridge and employees of Cambridge businesses. Owners of parking spaces (employers, developers, parking garage operators) will be encouraged, but not required, to pass the fee on to the ultimate user of the space (employees, commercial tenants, garage users).

This means explicitly that all controlled parking in the City will effectively contribute \$1/day/space. In areas well served by transit, principally Porter, Harvard, Central and Kendall Squares, that fee will be higher. That fee will be \$2/day in the Harvard and Kendall areas, and \$1.50/day in the Porter and Central areas. Other areas, *e.g.* industrial areas of southeast Cambridgeport, will be lowered (minimum \$.50) so as to make the net yield be \$1/day per controlled space. Such a fee structure will tend to favor mercantile uses over commuting uses, but at the going rate of \$100 per month per space for low end commuter parking, will add no more than 30% to the price of that parking. These figures will be inflation indexed so as to retain their buying power.

Note that the provision of a fixed fee per space, rather than a percentage of the gross revenue, has an intentionally differential impact on the kinds of parking present in the city. The cheapest parking, by far, is that that is rented monthly in large blocks and provided to employees as "free parking"; second is that which the employee him/herself purchases on a monthly basis. It is those uses that are targeted by this proposal and which will be most affected by it. High turnover parking that is associated with mercantile uses will be much less impacted by such a fixed fee per space scheme.

In round numbers, such a \$1/space contribution will amount to some

use of which is limited exclusively for the benefit of the residents of a specific residential building or group of buildings or, (ii) parking on public streets, and (iii) a parking facility designated as a park-and-ride facility to be operated in conjunction with the Massachusetts Bay Transportation Authority.

⁸ New York: 18.25%, San Francisco: 15%, Washington, D.C.: 12%, Los Angeles: 10%. The only novel feature is that we propose a fixed fee per space and not a percentage of the take. Other similar measures are in place in Portland and Eugene, Oregon, Madison, Wisconsin, Hartford, Connecticut, Chicago, Illinois, and Montgomery County, Maryland. On a grander scale, on March 14, 1990, the State of Washington enacted a Parking Tax that applies to all non-residential parking.

\$50,000 per day⁹, or in excess of \$12,500,000 per annum. This figure can abundantly support a local transit system for Cambridge. An illustrative plan and balance sheet for such a "paratransit" system is in Appendix 1.

When technologically feasible, the paratransit and express bus systems will be converted to natural gas fuel, so as to further enhance the impact of the program and to serve as a public demonstration of clean fuel conversions.

4. City initiatives on MBTA transit

Cambridge must do more than merely cooperate with the MBTA; Cambridge needs activism - advocacy and monitoring. The City will prepare a transit plan for Cambridge, in draft form for submission to the MBTA. The City of Cambridge will design programs for MBTA implementation, such as in signing, brochures, signal/bus preemptions, trip sampling, headway monitoring of trains and buses. Components of this coordinated effort follow.

The City commits to establishing standard signage at all MBTA bus stops (and all city paratransit system stops). The City will make the government access (cable) channel carry schedule and general transit information.¹⁰

The City commits to cooperate with the MBTA in locating bus stops where they will be maximally convenient for riders and for bus operators, and to aggressively clear parking that occurs in bus stops. Where it is appropriate, the City will make street improvements that will improve bus operations, such as changes in signal timing, signals that can be controlled or pre-empted by buses, and changes in curbing or lane striping, so long as these improvements offer an advantage to buses and do not increase road capacity for other vehicles. Bus stops at Harvard (#66 and #86) and at Porter (#77) will be relocated closer to the subway station entrances.

The City will also undertake surveys of residents and employees throughout the City, targeted at understanding barriers to MBTA usage.¹¹

⁹ City figures for 1990, total number of non-residential, off-street parking places is 51,829.

¹⁰ As is now being done in Iowa City, Iowa.

¹¹ In the Report of the Service Committee of the MBTA Advisory Board, January 9, 1991, they write "The MBTA must make a serious commitment to collect information on existing and potential ridership. Planning should begin now for a broad-based systemwide survey...". Clearly, there is room here for initiative and cooperation on the part of the City of Cambridge.

¹¹ A similar program is in place in Seattle, Washington.

The City will work with the MBTA to investigate adjustments of existing routes, and to plan new routes where necessary, that will better serve Cambridge employers, merchants, and residents, and that will effectively link with the City's paratransit system. These bus route improvements will be geared both at making it easier to commute within the city, and at making it easier to commute between Cambridge and nearby communities, without degrading the existing connections between buses and the rapid transit system.

Taking a cue from the air travel industry, careful examination of timing issues at transfer points between modes, such as bus to subway, will be made. Schedules will be devised to ensure that intermodal transfer delay is acutely minimised. Monitoring of the performance of these coordinative efforts will be done regularly and scientifically by City staff.¹² So as to ensure the best possible ability to meet these schedules, Cambridge will install traffic signal preemption for the bus fleet.¹³

The City will use the full measure of means at its disposal to cause the MBTA to establish a new commuter rail station at Alewife, with direct and safe access to the (existing) Alewife Garage 1. The City will take all necessary steps to site additional Alewife parking in a new Alewife Garage 2, to be constructed on the east side of Alewife Brook Parkway, across the roadway from the existing parking. Construction there will intercept more cars and simultaneously provide permanent assurance of the usefulness of the East Head House to commuter and North Cambridge resident alike.

If any road improvements are built at Alewife, they will be exclusively geared to improving access into the subway station's parking garages and bus lanes. In sum, these measures substantially enhance the effective interception capability of the Alewife terminus for inbound suburban commuters. (*Noto bene*: The plans proposed by the Mass. DPW are wholly incompatible with these common-sense goals, and the City will continue its vigorous opposition to those plans.)

5. Bicycle and pedestrian facilities

¹² Such monitored coordination is already being done in Alberta, Canada. "For example, in Washington, a staff of 32 checkers work full-time to monitor WMATA's service delivery, including the on-time performance of its bus fleet." and "Closer to home, the privately provided shuttle system which serves Boston's Longwood Medical Area posts service schedules at its stops, showing intermediate arrival times on each of its routes" - Report of the Service Committee of the MBTA Advisory Board, January 9, 1991.

¹³ A similar program is in place in Seattle, Washington.

The City will commit to greater use of bicycles and walking.¹⁴ A Bicycle and Pedestrian Design Engineer will be appointed. The Design Engineer's first responsibility will be the preparation of a Cambridge Bicycle and Pedestrian master plan within six months of his/her appointment. Bicycles will be provided to Police and Department of Transportation personnel for official uses where appropriate so as to both gain air quality advantages and to serve as a public example. Intersections and grade crossings that pose hindrance to pedestrian and bicycle uses will be reworked to favor, rather than disfavor, those uses.¹⁵

6. Changes in residential parking permit program

The City's residential parking permit program has generally worked well in the past; however, some minor adjustments are needed. The biggest problem with the current system is that residential streets in the vicinity of Harvard, Central, Porter, and Lechmere Squares are used as parking for adjacent commercial areas and subway stations. Users of these parking spaces include both residents of other neighborhoods in Cambridge and non-residents who have illegally acquired Visitor Parking Passes.

To reduce the black market on Visitor Passes, the address of the owner will be written on Passes by city employees when they are issued. The Visitor Pass will be redesigned to feature a calendar appropriate for the year of issue. The Visitor Pass will be valid *only* if the then "today's date" is circled.

The "White Visitor Passes" (city-wide Visitor Passes) will be eliminated. The City of Cambridge will substitute stickers for authorized individuals. These stickers will display the vehicle registration number of the vehicle to which it is assigned and also show an expiration date.

Residential parking zones will be established for streets near MBTA stations. Resident parking permits from other parts of the city will not be valid in these areas. In effect, Cambridge will have 5 exclusive permit zones (Lechmere, Kendall, Central, Harvard and Porter) plus a general zone covering the rest of the city.

