

INTRODUCTION

The last major transportation study of downtown Columbus was completed in 1972. Between 1973 and 1979, six additional studies were undertaken which focused on traffic and transit operations along the critical High Street corridor. All of these studies identified the need for a transit facility on High Street. In 1979, the City applied for a \$14 million federal grant to construct a High Street transitmall. The Central Ohio Transit Authority included the concept of a transitmall in their plans together with a \$4 million local share derived from a voter-approved levy. However, in 1981, the Urban Mass Transit Administration (UMTA) requested the City to revise its application and asked for detailed information regarding the proposed transit facility and its integration with the highway and pedestrian systems within the downtown area. In 1982, the Mid-Ohio Regional Planning Commission secured a federal grant, matched by local funds, to update the 1972 study and to develop an action plan for the High Street corridor.

This study was completed in June, 1984 with the results of the work summarized in three technical reports entitled "Background Studies", "Recommended Plan", and "Environmental Impact Assessment". Based upon the results of this study, a grant application was resubmitted to UMTA for federal funding of a High Street transitmall. The purpose of this brochure is to briefly describe the results of the studies undertaken as part of this project.

BACKGROUND

It can truly be said that downtown Columbus is today being reborn. Over the past decade, more than \$600 million has been invested in this area in the form of public improvements, joint development projects, and privately financed new developments and renovations. Similar activities are expected to continue through the remainder of the 1980's and into the 1990's. Nowhere have these changes been more dramatic than along the High Street corridor. Anchored on the north by the completed Ohio Center and Nationwide developments and on the south by the planned Capitol South multi-use complex and the Franklin County complex, with major new state and private office buildings presently under construction in the central area surrounding the State Capitol, a new downtown is being created to serve the needs of the Columbus metropolitan area and the State of Ohio to the Year 2000 and beyond.

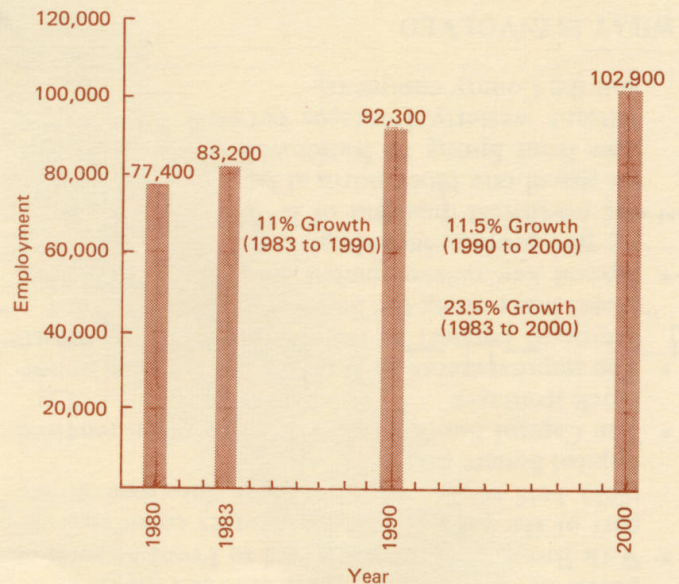
A critical element necessary to ensure the continuation of this ongoing central area growth and development is enhanced accessibility via both the private automobile and public transportation. Planned roadway system improvements such as the Spring/Sandusky interchange project and the I-670 extension project will help to address the need for improved connections between the regional freeway/expressway system and central area traffic circulation routes. However, in order to provide proper transit service, both today and in the future, a plan must be developed which improves and accommodates required transit operations.

The timing is thus especially propitious to determine what the appropriate role and function should be for all of the major streets in the downtown area, not only with respect to general traffic circulation, but particularly in regard to public transportation system operations. The purpose of the High Street Corridor Action Plan study was to develop and analyze a range of feasible transportation alternatives (including transit, pedestrian, and highway systems) which might be applied to the High Street corridor. The following sections summarize key background information, the results of the alternatives evaluation process, and the primary elements of the recommended transportation plan for the High Street corridor.

Employment

Downtown Columbus continues to be the center of employment activities in the region. Employment estimates for the area located within the Innerbelt in-

Total Employment within Innerbelt



dicating a significant growth pattern. In 1980, there were over 77,000 persons working in this area. The employment level is expected to reach 92,000 by 1990 and 103,000 by Year 2000. This represents nearly a 35% increase during the two decades.

In 1983, 42 percent of the total employment inside the Downtown freeway loop (or over 35,000 employees) was located within one block of High Street. By the Year 2000, employment in this narrow High Street corridor is expected to increase to over 50,000 – or about 50 percent of all central area employees.

