



University / High Street

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February, 1977

Dear Citizens of Columbus, Ohio

JUN 20 1990

This report represents the results of a one year planning effort by the Development Department in association with the University District Organization, Incorporated. It contains several alternative plans for the redevelopment of the High Street commercial activity center at the Ohio State University. We have worked directly with property owners, businessmen, residents, students, boards, commissions, and agencies concerned with the area.

The report is intended to be a resource document for use in determining how this area should be redeveloped. Some funding through the Federal Community Development Act is currently available to begin public work in the area, and a further allocation may be made in the next year. It is clear, however, that any long range plan will require substantially more public and private investment than is now available.

Two very difficult decisions need to be made in order for this project to proceed. First, an overall plan must be agreed upon; a commitment by the City, OSU, property owners, residents and City Council to a common goal for the future of the area is imperative. The other difficult decision will be how to spend the limited amount of public money which is currently available; of all the projects which may be agreed to in any overall plan, only a few may be possible at this time and choosing which projects should go ahead, and which shall have to wait, may be the most difficult decision of all.

The technical information in this report has been reviewed by many agencies and groups concerned with the area. All comments received regarding the technical review have been incorporated and appropriate revisions have been made. However, to be of use as a resource document, it should receive widespread scrutiny and review as well. It is our desire that all citizen and interest groups concerned with the area will examine the contents closely and report any errors, need for additional information or clarifications of the material.

Very truly yours,

N. JACK HUDDLE, DIRECTOR
DEPARTMENT OF DEVELOPMENT

NJH:glh



UNIVERSITY/HIGH STREET REPORT

A 101 page report by the Department of Development.

Dated December 1976

REPORT SUMMARY:

This report analyzes the existing problems of the center portion of the University/High Street commercial strip (Lane to Chittenden Avenues). Previous studies are incorporated and new data was gathered where necessary. The perspectives of important groups and agencies are included both implicitly and by specific statement in places.

Four divergent concepts for this, the core of the University community, are examined. Eight schematic alternatives are presented to detail how the concepts might be developed. Two of the alternatives were proposed by an Ad Hoc Committee of the Columbus Traffic and Transportation Commission.

Detailed impacts and costs are projected for each of the eight schematic alternatives. A summary of costs and impacts is included.

An appendix section contains details for many of the projects, traffic data, and supplemental projects.

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Columbus Department of Development
50 West Broad Street, Suite 401
Columbus, Ohio 43215

University / High Street Report

This report was prepared by the Columbus Department of Development with the aid of the University District Organization Incorporated. The report is the culmination of a one year joint study conducted by the Development Department and the University District Organization. The contract with UDO was authorized and funded by Columbus City Council Ordinance No. 1718-75 passed October 6, 1975. Funds for the contract were provided by the Housing and Community Development Act of 1974 out of the amount allocated for Program Area Seven, University-Clintonville Area, Fund No. 0293, Department 929, Code 300, as certified by Auditor's Certificate No. 403491. The contract was executed November 1, 1975.

DOD staff was responsible for the organization and preparation of this Report. UDO staff prepared much of the text in the Introduction, the section on Area Plan 38 in the Objectives chapter, and the compilation of traffic data in Appendix F. UDO undertook a survey of businesses along High Street to clarify the service and delivery needs of the commercial area and prepared a paper on their findings. A summary of this survey is included in the introduction. Schemes 2.2 and 4.1 were designed by UDO and they provided helpful comments at various sessions and with the Ad Hoc Committee regarding the other schemes as well. UDO staff prepared an analysis of the four concepts which is incorporated into the section on Detailed Impacts. Two neighborhood workshops at the beginning of 1976 were conducted by UDO and DOD. UDO has also provided technical assistance to the Ad Hoc Committee in preparing graphics and text for various proposals. Appropriate portions of a special report by UDO have been quoted in this report and cited accordingly. It was due to the judicial persuasion of the President of the UDO Board of Trustees that Philosophy B was explored and the concepts and schemes pertaining to it were developed.

Staff of the Division of Traffic Engineering and Parking have provided extensive information and analysis beginning with an early Traffic Sufficiency Study and more recently in conjunction with Hunnicut-Neale in the preparation of The North High Street Parking and Circulation Study. They have consistently responded to various schemes with a good sense of practicality and reason regarding what is possible.

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Introduction

BACKGROUND

The University Policy Plan, which developed into University Area Plan 38, recommended in 1973 that a study be undertaken to determine parking and circulation solutions. The Columbus Traffic and Transportation Commission, in response to proposals to remove parking from High Street, repeated this recommendation. Shortly thereafter, Columbus City Council approved the funds for the Hunnicut-Neale North High Street Area Parking and Circulation Study, the cost of which was shared with OSU, the University Area Business Association, the University Community Association and University District Organization. Overall coordination of that study was done by the Columbus Division of Traffic Engineering and Parking. During the course of the Hunnicut-Neale study, the CDA Task Force proposed that a substantial share of the Federal Community Development funds be allocated to a High Street improvement project. A community based sub-committee was formed around this project. At about the same time the Hunnicut-Neale report was released, City Council authorized the Department of Development to contract with the University District Organization to work with the Development Department in conducting the Activity Center Urban Design Program in the High Street area. This contract specified that a detailed development plan, development strategy, design guidelines and recommendations for expenditure of CDA funds were to be produced.

As the Activity Center process developed over the winter and spring of 1976, the Columbus Traffic and Transportation Commission established a sub-committee to deal with the Commission's concerns in the University Area. This sub-committee presented recommendations to the Commission in July of 1976. These recommendations are presented in this report under the heading "Scheme 2.1". Following review of Scheme 2.1, the Ad Hoc Committee adopted a new scheme which is presented here as "Scheme 2.4".

This report compares eight different schemes for the role of High Street in the center section of the University area. The remainder of this introduction discusses existing conditions and problems in the center section. The next section sets forth the eight alternative schemes in two groups: those which maintain the existing

function of High Street are discussed under "Philosophy A" and those which examine a new role for High Street are presented under "Philosophy B." The impacts of each scheme are presented in a subsequent section. Following the summary of impacts are a series of appendices which present more detailed information and analyses.

Definition of Terms

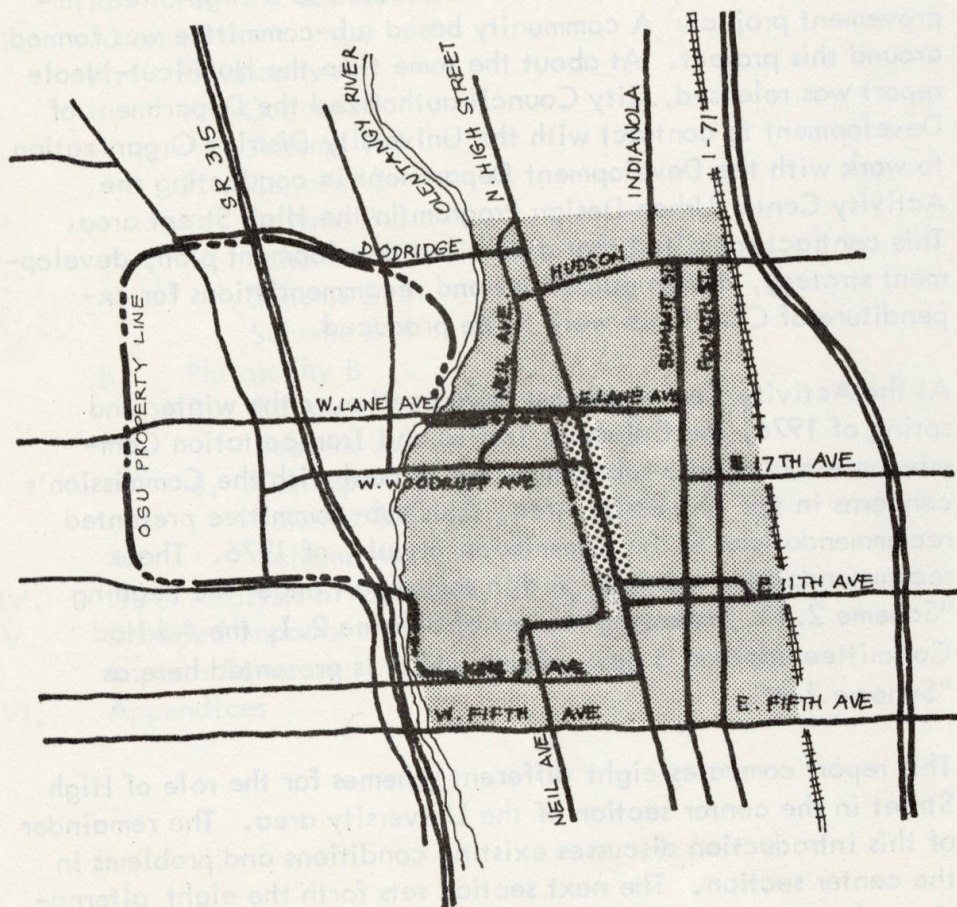
University Area - the physical area bounded by 5th Avenue on the south, the Olentangy River on the west, Glen Echo Ravine on the north, and the Penn Central Railroad on the east.

Center Section - High Street and its immediate environs between Lane and Chittenden Avenues.

Local Traffic - traffic with both trip ends within the University Area.

Origin-Destination Traffic - traffic with one trip end in the University Area.

Regional Traffic - traffic with neither trip end in the University Area.



Within the center section the orientation is strong and enhanced by the divergent nature of the development on opposing sides of High Street. The west side is Ohio State University campus and the east is a strip of storefronts, offices and apartments. The differences between the two frontages are striking and varied. Some of the qualities that vary are:

West

- soft edge
- trees and grass
- varied setback
- open pedestrian areas

- passive, subdued
- visually relaxing
- small infrequent graphics

- screened and off-street parking

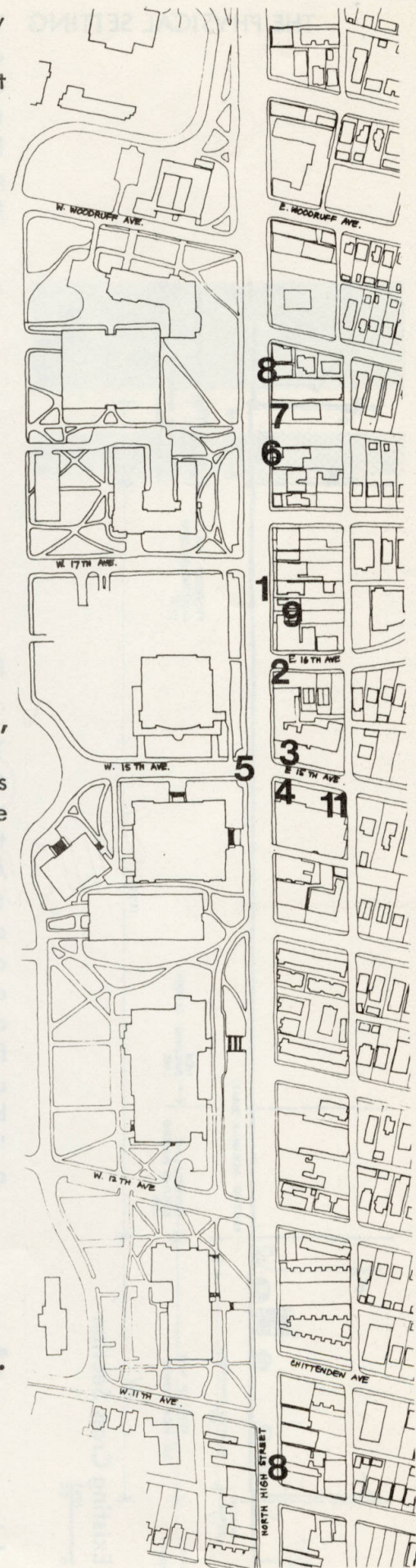
East

- hard edge
- bricks and concrete
- continuous frontage
- constricted pedestrian spaces
- active, bustling
- visually stimulating
- multitude of illuminated and non-illuminated graphics of all sizes, shapes and colors
- highly visible on-street parking

The users of these two different settings are by and large the same people. Both settings are used predominantly by students, faculty, staff and area residents. Visitors to the University and shoppers from outside the adjacent neighborhoods invariably find themselves spending some time in both areas. In fact, there is a large volume of pedestrian, bicycle and automobile traffic crossing High Street between campus and the commercial area all day long.

The center section contains many interesting physical features, some of which are listed below and correspond to the map at the right.

1. Wider sidewalk between Seventeenth and Sixteenth Avenues.
2. Pedestrian space at Morris the Florist.
3. Grass front yards on the north side of Fifteenth Avenue.
4. Large public announcement billboard at Fifteenth Avenue and High Street.
5. Entrance monuments at Fifteenth Avenue entrance to OSU.
6. Small plaza mid-block between Eighteenth and Seventeenth Avenues.
7. Outdoor eating area at MacDonald's.
8. Shops below sidewalk level.
9. Second level created by converting older residences to shops.
10. Many canopies and arcades along the length of High Street.
11. Plaza at Long's Bookstore.



HOW PEOPLE USE THE SETTING Motor Vehicle Circulation

Unless otherwise noted, all data cited in this report is derived from the Hunnicutt-Neale North High Street Parking and Circulation Study completed in June, 1975. For a copy of the study, contact the Columbus Division of Traffic Engineering and Parking, 50 West Broad Street, Columbus 43215.

An analysis of the origin-destination data compiled by Hunnicutt and Neale indicates that High Street functions primarily as a University-oriented origin-destination street during non-peak hours. This contrasts with the assumption that High Street is a major north-south arterial carrying traffic from the northern parts of the Columbus area to the central business district. During peak hours, however, the exact origin and destination linkages have not been quantitatively determined. It is held by City traffic officials that more than half of the traffic on High Street at this time is long distance CBD oriented traffic. There is some evidence, however, which suggests that even at peak hours, traffic on High Street is largely University Area oriented. It is suggested that this peak hour role be further investigated.

Analysis of the traffic surveys conducted by Hunnicutt-Neale for northbound and southbound AM and PM non-peak traffic at Fifteenth and High indicates that:

1. 78% of all trips surveyed had at least one trip end in the University Area.
2. 15% of all trips were travelling between north Columbus and points outside the University Area.
3. 7% of all trips were between north Columbus and the CBD.
4. 53% of all trips had at least one trip end on the OSU campus.

The conclusions to be drawn from the survey data indicate that High Street performs three roles during non-peak hours. Most importantly it serves as a collector and distributor for OSU traffic. Secondary functions include a link between Clintonville-Worthington and the CBD. Third, a significant percentage of High Street traffic has both trip ends at OSU (7%), further supporting the conclusion that High Street is an OSU circulation route. This information is presented in Table 1 of Appendix F.