To ease the inconvenience that will result from parking meters being installed at now-unregulated spaces on streets that have mixed commercial

¹⁴ Cities from Chicago, Illinois, to Phoenix, Arizona, to Valencia, California, already reserve important city infrastructure for walking and bicycling.

¹⁵ See the Mayor's Bicycle Commission Study, 1991, for a breadth of details that will form the basis for this Bicycle & Pedestrian Master Plan.

and residential uses (such as Concord Ave., Huron Ave., and Cambridge St.), these meters will require coins only between the hours of 9:00 and 5:00. The rate charged for these meters will be indexed to remain at the maximum level of all meters city-wide.

7. Taxicab improvements

In cooperation with the taxicab industry, the City will undertake measures to promote business and to improve efficiency. Emphasis will be placed on multimodal connections which will allow taxis to supplement both MBTA and paratransit service. One necessary improvement is the establishment of new taxi stands, especially adjacent to the Porter and Lechmere subway stations.

8. Zoning changes

Between January, 1980, and March, 1990, Cambridge constructed over 8 million square feet of office, retail, and industrial space, 1000 new hotel rooms, and approximately 19,700 non-residential off-street parking spaces. Since March, 1990, an additional 1 million square feet of office and retail space has been constructed or has begun construction. An additional 7 million square feet of non-residential development is proposed or planned. If parking is developed at the same rate as since 1980, an additional 19,700 spaces would be constructed. This figure, large as it is, is less than that allowed under current zoning.¹⁶ Clearly, zoning changes are essential for Clean Air, as well as for liveability concerns.

Present city zoning requires a minimum number of parking spaces per square foot of floor space. For non-residential uses, these regulations will be sharply modified to encourage developers to offer public transit incentives in exchange for a sharply reduced number of parking spaces.¹⁷ For example, an office building which gave free MBTA passes to its employees (if it were near a transit station) or which funded free paratransit service (if it did not already have good transit service) will be allowed to have (potentially substantial) reductions in required parking spaces. Similarly, employers could mandate that a portion of their spaces are for high occupancy vehicles (HOV) only, thereby increasing the net

¹⁶ Cambridge Systematics, Inc., January, 1991.

¹⁷ These changes would have substantial positive impact on developers and businesses in Cambridge. Anecdotally, at least one major employer has achieved significant savings by buying T passes for its employees rather than continuing to lease reserved parking for them. Similarly, it is reported that a major development expended 40% of its total construction dollars on the parking facility associated with it. Average figures are in the 20-30% range.

employee capacity of their facilities without the requirement of any other steps being taken, administratively or otherwise.¹⁸ In any case, the aim is to use the Zoning Ordinance to keep parking supplies tight.¹⁹

New site guidelines will be established to promote transit, ridesharing and pedestrian modes for new developments. Criteria will include minimizing walking distances between transit access and the proposed development, bus shelters, bicycling facilities, sidewalks, paratransit loading areas and control of parking.²⁰

9. Traffic Policy

The City of Cambridge will formalize its traffic policies. It will identify major highways (such as Fresh Pond Parkway, Memorial Drive, O'Brien Highway) and state the function of each. The traffic function of other arterials (such as Massachusetts Avenue, Hampshire Street, Broadway and Concord Avenue) will also be established. These arterials will not seek to move large volumes of vehicles swiftly but will instead provide service adequate only to avoiding having delays that force vehicles to use adjacent routes through residential neighborhoods.

Finally, several categories of residential streets will be developed. Some will be primarily residential access, with speeds of 25 MPH or above. Pearl Street and Harvard Street are examples. For streets in this category, games in the street are usually impossible because of traffic volumes and speed, but there is no congestion.

Other residential streets will have peak hour traffic specifications in these ranges: 1-25, 25-50 and 50-100 cars per hour. Policies will be adopted by the City (Planning Board and Traffic Department) to prevent all traffic growth on these streets.

10. Economic growth for Cambridge citizens

¹⁸ The Traffic Mitigation Plan for University Park implicitly implements this idea. It establishes the maximum number of vehicular trips which can be generated from the development during peak hours. It includes a requirement to charge reduced parking fees for carpools and vanpools and reduced fees for designated spaces not available for use on working days until after 9:30 AM. Failure to meet performance standards can result in limitations on the extent of the project's build-out.

¹⁹ To quote one recent Federal Review: "Localities also should insure parking supplies are kept on the tight side... [Zoning] codes should be revised in support of [transportation systems management] and [parking management] strategies to insure a tight supply. New maximum requirements might be added to codes for this purpose. (USDOT/UMTA, 1989)

²⁰ Much as is now being pursued in Seattle, Washington.

The City of Cambridge will reverse its policies and practices of recent years²¹ and explicitly put forward a plan that encourages employment and business opportunities for Cambridge citizens. The history of the past three decades is that in 1970, 75% of the employees of Cambridge businesses and institutions were from Cambridge or immediately adjacent communities. By 1980, that figure was 67%. Today, it is less than 50%.²² Expressed differently, only 28%²³ of Cambridge's employees live in Cambridge, compared to 40% in Boston. Increasing the Cambridge percentage to only 33% would decrease Cambridge based VMT by over 1%.²⁴ It is imperative that a Clean Air SIP amendment recognize that reducing the need for long distance commuting is no quick fix, but is where the ultimate solution lies.

This means explicitly that the City will use its full influence to ensure that economic growth in the City employ Cambridge residents or those from immediately adjacent communities. This includes the full weight of its regulatory influence and the full benefit of its incentive influence. The principle is simple: *Hire those who live here, or house those you hire.*

Goals will be established that reflect an expectation of equal effort on the part of all local employers to improve their performance. Opportunities for sponsoring and coordinating educational partnerships between Cambridge employers and schools in Cambridge will be explored, and a semiannual job fair will be organized. A Local Employment Opportunity Plan will be developed to achieve substantial gains in this direction. Such efforts require serious, new administrative vigor to accomplish meaningful changes, and the City pledges that effort.²⁵

To the extent that major new construction of economic enterprises takes place in the City, the builders of these enterprises will be required to contribute to the housing stock of this City in proportion to the numbers of persons these new enterprises will employ. Cambridge will take regional leadership in this area by requiring that each new square foot of commercial construction be accompanied by a square foot of housing. In short, the principal is to *hire those who live here or to house those you*

²¹ To quote the City's documentation of April, 1991, jobs generated by the existing pattern of new development "will tend to focus on white-collar employment and attract workers from higher growth communities further distant from Cambridge".

²² Figures provided by Cambridge Community Development Department, April, 1991.

²³ Cambridge Community Development and Cambridge Systematics, Inc.

²⁴ Cambridge Systematics, Inc., analysis, March 1991.

²⁵ Increasing the share of the City's employment base composed of residents from 28% to 33% will require Cambridge employers to hire at least 5,100 Cambridge residents for existing jobs and to hire 33% Cambridge residents for all new jobs created in the City.

hire. The details of such a coordination of supply and demand be worked out by a public process, again providing a hearing for all before a body of Cambridge citizens who make the final proposal.

11. Trip Reduction Ordinance

Cambridge will craft a Trip Reduction Ordinance (TRO) with an initial emphasis on incentives rather than regulations. TROs are well understood and widely adopted;²⁶ a good one is no more work to compose and administer than a bad one. The Cambridge TRO will be devised by a *citizen's committee* that will hear from all sectors including persons representing regional concerns, such as MAPC, CLF, CTPS and DEP. If a separate TRO is implemented either for the city of Boston or on a regionwide basis, then the drafting and implementation of the Cambridge TRO will be done in cooperation with these other efforts so long as it does not result in a weakening of the Cambridge effort.²⁷

The details of this TRO will be worked out by the citizen's committee, but will include the creation of a mandatory annual survey of all businesses and institutions that employ more than 50 persons²⁸ and an accompanying Trip Reduction Plan based on the results of that survey and a citywide automobile efficiency rate (AER) target.²⁹ A citywide AER will be established, but will require employers to adhere to districted AER targets, which will vary based on factors such as proximity to transit and site-specific issues. The TRO will require improvements in each

²⁶ See, for example, the before and after case studies of eleven cities in "Evaluation of Travel Demand Management", Federal Highway Administration report FHWA-SA-90-005, February, 1990, or the paper "Ten Cities' Strategies for Transportation Demand Management", Flynn & Glazer, Transportation Research Record #1212. Many more references exist, all pointing to the contention that TROs are effective.

