

**CITY OF CAMBRIDGE
HARVARD SQUARE DESIGN PROJECT
MEETING NOTES**

Subject: Harvard Square Design Committee (HSDC) – Meeting #2

Date, Time & Place: June 20, 2002, 6:30 PM – 8:30 PM
Cambridge Savings Bank

Present:

HSDC Members:

Mohsen Kurd	Mary Parkin	Rohit Chopra
Alex Sagan	Wyllis Bibbins	Robert Banker
Irene Goodman	Jinny Nathans	Don Crane
Sean Peirce	Hugh Russell	Nathalie Beauvais
Susan Rogers	Nelson Goddard	
Doug Berman	John DiGiovanni	

Public:

Rosalie Christiana	Michael Halle	Holly Bogle
Mike Hansen	Elizabeth Kline	Adam Horst
Bet MacArthur	Bette Davis	J. Bernard Denis

City of Cambridge:

Susanne Rasmussen (CDD)	Jeff Parenti (TP&T)	George Fernandes (ED)
Cara Seiderman (CDD)	Roger Boothe (CDD)	Michael Muehe (CPD)

*CDD = Community Development
Department*

ED = Electrical Department

*TP&T = Traffic, Parking and
Transportation Department*

*CPD = Commission for
Persons with Disabilities*

Consultant Team:

Jerry Friedman (TAMS Consultants, Inc.)	Rod Emery (Edwards and Kelcey)
Cynthia Smith (The Halvorson Company)	

1. WELCOME (Susanne Rasmussen)

Susanne welcomed the attendees and introduced two members of the Committee who were unable to attend Meeting #1.

2. SHORT-TERM IMPROVEMENTS (Susanne Rasmussen)

Susanne reviewed the status of short-term improvements being planned for the Square (See handout). In particular, it was noted that the painting of light poles in the Square may be a somewhat disruptive activity requiring temporary closures of travel lanes and/or sidewalks. City staff is continuing to work on the logistics of this effort.

Questions and Answers.

Q. *What is the expected longevity of the JFK Street sidewalk repairs?*

A. The sidewalk was repaired using bituminous concrete (asphalt) as a short-term measure only. It is expected that the repairs will easily last the few winter seasons required until permanent repairs can be made using an appropriate material.

Q. *The proposed bicycle parking improvements are concentrated towards the north end of the Square. There are many more locations where bike parking is required. Have the proposed parking locations been coordinated with the overall transportation planning effort?*

A. Additional bike parking is important in the Project Area. A number of factors (ongoing sidewalk construction near the Fleet Bank, for example) limit what can be done right now. We will develop additional parking locations as part of the Transportation Planning process, especially as new "off-street" areas are reclaimed from wide areas of pavement. Please continue to keep Kathy Watkins informed of any other desired areas for bike parking.

Q. *It seems as if there have been changes made recently to the JFK/Memorial Drive signal timing. Is the City aware of this?*

A. Jeff Parenti (Cambridge TP&T) responded that the City has called the MDC (owner of the signal) about recent timing changes, but has not yet received a definitive response as to what was changed and the reasons for the change.

3. TRANSPORTATION ISSUES AND DATA COLLECTION

Update on pedestrian and bicycle issues. Jerry Friedman reviewed the pedestrian and bicycle issues which have been identified to date by the HSDC and others (see handout which groups and summarizes the issues). He pointed out significant recent input from HSDC member Hugh Russell, who prepared a block-by-block inventory of sidewalk and street tree issues, and from the Cambridge Bicycle Committee membership.

He also mentioned that a number of specific potential solutions to various issues have been identified by HSDC members, staff and others. These do not appear on the "issues" maps, but are being maintained in a data base and will be used during the "problem-solving" phase of the project.

Questions and Answers.

Q. *What is the status of in-line skaters with respect to travel on the street, on sidewalks, etc?*

A. Users of traditional roller-skates are "pedestrians", while inline skaters (i.e. "rollerbladers" are subject to bicycle rules (example – they are not allowed to ride on sidewalks in locations where bicycles are prohibited).