High Street in the center section is presently 54' wide and is marked for two southbound lanes, a left turn lane, two northbound lanes and parking along the east curb. Traffic engineers have explained that each of the four moving lanes is capable of handling 600 vehicles per hour. Present volumes, as shown in Appendix F did not exceed this capacity when measured over the day.

The connection between High Street traffic and OSU is the result of the physical arrangement of major traffic arterials, which on the east side are not well connected to campus. It also results from the University's policy of placing major parking facilities at the edge of campus. Furthermore, the University's policy of routing traffic to the outer edges of campus by internal street closings also contributes to the use of High Street as part of a "loop" road system serving campus.

The existence of the University as the single most important traffic generator causes most of the congestion at the center section of High Street. In addition, the University has affected (directly or indirectly) the present role of High Street by its development policies and physical layout. Policies of the University which created a pedestrian oriented campus and diverted non-University oriented auto traffic from the campus area have tended to push origin-destination traffic to the edges of the campus. This is reinforced by parking garages being located on the periphery of the campus. High Street tends to serve as the eastern edge of an exterior loop road for the campus and as a major diversionary route around the campus area for the north/south traffic.

The role of High Street is also affected substantially by its proximity and connection to four public entrance/exit points to the campus, a series of parking garages (destination points), and the Ohio Union and Mershon Auditorium.

Traffic Problems in the Center Section

1. Campus origin and destination traffic along High Street conflicts with pedestrian and bicycle movement.
2. Regional traffic along High Street conflicts with pedestrian and bicycle movement.
3. "Parking Search" traffic conflicts with campus origin-destination traffic and with regional traffic.
4. Delivery and service traffic and maneuvering trucks conflict with all other forms of traffic.

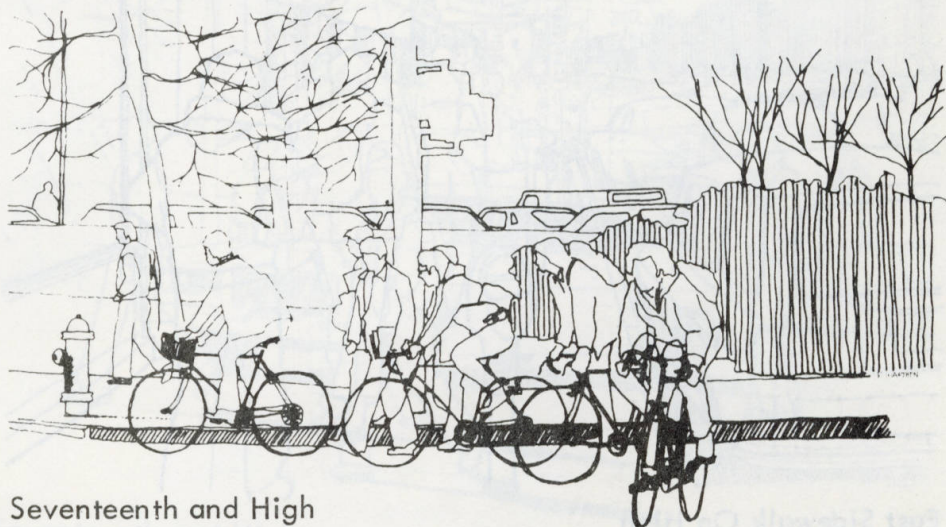
Bicycle Circulation

High Street currently functions as a major carrier of bicycle traffic in the University Area, although volumes are somewhat less than either 15th Avenue or College Road. This reflects the fact that most bike traffic on High Street is OSU oriented, using High Street as part of an east-west trip. It is clear that the bicycle is an important means of travel in the University Area, since its use is for many students much more practical than driving an automobile. There is evidence that using a bicycle is, in fact, a choice made, given that 64% of all riders have a car available. This indicates that there is a real opportunity to encourage some auto drivers to use bikes. Conversely, improvements to vehicular circulation and increases to the parking supply may result in increased vehicular traffic in the Area.

There are several important obstacles to riding bikes on High Street, however. The combined impact of high auto volumes, narrow traffic lanes, frequent intersections and parked vehicles on one side of the street, create a congested environment for bike use. Hunnicutt-Neale figures show that over 180 bicycles used the intersection of 15th and High in one hour when counted in May.

Bicycle Problems in the Center Section

1. There is inadequate street space for safe bicycle operation.
2. Riding a bicycle on the sidewalk is illegal.
3. The high volumes of motor vehicles throughout most of the day on High Street preclude efficient or safe use of left-turn lanes by cyclists.
4. There are not adequate storage facilities for bicycles in the commercial area.



Seventeenth and High

Pedestrian Circulation

There are two distinct components to High Street pedestrian activity. The first is the commuter trip, generally consisting of OSU oriented traffic. This traffic is predominantly east-west in direction though the east-west trips may include north-south segments. These north-south segments are made largely on the east side of High Street, where pedestrian oriented shops are located. The other component is the casual trip, made for sight-seeing, shopping and recreation purposes. These trips nearly all contain a major segment in a north-south direction along the commercial area fronting on High Street. These casual trips are greatly affected by weather.

There are a number of conditions which inhibit pedestrian movement in the center section. A major problem is the narrow sidewalk width on the east side of the street, which makes it difficult to pass slower walkers and generally reduces pedestrian amenity. Many entrance doors open onto the sidewalk and 3' of the west edge is taken by utility poles, parking meters, vending boxes, and trash receptacles.

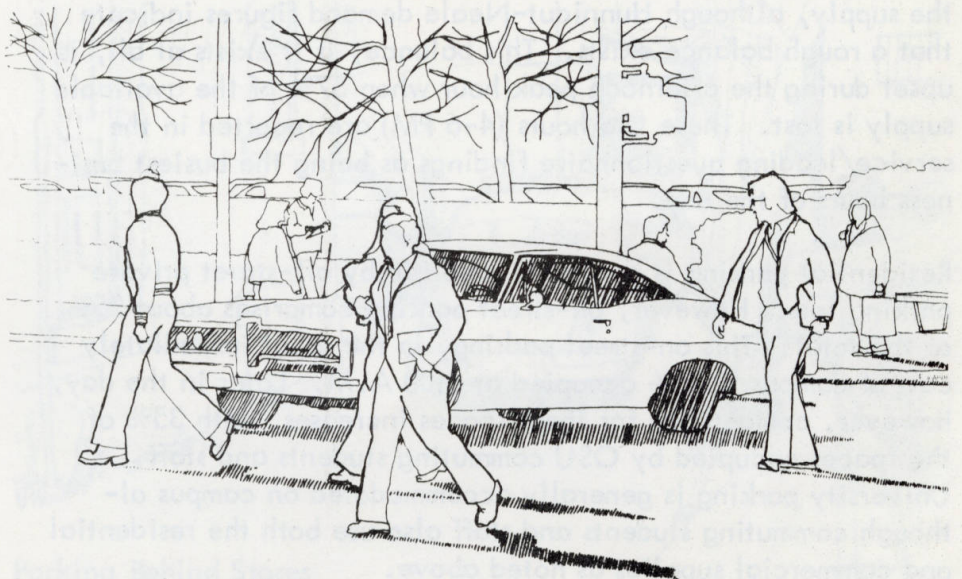
Pedestrian Problems in the Center Section

1. Throughout most of the day and evening, the pedestrian volumes on the east sidewalk are too great for the existing sidewalk space.
2. There is inadequate sidewalk space for amenities such as trees, benches, kiosks, etc.
3. Several entrances to shops along High Street have doors which open out onto the sidewalk.



East Sidewalk On High

4. In many places the sidewalk surface along the east side of High Street is broken or crumbled and difficult to walk on.
5. There is no sidewalk or pedestrian area along Pearl Street.
6. Signal timing along High Street in the Center Section is set to equalize service to both pedestrians and vehicles so that as many of each which are waiting for green may proceed before the end of a cycle. This results in long delays for pedestrians waiting to cross High Street. (See Appendix I)
7. There are conflicts along High Street between the large volumes of north-south motor vehicle traffic and the large volumes of east-west pedestrian movement.
8. There are conflicts at each side street intersection along the east side of High Street between the east-west motor vehicle traffic and the large volumes of north-south pedestrian movement.



Seventeenth and High

Parking

The major supply of commercial oriented parking in the center section area is on-street, mostly on High and the side streets between High and Pearl Alley.

Commercial Parking Supply (Metered)

High Street:

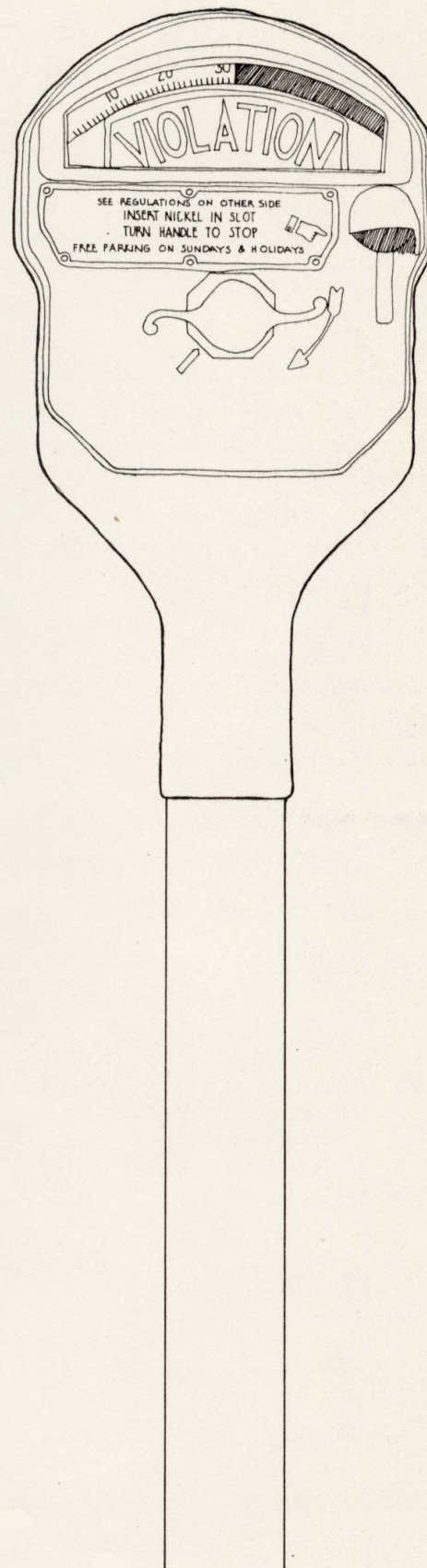
Woodruff - 18th	0
18th - 17th	11
17th - 16th	5
16th - 15th	6
15th - 14th	6
14th - 13th	11
13th - 12th	10
12th - Chittenden	<u>12</u>
total	61

Side Streets: Between High and Pearl (Metered)

Woodruff	5
18th	5
17th	6
16th	6
14th	7
13th	8
12th	11
Chittenden	0
11th	7
9th	<u>5</u>
total	60

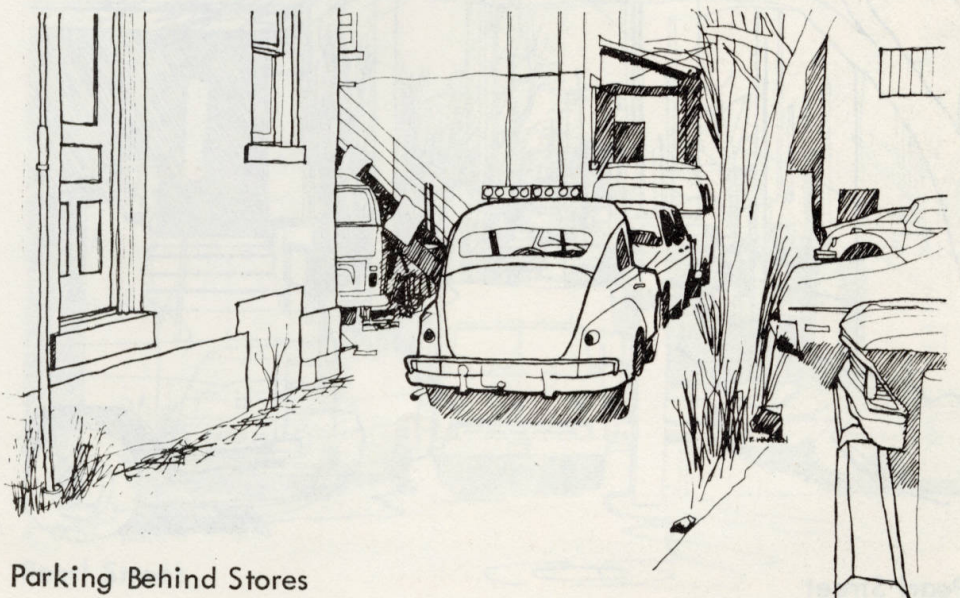
It is generally assumed that commercial parking demand exceeds the supply, although Hunnicut-Neale demand figures indicate that a rough balance exists. This balance, if it exists at all, is upset during the afternoon peak hour when 57% of the available supply is lost. These two hours (4-6 PM) are reported in the service/loading questionnaire findings as being the busiest business hours of the day.

Residential parking is generally supplied by off-street private parking lots. However, on-street parking comprises about 25% of the total. This on-street parking, in the areas immediately east of campus is 86% occupied at 6:00 A.M. Later in the day, however, competition for these spaces increases, with 35% of the spaces occupied by OSU commuting students and staff. University parking is generally accommodated on campus although commuting students and staff also use both the residential and commercial supplies as noted above.