Public Transportation

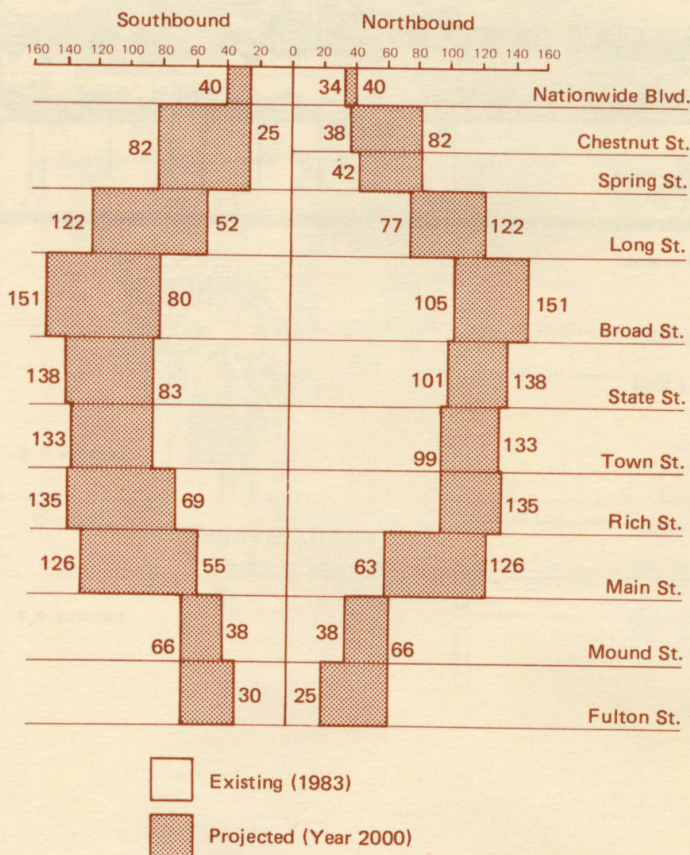
Approximately sixteen percent of employee work trips to and from the High Street corridor are made by transit. At the current time, the Central Ohio Transit Authority (COTA) system transports approximately 84,000 passengers on a typical weekday. Of this total, approximately 5,700 are express bus users, with the remaining 78,300 being passengers on local radial and crosstown operations. All of the express passengers either begin or end their transit trip within

the Columbus Innerbelt. Nearly all of the bus routes within the downtown area travel along or cross the High Street corridor. At present, 185 buses travel the High Street corridor during a peak hour. By 1990 and Year 2000, these bus volumes are expected to increase to 260 and 335, respectively. Given present operational constraints on the transit system within the High Street corridor and the need to provide proper transit service, both today and in the future, a plan had to be developed which improves and accommodates required transit operations.

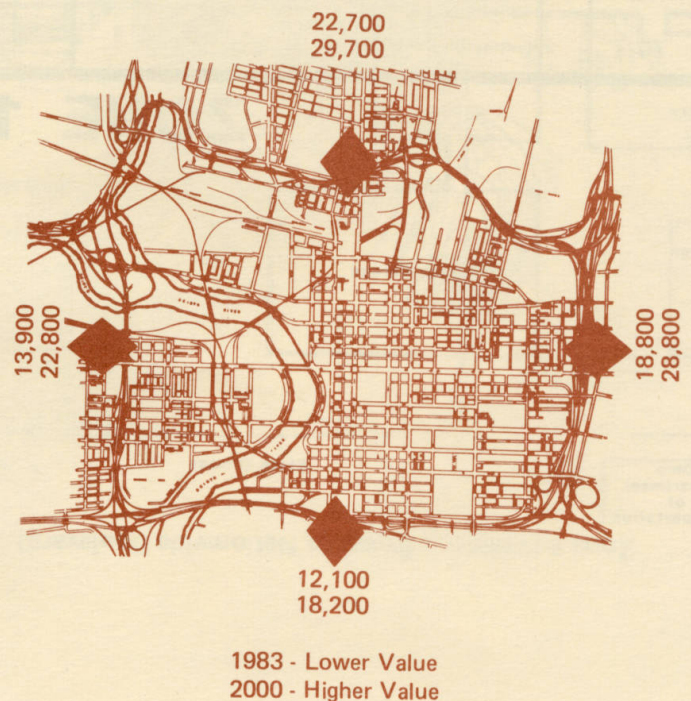
Traffic Access and Circulation

Today, approximately 316,000 vehicles enter and leave the central area on an average weekday. During the PM peak hour, approximately 49,400 vehicles enter and exit the central area. The number of vehicles entering and exiting the downtown area during the PM peak hour is expected to increase by 39 percent by Year 2000 (to 68,400 trips). For vehicle-trips either beginning or ending in the study area, the projected increase is about 21 percent (from 27,200 to 33,000 PM peak hour trips) – while through trips are projected to experience a considerable increase of 60 percent (from 22,100 to 35,400 PM peak hour vehicle-trips).

Number of Buses on High Street



Volume Increase in PM Peak Hour
Highway Traffic Volumes
To/from/through the Study Area (1983 to 2000)
By Cardinal Direction



When traffic growth through the Year 2000 at an Innerbelt cordon is compared, there is a substantial difference between the cardinal directions. Traffic from the west is expected to increase by 64 percent and from the east by 53 percent, while the south cordon is expected to increase by 50 percent and north cordon by 31 percent. These directional differences are caused by expected shifts and changes in regional population, employment, and the freeway system.

The major regional highway system modification which can be assumed to be constructed by 1990 is the planned reconstruction of the Innerbelt on the north side of the City. This includes the total reconstruction of the I-670 freeway system, ramp modifications, and the construction of I-670 to the northeast. The changes include the extension of Nationwide Boulevard connecting to Route 315 north of the Innerbelt and the direct linkages of Third and Fourth Streets with the I-670 connector. In addition to the above, Main and Rich Streets are proposed to become a one-way pair through the study area due to the potential closure of Town Street between High and Third Streets to permit the development of the Capitol South project.

