

that disruption was localized but in the end, construction took longer and cost more than was necessary.

Of those businesses that moved to the area within the past 5 years, a significant number are restaurants. Existing businesses had anticipated that the F Line would bring more tourists, and it has. However, they fear that as the customer mix changes (visitors and tourists instead of residents) so will the types of businesses that move in and, furthermore, that the businesses that do move in will be national chains that can afford higher rents. Such ventures could displace smaller, locally owned businesses that reflect the neighborhood and serve the community.

Costs

The total cost of the Market Street Transit Thoroughfare Project was \$50 million, with Upper Market Street accounting for \$18 million. This work was financed with funds from the half-cent tax for transportation improvements collected by the San Francisco County Transportation Authority, FTA Section 9 grants, and state Guideway funds.

Fully one-half of the costs were for *non*-transit related, street rebuilding improvements, such as utilities, sidewalks, street trees and furniture, reinstalling light poles, and reconfiguring the street. The other one-half went toward transit elements: the F Line track, the streetcars (including retrofitting the streetcars to meet ADA requirements), and boarding islands. International vintage streetcars continued to be purchased, restored, and turned over to MUNI by the Market Street Railways Company, the nonprofit organization that sponsored the streetcar festivals, which continues to raise funds for this purpose. The PCC cars in regular use were purchased by MUNI in 1991 and were rehabilitated at a cost of \$700,000 per streetcar.

Conclusions

The general consensus is that the project was good for transit, the city, and the community. The F Line streetcars are becoming as well known, at least among San Franciscans, as the cable cars and have contributed to a new image for the Castro neighborhood. The fact that transit ridership has nearly doubled, compared with the previous bus line, also demonstrates public acceptance of a quality product and service. In the future, more can and should be done to Upper Market Street to continue the shift away from automobiles toward pedestrian and transit users.

Next Steps

The city is in the process of extending the F Line to Fisherman's Wharf along the Embarcadero to relieve tourist traffic on the cable cars and is taking some steps to guide new development so that it is more street and pedestrian oriented. With

the dismantling of the central freeway, it is anticipated that both transit use and automobile traffic in the area will increase.

Lessons Learned

- An incremental, evolutionary approach is valuable, and it needs to be ongoing. "You can't expect that changes are going to last a hundred years."
- Do not prolong the construction period. Get in and get out quickly and provide more support for merchants during the construction process.
- Dialogue with the community early on in the process is critical but it is often difficult to maintain community interest over a long period of time.
- Enforce the law, such as speed limits and "no parking" regulations, or create environments and designs that are self-enforcing.
- A transit project cannot exclusively address transit needs; other pedestrian and traffic issues need to be addressed and improved as well.

■ CASE STUDY 3-4: MAIN STREET AND THE BLAKE TRANSIT CENTER, ANN ARBOR, MICHIGAN

We need to encourage people to spend more time downtown, not move through quickly. By widening the sidewalks or adding diagonal parking or taking a look at two-way traffic again, it would have some impact on the Blake Transit Center. People would think about it differently—not just as transportation but as a destination.

—Focus Group Participants

Ann Arbor, Michigan, is a quintessential university town with a population of 100,000, including a university population of 30,000. Whereas other midwestern cities have experienced suburban flight, the sizable student population has helped the downtown area sustain a strong pedestrian and transit orientation. Main Street, always the historic heart of the city, has received new vitality in recent years with reinvestment in the older commercial buildings and their adaptive reuse as retail shops and services. This investment was made possible in part by a 25-year commitment to caring for and preserving downtown as the city's prime retail corridor and historic center—a commitment that, by necessity, favors people over cars.

In the early 1960s, the city of Ann Arbor, Michigan, made the decision to revitalize Main Street by *not* turning it into a pedestrian mall, unlike many other midwestern cities, but rather to beautify it with streetscape improvements, thereby enhancing the pedestrian environment and keeping it open to traffic. Twenty years later, the city of Ann Arbor improved upon the design of Main Street to encourage sidewalk cafes, to enhance pedestrian lighting, and to reconfigure existing parking bays to make them more efficient. At the same time,

the city, through the Downtown Development Authority (DDA), began to extend streetscape improvements to the side streets east and west of Main Street to help create a downtown shopping district.

Transit services, at the same time, were growing and evolving. In 1987, the Blake Transit Center opened one block from Main Street, replacing street bus stops with a secure, comfortable, climate controlled terminal for passengers (Figure 3-15). The center disseminates transit information, reduces the necessity for passengers to transfer across busy Fourth Avenue by placing all the buses on the same side of the street, and, in general, creates a strong presence and identity for transit in the downtown area.