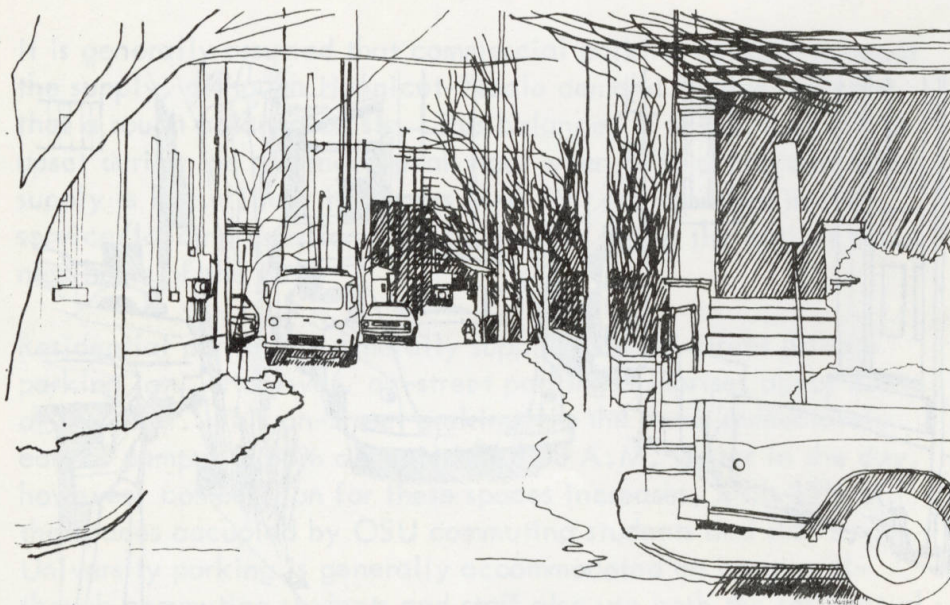
Parking Problems in the Center Section

1. There are not enough short-term metered parking spaces in or near the commercial area.
2. OSU commuting students and staff are parking in the on-street, non-metered spaces along residential streets between High and Indianola Streets.
3. The low rate and one-hour limit of many meters in the commercial area make it feasible for many students to use these spaces when attending a class nearby. This further reduces the available spaces for commercial use.
4. Lack of a discernable edge to Pearl Street results in frequent improper parking on adjacent lots such that vehicles are left partly in Pearl Street. Also, small spaces along Pearl Street which are not quite large enough to accommodate a vehicle completely are often used anyway, resulting in vehicles protruding onto Pearl Street.
5. Motorists maneuvering their vehicles into and from the parallel parking spaces along High Street conflict with both northbound traffic lanes due to the narrowness of those lanes.
6. Motorists often park their vehicles illegally on planting strips, illegal zones, front and side yard areas, and along Pearl Street.
7. The locations of OSU parking facilities on the west side of campus encourage commuting staff and students to park in commercial and residential spaces along High Street and the side streets immediately east of the commercial area.



Parking Behind Stores

8. Existing Columbus Zoning Code provisions permit changes of land use in the commercial and residential areas, which would normally require increased off-street parking, to proceed without adding the additional parking. A history of such changes to more intense use has resulted in the current lack of adequate parking supply. The commercial area customers at present rely almost completely on the parking available at the curb.
9. Many existing parking areas behind stores along the west edge of Pearl Street do not meet provisions of the Columbus Zoning Code requiring a dust free surface, proper drainage and lighting, and a seven foot high opaque barrier to screen headlight glare.



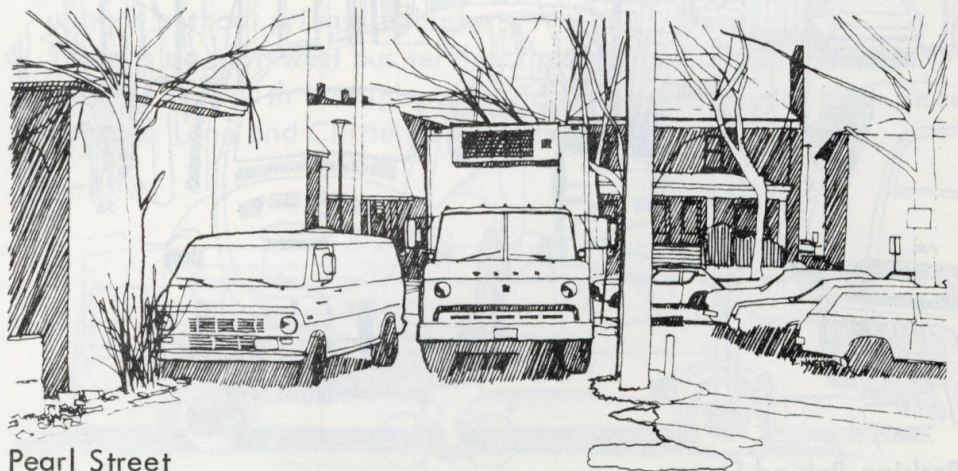
Pearl Street

Service and Delivery

A special survey and interview project was conducted by the University District Organization to describe the service and delivery function in the center section. The results indicate that almost 73% of the businesses in the center section of High Street report that they utilize curbside delivery. Approximately 1/3 of the businesses have no serviceable exit to Pearl Street although not all of these front on High Street. Evidently, there is a need for delivery and service at the front of a substantial number of businesses.

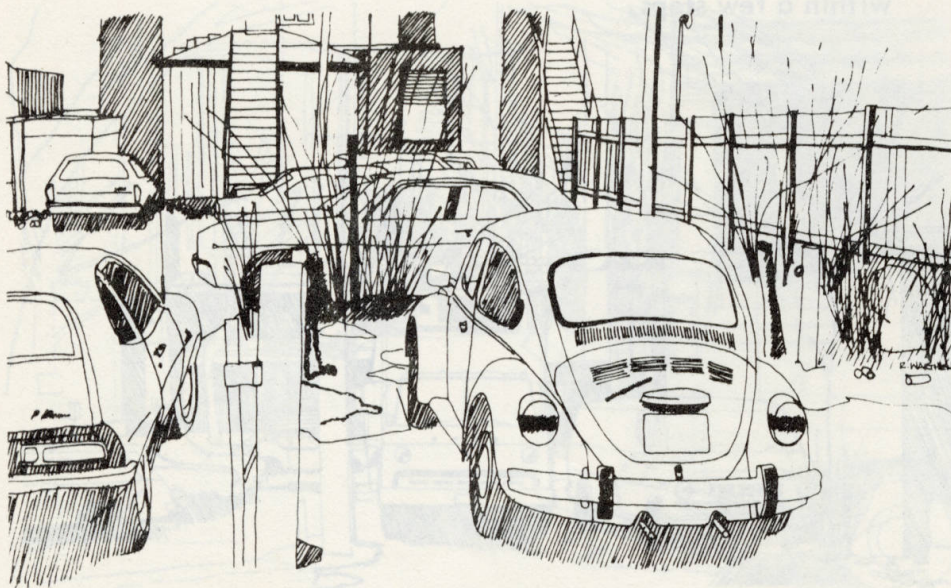
Service/Delivery Problems

1. Service and delivery requirements are too great for the quantity and size of existing loading and access facilities.
2. Parked delivery vehicles conflict with traffic and bicycles in all streets, and with transit on High Street
3. The narrow width of side streets and Pearl Street, the small radius corners at Pearl Street, the one-way designation of streets, and the close proximity of utility poles to curb lines create a difficult maze for delivery vans to negotiate.
4. Some deliveries in the commercial area come by tractor-trailer trucks which stop traffic when maneuvering and take large amounts of the limited loading space when they park. Even moderate sized trucks can block both northbound lanes of High Street when maneuvering. The delivery trucks which arrive several times a month for Long's bookstore can block Pearl Street for a considerable part of the day while unloading. Some delivery operators will not carry packages from the tailgate of their trucks if the door of the shop is not within a few steps.



Pearl Street

5. Unattended delivery vehicles are often left in illegal alignments along Pearl Street and can block parked vehicles and traffic on Pearl Street.
6. Most stores have not developed delivery entrances with access from Pearl Street, necessitating curbside delivery from High Street.
7. Areas between stores and Pearl Street which could be developed as loading bays are already crowded with staff parking.
8. Service and delivery operations from curbside parked trucks conflicts with pedestrians on the sidewalk. Delivery personnel operating from the streetside of a truck conflict with bicyclists and motor vehicles.
9. Trash and garbage bins along Pearl Street are often placed in the street to facilitate proper alignment with the automatic dumping mechanisms of the garbage trucks which empty them. This operation of dumping a trash bin can block Pearl Street entirely for a short period.



Parking Behind Stores

Public Transport

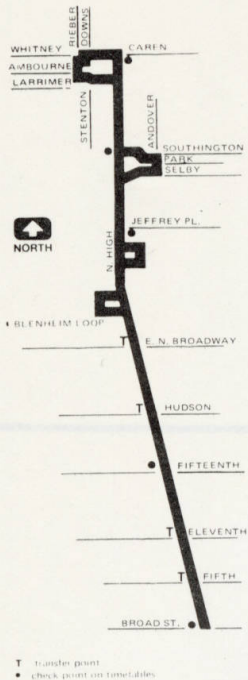
The Central Ohio Transit Authority (COTA) operates both express and regular stop buses along High Street in the University Area. The express buses traverse the area with one stop at Fifteenth Avenue in both directions. The regular stop buses make 5 stops along the west side of High Street headed southbound and 6 along the east side headed northbound.

Two regular-stop bus lines, N. HIGH and OSU-ARLINGTON, make stops along High Street in the center section. N. HIGH links all points north to Worthington to all points south to the Downtown and then proceeds out E. Main Street and back. OSU-ARLINGTON circulates through the campus and environs south of campus and west of High Street before proceeding northwest to the Kingsdale Shopping Center where park n' ride facilities are located. The N. HIGH line traverses the entire length of High Street in the center section and the OSU-ARLINGTON line uses High between Woodruff and Tenth Avenues.

Presently, the only taxi standing area in the immediate area of the Center Section is located on West Fifteenth Avenue near Mershon Auditorium. Although no data are available regarding patronage volumes, observations indicate that taxi use is generally slight and based upon the events at theaters and auditoriums in the area.

Transit Problems in the Center Section

1. In most cases there is insufficient sidewalk space for transit patrons waiting on the east side of High Street to avoid being jostled by passing pedestrians.
2. Buses stopped to load or unload passengers at the curb delay the curb lane of moving traffic.
3. Buses are delayed by delivery vehicles and parked vehicles along the curb during non-peak hours, and by illegally parked vehicles during peak hours.
4. The narrow width of High Street lanes provide very little maneuvering room for buses.
5. There is no northbound bus service from the Downtown after 9:42 pm. This prohibits access to downtown evening events by patrons without private vehicles.
6. There is no east-west bus service linking campus and the commercial area with the high population areas due east of High Street between Lane and Chittenden Avenues.



T = transfer point
• = check point on timetable

RIDING TIME - 50 MIN.

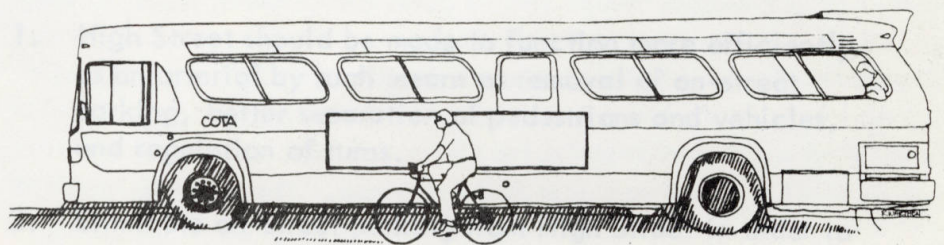
N. HIGH



T = transfer point
• = check point on timetable

RIDING TIME - 25 MIN.

OSU - ARLINGTON



Redevelopment Objectives

Redevelopment of the High Street commercial area near the Ohio State University campus is not a new goal of the community. In the early 1960's the area was recognized as needing renovation and the Columbus Planning Commission received a report from the City in 1964 which recommended major changes to the commercial frontage on High Street and a complete rework of transportation routes.

Many changes have occurred since then, including expansion of OSU to one of the largest Universities in the nation, but the form, function and appearance of the commercial area is little changed.

Diversity of opinion regarding what to do and who should pay is the norm. Often, in the past, when agreement seemed possible, money was not available and, conversely, when money has been available, expectations have greatly exceeded what was possible with the funds.

Controversy centers around two types of desires: long-range goals for the role of High Street and the interface between campus and community; short-range projects to alleviate problems and begin developing a long-range solution.

AREA PLAN 38

Area Plan 38 presents a number of policies pertaining to High Street Redevelopment. Among these are:

1. High Street should be made to function more efficiently as an arterial by such means as removal of on-street parking, better separation of pedestrians and vehicles, and regulation of turns.
2. Eliminate on-street parking from High Street in order to improve the flow of through traffic.

3. The City, UDO, and OSU should do a feasibility study ... (Hunnicut-Neale).
4. Special attention should be given to the development of a strong pedestrian orientation in the central activity area of the District.
5. Pedestrian movement should be encouraged. The District, including area property owners and merchants, should choose a design theme to create a pleasant pedestrian environment.
6. The OSU - City - UDO study on parking should make recommendations which are compatible with pedestrian orientation.
7. The City, University District, and OSU should seek to reduce and eliminate pedestrian - vehicular conflict on High Street.
8. (Goal) Promote the revitalization of the central High Street area (Northwood Avenue to Eighth Avenue) as a University - student oriented shopping area by making it more attractive and increasing its efficiency.
9. An intensive pedestrian and bicycle orientation for the central High Street area should be developed in order to capitalize on the day and night activity patterns characteristic of the strip.
10. All commercial establishments should make provision for service and delivery vehicle access off Pearl Alley."

The following comments are offered to indicate the general desires of some of the important interests in the area:

"All of North High Street is designated as a Type 4-2D (major) arterial street on the City Thoroughfare Plan. The university area of N. High Street serves a dual role as primarily an arterial street through the north side of Columbus, and secondarily as local access for pedestrians, bicycles and vehicles serving the campus and related commercial activities. The Division of Traffic Engineering feels that in the foreseeable future everything possible should be done to preserve and enhance the safety and efficiency of these roles and minimize conflicts between them."

COLUMBUS DIVISION OF
TRAFFIC ENGINEERING

"One of the goals of the business community is to have substantial parking and delivery facilities installed without delay. Parking for customers, employees, and suppliers is minimal to non existent and delivery is a daily struggle. The vehicles of customers, employees, suppliers and service people are harassed,

UNIVERSITY AREA
BUSINESSMEN

OTHERS

ticketed and even towed away. This has reached critical proportions and will eventually lead to the decay of the business district with serious consequences for all of the community. If new parking lots and/or structures cannot be made available immediately, we suggest that temporarily the side streets in the Central Section be metered as far east as Indianola Avenue. Such side-street curb space would no longer be available for commuting student parking or as storage areas for cars which student-residents rarely use during the school term. Concurrent with such metering we suggest that alley redevelopment be carried out to provide space for automobile storage for these residents. It is only as part of an aggressive plan to substantially increase the number of available spots that we will even consider removing High Street parking. Service and delivery must rely on Pearl Alley, High Street and the side streets. Any plan to improve Pearl Alley must include using it for a large portion of delivery to area businesses. Another goal of the business community is to implement without delay a plan which substantially improves pedestrian, bicycle and automobile traffic on and near High Street. Something like the Ad Hoc Committee's proposal which provides for a bikeway, wider sidewalks and less auto/pedestrian/bike conflicts seems very appropriate."