²⁷ Regional parking and transportation demand management strategies are already being put in place in Massachusetts. Since May, 1991, the developer of any project generating more than 3000 new vehicle trips/day is required to perform an "indirect source analysis" for submission to the Secretary of Environmental Affairs. Transportation demand management and other mitigation measures will be required to ensure zero net growth in hydrocarbon emissions. Under another statewide program, the Department of Public Works has proposed "curb cut" regulations designed to ensure that developments which generate traffic impacting on state highways will be required to reduce vehicle trips as a condition of gaining access to the state highway. Programs such as these will serve to ensure that new suburban development, including employers who attempt to move out of Cambridge or Boston to avoid regulatory restrictions, is adequately regulated.

²⁸ This is 240 firms, 65,000 employees according to 1990 Community Development Department and Census data.

²⁹ Automobile Efficiency Rate was defined in "Regulation XV", City of Los Angeles. It is calculated by dividing the number of employees who report to the worksite or to a job-related activity between 6:00 AM and 10:00 AM, inclusive Monday to Friday, by the number of vehicles used by these employees. As the AER increases, use of single-occupant vehicles for commuting is reduced. The AER calculation requires that a five consecutive weekday average be used. Vehicles counted exclude bicycles and public transit vehicles. Motorcycles count as automobiles.

employer's AER, designed to achieve the goal of zero net VMT growth and/or 3%/year reductions in emissions. This requirement will be imposed even if an employer already has an AER at or above the citywide or district target. Unless a business can show that it is already spending substantially on trip reduction programs, and that a hardship would be required to produce further improvements in the AER, no relief will be granted from the requirement to show annual increases in AER.

This TRO will vigorously advance alternate transportation modes to the private, single passenger automobile³⁰. It is imperative that the TRO make a substantial, qualitative distinction between employers that are performing well and those that are not, including historic efforts by employers when public policy was not so well delineated.

Businesses will be encouraged to avail themselves of paratransit in meeting their respective requirements, and could contribute to the paratransit system directly should special circumstances obtain. Similarly, business will be encouraged to substitute transportation allowances³¹ for other "free" programs; in particular, it is the goal of this proposal to end the provision of "free parking" as a perquisite of any employment in Cambridge.

The City will also provide expanded Commuter Mobility Assistance to Cambridge businesses and institutions. The amount of assistance currently offered by the City (1 person) will be tripled. The opportunities in this area are untapped by the current program of totally voluntary compliance and one staff member per 100,000 employees. In addition and as a matter of fairness, revenues from Residential Parking Permits will be dedicated exclusively to improving programs that directly benefit residents, rather than the Commuter Mobility Program which is targeted primarily to out-of-town employees of Cambridge businesses. The Commuter Mobility Program will be funded instead from the parking fee revenues.

During the initial two years the ordinance is in effect, attainment of the performance standards will not be mandatory, however it will be rewarded by the establishment of a priority order on obtaining additional

³⁰Based on 1980 census data provided by the Community Development Department, 43% of all employees in Cambridge arrive by private, single passenger automobile.

³¹ A transportation allowance is a sum of money that is provided to the employee independently of the transportation mode they use to get to work. It is preferable that it be provided in cash on the same day that T passes are available on site. The employee will then be required to decide between pocketing the money (if he or she bicycles or walks to work), to buy a T pass, or to purchase parking over the course of the month. The travel allowance should be set at a level that strongly encourages the use of transportation other than the private automobile.

parking, access to paratransit, and access to commuter mobility resources as administered by City departments. If this policy proves successful, it will be made permanent; if it does not succeed, mandatory enforcement of the TRO will become the rule instead.

12. Tailpipe standards enforcement

Recognizing the importance of tailpipe emissions, Cambridge will enact an ordinance making it an infraction of City law to tamper with the emissions control system of any vehicle, or to operate in Cambridge any such vehicle. This ordinance will impose fines on the owner of any vehicle found to have had its emissions control system tampered with.

Summary

This proposal will provide powerful incentives for change, will be self funding with surplus for other City programs, and will be quantitatively verifiable. It provides leadership that is consistent and replicable on a regional scale. It attends to the needs of our citizens for clean air and economic opportunity.

Appendix 1

Illustrative balance sheet for paratransit system

Specifically, this plan stipulates a fleet of 50 vans, operating on fixed schedules throughout the City, and the provision of 10 express busses from key suburban locations. The balance sheet for such an operation will be favorable; even without fare subsidies, nearly half the revenue from the fee on parking will be available for other transit purposes.

Keeping a van on the street amounts to some \$32/hour of operation. At 60 hours/week of operation, that is \$100,000 per annum. The fleet of 50 such vans, then, implies an aggregate cost of \$5,000,000. Similarly, allowing for two morning and two evening rush hour trips for an express bus will amount to some \$150,000 per annum. Assuming marketing and other ancillary expenses, we allow for an actual expense of \$200,000 per annum. This plan stipulates a fleet of 10 such busses, at an aggregate cost of \$2,000,000. The expected revenue from the parking fee, net of this paratransit program, is then some \$5,500,000 per annum. This transit program will not be encumbered by the administrative expense of fare collection, i.e. their ridership will pay nothing directly to board. Such a paratransit program will serve to lessen the usual diminution of ridership that occurs at each transfer point, and will be a powerful overall stimulus for usage of the system. So as to assure the intent of the express bus program, passcards to the express busses will be issued to Cambridge employers for redistribution to their employees. Businesses will be encouraged to request van routes that helped them comply with trip reduction requirements, *vide supra*.

The yield on such a program will be substantial. By strategically placing express bus terminations at places of concentration of Cambridge employees, the 10 busses will be fully subscribed. The Community Development Department already has this required information. Ten busses times two loads of 50 individuals per day is a reduction in auto traffic entering Cambridge of 1,000 vehicles per day. This measure alone will supply a 1% reduction in the automobile emissions attributable to trips with a Cambridge end-point (which we estimate at 100,000 per day in round numbers)³². Because of the above average length of these trips, we

³² Employment in Cambridge was estimated by MAPC at 105,800 in 1990, and in any case is greater than 100,000 - a figure which does not include students and shopping trips from out-of-Cambridge persons.

claim a better than 1% reduction in emissions from this portion of the program alone.

This estimate is conservative; if the true figure is in fact smaller, the effectiveness of this measure is improved.