Today, Ann Arbor has a downtown where business is growing and transit ridership is increasing. Unlike other case studies, this result was not due to coordinated planning between the city and the transit agency, as both worked more or less independently but, fortunately, in pursuit of complementary goals. The city, business community, and transit agency have rediscovered one another and are now working to more closely integrate future efforts.

Project Goals

The goal of the various streetscape redesign programs, beginning in 1965, was to revitalize the downtown area, keeping existing businesses and attracting new ones

(Figure 3-16). The goals of each project, however, were quite specific and tended to build on what came before. For example, the first Main Street redesign project in 1965 was developed, very simply, to plant trees on treeless Main Street, reduce the impact of traffic, and improve the sense of scale, structure, and pedestrian environment.

By the mid-1980s, Main Street had staged a comeback and was home to numerous restaurants, coffeehouses, and shops. The sidewalk extensions were used increasingly by these establishments for outdoor cafe seating; however, the cobra head lighting was not conducive to or adequate for these kinds of activities. The second project, which was funded by the city, was undertaken in the late 1980s to improve parking on Main Street, alleviate a parking shortage, and enhance street lighting for pedestrians (Figure 3-17).

Concurrently, the Ann Arbor Transit Agency (AATA) was pursuing aggressive strategies to improve service and ridership. The agency is one of the first to have purchased low-floor buses, which now constitute one-half of the fleet, along with shuttle vans and other special services. They have also instituted special fares and discount passes for students, senior citizens, and passengers with physical and mental impairments. The Blake Transit Center was constructed to improve customer service and comfort and to make transit operations (especially transfers) more efficient. It was also intended to increase the visibility of transit in the downtown area.

Because of their shared “customer first” approach, the goals of the city and the goals of the transit agency were ulti-

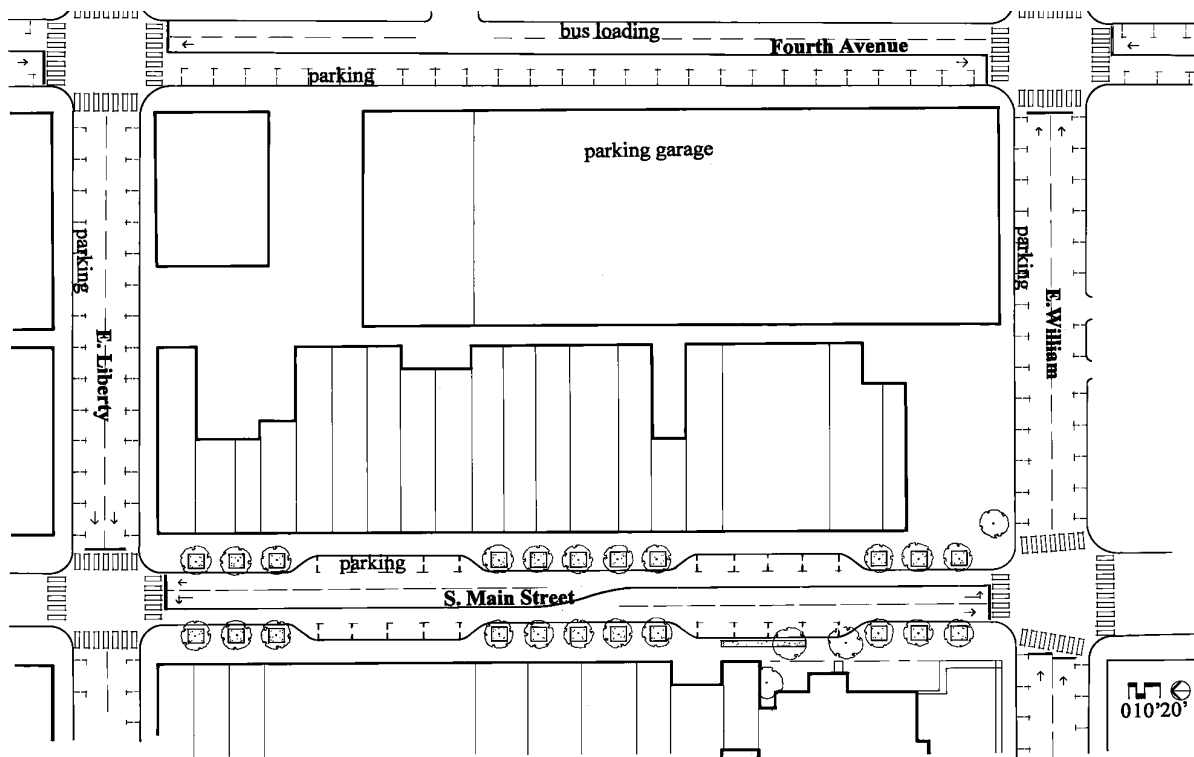


Figure 3-15. Main Street/Blake Transit Center, Ann Arbor, Michigan.



