

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

Subject: Harvard Square Design Committee (HSDC) – Meeting #4

Date, Time & Place: October 17, 2002, 6:30 PM – 8:30 PM
Cambridge Savings Bank

Present:

HSDC Members:

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

City of Cambridge:

Susanne Rasmussen (CDD)	Sue Clippinger (TP&T) Jeff Parenti (TP&T)	Roger Booth (CDD) Michael Muehe (CPD)
Kathy Watkins (CDD)	Charlie Sullivan (CHC)	
Cara Seiderman (CDD)	Bill Dwyer (DPW)	

*CDD = Community Development
Department*

*CPD = Commission for Persons with
Disabilities*

DPW = Department of Public Works

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

*CHC = Cambridge Historical
Commission*

Consultant Team:

Jerry Friedman (EarthTech, Inc.)	Rod Emery (Edwards and Kelcey)
Jim Winn (Edwards and Kelcey)	

1. WELCOME (Susanne Rasmussen)

Susanne welcomed the attendees and reviewed the agenda for the evening, which will continue to focus on potential circulation changes in the Project Area.

The Committee had a great discussion at the last meeting about various circulation alternatives. We were asked to come back with additional information. We will be discussing:

- Basic Improvements – what can be done with no circulation changes.
- 2-way JFK / 2-way Eliot
- 2-way Brattle
- Church Street

Rod Emery and Jerry Friedman from the consultant team will present information about each of these items. After each item we will go around the room and get comments / pros / cons / opinions about the alternative.

It would be great if we could get some direction on some of these alternatives, but we are not necessarily expecting final decisions tonight.

We will also talk about the format of the upcoming community meeting at the end of the committee meeting.

As we begin discussing the alternatives, I would just like to remind people that these are all options – not pre-decided things. We will be addressing the various questions from last month. We are not advocating for any of the alternatives. We just want to make sure that each alternative is given a fair review. We believe that each of these alternatives can work, provides benefits and should be considered. If the group considers an alternative and then dismisses it, that is fine. We just want to make sure that the alternatives have been thoroughly considered.

2. POTENTIAL CIRCULATION CHANGES

Kathy Watkins

Kathy stated that all of the various alternatives have been checked to see if they worked for motorists, pedestrians and cyclists.

She reminded everyone that we are primarily reviewing alternatives relating to circulation changes. These do not include other potential improvements. For example, many people have raised signage as an important transportation issue. This and other improvements are not being discussed yet, but will be in the near future.

The focus at this point in the process is to determine the basic road layout – number and direction of travel lanes. After this has been set, we can determine what to do with any extra space – bike lanes, loading zones, parking, etc. The drawings show conceptual level curb extensions, crosswalks, etc. These are shown to give people an idea of what could work, but are not intended as engineering drawings.

Before we get started, take a quick look at the 1st and 2nd pages of your handout. Existing conditions – just so you have it to refer to. Flagstaff Park connection we talked about last time. Someone described it as a “no brainer”. We are not going to discuss it again, we just wanted you to have a complete package of the alternatives.

Basic Improvements – (Rod Emery)

Rod explained that the basic improvements are all based on three general strategies:

- 1) Narrowing of the pavement where possible
- 2) Changes in intersection control (Stop signs vs. signals, etc.)
- 3) Subtle geometric changes

We will go location-by-location through Harvard Square and highlight the ideas for changes, as well as identify which problems are being addressed by each potential change. At each area you will see, highlighted in gray, areas of pavement which would no longer be required for basic travel lanes. Many of these areas would have potential to be converted to other on-street (e.g. parking, loading, bicycle lane) or off-street (e.g. sidewalks, plazas, landscaping) uses.

Out-Of-Town News Intersection

- The vehicular merge just north of the Out-of-Town News has been raised as a problem location. It is confusing for drivers and cyclists heading north on Mass. Ave. towards

Porter Square. Removing a northbound travel lane improves the merge situation, allows the sidewalk in front of Out-of-Town News to be widened and we've shown a parking area that could be provided for loading and quick drop offs and pickups.