Pedestrian Movements

High Street is a heavily traveled pedestrian area interconnecting major retail, governmental, and office facilities. At the present time, vehicular traffic dominates the public right-of-way, and pedestrian amenities are either non-existent or in poor condition. Further, private development along High Street will depend, in part, upon the public's perception that it is a desirable and safe place for people to walk.

Pedestrian volumes on the sidewalks as high as 3,800 persons per hour have been observed with 1,150 persons observed walking in both directions on the sidewalk in a single fifteen-minute period. A sidewalk width of 10 to 13 feet is needed to properly accommodate these pedestrian volumes. This is a clear width exclusive of obstacles such as parking meters, poles, fire hydrants, trash receptacles, bus shelters, queued bus patrons, etc.

An additional requirement is the proper accommodation of the large queues of persons waiting at bus stops along High Street. At several bus stop locations, waiting passengers interfere with or totally block sidewalk movements. Given the lack of formal bus waiting areas or shelters, bus passengers disperse from the curb area to the fronts of buildings which provide informal seating and waiting areas and provide protection from inclement weather. This dispersal of wait-

ing bus passengers across the entire sidewalk width interferes with convenient pedestrian movements.

Another element of the pedestrian system is the grade-separated walkway system which began with the City Council ordinance of 1968 that established a requirement for all new buildings in the downtown area to build second floors at an elevation of 18'-7" above street level for possible future connections to a second-level walkway system. As new developments occur, the existing grade-separated walkway system is planned to be expanded to create a system of enclosed, weather-protected walkways along the High Street corridor.

ALTERNATIVES

The most critical elements identified in the background studies was the need to provide a proper transit facility within the High Street corridor which meets the projected transit demands while, at the same time, affords the opportunity to establish a proper plan for the downtown area. In considering alternatives for the High Street corridor, it was clear that the concepts must be connected to reality and practicality. The transit facility needs to fit into the downtown street circulation system; it should not cause disruptions and conflicts such that net benefits are minimal; the type of facility must be of such a scale and character to be buildable in the reasonably near future; and cost-effective and feasible solutions must be the aim of the design effort.

During the course of the study, twenty individual transit service alternatives were evaluated associated with the five following families: transit service concentrated on High Street with only minor bus service on Front and Third Streets, transit service split between High and Third Streets with little or no service on Front Street, transit service concentrated on High and Front Streets with little or no service provided on Third Street, transit service split between Front and Third Streets with little or no transit on High Street, and both general traffic and exclusive transit lanes provided on all three streets.

The initial twenty different locational/operational alternatives were narrowed down to five through a preliminary evaluation assessment procedure which considered the following six criteria:

- Provide transit operational capacity to accommodate Year 2000 demands.
 - Minimize right-turn conflicts with transit lanes.
 - Minimize bus passenger walking distances.
 - Provide adequate bus passenger waiting areas and
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amenities together with adequate sidewalk capacity.

- Provide adequate traffic capacity.
- Provide flexibility to accommodate possible land use changes.

In examining the five "finalists" in more detail, additional strengths and weaknesses associated with them were identified. A secondary assessment was conducted in order to differentiate between their strengths and weaknesses. In this secondary assessment, ten additional criteria were considered:

- Enhancement of High Street image.
- Impact upon bus operating costs.
- Impact upon safe and efficient traffic management.
- Impact upon bus passenger transfer walking distances.
- Potential pedestrian/vehicular conflicts.
- Street frontage with enhanced visual setting.
- Ease of general traffic circulation.
- Impact upon access to off-street parking areas.
- Impact upon air and noise quality.
- Funding potential.

Based upon these evaluations, the alternative which provides a four-lane transitmall on High Street emerged as the best overall plan to meet the combined needs of transit, traffic, and pedestrians movement.

RECOMMENDED PLAN

The recommended plan involves the construction of a transitmall on High Street between Main and Long Streets. The plan proposes the adaptive re-use of the 100-foot right-of-way on High Street as a transit-priority facility with the following characteristics:

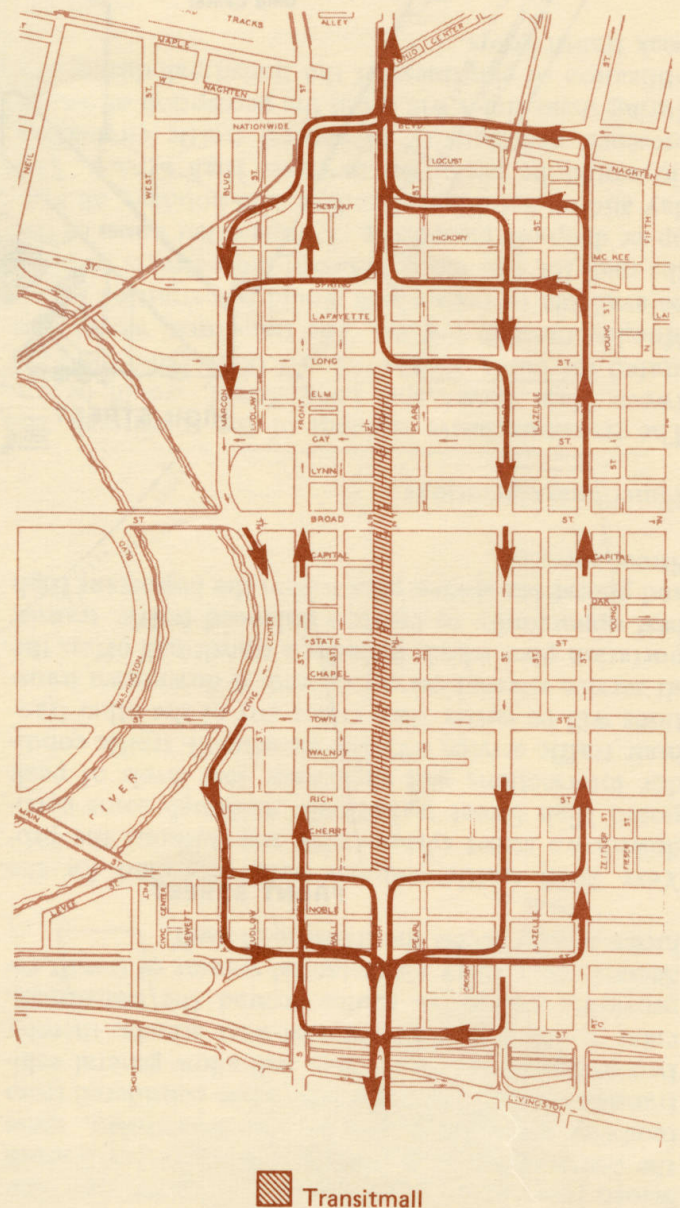
- From Long Street to Main Street: a four-lane (46-foot curb-to-curb pavement width) travelway for exclusive weekday (7:00 AM to 6:30 PM) transit, taxi, and emergency vehicle use.
- From Long Street north to Chestnut Street and from Main Street south to Fulton Street: a five-lane (56-foot pavement) transitional travelway; this basic cross-section would accommodate general traffic flow as well as transit vehicles.
- From Chestnut Street north to Nationwide Boulevard: a six-lane (66-foot pavement) cross-section to accommodate both general vehicular traffic in this area and bus movements.

This plan also proposes a modification to Broad between Third Street and Front Street toward the river. This involves the provision of two three-lane, 34-foot pavement sections with a 12-foot median

within the existing 80-foot curb-to-curb cross-section. Such a cross-section is in conformance with urban design plans proposed for the Capitol Square area.

The provision of the two transition zones on High Street are essential to the establishment and efficient operation of the six-block transitmall. These zones are located between Fulton Street and Main Street at the southern end and between Long Street and Nationwide Boulevard on the north. Because of the overall form of development and destination concentrations in Downtown Columbus, the continuity of the east-west streets and their ties either across the

Traffic Diversion Pattern



Scioto River and/or to Interstate 71 to the east, and the continuity of High Street as a major north-south roadway providing access to the Downtown, these transition zones are important when considered from two perspectives. First, they will allow general vehicular traffic access to the east-west streets, thereby providing alternative routes around the transitmall. Second, they carry a substantial volume of transit vehicles as they access the transitmall itself.

Year 2000 traffic volumes were projected for the downtown street system with and without the proposed High Street transitmall. Although some corridor intersections will experience low levels of peak hour traffic service with the transitmall, traffic conditions will be better than under any of the other transit service alternatives considered. **A downtown transportation plan which includes a transitmall offers the best opportunity to create a balanced traffic, transit, and pedestrian system plan within the important High Street corridor.**

Functional Operations

The transit-exclusive segment of the transitmall, between Main Street and Long Street, would be operated for buses only between 7:00 AM and 6:30 PM Monday through Friday. The transitmall would also be available to taxis which would be permitted to use the mall for one block between cross-streets to pick-up or drop-off passengers. During other hours of the day and on Saturdays, Sundays, and holidays, all traffic would be permitted to travel High Street. The presence and activity of general traffic circulation during these times will avoid the perception of underutilization or emptiness of the transitmall during off-peak transit hours.

Because of the projected high peak-period bus volumes (over 150 vehicles per hour each direction) and the anticipated large accumulations of transit patrons along block faces, it is proposed that the transit vehicles operate on an independent, split-stop basis. That is, each block face within the core transitmall zone would have two stop locations, each having a maximum of four standard bus berth positions. Route groups would be assigned to one berth set on each block face. A minimum separation of fifty feet between these two sets of berths would allow for both random arrival at all eight positions, and independent platooned departure from each of the two berth sets.