Figure 3-16. Ann Arbor's Main Street was transformed by the streetscape improvements introduced in the mid-1960s (above), which made room for outdoor cafes and other pedestrian activities (below).

mately compatible. Indeed, each was designed to make downtown Ann Arbor safer and more comfortable for pedestrians (including transit users) and more attractive as a place to shop. This caused the various projects to have a synergistic effect.

Design and Planning Process

The transit center and the Main Street streetscape projects were both part of a larger community development strategy aimed at enhancing the livability of downtown Ann Arbor.

The original planning for Main Street dates from the early 1960s, but it was updated in the late 1980s under the direction of a newly created DDA. The planning and design process for transit, including construction of the Blake Transit Center in the late 1980s, proceeded on a parallel track and was funded by the transit agency (with matching federal funds). During this time, however, the city (and DDA) and the AATA did work at cross pur-

poses. For example, while the Blake Transit Center was being built, the city built an addition to an existing parking deck located directly across the street between William and Liberty Streets. Not until recently, when a new DDA board was formed that recognized the mutuality of their goals and those of the AATA, did the opportunity arise for real collaboration among the AATA, DDA, and the city with the meaningful involvement of the community and local merchants in the design and planning process. A new street-lighting program, merchant promotions, and streetscape improvements have recently been implemented.

Until very recently, there also was no unified effort to bring downtown merchant groups together to maximize or to share resources, as they traditionally operated as separate entities. Even the DDA, which is part of city government, traditionally operated independently and had tended to focus on accommodating and creating more parking space for cars



Figure 3-17. In the late 1980s, additional street lighting was installed on Ann Arbor's Main Street, which enhanced the visibility of stores and made the street safer and more comfortable for pedestrians (above). Main Street in the late 1960s (below).

downtown. Now, public/private partnerships are starting and downtown merchants are working with the DDA to promote local businesses, and with the AATA to determine how best to link the Blake facility to Main Street and to use transit as an alternative to building new (and repairing aging) parking garages.

Design Features and Strategies

As testament to an ongoing commitment to maintaining a walkable downtown, the first streetscape design improvements introduced in 1965 resulted in reducing a six-lane roadway to two wide lanes along with on-street parking bays and sidewalk extensions with trees and planters. In the early 1980s, these two lanes were narrowed and a continuous turning lane was introduced. In the late 1980s, lighting was redesigned and parking bays were reconfigured to make them more efficient. Also, several of the two-way side streets between Fourth Avenue and Main Street were upgraded with brick-paved sidewalks and pedestrian-scaled historic light fixtures.

Originally, transit buses traveled along 4th Avenue one block parallel to Main Street to the east, with bus stops located along the street. The Blake Transit Center consolidated these stops into one accessible location serving all the downtown bus routes. The heated waiting room is open every day, and the facility has rest rooms and transit information with transit passes and tokens for sale. There is a security presence there during operating hours as well. Seating and a change machine are available outdoors (Figure 3-18).

The DDA has been working with a newly formed business improvement district (BID), which encompasses the commercial district, including Washington, Liberty, South University, and North and South Main streets. The DDA collects tax money from property owners and provides services, such as pedestrian improvements, lamps, brickwork, and new trash cans. Merchants groups also pay for area security and maintenance.

Impacts and Assessment

The extensions, street trees, wide sidewalks, and improved pedestrian lighting have created much pedestrian activity along Main Street. Activity along Main Street was further boosted after the city revised its sidewalk use ordinance, which allowed store owners to use the space created by the sidewalk extension as outdoor seating areas.

Transit Impacts

A synergistic relationship has been created between the revitalization of Main Street and the use of transit in the downtown area. Whereas AATA has taken a number of



Figure 3-18. The Blake Transit Center opened in 1987, replaced on-street bus stops, and provided passengers with a climate-controlled waiting and ticketing area (above), as well as a safe place to lock bicycles (below).

innovative initiatives to increase ridership generally (working with major employers to offer their employees subsidized transit passes), the fact that downtown is a major attraction and is pedestrian friendly has been a contributing factor in the steady increase in transit ridership over the past decade.