- Super crosswalk – people have identified a number of pedestrian desire lines throughout the study area that are currently not served by crosswalks. One of those is coming from Lehman Hall, crossing Mass Ave and wanting to continue across to the Fleet Bank. This larger crosswalk would allow them to do that in a direct move.
- Also, cyclists traveling from Mass Ave (Central Square) wanting to go out Brattle or Mt. Auburn to the west currently have a very difficult time due to the one-way street patterns. Providing a bike cut-through across the Out-of-Town island would provide an alternative route for cyclists to make this move.
- Curb extension at Curious George would shorten this busy crosswalk and better define the left turn pocket. The existing cobble-paved island which defines the left turn slot would remain essentially as is.

Brattle Square (Brattle/Mt. Auburn/Eliot)

- People find it difficult to cross Brattle Street and also the 2 lane section of Mt. Auburn Street in front of Words Worth.
- We are showing narrowing the existing 2 lane approach in front of Words Worth down to 1 lane which would dramatically improve the pedestrian crossing.
- Similarly on the other leg in front of Tweeter, we are showing a 1 lane approach. In addition to improving the pedestrian crossings, this also eliminates the merge at the tip of the triangle island.
- Mt. Auburn Street itself between the tip of the triangle island and JFK Street can be narrowed from 3 lanes to 2 lanes.
- The Mt. Auburn / Eliot intersection can be tightened up, reducing the pedestrian crossing distances. The western leg across Mt. Auburn Street is a very long pedestrian crossing that we have heard numerous complaints about.
- In addition, the “missing” crosswalk across Eliot Street can be added. This is a location where you can go out there and just watch pedestrian after pedestrian cross with no crosswalk. This is obviously a strong desire line that is currently not served.

Eliot/Bennett Intersection

- Currently this intersection has a signal. We are showing the signal being removed and replaced with an all-way stop. The intersection would operate better with a stop sign than with a signal. Delay is reduced for both drivers and pedestrians (who can cross with gaps in traffic rather than waiting the signal or jaywalking). Pedestrians often don't obey signals at low-volume intersections such as this.

Eliot and JFK Intersection and JFK Street

- We are showing basic improvements at the intersections – improved alignment for motorists traveling north on JFK Street from the River to Harvard Square and also basic curb extensions along JFK to improve conditions for pedestrians.
- We can also make signal improvements that will benefit pedestrians. One of our goals is to remove all of the pedestrian push buttons in Harvard Square. This allows the pedestrian phase to come up in every signal cycle, providing predictability for pedestrians and greater crossing opportunities.

Basic Improvement Comments and Questions – (Susanne Rasmussen and Committee)

It was our understanding from the last meeting that there was support for these basic improvements. We would like to quickly go around the room and check in with you all to make sure that is indeed the case.

(Note: City/Consultant team comments/responses are in italics)

General

- There are lots of good improvements included with the Basics. It is a good starting point.
- Very good overall. Improves pedestrian conditions.
- Basics don't appear to slow traffic, but safer for pedestrians.
- Concerned that long-term Harvard connection to Allston may need more than the Basics. Should consider bike lanes and/or shuttle vehicle lanes between Harvard Sq. and Allston. This will present trade-offs.
- Seems like "win-win". Benefits all users.
- Which traffic volumes were used for analysis? *(Present day – 2002)*
- Like the fact that circulation will be the same, and that many of the ideas are somewhat reversible if they don't operate well. Could there be a trial run without removing signals, etc? Would like to see traffic volumes and seasonal adjustment factors which were used. Do April counts under-count parking garages, for example?