SIMILAR DESIRES

CENTRAL OHIO TRANSIT AUTHORITY

The Mid-Range Transit Development Concept developed by COTA and the Mid-Ohio Regional Planning Commission (MORPC) discusses future service improvements which include priority techniques for buses on High Street. Items being discussed include priority lanes for transit and priority signalization of traffic lights. Additional information and analysis is needed to relate the impacts of such thoughts to the various redevelopment schemes for High Street in the Center Section.

PARKING NEEDS

In discussions regarding various redevelopment schemes, representatives from COTA have stressed the needs for bus passengers to load from curb height in order to make the first step on a bus. Discussions have also pointed out that passengers leaving a transit vehicle are stepping out "blind" to approaching bikes if they are allowed to operate immediately adjacent to a bus. Waiting passengers should be considered separately from pedestrians on the sidewalk and space provided to avoid tie-ups to the walking pedestrians. Transit patrons need to see approaching vehicles and consideration should be given for possible future installation of shelters at bus stops.

FUNDING SOURCES

UNIVERSITY DISTRICT ORGANIZATION INC.

"The existing policy plan contains statements for the future development of High Street which need further clarification in order to guide short range decisions. Specifically, one goal of the plan states that the entire length of High Street should function as an efficient arterial while at the same time another goal recommends that the center section of High Street be developed as a pedestrian-oriented area.

- supportive of the intent and objectives of the CD Act
- match other funds or seed initial private investment
- pressing community need

It is possible to improve pedestrian movement and at the same time enhance the arterial function of High Street as illustrated by the Ad Hoc committee proposal. However, at some point the two begin to conflict. It would be difficult, for example, to significantly improve the ease of crossing High Street for pedestrians without reducing its efficiency as an arterial.

The issue in need of clarification is how far one goal is pursued at the expense of the other. To guide discussion of this issue the following staff analysis is offered. The arterial function of High Street, particularly in its role as a collector/distributor (carrying students and employees to and from the University) is a significant and useful one. This objective of moving OSU personnel into and out of the area in an efficient manner should remain important. However, the UDO staff supports plans favoring pedestrian objectives over the arterial objectives when the plans include:

viable alternative routes or other solutions to the arterial function

analysis indicating that there would be minimal adverse impacts on the community

sufficient commitment and resources to undertake all companion projects

In summary, at the point the pedestrian and arterial goals are in conflict, we recommend that emphasis be placed on the pedestrian goal to the extent that the arterial function can be replaced in a manner consistent with other community objectives."

The question of how much metered parking is adequate is one without a definite answer. No agreement has been reached regarding a set figure because of the varying perceptions of need among businessmen, and strong feelings among residents about their needs for un-metered curbside parking along the side streets east of Pearl Street.

Even if a quantified analysis of existing metered parking need could be agreed upon, the question of growth and redevelopment would open the floodgates of opinion once again. Most everyone concerned has at one time or another recognized the need for redevelopment within the commercial area as both a laudible goal and an expected follow-up action in response to public improvements. In the overall equation of private redevelopment economics, however, increased parking supply is a major element without widespread support in the community. And yet, the likelihood of private investments to redevelop existing commercial facilities is low if no means can be provided for increasing the market of the area, as a means to repay redevelopment costs.

PARKING NEEDS

OTHERS Other groups have indicated their desires over the course of many meetings. Bicyclist representatives have repeatedly stressed the need for safe access routes in direct conjunction with the shops on the east side of High Street. Protection from parked vehicle doors and adequate storage facilities are desired as well. Bikers feel that this section of High Street could serve as a model for successful bike facilities throughout the city. They stress that bikes tend to use the routes they desire regardless of bikepath locations and, therefore, bike routes should be based on existing behavior patterns.

The Office of Campus Planning and Space Utilization has pointed out that the area under discussion is the "front door" of the University and concerns about the quality of the environment on both sides of the street are long standing. Although it may be possible to utilize some of the property on the west side of High Street as part of an acceptable overall solution, schemes which alter existing pathways, landscaping or structures are unlikely to be favored.

SIMILAR DESIRES Although agreement is not complete, there are some important issues that have at least conceptual agreement from most everyone involved. They are:

1. Increased pedestrian space along the east sidewalk of High Street.
2. Increased short-term metered parking within a block of the commercial area.
3. Increased service and delivery space.
4. Increased traffic capacity for Pearl Street.
5. Reduction of the barrier quality of High Street to east-west pedestrian and bicycle flows.

FUNDING SOURCES City Government has allocated \$399,000.00 of Federal Community Development Act funds to High Street Redevelopment over the past two years. It is expected that an additional \$310,000.00 will be allocated from CDA funds in 1977. This money will be available for public improvement projects in the University/High Street Area. It is expected that this money will be a primary source of funding for the initial projects of whatever alternative is chosen for the Area.

The Development Department has suggested the following criteria for projects to be funded from CDA monies:

1. Other funding inadequate
2. Eligible activity
 - supportive of the intent and objectives of the CD Act
 - match other funds or seed initial private investment
 - pressing community need

Additional funds are potentially available from such sources as the Economic Development Administration (EDA), Federal Aid to Urban System (FAUS), public bonds, the Bikeway Demonstration Program and by local special assessments.

EDA programs allow cities to make application for federal funds to conduct local public works projects, make small business loans and grants, and to assist in the formation of local development corporations. Each of the above is contingent upon approval and clear demonstration that the project will positively impact employment and economic development. Projects which are approved must be under construction very quickly, in some instances within 60 days from notification.

The FAUS program provides yearly allocations to cities for improvements to the street system. In the case of Columbus, projects must be chosen from those on the regional transportation plan maintained by the Mid-Ohio Regional Planning Commission. No projects are currently listed for the portion of High Street discussed here. However, the plan may be amended to include projects once they are decided upon. The City Engineer requests funds from each allocation for projects based upon their city-wide priority. Preliminary engineering must be completed to state standards prior to request and the money must be used within three years. The Federal funds provide 70% of the cost of a project and must be matched by the remaining 30% from local funds.

Three approaches to generating funds by use of public bonds are possible although their potential is somewhat unlikely. The Expressway Bond allocation is part of the regular bond package presented to the voters approximately every 4 - 5 years. Center Section projects having to do with street widening and related improvements would be appropriate for inclusion in this category based upon city-wide priorities. The next bond package will likely be presented to the voters in 1979 or 1980. Special Voted Bonds may be brought to the voters at any regular election time and could possibly be a method to fund projects in this area as well. Both of these bond approaches have similar procedures. The City Administration must make a proposal, City Council must approve the proposal and the voters must approve the bond package by a simple majority margin.

The third approach to generating funds by use of bonding capacity is the formation of a revenue generating authority in the area. A possible authority in this area might be a Parking Authority. This action would have to be proposed by the City Administration and passed by City Council. Such an Authority might be empowered to float construction bonds up to a specified debt limit to finance parking facilities. The revenue from such facilities would have to pay debt service on the bonds and retire them within the allotted time.

Many projects in the Center Section might be funded in whole or in part by special assessment. Assessments are a means to insure that the public will not pay more than appropriate for improvements which directly benefit specific property owners. Sidewalk improvements, street furnishings and landscaping are projects which fall in this category.

The Bikeway Demonstration Program is a special fund set up under the Federal Highway Administration (FHWA) with limited resources available nationally. The Program is designed for urban bikeway projects which are part of an overall bikeway plan. It provides 80% of the cost of approved projects and the other 20% may be funded by other FHWA bikeway funds. The Mid-Ohio Regional Planning Commission and Columbus Department of Recreation and Parks have developed a county-wide bikeway plan which includes proposed bike facilities in the University Area. No specific alignments have been decided, however, and bikeway location is one of the big questions to be answered in choosing an alternative scheme for the Area.

State statutes provide for public assistance to private redevelopment through the formation of non-profit redevelopment corporations for specified geographic areas. Such corporations may enter into agreement with the City, upon approval by City Council, to exercise the local public authority of eminent domain to assemble property. In very special instances, City Council may authorize the deferment of property taxes or the use of tax increment financing.

Four concepts were followed to develop schemes for each of the two philosophies. Under Philosophy A, Concept One examines an improved arterial function for the Center Section of High Street. Concept Two looks at balancing the various interests of pedestrians, bikers, motorists, etc., while maintaining the arterial function of High Street. Under Philosophy B, Concept Three looks at a significant reduction of the arterial function of High Street based upon other related traffic improvements as discussed in Appendix H. Concept Four examines the proposition that the Center Section of High Street should become a pedestrian-transit mall closed to private vehicles. This also depends upon the projects discussed in Appendix H.

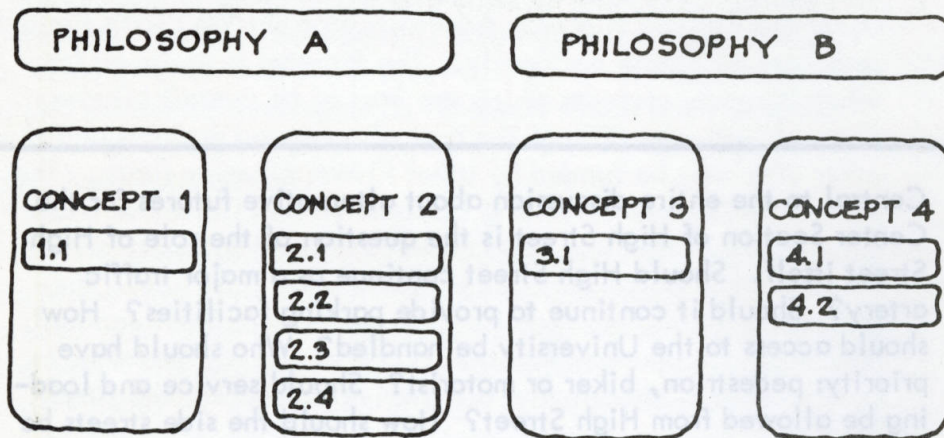
Alternatives

Central to the entire discussion about alternative futures for the Center Section of High Street is the question of the role of High Street itself. Should High Street continue as a major traffic artery? Should it continue to provide parking facilities? How should access to the University be handled? Who should have priority: pedestrian, biker or motorist? Should service and loading be allowed from High Street? How should the side streets be connected to High Street? Should High Street be closed to all but public transport?

Each of these questions is taken up in one form or another in the following alternative solutions. Two basic premises are followed. On the one hand, Philosophy A examines alternatives which leave the role and function of High Street in the major arterial category. On the other hand, Philosophy B examines ways to reduce the arterial function of High Street based upon other traffic improvements being made throughout the area to re-route traffic. These companion projects are discussed in Appendix H.

Four concepts were followed to develop schemes for each of the two philosophies. Under Philosophy A, Concept One examines an improved arterial function for the Center Section of High Street. Concept Two looks at balancing the various interests of pedestrians, bikers, motorists, etc., while maintaining the arterial function of High Street. Under Philosophy B, Concept Three looks at a significant reduction of the arterial function of High Street based upon other related traffic improvements as discussed in Appendix H. Concept Four examines the proposition that the Center Section of High Street should become a pedestrian-transit mall closed to private vehicles. This also depends upon the projects discussed in Appendix H.

The diagram below indicates the relationships among the eight schematic alternatives in this section and the four concepts from which they were developed. In the pages which follow, Philosophies A and B, the four concepts and the eight schemes are described in detail. The section on impacts which follows this provides information about costs and some of the possible consequences for each scheme.



The various schemes presented on the following pages each combine separate projects for High Street, Pearl Street, sidewalks, parking, etc., in the manner presented by the designers for each scheme. The total package of projects which make up any given scheme is represented as it would appear once all the projects had been carried out. In most instances, however, some of the projects of a given scheme could be implemented before others which require additional resources, time or other improvements in the area. Therefore, this total compilation of alternative schemes may be treated as an ala carte listing of individual projects as well. Projects may be selected for their merits and re-combined to create a new alternative scheme as each interest sees fit. In support of this, the section on detailed impacts treats each project separately regarding projected costs and impacts.

In most cases, achievement of a long-range alternative in the Center Section will mean that projects are carried out in several phases over time. In fact, it may be reasonable to expect that a solution which would ultimately result in the completion of one of the alternatives described here as being under the heading of Philosophy B, would begin with the implementation of some of the projects from a scheme which falls under Philosophy A. Thus, a first phase may continue the arterial function of High Street even though the long-range goal is for a different role for High Street in the Center Section.

This perspective on the relationship between the University Area and the rest of the city holds that High Street should be a main traffic axis of the city and continue to be a major arterial route. Through the University Area, High Street should be a path to move people and goods. High Street should continue to be an important route for traffic bound from or destined for the campus. It should also continue to serve as a regional route to the Downtown.

Through traffic would use all existing thoroughfares and those shown on the Thoroughfare Plan. Access to the University in the Center Section would be channeled to Woodruff, Fifteenth Avenue and Eleventh Avenue.