Design

Within the publicly-owned right-of-way of High

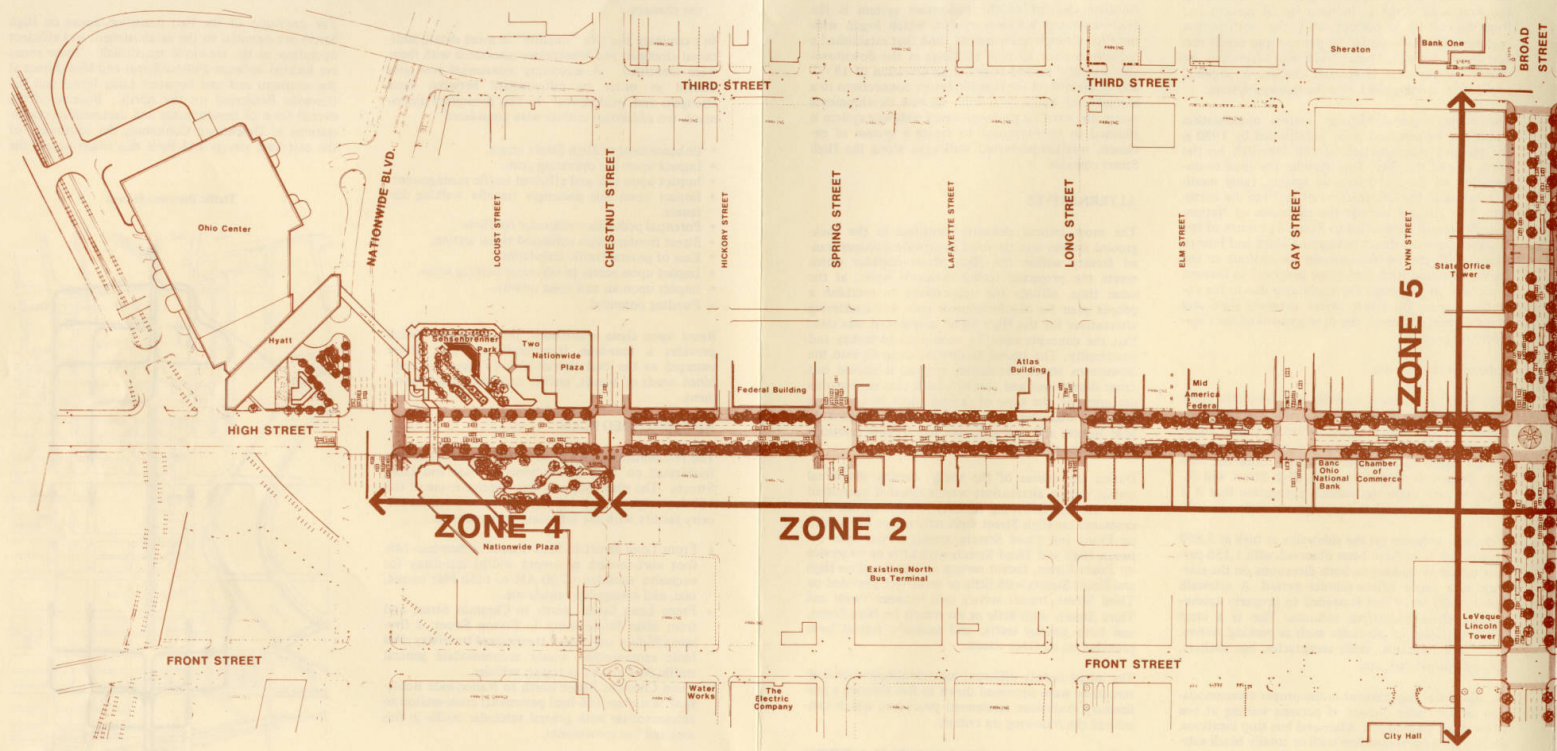
Street, the plan involves the reconstruction of sidewalks and street surfaces to a new configuration. From Main Street to Long Street (the heart of the improvement program), sidewalks will be expanded from 20 to 27 feet in order to provide room for pedestrian movement, transit passenger waiting, and street amenities. This results in a 46-foot cross-section for use by transit vehicles during peak operations. In the transition zones, the plan features 22-foot sidewalks with 56-foot roadway cross-sections. North of Chestnut, the sidewalk widths are reduced to 17 feet due to the required number of travel lanes on High Street at this point.

Given the spaces described above, opportunities exist to improve the visual quality and image of High Street in the following manner:

- Street trees will be added to:
 - Soften and humanize the otherwise harsh and hard environment,
 - Unify the often contradictory building scales and styles, and
 - Provide shade during the summer as well as allow sunlight penetration during the winter periods.
- New lighting will be installed in two basic forms:
 - A semi-conventional high-mounted, programmable light fixture will illuminate the roadway surfaces, and
 - In the sidewalk areas, pedestrian-scale decorative fixtures will illuminate the pedestrian areas creating a sparkle effect and allowing the uplighting of street trees in all seasons.
- Wider sidewalk areas will be treated with special decorative paving materials of a color, tone, and texture that together will impart a warm personal ambience to High Street.
- Items of street furniture will offer people seating, trash receptacles, drinking fountains, signage and public information, directories, and the like in a unified and pleasing way.
- Transit patrons will be offered weather protection, seating, and system information in transparent and internally illuminated shelters.
- Coordinated design plans at locations such as Sensenbrenner Park, Nationwide Plaza, the State Capitol grounds, the Centrum, and Franklin Commons will further enliven and enrich the street experience.

This project adjoins and contributes to several very important projects:

- At several points, the proposed second-level walkway system crosses High Street and offers the op-
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Ohio Center

Hyatt

HIGH STREET

FRONT STREET

NATIONWIDE BLVD.