Out-Of-Town News Intersection

- Concerned about "super-crosswalk". Will peds and/or vehicles get stuck in the middle at signal changes? *(Reduced cycle length should help – will lessen frustration of all users who have to wait a long time. Also can provide longer clearance intervals).*
- Consider ways other than "super-crosswalk" to help peds get from Harvard Yard across to west side of Mass Ave. Can it be made easier to get from Harvard Yard to existing "Coop" crosswalk?
- Why eliminate lane at Out-of-Town? Allow cars to stop. This is a natural drop-off area that is very useful. Proposed pull-off spaces are too small and too close to merge point. *(Not good to have this within the intersection. This is a trade-off that would have to be seriously considered.)*
- "Super-crosswalk" is a good idea. Consider "Super-duper" crosswalk that would also incorporate Abercrombie-Curious George-Cardullos crosswalk. There is a major ped desire line between MBTA and Curious George. *(A variation of this idea will be seen in the 2-Way JFK alternative. We will also re-examine whether it can be made to work as part of the Basic Improvements).*
- Consider left-turn signal at Curious George. *(It would be included as part of Basics)*
- Clarify what is happening at Curious George. *(The elimination of the second "through" lane from JFK to Out-Of-Town allows a formal left-turn lane from JFK to Brattle to be established.*
- Curb extension at Curious George is a good idea.
- Maintain loading at Cardullos.
- Is taxi-stand at Fleet/CVS maintained? *(Yes)*
- Would bike cut-through be level with roadway or with sidewalk? Is statue in the way? Need more detail to determine whether this would work.
- Can bikes be routed around tip of Out-of-Town island instead?
- Bikes should use crosswalks at Out of Town island. Don't mix bikes and peds.

Brattle Square (Brattle/Mt. Auburn/Eliot)

- How is situation at Brattle (Wordsworth) crosswalk improved? *(Proposed lane reduction and geometric changes should improve visibility here. Will consider moving this crosswalk further north for additional improvement).*
- Concerned about proposed "all-way" stop at Mt. Auburn/Eliot. Will vehicles really stop? Would signal be better?
- Sidewalk at Tweeter is already wide. Consider addition of parking instead. Parked cars make peds feel safer.

- Existing left-turn lane from Mt. Auburn to JFK would be eliminated. Will this still work? Will buses be able to make turn? (*Analysis shows this will still work from a capacity point-of-view. All geometry to be reviewed for trucks, buses, etc. as appropriate*)
- Existing left-turn lane at Mt. Auburn/JFK is used as a loading zone, especially for beverage trucks.
- Curb extension at Wordsworth is a good idea.
- Existing island at Mt. Auburn/Eliot contains an MBTA trackless trolley pole. Consider difficulty/expense to relocate.
- Is existing exit from Harvard Square Hotel garage onto Mt. Auburn maintained? (Yes).
- Sidewalk at DeGugliemo Plaza is wide enough already.

Eliot/Bennett Intersection

- Wonder why Eliot/Bennett signal was installed in the first place. (*Probably related to temporary Eliot Street Red Line station which was used during 1980's construction*)
- Bennett/Eliot "all-way" stop is good idea.
- Curb cut-out for bus stop at Eliot (Harvard Sq. Hotel) is good idea.
- Consider keeping red/yellow flashing operation at Eliot/Bennett.

Basic Improvement Wrap-Up and Next Steps – (Susanne Rasmussen)

There seems to be lots of general support for the Basic Improvements, with specific concerns about the Out-of-Town News area. We propose to continue to refine/analyze the plan.

At November public meeting, Basic Improvements will be presented, but we will state that concerns and issues have been raised.

2-Way JFK Street / 2-Way Eliot Street – (Rod Emery)

We will again go location-by-location through the Square and highlight the ideas for changes, as well as identify which problems are being addressed by each potential change.

Out-Of-Town News Intersection

- 2-way JFK allows traffic on Mass Ave from Porter Square heading towards the river to travel directly down JFK Street instead of doing the Brattle / Eliot / JFK loop.
- With reduction of approximately 1/3 of the traffic on Brattle Street, we are able to reduce Brattle Street between JFK and beyond Palmer to 1 travel lane. Vehicular speeds in this section of Brattle Street were measured at over 30 mph. Reducing this to 1 lane would help reduce speeds. It would also allow the sidewalk in front of Nini's to be widened.
- Traffic on JFK coming from the river and heading west on Brattle or Mt. Auburn Street can go JFK to Eliot to Brattle / Mt. Auburn. This connection eliminates the need for the left turn at Curious George.
- With the elimination of the left turn from JFK to Brattle, the "super crosswalk" can be extended down to Curious George and this makes the sidewalk in front of Curious George much larger.

Eliot/Bennett/Mt. Auburn Intersections

- 2-way traffic allows the intersection to be re-aligned to its historic curving alignment, with Eliot Street flowing as the continuous street and Bennett Street "teed" off into Eliot.
- Crossing islands are added on Eliot Street to allow pedestrians to cross one direction of traffic at a time.