Data Collection Activities and Initial Observations. Rod Emery provided a summary of data collection to date, which included:

- **Vehicle counts** for weekday morning and evening peak, and weekend midday peak volumes, as well as turning movements at key intersections.
- **Vehicle speeds**, using both radar guns and vehicle counters
- **Vehicle origins and destinations** through the use of "car-following" methods.
- **Pedestrian counts** at marked crosswalks as well as unmarked crossing locations
- **Bicycle counts** both "on-street" and "on-sidewalk", as well as "wrong-way".

Key early findings, both from study of the data and from field observations, include (see also "Vehicle Issues" handout)

- **Vehicle Origin Destination Patterns:** The vast majority of vehicle traffic which enters Harvard Square through it's major gateways, is simply passing through the

Square enroute to other regional destinations (see attached). This is consistent with the Square's historic role as a crossroads. Massachusetts Avenue is, in fact, a state numbered route (Route 2A).

- **Crosswalk Issues:** There are a variety of issues at locations where vehicles and pedestrians interact, including *vehicle speeds* (e.g. Wordsworth Books crossing); *heavy pedestrian volumes* (e.g. Dunster Street); *heavy right turn volumes* (e.g. Garden Street/Mass Ave); *poor sightlines*; and *lack of marked crosswalks/significant jaywalking* (e.g. Freedom Square).
- **Vehicle Speeds:** At some locations, the 85th percentile speed is greater than 30 mph (Brattle Street from JFK to Brattle Square and Mt. Auburn from JFK though Freedom Square) and at other locations it is very close to 30 (Mass Ave from Putnam to Quincy Square). The 85th percentile speed is the speed at which 85% of vehicles travel.
- **Illegal Parking and Stopping, and Double-Parking** at locations such as Out-of-Town news, and at taxi waiting stands, can be very disruptive to the flow of traffic through the Square.
- **Signal Timing** appears to be in a very delicate balance at present, although some systems are entirely uncoordinated (e.g. the City's signal system within the Square and the MDC signal at JFK/Memorial Drive.) At some locations there is significant queuing (1000 Islands intersection)
- **Wrong-Way Travel** potential exists at several locations, and is often due to poor or missing signage and markings. Examples noted in the field included Eliot/Bennett Streets; Bow Street; and the Mass Ave/Garden/Peabody "u-turn" near Flagstaff Park. An HSDC member also reports wrong-way travel on Mass Avenue between Putnam and Quincy Square.
- **Weaving** is difficult at several locations, particularly at the "1000 Islands" intersection where traffic from Peabody and Broadway must sort into proper lanes for Garden Street and Mass Ave; and in the short section of Mt. Auburn between Brattle Street and JFK Street.
- **Merging** is an issue near Out-of-Town News, as northbound JFK and Mass Ave traffic moves at the same time, and the incoming and outgoing lanes are not balanced in number.
- **Lane Shifts** are confusing in several locations, in part due to unclear and/or discontinuous pavement markings. Examples are along Mt. Auburn Street in the Freedom Sq. area, and at JFK Street northbound, where the roadway changes from 2-way to 1-way flow as it crosses Eliot Street.

3A. IDENTIFICATION OF "HOT SPOTS"

The next major effort of the City and Consultant team, to be conducted over the summer months, is the development of initial solutions to the issues identified to date. In order to focus this effort, a preliminary list of "Hot-Spots" (both geographic and issue-based) has been developed and was distributed for discussion (see handout).

Jerry and Susanne provided some general explanation and qualifications regarding the "Hot Spots" list :

- The list itself is in no particular order as far as **priorities**. The team believes that it will ultimately be more important to prioritize **solutions** rather than **issues**. This is largely because the potential actions to be developed in the coming months may interact to solve multiple problems in ways that cannot be anticipated at this time.
- **Absence of particular issues** or locations from the list does not mean they are being excluded from further study. Rather, the list attempts to identify particular high-use locations where multiple problems have been identified. All issues

heard to date, whether or not they are on the list, will be considered during the overall planning process.