**Cambridge
Citizens for
Liveable
Neighborhoods Inc**

MEMORANDUM

Sunday, March 22, 1992

**COMPARISON OF PROPOSED STATE IMPLEMENTATION PLAN REVISIONS:
THE CITY MANAGER PLAN VERSUS THE CCLN PLAN**

Topic	Proposals of the City Manager	Proposals of CCLN	Comments
Expanded Commuter Mobility Program	Paid for by increased Residential Sticker fees. 1 Full time staff.	Paid for by commuter parking fees. 3 Full time staff	Commuters should pay for own program. There are 240 eligible employers, 3 staff is minimum.
Bicycle & Pedestrian Program	Bikes to Police & Traffic. Fund bicycle storage and improved amenities. Recommend regional plan. 1/2 time staff.	Bikes to Police & Traffic. Redesign streets to favor pedestrians and bicycles. 1 full time Bicycle & Pedestrian Design Engineer.	If you want serious changes, you will need to make physical changes to the City.
Parking On Unregulated Streets	Meters or time restrictions on all unregulated, nonresidential streets.	Unregulated streets either converted to residential stickers or meters. Residents of metered streets exempt from meters. Meter prices consistent with policy on use, vary by location.	CCLN plan does not penalize resident parkers living in commercial zones. CCLN plan permits long term meters (10 hours) and other flexibility.
Fees For Municipal Garages	East Cambridge and Green Street garages prices increased by 25%.	(See below on Funding)	City Manager's plan has insignificant revenue and impact.
City-Wide Visitor Passes ("White Passes")	Replace city-wide passes with sticker similar to residential sticker.	Replace city-wide passes with sticker similar to residential sticker.	Similar.
Residential Parking Stickers	Four zones drawn as an X across Harvard Square. Parking in your own zone only except weekends.	Neighborhoods very close to the five subway stops get special stickers, others cannot park in these neighborhoods. The rest of Cambridge remains as it is now.	City Manager's plan makes a even worse mess of Harvard Square, and does not protect any other close-to-transit neighborhood. CCLN plan protects close-to-transit neighborhoods with minimal disruption
Visitor Parking Passes	(No plan)	To prevent continuous or commuter use, calendar printed on pass, "today's date" must be circled to be valid. To prevent sale of visitor passes to commuters, visitor pass will have address to whom issued written on it.	CCLN plan protects legitimate visitor parking while preventing misuse of passes.

Topic	Proposals of the City Manager	Proposals of CCLN	Comments
Fee Schedule For Residential Parking Stickers	1st = \$8; 2nd = \$12; 3rd = \$50; 4th = \$100; 5th = \$200. Half of this money goes to helping commuters through the Commuter Mobility program.	No increases. No diversion of residents money to commuters.	City Manager's plan requires residents to pay for commuter services. CCLN's plan does not.
Increased Local Employment Opportunities	Annual Job Fair Employment Program (CDD). Partnership between employers & Cambridge schools. Local Employment Opportunity Plan (CDD).	Each square foot of commercial construction must provide a square foot of housing. Partnership between employers and Cambridge schools. Local Employment Opportunity Plan (Schools).	CCLN Plan ensures an increase in the percentage of Cambridge employees who live in Cambridge, without displacing existing residents to achieve this goal. Both plans encourage useful goals in local employment. <i>Hire those who live here, or house those you hire.</i>
Employer Based Vehicle Trip Reduction Plan	Applies to employers of 50 or more employees. Processing fees and fines for noncompliance City-wide target for the average number of employees per car (called an Automobile Efficient Rate, or AER). Plans required for those employers with AERs lower than the target AER Employee education.	Applies to employers of 50 or more employees. Individualized AER targets based on location and transit availability. End to "free parking", substitute transportation allowances (i.e. give employee the cost of the free parking, make him/her choose). (See Paratransit System.)	City Manager's plan only involves half the employers because only those worse than average have to do anything. CCLN plan requires everyone to do better, and worst offenders to do especially better. CCLN plan makes the true cost of "free parking" visible to employer and employee alike.
New Development And its Responsibilities	Developer of 50,000 square feet must develop binding transportation management plan. Traffic analyses required. Must meet city-wide AER. Exempts some major developers	Each square foot of commercial construction must provide a square foot of housing.	City Manager's plan claims savings in pollution from buildings that aren't even built yet, and ignores the pollution that would be generated by additional car trips development would bring. CCLN plan ensures that the percentage of Cambridge employees that are Cambridge residents would climb substantially.
Zoning Changes	Study the problem.	Sharp reduction in both minimum parking required and maximum parking allowed. Requirement to build amenities that favor bicycle, pedestrian and paratransit / public transit.	CCLN plan recognizes that only zoning reform does anything, study does not.
Clean Fuels For Fleets	State should study the problem.	City paratransit fleet will be converted to clean fuels.	While asking the State for assistance is a good idea, to doing something is a better one.

Topic	Proposals of the City Manager	Proposals of CCLN	Comments
Traffic Capacity Growth	(No plan)	No traffic capacity growth. No street widening. Improved traffic flow out of Cambridge but not into Cambridge. Keep traffic off residential streets. No expansion of Alewife Brook Parkway.	Solving congestion by increasing roadway capacity is like solving obesity by letting out your belt out. Air quality benefits will only occur if traffic capacity is managed.
Parking Management	(No plan)	No increase in commuter or commercial destination capacity.	CCLN plan complies with State and Federal Clean Air requirements. City Manager's plan does not.
Funding For Alternative Transportation Programs	Divert \$148,000 from residential sticker program to services for commuters. Raise the rest through taxes.	Raise \$12.5 million from commuter parking fee of \$1/day. (See Paratransit)	City Manager's plan doesn't begin to fund itself. CCLN plan is self funding, with substantial benefits for residents, and for those employers and employees that avail themselves of paratransit. CCLN's plan has no additional tax burden.
Paratransit System (A Paratransit System Is A Secondary, Supplemental Transit System Keyed To The Primary Transit System)	(No plan)	Fleet of 50 vans running in all neighborhoods, and coordinated to MBTA schedules. Fleet of 10 express buses from suburban locations for Cambridge employees. Businesses can have paratransit route stops at their locations as part of their Trip Reduction Plan.	CCLN's plan provides the first real alternative to single passenger vehicles. This component of CCLN's plan makes serious trip reduction feasible in a way that no other proposal does, and at no additional expense to the City or its citizens.
MBTA Cooperation	Request MBTA to relocate bus stops, offer fringe parking, increase bus routes, and improve signage.	City staff monitor MBTA performance and publicize Cable channel to carry schedule and transit info. Signs with schedules for MBTA and paratransit at all stops. Additional MBTA routes. New MBTA Alewife Garage to be built on east side of Alewife Brook Parkway.	City Manager's plan relies solely on the MBTA to take responsibility. CCLN's plan requires the City to take additional responsibility
Taxicab Improvements	(No plan)	Increase in taxi stands. Role in paratransit system.	CCLN plan recognizes the contribution that the taxicab industry can make to a complete solution.
Traffic Policy	(No plan)	Classification of streets to enhance and maintain residential character. No traffic growth in residential areas. Manage major streets to prevent spill over to residential neighborhoods.	CCLN's plan protects residential neighborhoods as a matter of policy.

Topic	Proposals of the City Manager	Proposals of CCLN	Comments
Tail Pipe Standards Enforcement	(No plan)	Violation of Cambridge law to tamper with emission control system or operate a tampered vehicle in Cambridge.	
Cost Of This Planning Effort To Date	\$750,000 in public funds.	\$200 of private funds (copy costs) plus citizen labor contributions.	
Summary	Says more.	Does more.	As Cambridge zoning amply demonstrates, the effectiveness of a regulation is inversely proportional to its length.

CLF

Conservation Law

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To Dan Greer	From Stephanie Pollack	
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April 21, 1991

Robert W. Healy
City Manager's Office
Cambridge City Hall
Cambridge, MA 02139

Dear Mr. Healy,

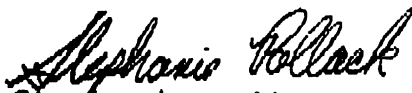
The Conservation Law Foundation (CLF) appreciates the opportunity to comment on the proposed SIP Amendment and Cambridge Vehicle Trip Reduction Ordinance and apologizes for the slight delay in submitting these comments. Because of the short comment period, we were not able to undertake a detailed review of each provision of the proposal. Our comments instead focus on broader legal and policy considerations.