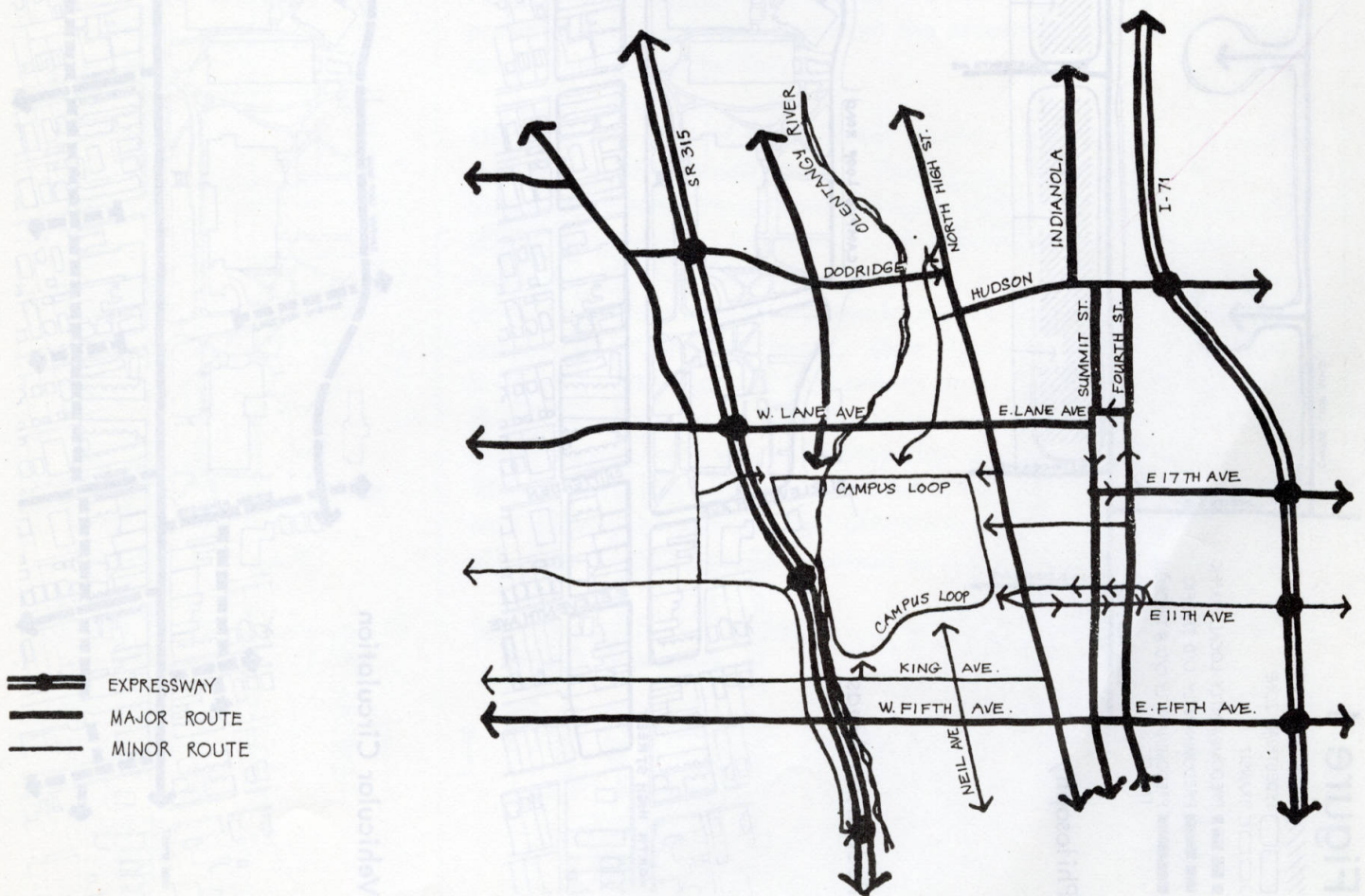
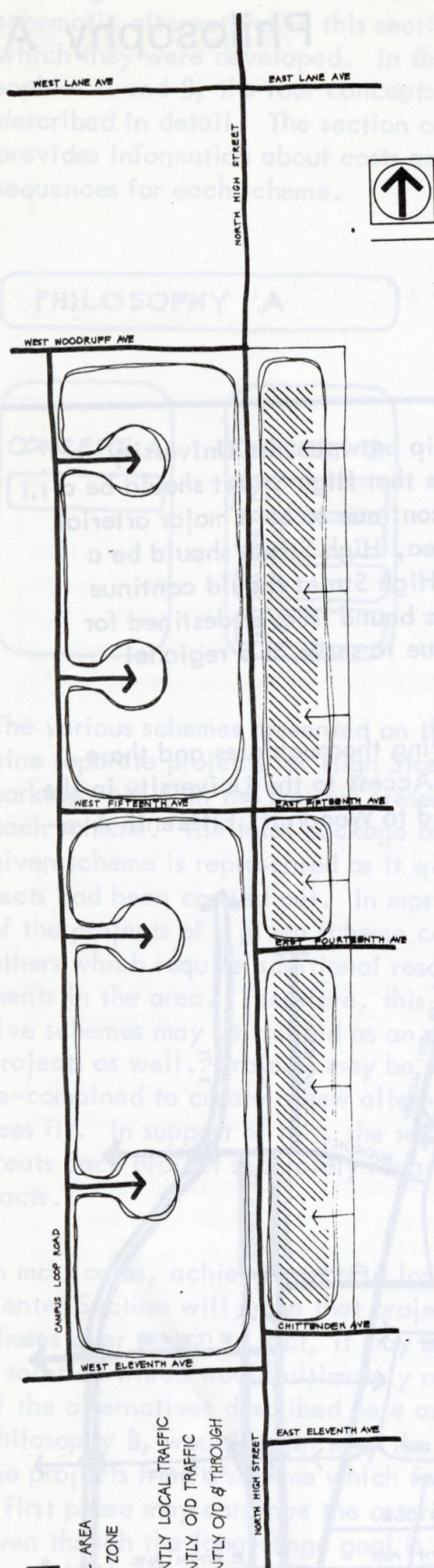


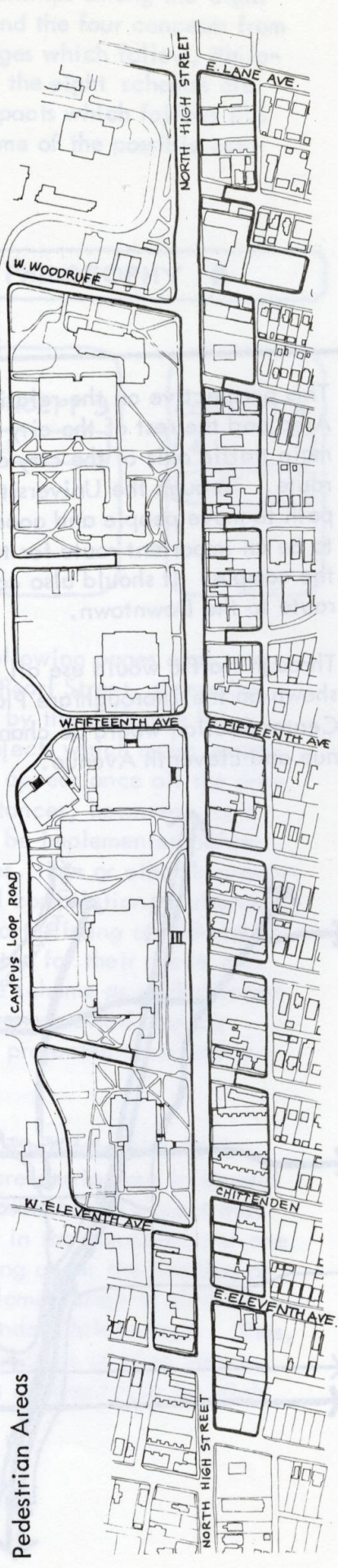
Figure 1

- COMMERCIAL AREA
- PEDESTRIAN ZONE
- TRANSIT
- PREDOMINANTLY LOCAL TRAFFIC
- PREDOMINANTLY O/D TRAFFIC
- PREDOMINANTLY O/D & THROUGH TRAFFIC

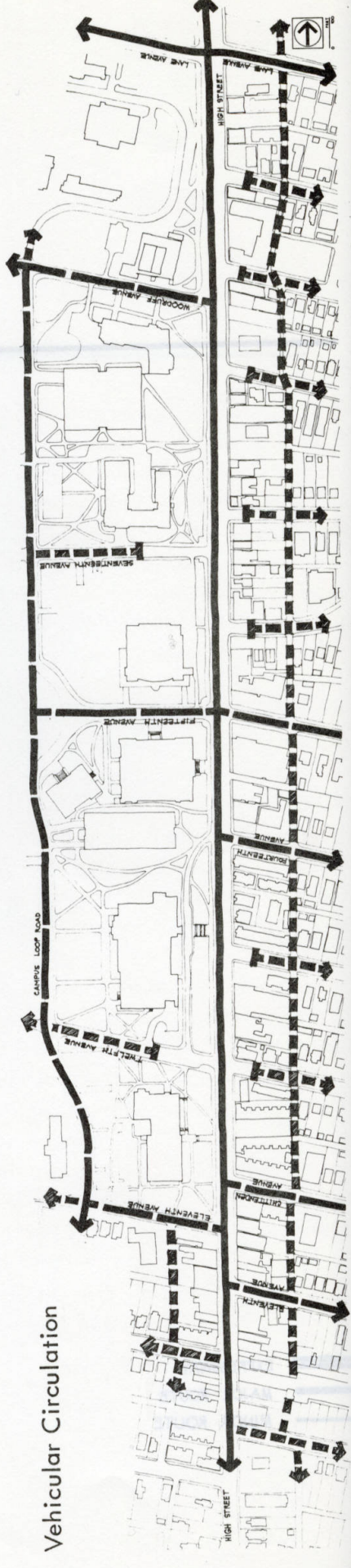
Philosophy



Pedestrian Areas



Vehicular Circulation



Concept 1

One scheme which achieves Concept 1 would be to upgrade High Street between Lane and Chittenden Avenues to a 5 lane limited access street. (See figure 1) Thirteenth, Sixteenth, Eleventh, Eleventh, Woodruff, and Chittenden Avenues would be closed to all but emergency vehicles. Fifteenth Avenue would become one-way westbound. Vehicle circulation to the Campus Loop in this area would be via Woodruff, Fifteenth and Chittenden/Eleventh Avenue. Thirteenth and Twelfth Avenues would be closed at the west end of High Street.

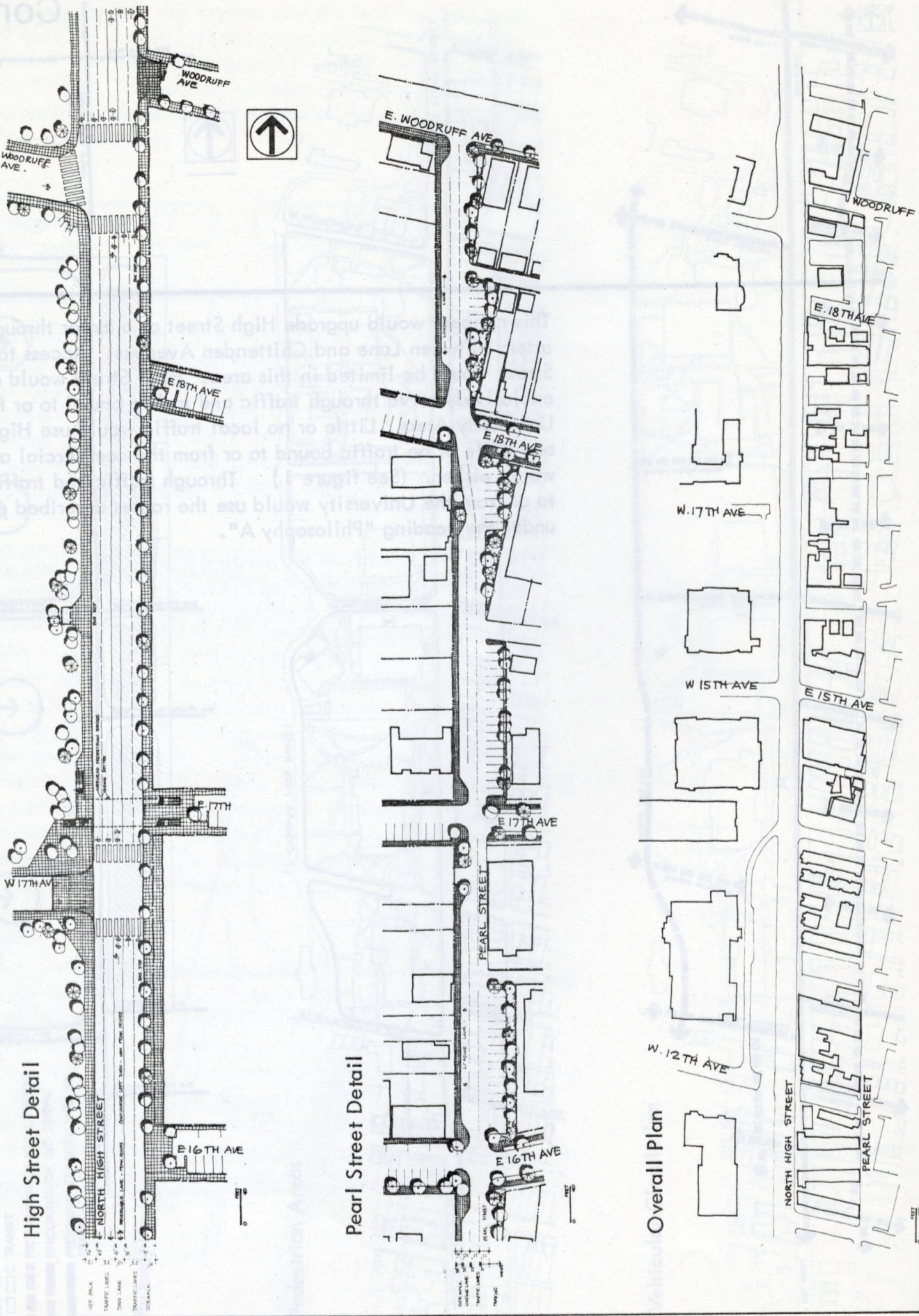
This concept would upgrade High Street as a major through traffic artery between Lane and Chittenden Avenues. Access to High Street would be limited in this area. High Street would almost exclusively serve through traffic and traffic bound to or from the University Area. Little or no local traffic would use High Street and little or no traffic bound to or from the commercial area would either. (See figure 1) Through traffic and traffic bound to or from the University would use the routes described previously under the heading "Philosophy A".

The east sidewalk of High Street would remain as-is. The west sidewalk would be widened. Pedestrian walkways on High Street would be overhead bridges. Pedestrian walkways would be located on Thirteenth, Fourteenth, Woodruff, and Chittenden Avenues. Only Woodruff, Fifteenth, Fourteenth, and Chittenden/Eleventh intersections would exist and each would be signalized with two lanes. (See figures 2, 3 and 4) The intersections of Fourteenth and Fifteenth Streets with Pearl Street would be signal controlled. The other intersections along Pearl Street would be stop sign controlled. The center or fifth lane of High Street would function as a reversible through traffic lane for morning and afternoon peak traffic flows. At all other times it would function as a conventional one-way lane.

The east sidewalk of High Street would remain as-is. The west sidewalk would be widened. Pedestrian walkways on High Street would be overhead bridges. Pedestrian walkways would be located on Thirteenth, Fourteenth, Woodruff, and Chittenden Avenues. Only Woodruff, Fifteenth, Fourteenth, and Chittenden/Eleventh intersections would exist and each would be signalized with two lanes. (See figures 2, 3 and 4) The intersections of Fourteenth and Fifteenth Streets with Pearl Street would be signal controlled. The other intersections along Pearl Street would be stop sign controlled. The center or fifth lane of High Street would function as a reversible through traffic lane for morning and afternoon peak traffic flows. At all other times it would function as a conventional one-way lane.