ZONE 4

Nationwide Plaza

LOCUST STREET

CHESTNUT STREET

HICKORY STREET

THIRD STREET

SPRING STREET

ZONE 2

Existing North Bus Terminal

LAFAYETTE STREET

LONG STREET

THIRD STREET

ELM STREET

GAY STREET

LYNN STREET

ZONE 5

State Office Tower

LeVeque Lincoln Tower

City Hall

Sheraton

Bank One

BROAD STREET

Water Works

The Electric Company

Atlas Building

Mid-America Federal

Federal Building

East Ohio National Bank

Chamber of Commerce

- portunity to exchange people between them.
- With Broad Street (from Third to Front Streets) as part of the project, the opportunity exists to complete half of the improvements described in the Capitol Square plan.
 - The Capitol South project will enjoy four renewed block frontages.
 - The improvements to Broad Street offer an opportunity to connect to the substantial recent investments made along the Scioto riverfront.
 - Several key redevelopment sites will be enhanced by this project, including: the LeVeque parcel in the northwest quadrant of Broad and High, a similar parcel one block north at Gay Street, the frontages from Spring to Nationwide Plaza, and intermittent westerly frontages between Town Street and the County complex.

WHAT IS INVOLVED

This improvement involves the reconstruction of two publicly-owned streets: **High Street** from Fulton to Nationwide and **Broad Street** from Third to Front (or perhaps even to Marconi Boulevard). It envisions the removal of all existing pavement, light standards, signals, and other street appurtenances and the creation of a **world class promenade** in Columbus. This would include street trees, new lighting and traffic signals, sidewalks, street pavement, and street furniture to bring the quality of the street up to the level of the new office and retail investments being made along High Street. It involves no acquisition, but it will demand continuing dialogue between the public agencies and the private sector as the design is refined. It is an extraordinary opportunity whose time has come!

Costs

Reworking the public infrastructure is neither easy nor inexpensive -- but it is necessary. An estimated cost for the proposed and recommended project is \$25 million.

Implementation

The total project will take approximately 45 months to complete from project initiation to formal opening. Approximately seventeen months will be required to complete the physical surveys and base mapping, preliminary design, final design, bidding, bid review, and contract award elements. Project mobilization will consume the following two months. Site preparation could begin nineteen months from project initiation. Following mobilization, the first stage of construction (High Street from State Street to Long Street and Broad Street from Third Street to

Front Street) would be completed in fourteen months (including site preparation, project-related utility systems, paving and drainage, furniture and features, and landscaping). The second stage of construction (High Street from State Street to Fulton Street and from Long Street to Nationwide Boulevard) would also be completed within fourteen months with the first two months overlapping with the completion of the first stage. The total project would be completed in 45 months. If the project is initiated by September of 1984, the transit mall and its attendant elements could be completed by the Summer of 1988. In this time frame, a **WORLD CLASS STREET** can be developed for Columbus, Ohio.



HIGH STREET CORRIDOR ACTION PLAN

Prepared for:

**CITY OF COLUMBUS
MID-OHIO REGIONAL PLANNING COMMISSION
CENTRAL OHIO TRANSIT AUTHORITY**

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STREET

Trinity Episcopal Church
 State Capitol
 Huntington Plaza
 Wyandotte Building
 Huntington Trust
 Ohio Department of Transportation

STATE STREET

Post Office
 Hyatt
 Ohio Theatre
 Regis Bldg
 Lazarus
 State Offices

Chemical Mortgage Company
 Capitol One South
 Capitol South
 The Centrum
 Ohio National Bank
 Lazarus # 3
 Lazarus # 2