JFK Street and Eliot/JFK Intersection

- Since the volume of traffic on Eliot Street heading towards the river would be reduced, only one lane from Eliot needs to turn right. This allows the curb extension to be added on JFK Street at this intersection, which helps to address some of the concerns people have raised about crossing this busy intersection. It reduces the length of 1 crosswalk and also reduces the number of vehicles turning across this crosswalk. The curb extension would protect the bus stop at the JFK School.
- JFK Street would function as a normal 2-way city street. One-way streets with 2 lanes of traffic can be difficult for drivers and pedestrians. If a driver stops for a pedestrian in the first lane, a vehicle in the second lane can be visually blocked – causing a very serious type of pedestrian accident.
- JFK would have a wide shared travel lane for vehicles and cyclists to share – 13', next to an 8' parking lane.
- Loading zone issues –
 - If a vehicle double parks on JFK Street, there will still be enough room for a vehicle to pass. The width of the 2 travel lanes on JFK Street is 26'. If a truck is double parked, that uses approximately 8' – leaving 18', which is wide enough for 2 vehicles to pass.

2-Way JFK Street / 2-Way Eliot Street Comments and Questions – (Susanne Rasmussen and Committee)

General

- Alternative provides a good urban feel; good visual environment
- Reduces speeds on “inner” Brattle – good.
- Direct route southbound to river seems like good common sense.
- How does this alternative effect Church Street? (*Can be mixed and matched with Church Street options*)
- Leave Church Street 2-way to allow access to inner Brattle via Palmer.
- Concern that traffic would feel funneled out of Square – e.g. northbound traffic that can't U-turn at Curious George; southbound traffic that can't turn left onto Mt. Auburn, etc.
- It moves people through the Square faster – not the goal of the Project.
- It will back vehicles up in the Square.
- Brattle is a commercial street – why want to reduce volumes?
- Want to see volume numbers and assumptions about where diverted traffic will go. Don't see operational benefits.
- It will be good to reduce speeds/volumes on Brattle – better environment for performances, etc.
- Two-way is generally a nicer experience – but in Harvard Square probably won't be as dramatic a difference as in other locations.
- Consider allowing lefts from Peabody onto Church so traffic doesn't get funneled out. (*This was looked at – not feasible.*)

Out-Of-Town News Intersection

- Good improvement at Curious George corner.
- Like “super-duper” crosswalk.
- What happens to the 170 existing left-turners at Curious George? (*Those destined for outer Brattle will use Eliot*)
- It's hard to access the Square from the east right now. Eliminating Curious George turn will make it worse.

Eliot/Bennett/Mt. Auburn Intersections

- Concern that 2-way stop at Eliot/Mt. Auburn will not be obeyed.

- Concern that left-turners from Eliot onto Bennett will have to wait for gaps in traffic.
- Clarify design of median at Eliot/Bennett and in front of JFK School. (*Raised median is intended as a pedestrian refuge at the Eliot/Bennett intersection, but is not intended as a refuge for random crossings across Eliot at the JFK School. Will work out details of treatment during design to discourage this.*)
- At “all-way” stops, will vehicles actually turn right without stopping?
- Consider raised intersection at Bennett Street.
- Can some of the Eliot median instead be shifted to the edges for parking?

JFK Street and Eliot/JFK Intersection

- With loss of northbound JFK lane, where does this traffic go? (*Some traffic will shift to remaining JFK northbound lane; other traffic which was destined for Brattle via the Curious George U-turn will instead access Brattle via 2-way Eliot. Analysis shows that single northbound lane will work from a capacity point-of-view.*)
- Concern that “No Left Turn” from JFK onto Mt. Auburn will not be obeyed.
- Concern that southbound vehicles “missing” the Brattle/Mt. Auburn jughandle move, will instead loop back via Winthrop Street.
- Two-way streets are not ideal – one-way flow is more efficient.
- Harder for peds to cross 2-way street.
- Concerned that parking maneuvers will block traffic flow.
- Concerned about loading and double-parking.
- Improved flow to River is evident, but is this a heavy movement all day long?
- Would need strict loading controls.

2-Way JFK Street / 2-Way Eliot Street Wrap-Up and Next Steps – (Susanne Rasmussen)

At November public meeting, we propose to present this option, but will make it clear that the Committee has a very mixed opinion right now.