Bus stops would be located along the curb of the street as present.

Figure 1.1



This concept would create a mix of traffic functions in the High Street commercial area between Woodruff and Chittenden Avenues similar to the existing situation. Some local traffic, some traffic bound to or from the University Area, and some traffic traversing through the Area would use High Street and related side streets. Improvements would be made to reduce conflicts among pedestrian, bicycle, and motor vehicle traffic. (See figure 2) Through traffic and traffic heading to or from the University Area would use the routes described previously under the heading "Philosophy A". Local traffic would be channeled to reduce conflicts with through traffic.

Figure 2.1

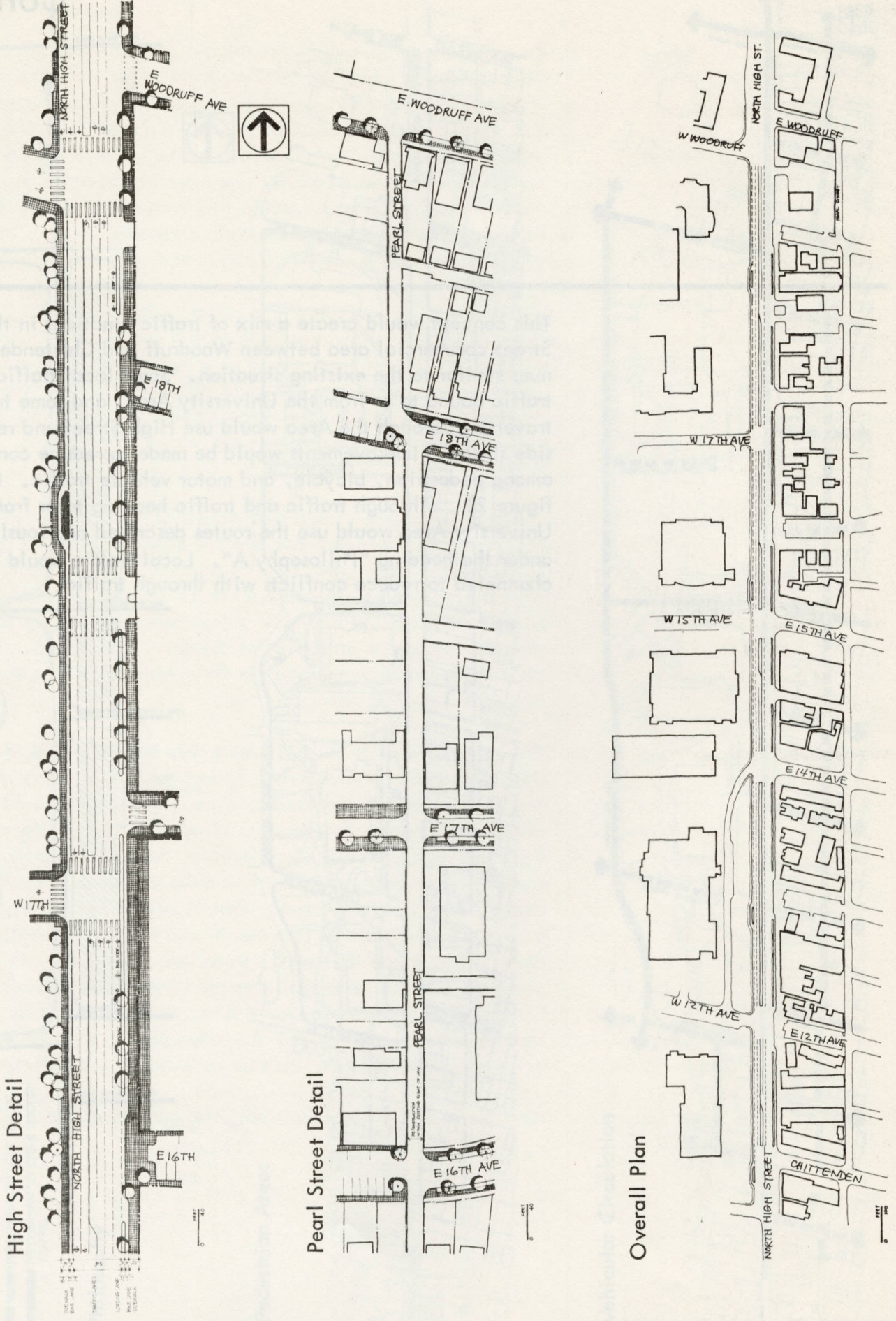
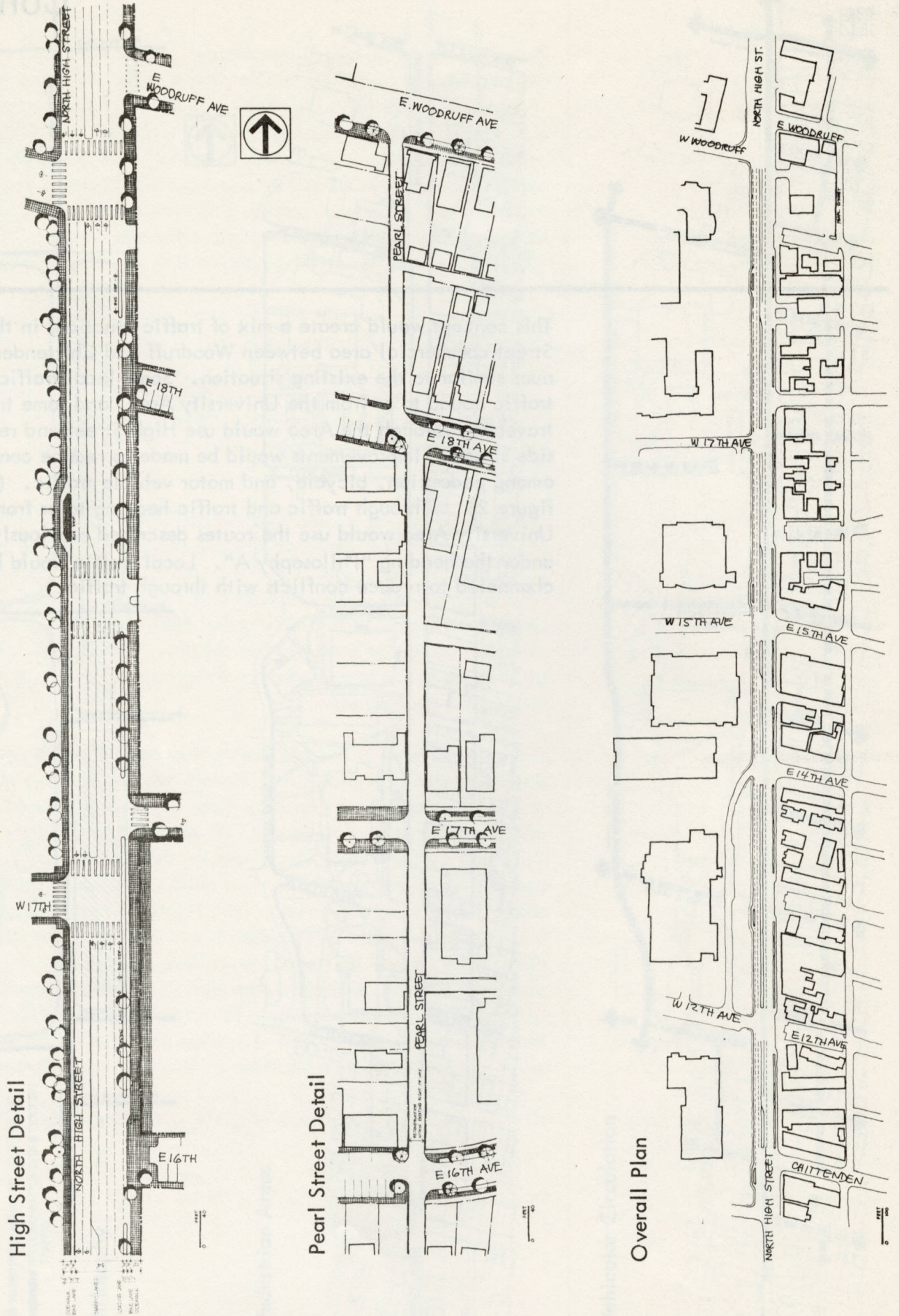


Figure 2.1



Scheme 2.1

One scheme which falls within the realm of achieving the Concept 2 is the one developed by the special Ad Hoc Subcommittee of the Columbus Traffic and Transportation Commission. This scheme would widen High Street between Chittenden and Woodruff Avenues, and shift it to the west onto what is now University property to make a two-way four-lane limited access street, with a continuous loading lane on the east side and a bike lane on the west side. (See figure 2.1) Twelfth, Thirteenth, Sixteenth and Eighteenth Avenues would be closed at High Street to all but emergency vehicles. Fifteenth Avenue would become one-way westbound. Vehicle connections to the Campus Loop in this area would be via Woodruff, Seventeenth, Fifteenth, Twelfth and Eleventh Avenues.

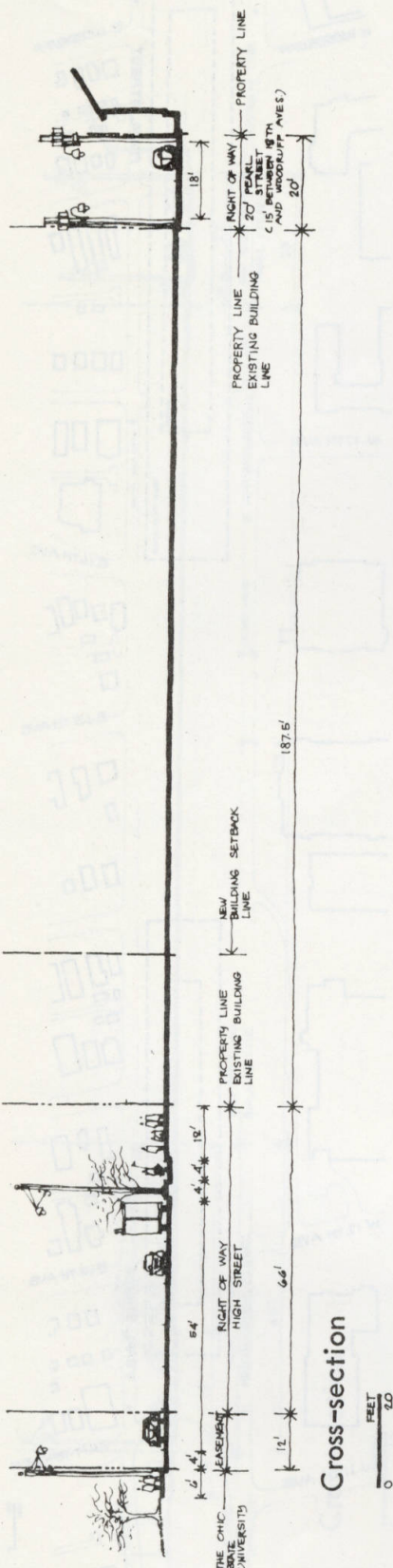
Pearl Street would be reconstructed within the existing right-of-way to be a one-lane, one-way street with loading permitted in the street. Between Fourteenth and Fifteenth Avenues, Pearl Street would be a one-lane, two-way street to allow access for large truck-trailers at the Long's bookstore loading dock. The radii at the curb line of intersections along Pearl Street would be increased, widening the throats of those intersections.

The sidewalk on the east side of High Street would be widened some. The west sidewalk would be narrowed some and a few of the existing trees and plantings on that side may be moved or eliminated.

All parking would be removed from High Street. The portions of 12th, 13th, 16th and 18th Avenues between High and Pearl Streets would be developed with head-in and parallel metered parking. (See Appendix C) Woodruff, 14th, 17th and Chittenden Avenues would have parallel metered parking along one side. Fifteenth Avenue would have parallel metered parking along one side between Pearl and Indianola Streets. Woodruff, 18th, 17th, 16th, 14th, 13th, 12th and Chittenden Avenues would have some parallel metered parking installed east of Pearl Street.

A bikeway for southbound cyclists would be constructed along the west edge of the west sidewalk on the OSU side of High Street. A bikeway for northbound cyclists would be located between the west edge of the east sidewalk on High Street and a buffer island adjacent to the street. Bus stops would be located along this buffer island on the east side of High Street and would remain as is along the west side. (See Appendix A)

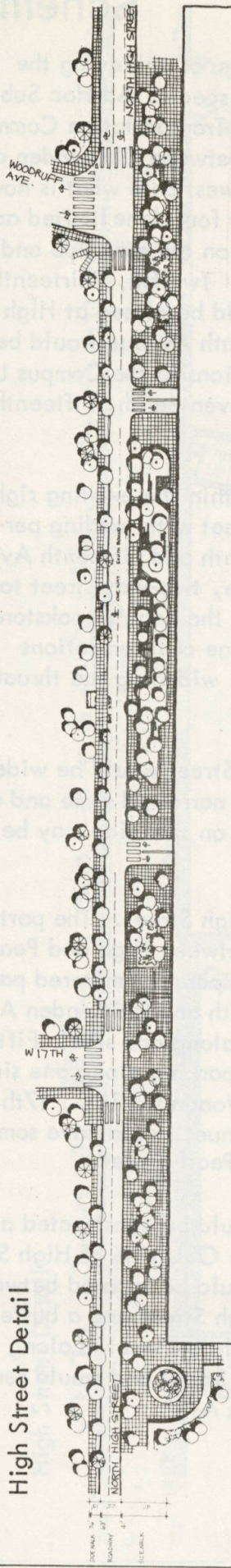
This scheme was adopted by the Ad Hoc Subcommittee in June of 1976. It has been superseded by scheme 2.4 which was adopted by the Subcommittee in November of 1976 and sent to the Columbus Traffic and Transportation Commission.