THIRD STREET

TOWN STREET

WALNUT STREET

RICH STREET

CHERRY STREET

MAIN STREET

NOBLE STREET

MOUND STREET

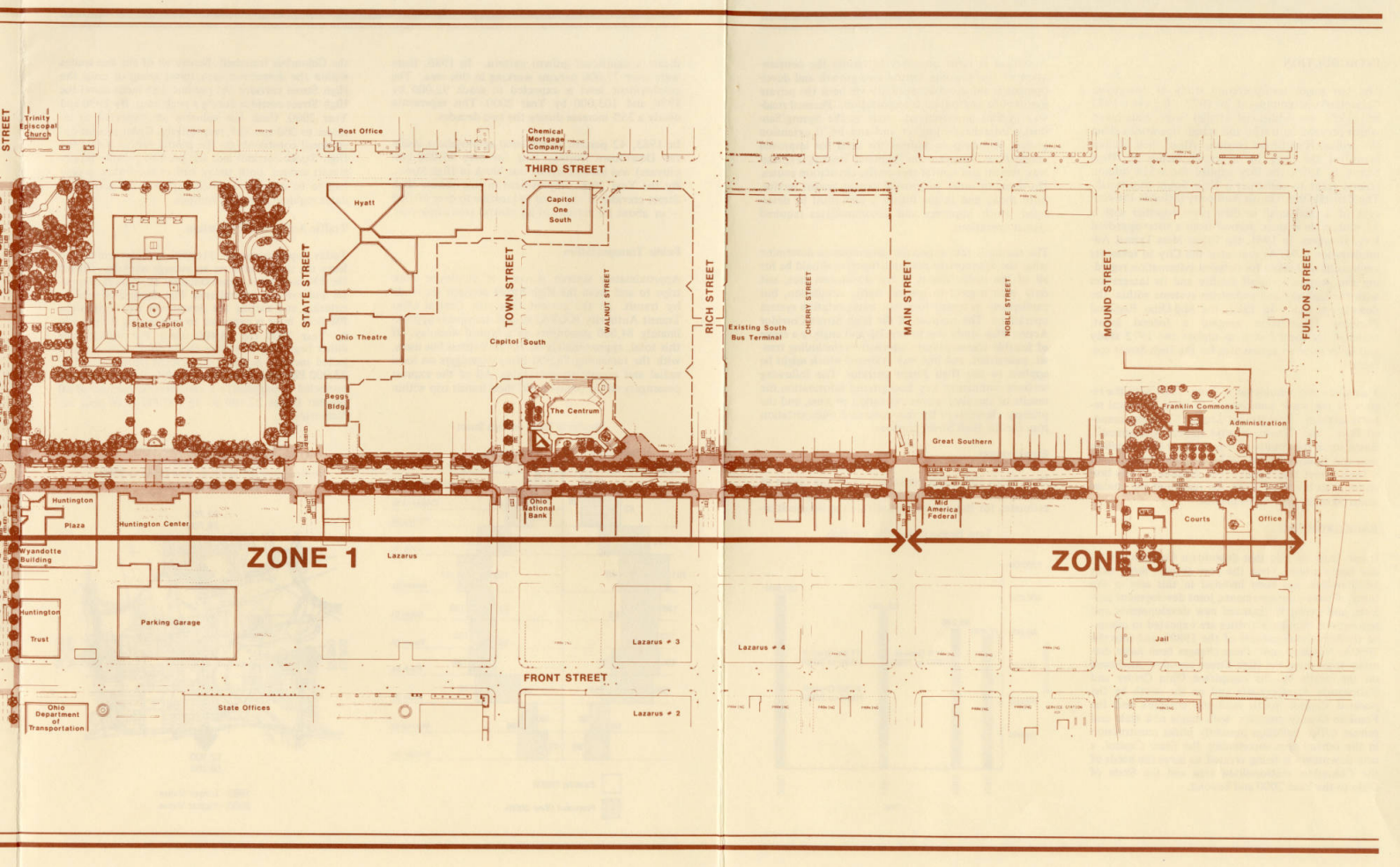
FULTON STREET

Existing South Bus Terminal
 Great Southern
 Mid America Federal
 Franklin Commons Administration
 Courts
 Office
 Jail
 Lazarus # 4

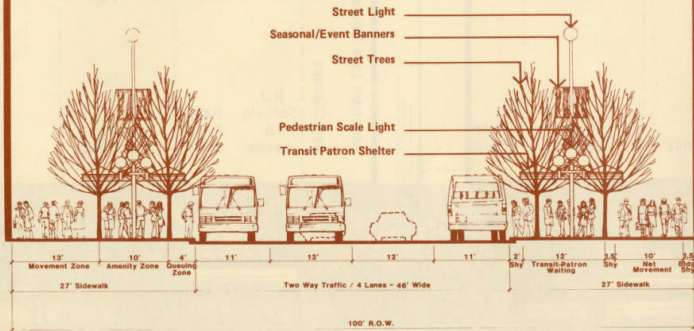
ZONE 1

ZONE 2

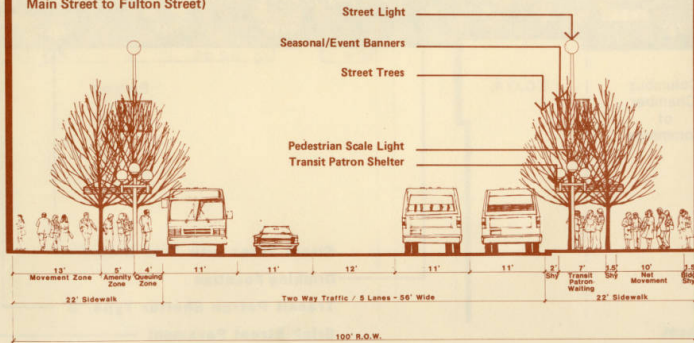
FRONT STREET



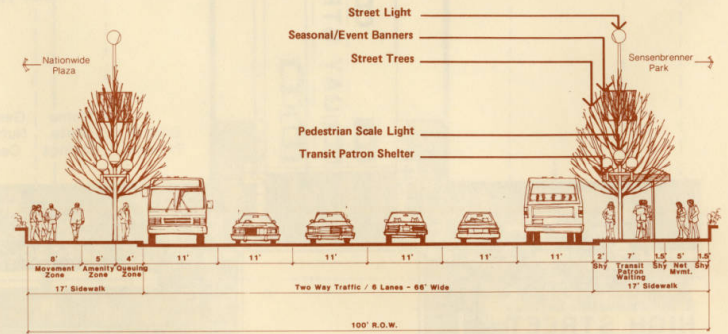
Zone 1 (Long Street to Main Street)