The transit center improved the perception of safety for the area and helped make transit vehicle operations more efficient and increased the comfort of waiting passengers by providing one convenient, accessible transit center. Since the Blake Transit Center opened, it has functioned as an anchor for the area. For example, it is easier to provide security for one facility than for a series of stops along a street. As perceptions about Fourth Avenue have improved, new businesses are beginning to move to the area.

Although more could be done to improve the visual and design linkages between the Blake Transit Center and Main Street (continuous sidewalk paving, improved signage and street lighting), it is still convenient to Main Street shops and businesses.

Traffic Impacts

Despite increased pedestrian and retail activity on Main Street, with more stores opening and restaurants serving patrons late into the evening and on weekends, automobile traffic has not increased commensurably. In fact, it has remained relatively constant. In 1982, daily volumes along Main Street at Miller were 8,387 northbound and 8,508 southbound; in April 1995, volumes were 7,892 northbound and 8,999 southbound.

There are many reasons why traffic levels have not increased. First, the limited amount of parking causes people to seek parking off of Main Street (in parking garages) or to find alternative ways of getting to Main Street (transit, cycling, or carpooling). Main Street acts as a local street and motorists seeking the fastest way through town might choose to travel along Fourth or Fifth Avenue instead. In addition, many of the new patrons of Main Street are University of Michigan students who bike, walk or rollerblade, or take the bus.

The new street configuration appears to work well without creating traffic congestion. When the street was redesigned in 1965, it had two wide lanes with no center turn lane. To create the center turn lane (which helps reduce backups at intersections), the width of the two moving lanes had to be reduced. The street, therefore, has many elements for traffic calming: narrow lanes, two-way traffic, sidewalk extensions at intersections, paved crosswalks, and on-street parking. The traffic signals are timed for a maximum speed of 31 mph, but most cars travel slower than that. In addition, the activity created by all the streetscape measures—cafes, strolling pedestrians, colorful storefronts—further signals drivers to proceed more carefully through the area.

Not surprisingly, vehicle accidents have decreased in the area of the Main Street improvements. In 1985 there were 25 vehicle accidents at the intersection of Main and Miller, which was reduced to 12 in 1994; accidents at Main and Huron decreased from 21 to 17; and the intersection of Main and Ann had 8 accidents both years.

Pedestrian Impacts

Through the Main Street pedestrian improvements, a strong pedestrian orientation was created, including adequate circulation space; easy-to-cross streets; and many amenities that made the area comfortable, convenient, and desirable to use. The recent explosion in the number of outdoor cafes and significantly enhanced night lighting have made Main Street a veritable beehive of activity. Main Street is narrow enough and the walk signals are long enough for easy pedestrian crossing. The curb extensions at intersections (neckdowns) and paved crossings make crossing safer and curb-to-curb distances appear shorter as well.

There remains, however, a lack of pedestrian linkages and streetscape treatment of the streets between Main Street and

Fourth Avenue in the area around the Blake Transit Center. Many of the same principles used on Main Street could easily be applied to these streets.

Economic Impacts

Because of an unusual 10-mile “radius-restriction” imposed by the owner of the nearby Briarwood Mall (in the 1970s when the mall opened), no “name brand” stores are allowed downtown if they are at the mall. As a result, local businesses got a foothold on Main Street, including bookstores, music stores, coffee shops, and bakeries. The restaurant business also is booming, having taken over vacant retail space from stores that had relocated to the mall; the boom was helped by the new street lighting that came on line in 1989. Even more new restaurants and outdoor sidewalk cafes have sprung up, stimulating a growing nightlife atmosphere. Art galleries stay open until 10 p.m. on weekends. Recently, a developer converted a former department store into loft apartments with ground floor and underground upscale retail shops. Next door, the ARK performance space has moved in over another restaurant.

Maintaining retail diversity is of the utmost importance, because the success of the restaurant business and single-use retail has caused commercial rents to increase, and new outer-edge commercial strip development continues to draw nonfood establishments away from the downtown.

Costs

The first streetscape project in 1965 was funded privately by Elizabeth Dean, who gave the city money to cover the cost of tree planting and maintenance. The fund is now managed by the city’s Department of Parks and Recreation. Because this project occurred over 30 years ago, information about costs of these improvements is not readily available. In addition, were this information available, the cost in 1997 dollars would have to be determined. The second round of improvements to the area in the later 1980s, including the lighting and additional brick paving, was funded through local increment financing and totaled about \$900,000. The money went to the DDA to pay for paving North Main, Washington, and Liberty Street sidewalks and for addition of new lighting along these side streets.