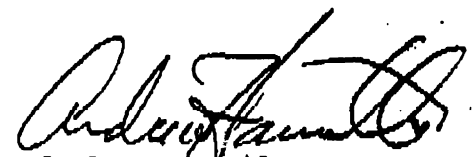
While the draft Ordinance initiates important new directions for the city in regulating motor vehicle emissions, and contains some innovative programs and concepts, it falls well short of what the City must undertake. The two key failings are:

- o Because the Ordinance does not contain a parking freeze, it cannot be approved as an amendment to the State Implementation Plan by either the Metropolitan Planning Organization or Department of Environmental Protection; and
- o Because the reductions produced by the Ordinance will be more than overwhelmed by trips generated by new development, the net effect will be to allow Vehicle Miles Travelled to rise by 68,393 - 129,359 miles/day, increasing emissions of Volatile Organic Compounds by 0.29 - 0.55 tons per day.

Given the fundamental nature of these shortcomings, the Conservation Law Foundation ("CLF") asks that the City withdraw the proposal entirely and restart the process of crafting an approvable Ordinance, a process in which CLF would be more than willing to represent our hundreds of Cambridge members by serving as an active and constructive participant.

Sincerely,


Stephanie Pollack
Staff Attorney


Andrew Hamilton
Staff Scientist

cc: Mayor Alice Wolf
Commission Daniel Greenbaum, DEP



Conservation Law Foundation of New England, Inc.

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COMMENTS OF THE CONSERVATION LAW FOUNDATION
ON THE PROPOSED AMENDMENT TO THE STATE
IMPLEMENTATION PLAN AND CAMBRIDGE
VEHICLE TRIP REDUCTION ORDINANCE

Stephanie Pollack
Andrew Hamilton

April 21, 1991

The proposed Ordinance, along with the supporting Memorandum, are an important acknowledgement by the City of Cambridge that the City has a responsibility to curb its contribution to regional growth in Vehicle Miles Travelled ("VMT") and that both employer trip reduction requirements and changes in parking policy will be needed to achieve this goal. Unfortunately, the Ordinance as proposed will not fulfill the city's responsibilities under its August 15, 1990 Memorandum of Agreement with the Department of Environmental Protection ("DEP") nor will it be approvable by the Metropolitan Planning Organization or DEP as an amendment to the Commonwealth's State Implementation Plan ("SIP") for the pollutants ozone and carbon monoxide. The Conservation Law Foundation ("CLF") therefore asks that the City withdraw the proposal entirely and restart the process of crafting an approvable Ordinance, a process in which CLF would be more than willing to represent our hundreds of Cambridge members (and thousands of Massachusetts members) by serving as an active and constructive participant.

I. The Legal Framework

The City's August, 1990 Memorandum of Agreement with DEP states clearly (in the third "Whereas" paragraph) that "the final SIP amendments will include transportation control measures, including but not limited to parking restrictions, and a parking freeze." (emphasis added) Because the City has committed itself to following the terms of the Agreement "for the period until a SIP amendment is approved," the Ordinance must be crafted to ensure that it will in fact be approved as a SIP amendment. No such approval is possible unless -- as the Agreement itself acknowledged -- the SIP amendment includes a parking freeze.

Transportation-related amendments to the SIP are first adopted by the Metropolitan Planning Organization ("MPO"), then submitted to DEP for approval, and finally submitted to EPA for

approval. The two core requirements that the Ordinance must meet if it is to withstand this rigorous review process are:

- o under a SIP amendment recently adopted by the MPO, it must contain "a firm limit on the total number of parking spaces [in Cambridge] calculated to ensure the attainment of level of service and air quality objectives"; and
- o it must be designed to achieve quantifiable reductions in emissions of volatile organic compounds (VOCs) and/or carbon monoxide.

A. The MPO's Position on Parking Freezes

Both the MPO, and the Secretary of Transportation who chairs the MPO, have acknowledged the importance of parking freezes and agreed to work toward establishing such freezes in downtown Boston, South Boston, East Boston/Revere and throughout Cambridge. On December 19, 1990, the Conservation Law Foundation signed a Memorandum of Understanding ("MOU") with the Executive Office of Transportation and Construction ("EOTC") and the Department of Public Works ("DPW") concerning measures needed to mitigate the traffic and air quality effects of the Central Artery Project. With respect to parking freezes for the four geographic areas just mentioned, that MOU states as follows:

Each freeze shall impose a firm limit on the total number of parking spaces in the geographical area to which the freeze applies. Each such limit shall be calculated to ensure the attainment of level of service and air quality objectives. In addition, it may be appropriate for some or all freezes to require holders of permits for new or existing spaces to establish aggressive employer-based transportation demand management programs, to provide preferences -- through set-aside, pricing and other requirements and incentives -- for high-occupancy vehicle ("HOV") parking, and/or to provide appropriate preferences for short-term (non-commuter) parking. It may also be appropriate to issue permits on the basis of use-specific ratios of allowable parking spaces per 1000 square feet of space developed, and to vary the ratios used within different districts in a freeze area according to the districts' proximity to mass transit services.

The core requirement is clear: Cambridge must have a parking freeze which "impose[s] a firm limit on the total number of parking spaces" in the City. The proposed Ordinance contains no such limitation.

This paragraph and all of the other substantive measures contained in the CLF MOU were promptly adopted by the MPO as an amendment to the SIP and transmitted to the DEP for approval, which is currently pending. The City must therefore assume that the MPO will be guided by these requirements in evaluating the

Ordinance as a SIP amendment -- and that the Ordinance as proposed will not pass muster.

Neither should the City assume that the MPO's position will change because there is a new Administration in place. Secretary of Transportation Richard L. Taylor, who chairs the MPO, stated as recently as March 20, 1991 (in a memorandum to Secretary of Environmental Affairs Susan F. Tierney) that "EOTC is fully committed to the implementation of an aggressive, integrated and balanced transportation policy, which includes the measures contained in the CLF MOU." The memo further explains that "[t]he MOU mandates that parking freezes be put into effect or strengthened in downtown Boston, South Boston, East Boston/Revere, and Cambridge." (emphasis added) It would therefore be futile for the City to adopt, and submit as a SIP amendment, an Ordinance which does not include a firm limit on the number of parking spaces in Cambridge.

B. The Clean Air Act Amendments

The Clean Air Act Amendments signed into law by President Bush in November 1990 set the stage for a much more aggressive national commitment to achieving the National Ambient Air Quality Standards established in the early 1970s. The general approach reflected in the proposed Ordinance -- addressing varied facets of vehicle use and giving employers a major role in reducing work-related trips -- is appropriate both for the City and for a much broader regional strategy to be advanced under the SIP which must be developed under the new Act. In its current version, however, the Ordinance does not move the City, region or state toward the Act's requirement of reducing emissions of Volatile Organic Compounds ("VOCs") by 3% per year.

The calculated VMT and emissions reductions presented in the "Summary of Program Impacts" table at the end of City Manager Healy's explanatory memorandum represent a reduction of only 0.91 tons per day ("TPD") of VOCs -- out of the 287 TPD generated in Middlesex County. Even this minimal reduction will not be realized, however. The actual effect of the Ordinance will be to allow VMT to rise by anywhere from 68,393 - 129,359 miles/day, with a consequent increase of 0.29 - 0.55 TPD of VOC emissions.

The biggest single problem with the calculations presented in the table is that the City claims credit for a 32,080 miles/day reduction in VMT from new developments. This figure, however, represents a drop in VMT only relative to what VMT would be if new developments were allowed with no regulation at all. Such a future drop cannot be deducted from 1987 baseline VMT; it can only be subtracted from a VMT figure which includes the increased VMT that will result from new development.

Assuming, as the Memorandum states, that the 32,080 VMT represents an 11.6% decline in projected VMT growth from new

development, the City is assuming that uncontrolled growth would generate 276,550 VMT. With the employer trip reduction ordinance in place, this uncontrolled VMT increase would be offset by 32,080 miles in reductions -- for a total increase of "only" 244,470 VMT. Even giving the City full credit for all of the other measures in the Ordinance (but see below), which add to 176,077 VMT, total miles travelled would increase by 68,393. This would result in an increase of 0.29 TPD in VOC emissions.