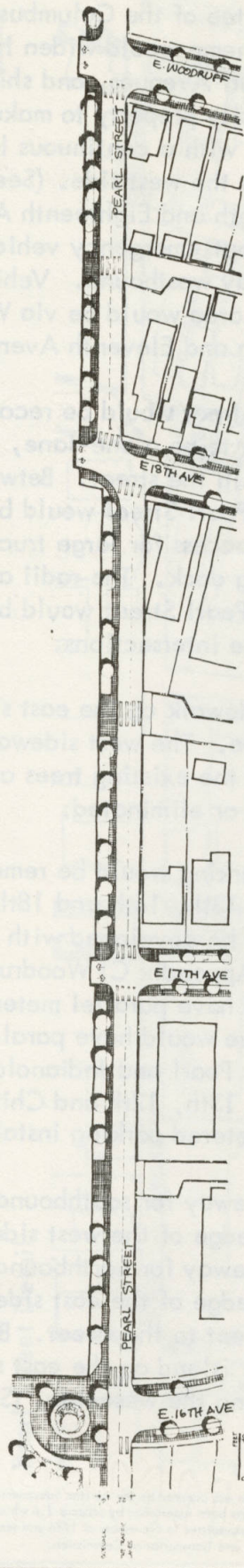
Cross-section
0 FEET 20'

Figure 2.2

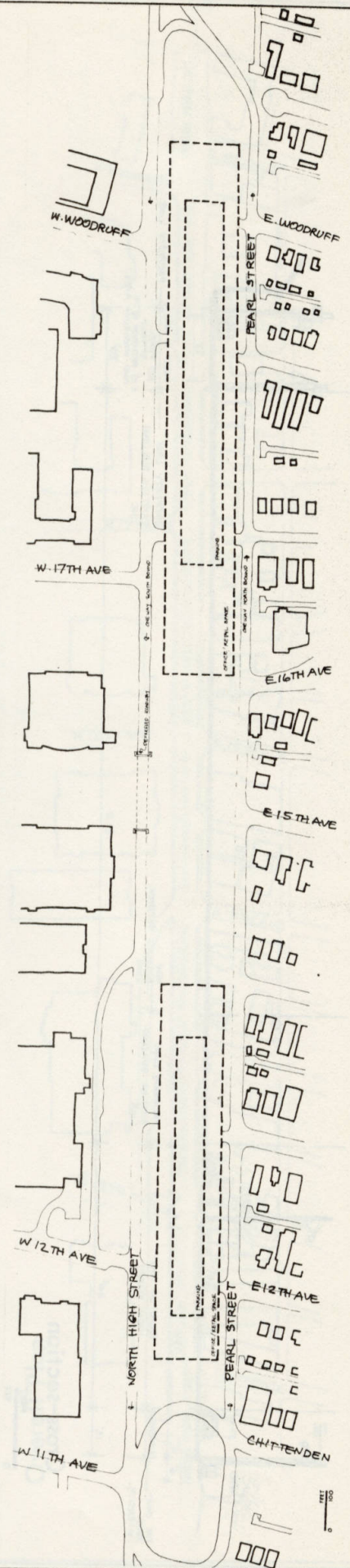
High Street Detail



Pearl Street Detail



Overall Plan



Scheme 2.2

Another scheme which would achieve Concept 2 would narrow High Street within the existing right-of-way way to a two-lane one-way southbound Street which would be below grade at Fifteenth. (See figure 2.2) (Pearl Street would be widened to form the companion one-way northbound street.) High and Pearl Streets would be connected on the north by a loop road near Woodruff Avenue and on the south by a traffic rotary at Chittenden/Eleventh Avenues. On the east, Twelfth, Thirteenth, Fourteenth, Fifteenth, Sixteenth, Seventeenth, Eighteenth and Woodruff Avenues would not connect directly to High Street but would connect to Pearl Street. Vehicle connections to the Campus Loop in the area would be via Woodruff, Seventeenth, Twelfth and Eleventh Avenues. Fifteenth Avenue would be closed on the west side of High Street.

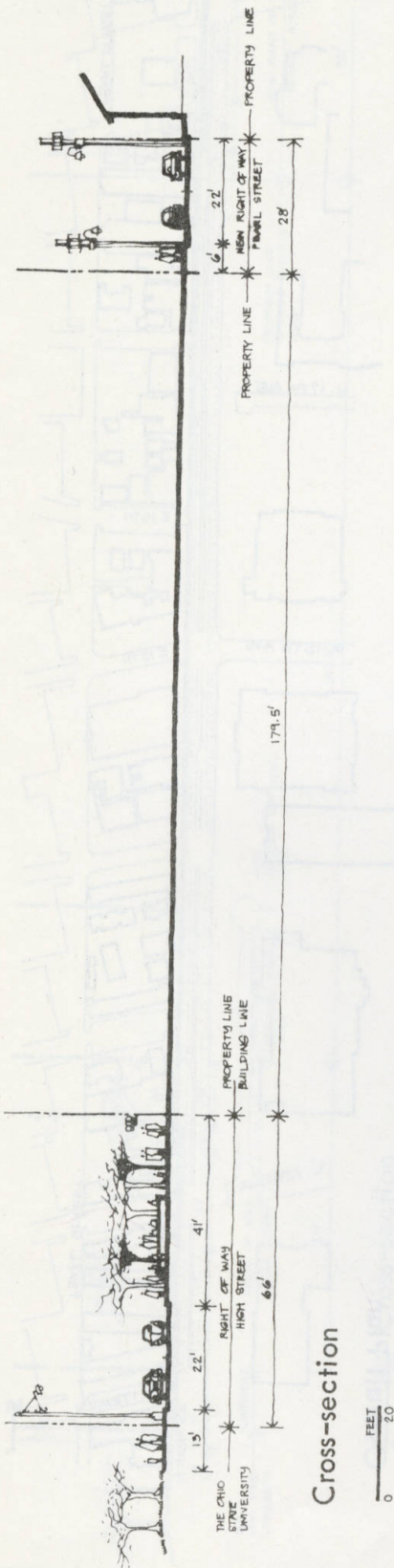
Commercial properties in the vicinity of Frambes, Fifteenth, and Chittenden/Eleventh Avenues would be acquired and cleared. Traffic connections between High and Pearl would be constructed at Frambes and Chittenden/Eleventh. A major park area would be constructed at Fifteenth and connected directly to the University over High Street. Commercial enterprises would be redeveloped in two intra-connected structures with internal parking and service facilities. Indirect access through these facilities would link High and Pearl Streets.

Additional right-of-way along the west side of Pearl Street would be acquired and cleared such that Pearl could be rebuilt as a two-lane, one-way northbound street. Alleys east of Pearl Street would be closed to all but emergency vehicles at Pearl Street. A sidewalk would be constructed along the west side of Pearl Street. (See figure 2.2)

The east sidewalk of High Street would be widened to more than twice the present width and extensive pedestrian amenities installed. The west sidewalk would remain as it is. Pedestrian crossings would be marked and pedestrian signals installed at all existing crossings. The Fifteenth Avenue park would provide direct pedestrian and bicycle access to campus. Pedestrian crossings would be marked at all Pearl Street intersections which would be signalized. All High Street access points to the commercial area and to campus would be signal controlled.

Bus stops would be located on the west curb of High Street and east curb of Pearl Street corresponding to their present locations.

For further information on this Scheme contact:
The University District Organization Inc.
30 West Woodruff Avenue
Columbus, Ohio 43210



Scheme 2.3

Another scheme which achieves Concept 2 would widen High Street and shift it to the west onto what is now University property to make a two-way, four-lane boulevard-type street. (See figure 2.3) All side streets would be open to access/egress from High Street on a "right turn only" basis with the exceptions of Fourteenth and Fifteenth Avenues which would have left-turn access from High Street. The existing arrangement of one way flows on the side streets would be retained, however, Fifteenth Avenue would become one way westbound. Vehicle connections to the Campus Loop in this area would be via Woodruff, Fifteenth and Chittenden/Eleventh Avenues. Seventeenth and Twelfth Avenues would be closed on the west side of High Street.

The properties adjacent to the eastern edge of the existing Pearl Street right-of-way would be acquired and cleared. Pearl Street would be relocated and rebuilt as a two-lane, two-way street. A continuous loading lane would be added on the west side. A sidewalk would be installed between this loading lane and the adjacent commercial property line on the west side of Pearl Street.

With the exceptions of Fourteenth and Fifteenth Avenues, the portions of the side streets between High and Pearl Streets would be widened to accommodate head-in metered parking. (See Appendix B) All parking would be removed from High Street and from Fourteenth and Fifteenth Avenues between High and Fourth Street. Off-street metered parking would be installed along the east edge of the new Pearl Street.

The east sidewalk of High Street would be widened some and pedestrian amenities installed in a few locations. The west sidewalk would be narrowed some and a few of the existing trees and plantings on that side may be moved or eliminated. Pedestrian crossings would be marked at each intersection. All High Street intersections, including Woodruff and Chittenden Avenues, would be traffic signal controlled. The signals at Woodruff, Fifteenth, Fourteenth and Chittenden/Eleventh Avenues would function to regularly permit left turning traffic to proceed. (See Appendix D) All other signals along High Street would be pedestrian actuated only. During the morning and afternoon peak traffic periods these signals would remain green for High Street traffic. The intersections of Fourteenth and Fifteenth Avenues with Pearl Street would be traffic signal controlled.

A bike lane along each curb of High Street between Woodruff and Chittenden Avenues would serve northbound cyclists on the east side and southbound cyclists on the west. The bike lane would not be physically separated from the roadway but would be delineated by a line of reflectorized markers along the edge of the adjacent drive-lane.

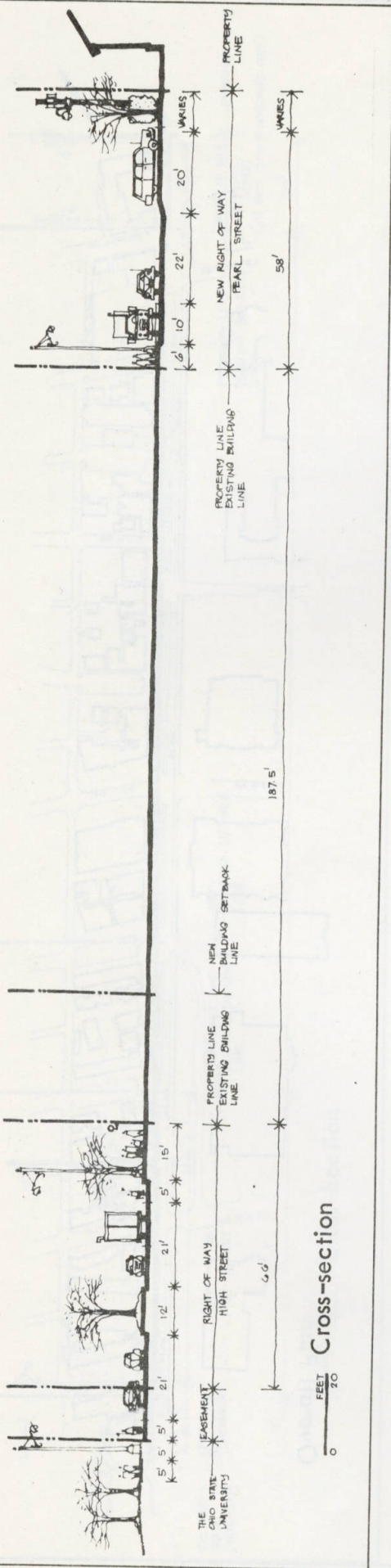
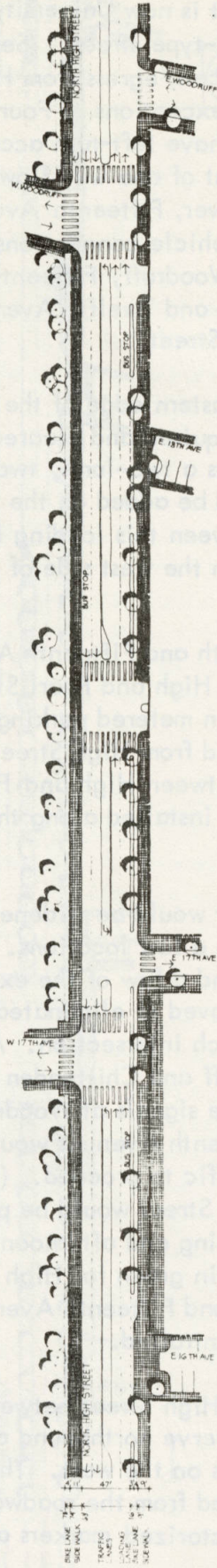
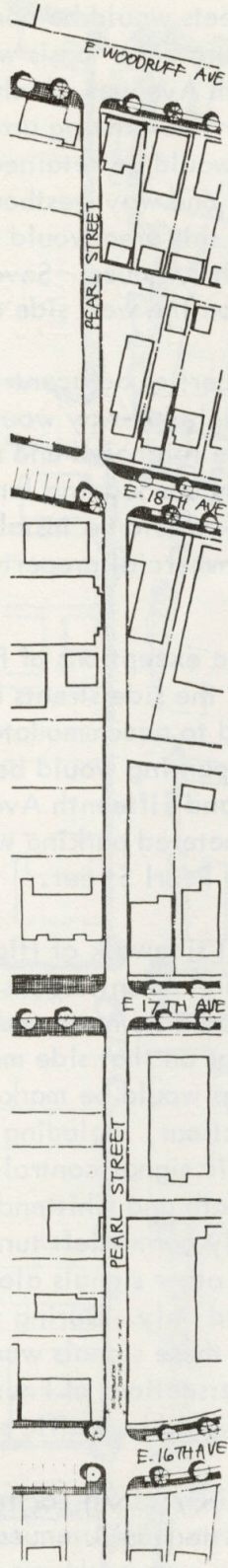


Figure 2.4

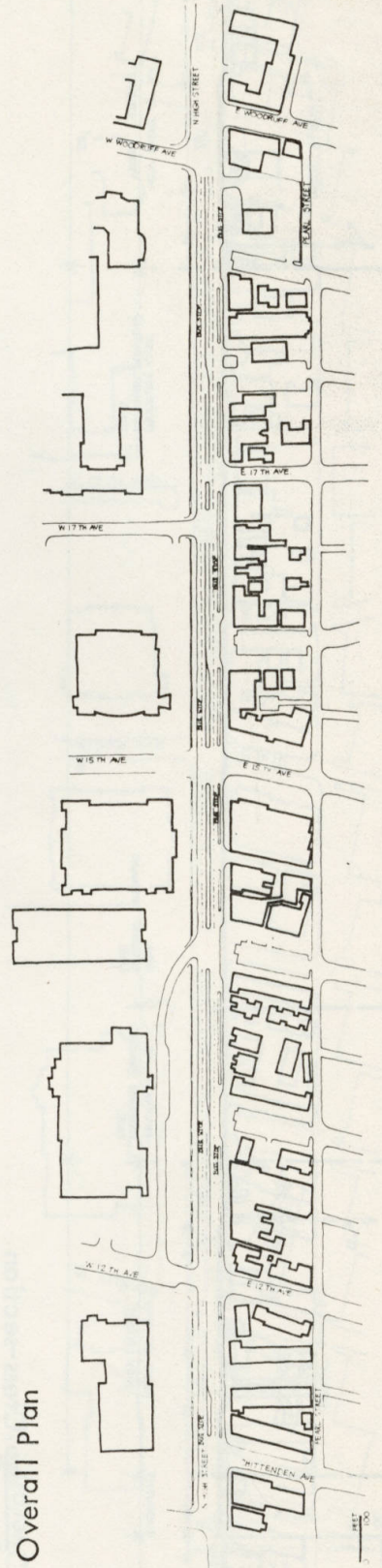
High Street Detail



Pearl Street Detail



Overall Plan



Scheme 2.4

Another scheme which would achieve Concept 2 is the one adopted by the Ad Hoc Subcommittee of the Columbus Traffic and Transportation Commission.