2-Way Brattle Street – (Jerry Friedman and Rod Emery)

General

Jerry briefly reiterated the existing conditions on Brattle Street west of Eliot Street, and the contra-flow bicycle options which were discussed in detail at the September Committee meeting.

- At the last meeting there was not a lot of support for the contra-flow or angle parking alternatives, but there did seem to be strong interest in thinking through more of the details of the 2-way Brattle Street alternative.
- In particular, Committee members had a number of questions about how this alternative would function for traffic. (*Would there be excessive cut-through traffic attracted from other routes; what would the queues be like at Brattle Square, etc.*)

Operations

Rod presented the animated SYNCHRO traffic simulation model that showed the Brattle Square intersection. The Committee watched it on a continuous loop to get a sense of how the intersection would function. (The model represents approximately 20-minutes of operation, and is accelerated).

- The model shows the peak volume (which is Saturday for this particular location), includes pedestrians and tends to be conservative as it assumes conservative driver behavior, such

as drivers waiting for larger gaps in traffic than you would typically find in this area. So what is shown is the worst-case scenario.

- There was a brief discussion of the accuracy of the modeling technique in general. Rod explained that it is representative of the same mathematical formulas which are typically used in traffic analysis of isolated intersections, and actually represents a step up in accuracy since it accounts for the interaction between intersections, including platooning effect (grouping of vehicles from previous signal), coordination or non-coordination between signals, etc.
- Various ways of controlling the Brattle Square intersection were explored – partial stop, all-way stop, signal. A stop sign for outer Brattle (i.e. the eastbound movement from Church Street to Brattle Square) works best. It causes some queues to occur on outer Brattle Street, which would keep it from becoming too attractive a route. It does not excessively queue, however, thanks to the gaps created in cross-traffic by the signal at Out-Of-Town News, and by pedestrians crossing from Wordsworth to DeGuglielmo Plaza.

Combinations and Variations

- If 2-way Brattle Street is combined with 2-way JFK Street, the Brattle Square intersection functions better because of the volume of traffic removed from inner Brattle Street. There would be less volume in the intersection and more flexibility – an “all-way” stop could be implemented.
- Another variation raised at the last meeting is to implement 2-way Brattle, but allow only bicycles to enter eastbound at Mason Street. The concern with this is that there would essentially be a whole block of parking (the south side of Brattle between Mason and Hilliard/Appian Way) that could not be accessed.

2-Way Brattle Street Comments and Questions – (Susanne Rasmussen and Committee)

- This is a good alternative.
- Can Brattle connect more directly to Mt. Auburn. (*This would be a legal move – geometrics will be looked at more closely*).
- Brattle Street could be the best entry into Harvard Square – right now it’s wasted.
- Simulation model is very convincing that 2-way Brattle will work.

2-Way Brattle Street Wrap-Up and Next Steps – (Susanne Rasmussen)

There is clearly strong support for the 2-Way Brattle alternative. This will be reported at the November public meeting.

Church Street – (Jerry Friedman)

General

There was discussion at the September meeting about the possibility of making Church Street one-way in order to widen the sidewalks. Some Committee members felt that it was hard to comment without knowing which direction Church Street would flow. We have studied this further, and can state that if no other circulation changes are made in the Square, Church Street would run from Mass Ave to Brattle Street – this is the predominant traffic direction. Making Church Street 1-way would displace 80 vehicles in the peak hour.

Problem Areas

- The location of greatest concern about sidewalk width is at the movie theater, where the sidewalk is barely over 5 feet wide where there are no obstructions; where it feels narrower due to the blank wall of the theatre; and where move-time crowds exacerbate the situation

- There are also concerns about the width of the sidewalk at other locations.
 - At Starbucks/Christian Science Reading room, the sidewalk is also narrow, and people congregating at store entries often block the sidewalk.
 - At the parking lot, tree pits reduce the usable width to only 3.5 feet, forcing people to walk on the tree pits or in the street when passing others.
 - At the Church/Palmer corner, the entry to Border Café is right at the handicap ramp, and the lack of sidewalk on Palmer Street, combined with queues to get into the restaurant, leads to blocking of the ramp.
 - At the First Parish Church, tree pits and street furniture also reduce the sidewalk width.
- 1-way Church Street would allow us to improve the sidewalk at these other locations and improve the pedestrian environment for the length of Church Street.