- Certain **global issues** are purposely not on the list – examples being sidewalk conditions, accessibility, lighting, etc. It is a given that these types of issues will be discussed and addressed as a matter of course as the planning and design process continues.

Susanne and Jerry reviewed all of the individual items on the “Hot Spots” list. There was specific discussion on several items, as follows:

- Regarding “**difficulty of traversing the Square**”, in some ways the present (circa 1980’s) circulation pattern, particularly the Peabody – Mass Ave – Flagstaff Park arrangement, was purposely intended to discourage through movements.
- The team should recognize that **excessive roadway width** contributes to high speeds.
- **North-South Bicycle Connections** between the Square and the River are also important, and will only become more important as Harvard University’s Allston campus is developed.
- **Making it clearer** to get through the Square is not the same as **making it faster**. There is a fine line to be walked between providing smoother vehicle movements (which can benefit cyclists and pedestrians also), and making it so easy to get through that additional traffic is attracted.
- For better or worse, the Square is part of **State Route 2A**, so many tourists and commuters will always use it as a through route.
- There are **no easy solutions to through traffic** – there are no other roadways with excess capacity, or that do not impact residential areas, where traffic could be shifted to.
- While **congestion is not necessarily a bad thing**, it should be recognized that unnecessarily frustrating drivers through lack of signage, circuitous routes, etc. can lead to such problems as “wrong-way” driving, aggressive behavior, blocking crosswalks, etc.
- There are many **immediate solutions** (example, simply providing adequate street name signs) which can be implemented.
- Traffic operations through the Square are very complex and interconnected – careful study must be made of **ripple effects** when considering any changes – even in something as innocuous as signal timing.

4. TRANSPORTATION TOOLBOX

Cara Seiderman gave a slide presentation on some of the various tools available to provide a transportation system which balances the needs of all users. A very abbreviated summary of the presentation, and points which were discussed by the attendees, are as follows:

- **The street**, as defined as the entire public right-of-way (building line to building line) should accommodate and welcome a variety of uses and users. In the case of Harvard Square, streets should serve as an active “community center” which entices people to linger.
- The **pedestrian realm** can be made inviting through the use of urban design treatments and landscaping, design for universal accessibility, and buffers which protect pedestrians from moving vehicles. In Cambridge, certain treatments are standard, such as carrying sidewalks across driveways at the sidewalk elevation, and using sidewalk materials.
- The effectiveness and safety of **crosswalks** are impacted by crosswalk materials and marking patterns. In Cambridge, the International Zebra marking is now

standard. When considering alternative crosswalk materials (such as brick or pavers) careful consideration must be given to nighttime and poor-weather visibility; to slip or skid hazards; and to longevity of the installation given the local climate and traffic conditions.

Question: Does the City ever consider use of embedded crosswalk lights, as used in Somerville, Wellesley, Boulder, CO, and other locations?

Answer: The City has installed these near the Kendall Cinema and they are presently under evaluation. There has been some reporting that the effectiveness of this somewhat costly type of installation decreases over time, as drivers get used to them.

- **Pedestrian crossing conditions** can often be improved by tightening vehicle turning radius (slows the turning vehicle, shortens crosswalk, and moves the crosswalk closer to the desire line); by curb extensions (increases pedestrian visibility, shortens crossing distance, and controls illegal parking).
- The City reviews intersection radii and proposed curb extensions with **public safety officials**. Fire officials often support curb extensions to eliminate illegal parking since they can be mounted if necessary (unlike a car parked too close to the corner)
- **Signal timing** should reflect a balance between vehicle and pedestrian needs. Cambridge's policy is to eliminate pedestrian push-buttons and have the pedestrian phase come up during every signal cycle. The City is also moving to concurrent pedestrian phases (when pedestrians move at the same time as parallel vehicle traffic). An example in the Square is at Mt. Auburn and JFK Streets. Other signal features which can help pedestrians include "leading" pedestrian phases (where the WALK signal is given a few seconds before the vehicle green) and count-down signals.