CLF is skeptical, however, about the projected VMT impacts of at least two of the proposed programs. The program for restricting currently unregulated on-street parking makes two questionable assumptions: (1) that every single unregulated space is used every single day by an out-of-town commuter and never by a Cambridge resident or shopper; and (2) that all of these commuters will stop driving to Cambridge, rather than continuing to drive to Cambridge and parking elsewhere. The first is a worst-case assumption, the second a best-case scenario. More likely, many of the spaces are occupied by Cambridge residents who either live or shop nearby and at least some of those who do commute and park on the street will find parking (legal or illegal) elsewhere in the City.

CLF is also skeptical about the proposed impacts of the "Local Employment Opportunities" portion of the Ordinance. Increasing the share of the City's employment base composed of residents from 28% to 33% would require Cambridge employers to hire at least 5,100 Cambridge residents for existing jobs and to hire 33% Cambridge residents for all new jobs created in the City. Yet elsewhere in the Memorandum (on page 22) it states that the jobs generated by new development "will tend to focus on white-collar employment and attract workers from higher growth communities further distant from Cambridge."

If each of these two programs in fact produces only half of the VMT reductions assumed by the City -- a reasonable scenario, given the points just made -- then the net effect of the Ordinance superimposed on 7 million square feet of new development is an increase of 129,359 VMT and 0.55 tons of VOCs per day. An Ordinance which would allow for an increase in both VMT and VOC emissions obviously cannot pass muster under a Clean Air Act which requires the Commonwealth to reduce VOC emissions by 3% per year.

II. The Policy Framework

Regulatory programs which attempt to effect changes in lifestyle are most successful when they are based on a tangible, relevant goal which is relatively easy for regulators to measure and for those affected to comprehend. Viewed from a regional perspective, the ultimate goal of all transportation-related SIP

provisions should be to stabilize growth in vehicle miles travelled and therefore automobile-related pollutant emissions. In order for the Commonwealth to achieve compliance with the Clean Air Act by 1999, it is imperative that regional growth in VMT be reduced to zero well before that date.

CLF urges the City to construct an Ordinance with an overall policy goal of eliminating all growth in VMT. Such a goal would be consistent with actions taken by others. The New England Pollution Prevention Council, organized by the Environmental Protection Agency Region I, has set as a goal the elimination of further growth in VMT in New England by the year 1995. In California, the South Coast Air Quality Management District's Regulation XV, from which some of the proposed Ordinance's approach was borrowed, includes a goal of zero VMT growth. CLF will be seeking to incorporate this goal as a regional strategy under the ozone SIP for Massachusetts, which will likely be classified a "serious" non-attainment area for ozone under the new Clean Air Act.¹

Comprehensive parking and transportation demand management programs covering cities or regions should logically incorporate this same goal of no net increase in VMT. Achieving this goal will require putting in place a number of strategies simultaneously:

- o Parking freezes and parking management regulations designed to limit the availability of and/or increase the price of parking;
- o Requirements that large employers create and implement trip reduction plans for their employees;
- o Improvements in transit, including both public transportation and other forms of mass transit such as carpools and vanpools;
- o Measures to make non-vehicle transportation (walking and bicycling) more attractive and convenient; and
- o Changes in zoning and land use regulation to encourage mixed-use and cluster developments that are more conducive to reducing or eliminating the need for automobile trips.

¹ The Environmental Protection Agency initially designated the eastern and western thirds of the state as being in serious non-attainment and the middle third as moderate non-attainment. On March 15, 1991, Governor William Weld requested, pursuant to the Clean Air Act, that the entire state be designated as being in the "serious" category. EPA is expected to act favorably on his request.

In addition, while they do not reduce VMT per se, efforts to promote the use of "clean" fuels, especially by centrally-fueled fleet vehicles, will help to achieve pollution reduction goals.

The approach taken in the proposed Ordinance includes some but not all of these elements. There is nothing wrong with the concepts behind the Ordinance's basic approach of reducing both existing and future commuting trips by requiring employers to create trip reduction plans, protecting neighborhood parking spaces, and providing incentives for conversion of vehicles to the use of "clean fuels." A true comprehensive ordinance would, however, add provisions concerning parking and transit and would include a more aggressive and enforceable employer-based trip reduction requirement.

A. The Importance of Parking Management

The inclusion of the agreed-upon parking freeze is critically important for policy, as well as legal, reasons. Recent evaluations of employer-based trip reduction programs in the United States and Canada establish unequivocally that the price and availability of parking is the single most critical determinant of mode choice (Bhatt, 1990; Higgins, 1990; Pratt, 1990; Shao, 1991; Shoup and Willson, 1990; Valk, 1990; Willson, Shoup, and Wachs 1990). Without reducing the availability and/or increasing the price of parking, the types of employer-based strategies contemplated in the Ordinance have little hope of success. As one recent federal review concluded:

Localities also should insure parking supplies are kept on the tight side. . . . [Zoning] codes should be revised in support of [transportation systems management] and [parking management] strategies to insure a tight supply. Possibly new maximum requirements might be added to codes for this purpose. (USDOT/UMTA, 1989)

Parking restrictions applicable to future developments are necessary to ensure that hard-won trip reductions achieved by existing employers will not be negated by the addition of thousands of future trips. As demonstrated above, the 7 million square feet of development planned in Cambridge will, even with trip reduction requirements in place, add thousands of parking spaces and hundreds of thousands of VMT unless the City limits the number of allowable parking spaces.

Off-street parking restrictions must therefore be added to the Ordinance. This portion of the Ordinance must include a cap on the total number of spaces to be added in the city each year, out to an appropriate future date, such as January 1, 2010. In addition to the overall cap, the Ordinance should include project-specific limits on allowable parking for new developments. This would best be accomplished by repealing the

minimum parking requirements currently contained in the zoning code and replacing them with maximum parking allowances. Parking allowances should be varied for different areas of the city depending upon an area's proximity to transit, land use patterns, resident parking considerations, and other relevant factors.

The intent of these parking management programs would not be to discourage growth but to ensure proper management of a limited resource: parking. Properly conceived and executed, a parking management program would channel development to those areas closest to the city's rich supply of regional transit services; encourage aggressive implementation of Vehicle Trip Reduction Plans; spur improvements in transit services, bicycling and pedestrian amenities, and ridesharing programs throughout the city; help preserve a supply of on-street residential spaces and short-term spaces for retail customers; and maintain roadway capacity for future development.

A comprehensive parking management program would not impose unnecessary hardship on employers, employees or developers. A well-designed parking management program would instead protect the interests of Cambridge residents and retailers in preserving on-street parking capacity for local uses while rewarding appropriate behavior by developers, employers and out-of-town employees. One of the chief benefits to both developers and existing employers would be reductions in the cost of providing parking. Even "free" parking spaces cost between \$1,000 - \$15,000 to construct. Annual maintenance, taxes and other costs can be as high as \$100/year/space. Thus, small but significant savings can be achieved by reducing the use of existing spaces and substantial savings can be realized by avoiding the need to build new spaces as part of expansion or new development. Surveys of employers who participate in parking management and transportation demand management programs also report other benefits such as decreased absenteeism and tardiness of employees who switch to transit, vanpools or carpools and no longer need to fight rush hour traffic on congested roadways. Other benefits cited by employers include freeing for other purposes land previously used for parking, improving public relations, and relieving employee stress. (Wegmann, 1989)

B. Transit, Walking and Bicycling

Another area in which the Ordinance could be improved is in the enhancement of transit and para-transit services within the city. The City has identified a reduction in intra-city vehicle trips by Cambridge residents as a high priority. The obvious alternatives to driving within Cambridge are walking, bicycling

and transit (especially local buses).² Improving transit in to and through the City will also help reduce VMT by out-of-town commuters who currently choose to drive.