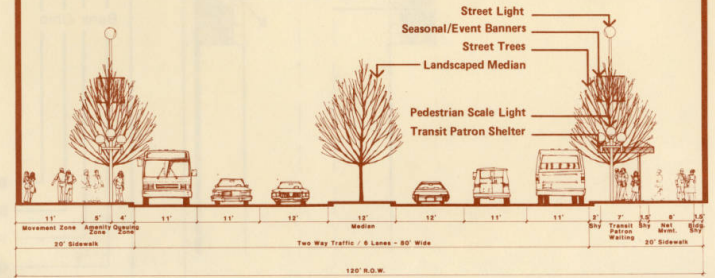
Zones 2 and 3 (Long Street to Chestnut Street and Main Street to Fulton Street)

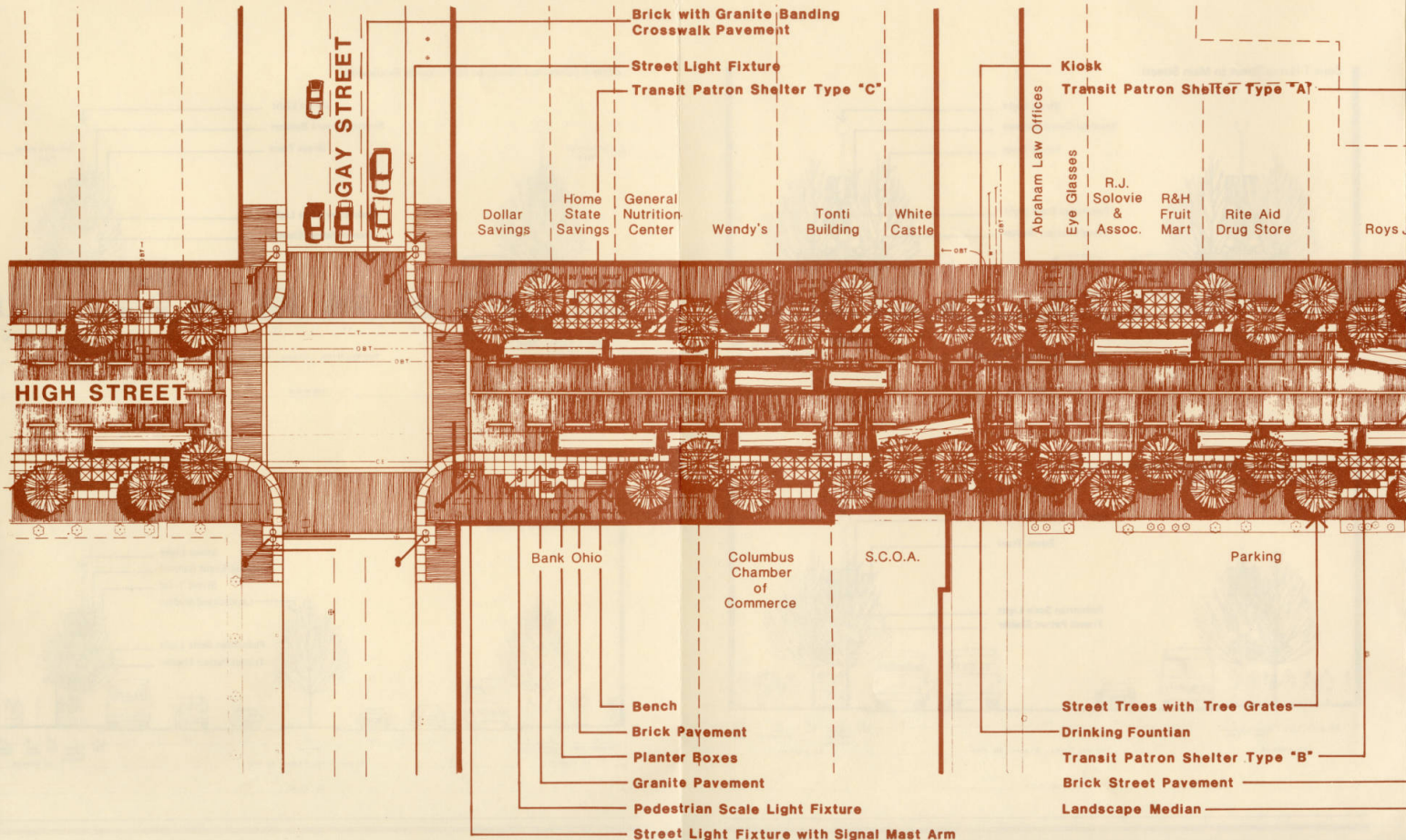


Zone 4 (Chestnut Street to Nationwide Boulevard)



Zone 5 (Broad Street)





Brick with Granite Banding
Crosswalk Pavement

Street Light Fixture

Transit Patron Shelter Type "C"

Kiosk

Transit Patron Shelter Type "A"

Dollar Savings
Home State Savings
General Nutrition Center
Wendy's
Tonti Building
White Castle

Abraham Law Offices

Eye Glasses

R.J. Solovie & Assoc.

R&H Fruit Mart

Rite Aid Drug Store

Roys J.

HIGH STREET

Bank Ohio

Columbus Chamber of Commerce

S.C.O.A.

Parking

Bench

Brick Pavement

Planter Boxes

Granite Pavement

Pedestrian Scale Light Fixture

Street Light Fixture with Signal Mast Arm

Street Trees with Tree Grates

Drinking Fountain

Transit Patron Shelter Type "B"

Brick Street Pavement

Landscape Median

BROAD STREET

Roys Jewelers