Comment: It would be great if countdown signals, in addition to showing the time remaining in the pedestrian phase, could also indicate how much time a pedestrian has to wait until the next pedestrian phase.

- **On-Street Bicycle facilities** are provided in several different ways around the world, and range from physically separated tracks to painted lanes, as in Cambridge. The City uses blue-colored bicycle lanes in high-conflict areas (e.g. where vehicles cross the bike lane), and has also experimented with Advance Stop Line, and Bicycle Boxes at intersections (which allow bikes to get out into an intersection ahead of general traffic). Several other cities have also implemented bicycle signals at intersections.

Comments: There needs to be more outreach to drivers and other users who may not be familiar with markings used in Cambridge. For example, what does a blue bike lane mean? How about dashed bike lanes or dotted vehicle lanes through intersections? Chicane markings? There also needs to be consistency in the use of these markings. Consider signs to supplement the markings (which was done at Broadway, for example)

- **Bike Parking** is also key to encouraging bicycle use and to minimize inappropriate locking of bikes to street furniture, trees, etc. The bike locking ring used in Cambridge provides more bicycle parking per available area than many other systems, and is convenient to install and use.

- **Pedestrian streets and Woonerfs** are used in varying degrees around the world. A local example which accommodates both high pedestrian volumes and intensive commercial loading activities is Winter Street in Boston, between Tremont and Washington Streets. Other applications can be found in residential areas as well, and there are a great variety of possible site-specific treatments.
- There are a great number of **Traffic Calming** tools which are used in Cambridge and elsewhere to slow vehicle traffic and increase pedestrian safety. These include horizontal measures (chicanes, curb extensions, crossing islands) and vertical measures (speed tables, raised crosswalks, raised intersections).
- **Raised devices** are perhaps the most dramatic, but have definite pros and cons. They are not appropriate for high volume areas, and sometimes create noise issues due to buses, trucks, etc. They can also impact response time for emergency service vehicles. Cambridge uses them sparingly, mostly in residential areas, and on some collectors such as Columbia Street where they are deployed at locations where pedestrians are most vulnerable (near schools, parks, playgrounds, etc.)
- **Wayfinding** tools are also important to making a better experience for all users of the street. On the other hand, sign clutter must be avoided.

Comments: In an area with a high concentration of visitors such as Harvard Square, it may actually be less important to identify street names, than it is to identify landmarks. Consideration should also be given to mounting signs on buildings, etc. where they may be easier to see in some cases. Also, consider color-coded signage, as is done in some cities.

Additional general comments were also made following the Toolbox presentation, as follows:

- It is difficult for drivers approaching the Out-of-Town crosswalk from the north to see the signals. Consider adding additional signal heads?
- The team should research the number of users of the MBTA station, particularly at the main entrance.
- Provide additional seating at bus stops in the Square.
- The existing contra-flow bike lane on Little Concord Avenue is confusing and does not work properly.
- Marking at raised crosswalks is not consistent with other crosswalks (i.e. the International Zebra pattern is not used)

5. NEXT STEPS

On July 18 and August 15, walking tours of the Square will be held in place of the regular HSDC meetings. The tours will be held rain or shine.

September 19 will be next full HSDC meeting, at which time the Consultant team will present initial ideas relative to the "Hot Spot" transportation issues.

Question: Is consideration still being given to changing street directions?

Answer: Yes, as another tool in the transportation toolbox.

October 17 is tentatively scheduled as the first full Community Meeting, depending on the progress being made by the HSDC. The intent is to familiarize the public with the overall Process, and the Transportation work done to date.

6. PUBLIC COMMENT

- What is the budget for the project? (Answer: Approximately \$3.5 million has been put in the City's budget for FY04 as a placeholder, pending additional detailed estimates.)
- Is the City moving towards standard International-symbol traffic signs? (Answer: Yes)