A number of transit measures could and should be added to the Ordinance. One important program would be the creation of a coordinated program to provide shuttles from transit stations (including Porter Square, with its commuter rail terminus) to work sites and shopping areas. While the City has been requiring individual employers and developers to provide such shuttles, it would make more sense to have current and new businesses contribute to the funding of a single program.

The city should also work with the MBTA to ensure that all possible measures have been taken to maximize regional transit facilities. Among these measures, the most obvious is the repeal of the city's prohibition against bus stop signs, a highly unfortunate situation which has persisted far too long. In addition, the city, in coordination with the MBTA, should schedule a series of public meetings to solicit suggestions for improvements in MBTA bus routing. Changes in bus schedules must, however, be based on both regional and local considerations or there is the danger that "improvements" could actually increase overall regional VMT.

C. Vehicle Trip Reduction Requirements

The vehicle trip reduction requirements in the proposed Ordinance should be strengthened in several ways. First and foremost, the concept of "Automobile Efficiency Rate" ("AER") needs to be defined and refined and aggressive citywide and site-specific or district-based AER goals need to be established.

Because the goal of "zero VMT growth" does not lend itself to a clear standard for individual work sites, a more site-relevant goal must be adopted. The city's choice is the Automobile Efficiency Rate, defined as the number of commuters divided by the number of work-related vehicle trips arriving at commuting destinations between 6 a.m. and 10 a.m.

This measure is very useful, but there are two difficulties inherent in its use for individual work-sites and for the city as a whole. First, there are numerous ways to calculate its value. For example, data obtained from the Central Transportation Planning Staff (Table I) shows that the AER for Cambridge commuters in 1980 was 1.64. This differs significantly from the

² As a matter of fairness, it would make more sense for fees generated by the residential permit program to be dedicated to improving programs such as these that will directly benefit residents, rather than the Commuter Mobility Program which is targeted primarily to out-of-town employees of Cambridge businesses.

figure of 1.95 cited in the supporting memorandum. The supporting documentation for a revised, proposed Ordinance must indicate how this number was calculated and how it will be calculated in the future.

The second, and more significant, problem with the use of the AER is the difficulty in relating it back to a goal that reflects progress in reducing mobile source air pollution. Without such "reality check," the City could create a detailed system of tracking "vehicle trip reduction credits" without having a legitimate means of assessing the impact of its programs on air quality. Rather than choosing an arbitrary goal for a small percentage increase in AER, the Ordinance should tie the AER target to the overall goal of no net growth in VMT.

It would not be difficult to establish what value of the citywide AER would result in a leveling off of VMT over some given time period and for an assumed level of economic growth. A comprehensive Ordinance could thus include the standard of zero VMT growth implemented by calculating a citywide AER target at which growth of VMT would become zero (for an assumed level of commercial and residential development and an appropriate target year). Establishing an appropriate target and target year will probably require calculating how long VMT stabilization would take given different growth scenarios and choosing the target most likely to respond to planned growth.

While a citywide AER target should be established, the trip reduction program should be designed to achieve that target by requiring employers to adhere to district-based AER targets, which would vary based on factors such as proximity to transit, and/or site-specific targets. Many trip reduction ordinances require employers to improve upon whatever their current mode split is. This approach is healthy because it assumes that all businesses can make improvements in their current transportation demand management efforts. The Ordinance should therefore require annual improvements in each employer's AER designed to achieve the goal of zero net VMT growth and/or 3%/year reductions in VOC emissions. This requirement should be imposed even if an employer already has an AER at or above the citywide or district target. Unless a business can show that it is already spending substantially on trip reduction programs, and that a hardship would be required to produce further improvements in the AER, no trip reduction credits should be issued to any employer that cannot demonstrate actual improvements in their baseline AER.

The Vehicle Trip Reduction Plans to be produced by employers will not achieve whatever goal the Ordinance sets unless businesses receive technical assistance in writing the plans and the city has the capability to review and approve the plans. To do the job right for 240 such plans, the City will probably need approximately three full-time employees. This program should be

funded through an annual filing fee that employers pay at the time the plans are submitted.

III. Conclusions

CLF is well aware that the City of Cambridge cannot, by itself, produce a levelling off of regional VMT growth or ensure that the Clean Air Act's emission reduction goals are met. We are already working on many of the regional transit improvements and transportation demand management programs cited in the supporting memorandum and would welcome the City's participation in our advocacy efforts.

Regional parking and transportation demand management strategies are already being put in place in Massachusetts. Beginning May 1, the developer of any project generating more than 3,000 new vehicle trips/day will be required to perform an "indirect source analysis" for submission to the Secretary of Environmental Affairs. Transportation demand management and other mitigation measures will be required to ensure zero net growth in hydrocarbon emissions. Under another statewide program, the Department of Public Works has proposed "curb cut" regulations designed to ensure that developments which generate traffic impacting on state highways will be required to reduce vehicle trips as a condition of gaining access to the state highway. Programs such as these will serve to ensure that new suburban development, including employers who attempt to move out of Cambridge or Boston to avoid regulatory restrictions, is adequately regulated.

Despite these statewide efforts, individual cities such as Cambridge will also have to enact comprehensive parking and transportation demand management ordinances. CLF remains ready to work with the City of Cambridge and state to ensure that any such proposed Ordinance achieves maximum reductions in regional VMT while providing a much wider range of travel options for Cambridge's residents and workers and maintaining a positive climate for economic growth.

TABLE I
1980 CAMBRIDGE JOURNEY TO WORK DATA

<u>MODE</u>	<u>NUMBER</u>	<u>PERCENT</u>
Single Occupant Auto	37,885	42.4%
2-Person Carpool	10,255	11.7%
3-Person Carpool	2,538	2.9%
4+ Carpool	1,700	1.9%
Taxicab	310	0.4%
Motorcycle	199	0.2%
Bus	12,953	14.7%
Subway	5,194	5.9%
Commuter Rail	626	0.7%
Walk	13,266	15.1%
Bicycle	1,649	1.9%
Other	499	0.6%
Work At Home	1,413	1.6%

Total	87,885	100.0%

$$\begin{aligned}
 \text{Auto Efficiency Rate} &= \frac{\text{Total commuters}^*}{\text{Total commuting vehicles}^{**}} \\
 &= \frac{(87,885 - 1,413)}{52,887} \\
 &= 1.64
 \end{aligned}$$

*Includes Total commuters minus Work At Home

**Includes all private automobiles, taxicabs, and motorcycles

Source: Central Transportation Planning Staff

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- Richard H. Pratt, "Employer Parking Pricing and Incentive Programs That Change Modal Split," Proceedings of the Commuter Parking Symposium, Association for Commuter Transportation and the Municipality of Metropolitan Seattle, Washington, December 1990, p. III-23.
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- U.S. Department of Transportation/Urban Mass Transportation Administration, An Assessment of Travel Demand Approaches at Suburban Activity Centers, July 1989.
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- Richard Willson, Donald Shoup and Martin Wachs, "Parking Subsidies and Commuter Mode Choice: Assessing the Evidence," Graduate School of Architecture and Urban Planning, University of California, Los Angeles, 1990.



Commonwealth of Massachusetts
Executive Office of Environmental Affairs

Department of Environmental Protection

William F. Weld
Governor

Daniel S. Greenbaum
Commissioner

March 20, 1992

Robert W. Healy
City Manager
Cambridge City Hall
Cambridge, Massachusetts 02139

Dear Mr. Healy:

My staff and I have reviewed a draft Cambridge Trip Reduction Ordinance which you are proposing in accordance with the August, 1990 Memorandum of Agreement between the Department and the City of Cambridge. I appreciate the extensive and creative work effort that has gone into the development of this proposal. The proposed ordinance which includes programs to control vehicle miles of travel to and in Cambridge would clearly enhance the city's commitment to improving air quality.