The redesign and construction of the Blake Transit Center was funded with Federal Aid Urban Systems moneys with a local match from the AATA; construction costs totaled \$1.2 million.

Conclusions

Although these two projects were not planned jointly, their impacts have been complementary, and their successes are linked. Main Street is not only a popular pedestrian-friendly

place but an economic success as well. Furthermore, during the past 30 years, there has evolved an understanding of the role played by transit in preserving Main Street, in serving businesses and employees, in reducing the impact of the automobile, and in generally supporting the downtown area and development on Main Street.

Next Steps

The design and planning for future downtown streetscape and transit improvements is ongoing.

Next steps include the following:

- Connecting the Blake Transit Center to Main Street with streetscape improvements, including improvements on the streets around the center to slow traffic and to make it a more pedestrian- and transit-friendly destination; and
- Creating a central square around the library in the block adjacent to the Blake Transit Center as part of the library block development study.

The AATA is entering into discussions with the University of Michigan to create a bus, activity transit, and retail node on the campus and has plans to work more closely with the DDA, downtown merchants, and the university to coordinate transit service and reduce the need for construction of more parking facilities. For example, the DDA is encouraging other major employers in the area to develop dedicated shuttles between remote parking lots and their corporate offices downtown. AATA is purchasing 14 new 20-passenger vehicles, 5 of which will be used as downtown shuttles to carry passengers from AATA service lots located north, south, east, and west of downtown.

Lessons Learned

- The early pedestrian improvements and traffic constraints set the stage for what happened over a 30-year period. Although no one could predict what did happen, without these improvements, downtown Ann Arbor might have lost its cohesiveness and sense of place.
- Projects may have been done differently had there been a real partnership between the transit agency, the city, and the business community. The vision for a revitalized, pedestrian-oriented downtown was shared, but the implementation should have been better coordinated.

■ CASE STUDY 3-5: DAVIS SQUARE, SOMERVILLE, MASSACHUSETTS

It's hip to be in Davis Square.

—*Boston Globe*, January 26, 1997

Somerville, Massachusetts, the most densely populated streetcar suburb in New England, is home to 76,000 people. In 1973, Davis Square, one of the city's largest central squares and a traditional commercial center, was selected as the location for a new station on the Red Line T (subway), using a former freight rail line that bisected the community. While the station was being planned, the city and the community developed a visionary strategy to radically transform the streets and pedestrian access to the square, provide additional on-street parking, improve its visual appearance, and create opportunities for new development.

At the heart of Davis Square is a complex six-point intersection, consisting of four major collector roadways and two smaller roadways (Figure 3-19). Until their reconfiguration in the 1970s, two major, pedestrian-unfriendly streets bisected the square, and several freight trains ran right through the square each day on the Boston and Maine Railroad, forcing traffic to back up for long periods of time. While the Massachusetts Bay Transportation Authority (MBTA) was building the station and a new plaza, the city of Somerville set to work on construction of pedestrian-oriented streetscape and landscape improvements, facade renovations, and a redevelopment plan to attract new businesses.

Once a gritty, down-at-the-heels intersection, Davis Square is now a vibrant nightclub and popular shopping district. New restaurants and nightclubs attract a young crowd from all over the Boston area to what is billed as an alternative to Harvard Square in Cambridge. There are also many new professional offices and neighborhood-oriented services. Yet, the square retains its residential character and ably serves the needs of a diverse mix of residents. What has been achieved goes far beyond what the farsighted community envisioned when it began to plan the square's revival in the mid-1970s.

Project Goals

The 20-year revitalization of Davis Square has occurred, not as the result of one plan or initiative, but as a series of plans that have evolved over time as the needs of the area have changed. The square's success is attributable to the city's sustained commitments coupled with a very involved and energetic residential community. These parties wielded significant political influence in the city and were able to develop a long-term vision at a time when the area was suffering from the urban decay and disinvestment faced by many 19th century industrial, working-class neighborhoods.

The primary goal set forth in the Davis Square Action Plan adopted in 1982 was to use the new Red Line Station as a cornerstone for redevelopment, strengthening Davis Square as a viable shopping district while preserving the residential character of the neighborhood. After convincing the MBTA to route its Red Line extension through Davis Square, the city of Somerville then set out to improve access to Davis Square for pedestrians, cars, buses, and bicycles.