Other Alternatives

In response to concerns raised about circulation impacts of making Church Street 1-way, we have taken a closer look at the existing conditions on Church Street and also developed some other alternatives.

- We can make Church Street meet minimum ADA standards without widening the sidewalk, however Church Street is a busy and vibrant pedestrian street. The goal has been to make it work well for pedestrians and not just to meet minimum sidewalk widths.
- Another option would be to implement “spot improvements”. An example would be a curb extension at the Theatre box office location, or possibly the whole theatre block (or some variation thereof). This would impact parking (0-6 spaces depending on extent). Other localized curb extensions could be implemented also. They would variously impact the streets’ other parking and loading zones, and this is trade-off that would have to be examined. There may also be aesthetic impacts from having isolated sidewalk widenings at different locations.
- Another option that we had not previously considered because of the impacts to parking would be to keep Church Street 2-way, but remove 1 side of parking. This would remove approximately 12 parking spaces, plus several loading zones, but would allow both sidewalks to be widened.

Church Street Comments and Questions – (Susanne Rasmussen and Committee)

- Spot improvements are a good idea; try to replace lost parking spaces elsewhere in Square.
- Widen sidewalk on full length of theatre block.
- Keep street 2-way
- Find new locations for street lights and parking meters
- Improve aesthetics at Church/Mass Ave intersection
- One-way Church would be OK if Brattle was 2-way. Much of traffic eastbound on Church is vehicles circulating for parking.
- Sidewalks may be ADA compliant, but not possible for person accompanying a wheelchair to walk side-by-side.
- Don’t think spot improvements will be enough.
- When there are queues at parking lot, 2-way circulation is hazardous (vehicles pull into opposing lane)
- Need more than sidewalk widening - consider woonerf treatment.
- Consider 1-way Church with contra-flow bike facility.
- Move trees (not significant in size).
- Attach lights to buildings.
- Curb cuts are too wide at parking lot

Church Street Wrap-Up and Next Steps – (Susanne Rasmussen)

The Committee is divided on Church Street solutions, although there is consensus that something needs to be done. Several options will be presented at the Community Meeting.

3. COMMUNITY MEETING (Susanne Rasmussen)

- The Community Meeting will be held on November 21, from 6:30 to 9:00 pm. Location to be determined. The proposed agenda for the Community Meeting will be as follows:
 - Introduction to project
 - Issues identified to date
 - Circulation Alternatives –inform the community about the direction of the committee
 - Breakout Groups – would like to assign a staff person and a committee person to each group. The staff person could be the facilitator and the committee person could be the recorder.
 - Next Steps

4. NEXT STEPS (Susanne Rasmussen)

The next Committee meeting will be December 19, 2002. Committee will meet without the consultants and review the community meeting, discuss circulation alternatives and develop consensus on circulation alternatives.

Subsequent meeting: January 16, 2003 – to discuss plazas and landscaping options

5. PUBLIC COMMENT

- 2-way JFK improves sidewalk at Nini's. It will also unify the Square and increase its' liveliness.
- Consider woonerf treatments for Church, and also for Brattle if it is to remain a 1-way, low-volume street.
- Concerned that raised median on Eliot Street (in 2-way Eliot alternative) will encourage jaywalking. Can the extra space instead be shifted to the edges of the street?
- How can speeds be slowed in the 2-way JFK alternative?
- Woonerf on Church merits more discussion.
- All-way stop at Mt. Auburn/Eliot must be designed so that intersection is not too large – drivers need eye contact for this to work. (*Crosswalks and stop lines can probably be brought closer together*).
- Both lanes of northbound JFK Street are presently used by traffic. If reduced to one lane, concerned that congestion will lead vehicles to use minor streets instead to bypass.
- Traffic from the north presently uses 2-lanes of Mass Ave as it enters the Square (especially visitors). Will proposed southbound split at Out-Of-Town News (1-lane JFK, 1-lane Brattle) cause confusion and sudden merging?
- Concerned that inability to "loop" at Curious George while looking for parking will cause people to give-up and leave the Square.