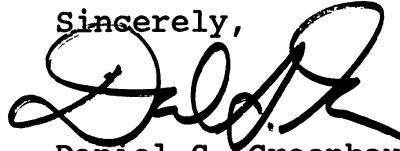
It is my understanding that the city will be moving quickly to submit the proposal to the Cambridge City Council for enactment as a city ordinance and then will make a formal submittal to the Department for subsequent processing as an amendment to the Massachusetts State Implementation Plan (SIP). I would encourage you to make this submittal at the earliest possible date; we then intend to process this submittal simultaneously with other parking control and trip reduction measures currently before us for other core communities in the region.

The proposal, which would be submitted as a revision to the existing Cambridge Parking Freeze once it is favorably acted on by the city council, must meet certain federal criteria to make it substitutable and enforceable. Any SIP revision must demonstrate that the air quality benefits of the revision are equal to or better than the existing parking freeze. In addition, any such proposal should contain monitoring and tracking provisions which will allow both the state and the U.S. Environmental Protection Agency to determine that the air quality goals of the proposal are continuously being met.

-2-

In closing, let me reemphasize that I am very encouraged with the progress the City of Cambridge has made in this difficult task. I look forward to receiving your formal submittal in the near future.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Greenbaum', written in a cursive style.

Daniel S. Greenbaum
Commissioner

4.



CITY OF CAMBRIDGE
CAMBRIDGE, MASSACHUSETTS 02139

TEL. 349-4300
FAX. 349-4307

EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

March 20, 1992

To the Honorable, the City Council:

Shortly after preparing the package of materials for Consent Agenda Item #3, I received the attached letter from Daniel S. Greenbaum, Commissioner of the Department of Environmental Protection (DEP).

I think Commissioner Greenbaum's very positive response to a draft of my proposed Trip Reduction Ordinance is a critical step in the process toward developing a SIP revision. Commissioner Greenbaum indicates that the proposed ordinance would clearly enhance the City's commitment to improving air quality. He also commends the extensive and creative work that has gone into the development of this proposal.

Commissioner Greenbaum also encourages us to formally submit this proposal to DEP so that it might be considered simultaneously with other parking control and trip reduction measures affecting other core communities in the region. I think this reference by the Commissioner emphasizes the need to move toward final action by the City Council as soon as possible.

Very truly yours,

Robert W. Healy
City Manager

Consent Agenda # 4

Letter from Commissioner of the Dept.
of Environmental Protection regarding a
proposed SIP revision.

In City Council,

March 23, 1992

*Referred to the
Ordinance
Committee*

*Copy sent to Ordinance
Committee 3/24/92 *de**



City of Cambridge

SUBSTITUTE ORDER
CALENDAR ITEM # 2
IN CITY COUNCIL

April 13, 1992

VICE MAYOR CYR

ORDERED: That this City Council, as a matter of public policy, go on record, not supporting the creation of four zones throughout the city.

In City Council April 13, 1992.
Adopted by a ye and nay vote:
Yeas 9; Nays 0; Absent 0.
Attest:- Joseph E. Connarton, City Clerk.

A true copy;

ATTEST:-

A handwritten signature in black ink that reads "Joseph E. Connarton".

Joseph E. Connarton
City Clerk



City of Cambridge

7.

IN CITY COUNCIL

April 6, 1992

COUNCILLOR RUSSELL
COUNCILLOR SULLIVAN
COUNCILLOR TOOMEY
COUNCILLOR WALSH

WHEREAS: The City of Cambridge has already instituted a temporary parking freeze and is in the process of establishing a comprehensive "Vehicle Trip Reduction Ordinance"; and

WHEREAS: Members of the Cambridge community and the Municipal Government have labored long and spent tremendous and personal financial resources to achieve an improved quality of life for its residents; and

WHEREAS: The neighboring communities as well as the Commonwealth have thus far failed to begin similar plans; now therefore be it

RESOLVED: That the City of Cambridge "Vehicle Trip Reduction Ordinance" not be implemented until such time as the surrounding communities and the Commonwealth have presented and initiated their proposals.

REFERRED TO THE PETITION - CARRIED 5 - 4 - 0.

COUNCILLOR WALSH HAS FILED RECONSIDERATION ON THIS MATTER.

City of Cambridge

MASSACHUSETTS

In City Council April 13 1992

C. Cyr. Manual Submission of Order # 7/Date 4/6/92

	YEA	NAY	ABSENT	PRESENT
Mr. Ed Cyr	✓			
Mr. Francis H. Duehay	✓			
Mr. Jonathan S. Myers	✓			
Mrs. Sheila T. Russell	✓			
Mr. Walter J. Sullivan	✓			
Mr. Timothy J. Toomey, Jr.	✓			
Mr. William H. Walsh	✓			
Ms. Alice K. Wolf	✓			
Mayor Kenneth E. Reeves	✓			

9 0 0

City of Cambridge

MASSACHUSETTS

In City Council April 5, 1992

OM Cyr - Referred to Petition #7

	YEA	NAY	ABSENT	PRESENT
Mr. Ed Cyr	✓			
Mr. Francis H. Duehay	✓			
Mr. Jonathan S. Myers	✓			
Mrs. Sheila T. Russell		✓		
Mr. Walter J. Sullivan		✓		
Mr. Timothy J. Toomey, Jr.		✓		
Mr. William H. Walsh		✓		
Ms. Alice K. Wolf	✓			
Mayor Kenneth E. Reeves	✓			

5 4 0 0

*Reconsideration filed by
Councillor Walsh*



City of Cambridge

7.

IN CITY COUNCIL

COUNCILLOR RUSSELL
COUNCILLOR SULLIVAN
COUNCILLOR TOOMEY
COUNCILLOR WALSH

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RESOLVED: That the City of Cambridge "Vehicle Trip Reduction Ordinance" not be implemented until such time as the surrounding communities and the Commonwealth have presented and initiated their proposals.



City of Cambridge

7.

IN CITY COUNCIL

April 6, 1992

COUNCILLOR RUSSELL
COUNCILLOR SULLIVAN
COUNCILLOR TOOMEY
COUNCILLOR WALSH

WHEREAS: The City of Cambridge has already instituted a temporary parking freeze and is in the process of establishing a comprehensive "Vehicle Trip Reduction Ordinance"; and

WHEREAS: Members of the Cambridge community and the Municipal Government have labored long and spent tremendous and personal financial resources to achieve an improved quality of life for its residents; and

WHEREAS: The neighboring communities as well as the Commonwealth have thus far failed to begin similar plans; now therefore be it

RESOLVED: That the City of Cambridge "Vehicle Trip Reduction Ordinance" not be implemented until such time as the surrounding communities and the Commonwealth have presented and initiated their proposals.

Consent Order # 7

Councillors Russell, Sullivan, Toomey
and Walsh the "Vehicle Trip Reduction
Ordinance" not be implemented.

In City Council,

April 6, 1992

C. Walsh Motion to Refer to
petition carried
5-4-0.

C. Walsh filed
reconsideration on this
matter 4/6/92

RECEIVED BY
OFFICE OF CITY CLERK

MOTION FOR RECONSIDERATION SUBMITTED BY COUNCILLOR
1992 APR -6 PM 10:02

CAMBRIDGE MA.

Date

Councillor Walsh has notified the City Clerk of his intention to move reconsideration of the vote taken on April 6, 1992 to refer to the petition an order not to implement the "Vehicle Trip Reduction Ordinance."



Signature

Calendar Item # 2 0-27

Councillor Walsh has notified the City Clerk of his intention to move reconsideration of the vote taken on April 6, 1992 to refer to the petition an order not to implement the "Vehicle Trip Reduction Ordinance."

6/15/92 - Passed to be
Ordained as
amended.

In City Council,

April 13, 1992

4/13/92 substituted order
adopted
9-0-0.