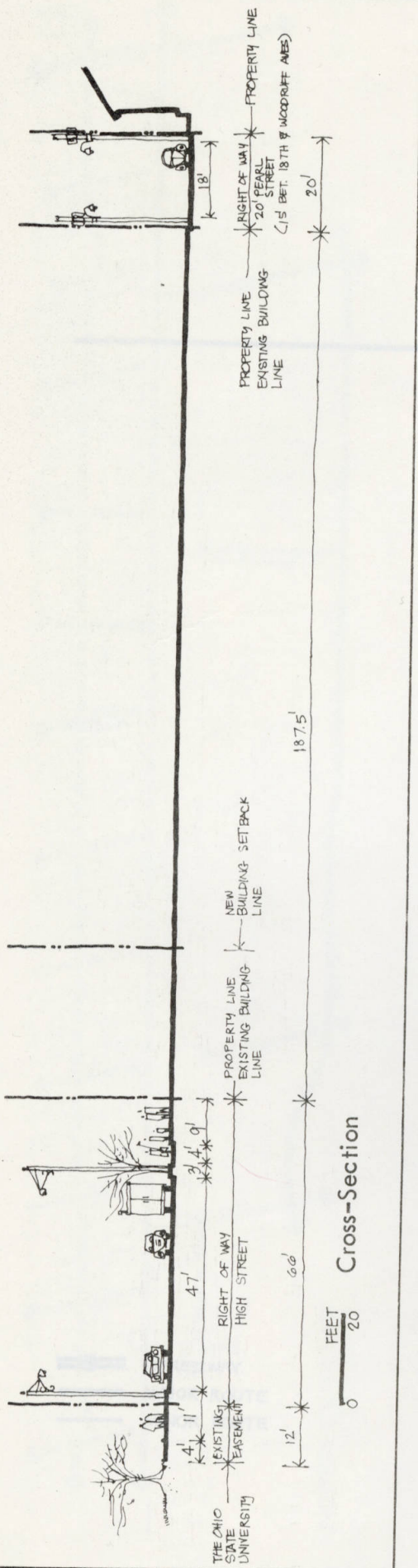
This scheme would narrow High Street between Chittenden and Woodruff Avenues to make a five-lane limited access street with a continuous loading lane along the east side. (See figure 2.4) Thirteenth, Fourteenth, Sixteenth and Eighteenth Avenues would be closed at High Street to all but emergency vehicles. Fifteenth Avenue would become one-way westbound. Vehicle connections to the campus loop in this area would be via Woodruff, Seventeenth, Fifteenth, Twelfth and Eleventh Avenues.

Pearl Street would be reconstructed within the existing right-of-way to be a one lane, one-way street with loading permitted along the west side of the street. Between Fourteenth and Fifteenth Avenues, Pearl Street would be a one-lane, two-way street to allow access for large truck-trailers at the Long's bookstore loading dock. The radii at the curb line of intersections along Pearl Street would be increased, widening the throats of those intersections.

The sidewalk along the east side of High Street would not be widened, however, more pedestrian space would be created by removing the existing utilities, meters and signs to the 3' wide buffer island between the street and the east side bikeway. The west sidewalk would remain as-is.

All parking would be removed from High Street. The portions of Thirteenth, Fourteenth, Sixteenth and Eighteenth Avenues between High and Pearl Streets would be developed with head-in and parallel metered parking. (See Appendix C) Woodruff, Seventeenth, Twelfth and Chittenden Avenues would have parallel metered parking along one side. Fifteenth Avenue would have parallel metered parking along one side between Pearl and Indianola Streets. Woodruff, 18th, 17th, 16th, 14th, 13th, 12th and Chittenden Avenues would have some parallel metered parking installed east of Pearl Street.




A bikeway for southbound cyclists would be located along the west edge of the existing sidewalk on the OSU side of High St. and physically separated from the walk. A bikeway for northbound cyclists would be located between the west edge of the east sidewalk on High Street and a 3' wide buffer island adjacent to the street. Bus stops would be located on this buffer island along the east side of High Street and would remain as-is along the west side. (See Appendix A)



This scheme 2.4 supercedes scheme 2.1 as the recommendation of the Ad Hoc Subcommittee. This scheme was presented by the Ad Hoc Subcommittee to the Columbus Traffic and Transportation Commission and adopted by the Commission in December of 1976.

This perspective on the relationship between the University Area and the rest of the city holds that High Street should be a conceptual axis of the city but the various activity centers along it should be improved as pedestrian oriented places. The University Area should be one of these nodes, with the Center Section of High Street redeveloped as an origin destination point rather than a path. Other routes should provide the regional and arterial functions which this section of High Street now performs.

Regional north-south traffic should be channeled to S.R. 315, S.R. 23 and I-71. East-west regional traffic should be channeled to Hudson-Dodridge and Fifth Avenue. Kenny Road, Olentangy River Road, Neil Avenue, High Street, Eleventh Avenue and Kinnear Road should be improved where necessary to accommodate origin-destination traffic moving between these regional routes and the University and commercial area. Access to the University in the Center Section should be channeled to Woodruff and Eleventh Avenues. (See Appendix H)

-  EXPRESSWAY
-  MAJOR ROUTE
-  MINOR ROUTE

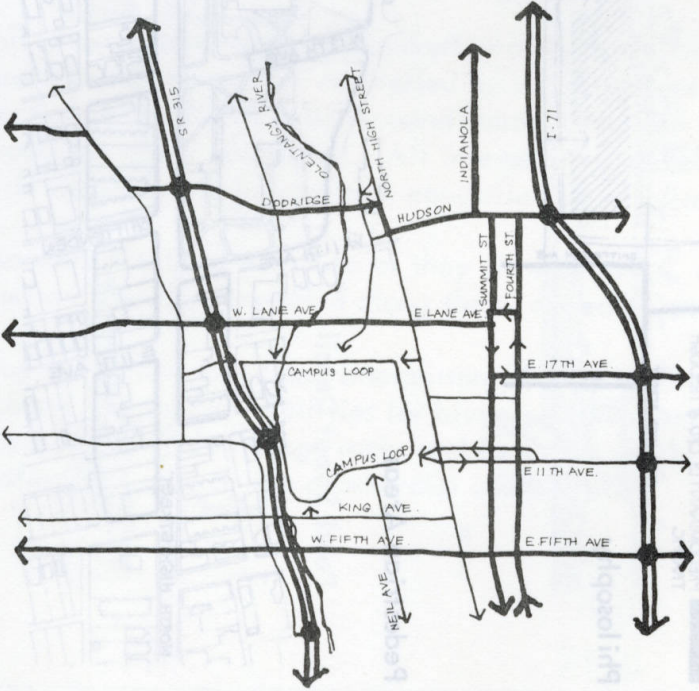
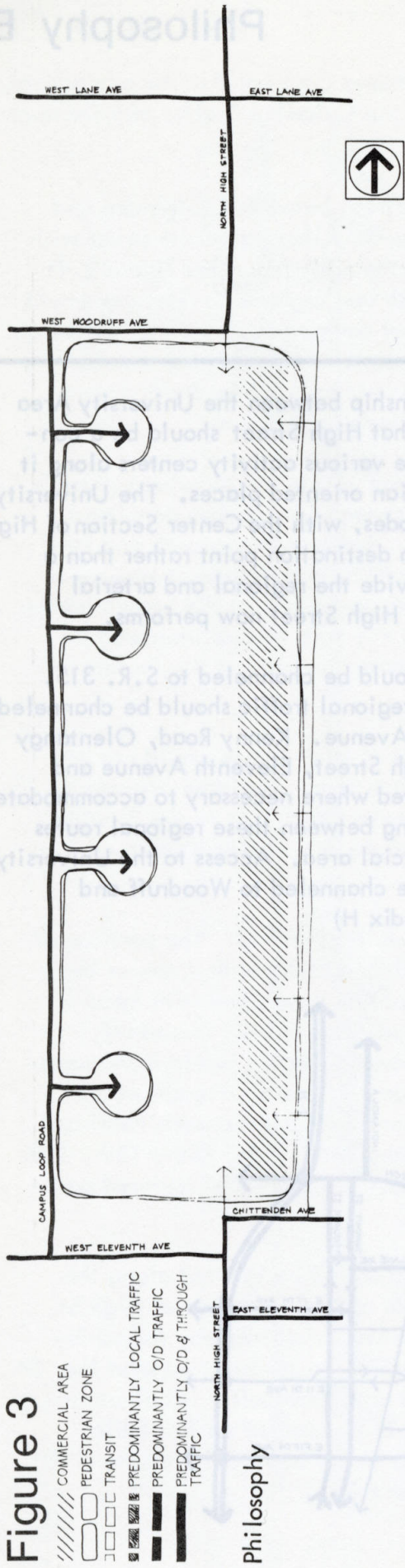
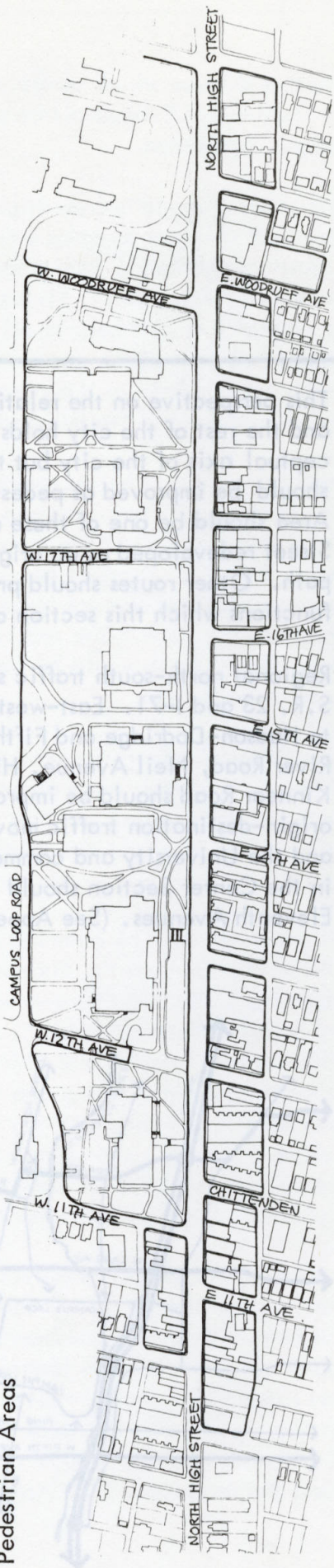


Figure 3

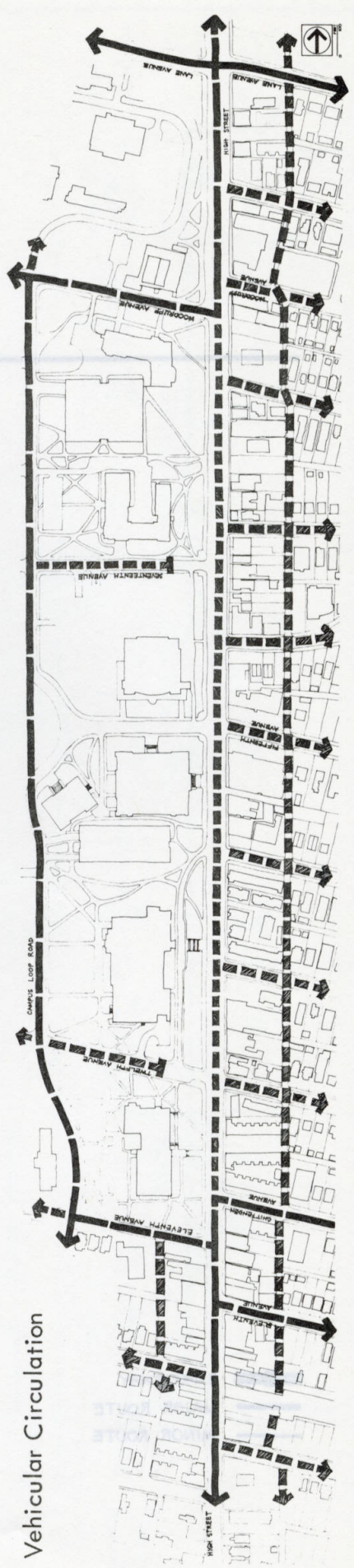
Figure 3



Pedestrian Areas



Vehicular Circulation



Concept 3

One scheme for achieving Concept 3 would be a new High Street between Woodruff and Chittenden Avenues within the existing right-of-way as a two-lane two-way street. (See figure 3.1) All side streets would be open to traffic on High Street and most would be one-way streets. Vehicle access to the Campus Loop would be via Woodruff and Chittenden/Eleventh Avenues. Woodruff, Chittenden, and Chittenden Avenues would be closed at the intersection of High Street.

This concept would create a network of two-way streets in the University/High Street area, allowing increased freedom of vehicular movement at low speeds. (See figure 3) The best example might be the system of neighborhood streets in German Village. All through traffic and traffic bound to and from the University Area would use routes described previously under the heading "Philosophy B". Local traffic would have multi-directional access to almost any point in the commercial area from High Street.

Intersections with the addition of meters for all un-metered spaces. Metered parking would be installed along the east side of the new Pearl Street. The parking would be screened from the properties to the east by a large landscaped buffer. This scheme would permit the construction of a parking garage under High Street as described in Chapter E.

The sidewalk on the east side of High Street would be widened to more than twice the present width and extensive pedestrian amenities installed along the walk. The west sidewalk would remain as is. Pedestrian crossings would be marked at each intersection.

All intersections south of Woodruff and north of Chittenden Avenues would be stop sign controlled for all directions. The intersections of High Street at Woodruff and Chittenden Avenues would be signal controlled. All intersections of Pearl Street and side streets would be stop sign controlled for all directions.

Bus stops would be the same as they are presently, although shelters would be installed along the widest sidewalk.

Due to the low speed and intermittent flow of traffic with this scheme, special facilities for bicycles would be considered. Storage racks and repair tools would be installed throughout the commercial area.

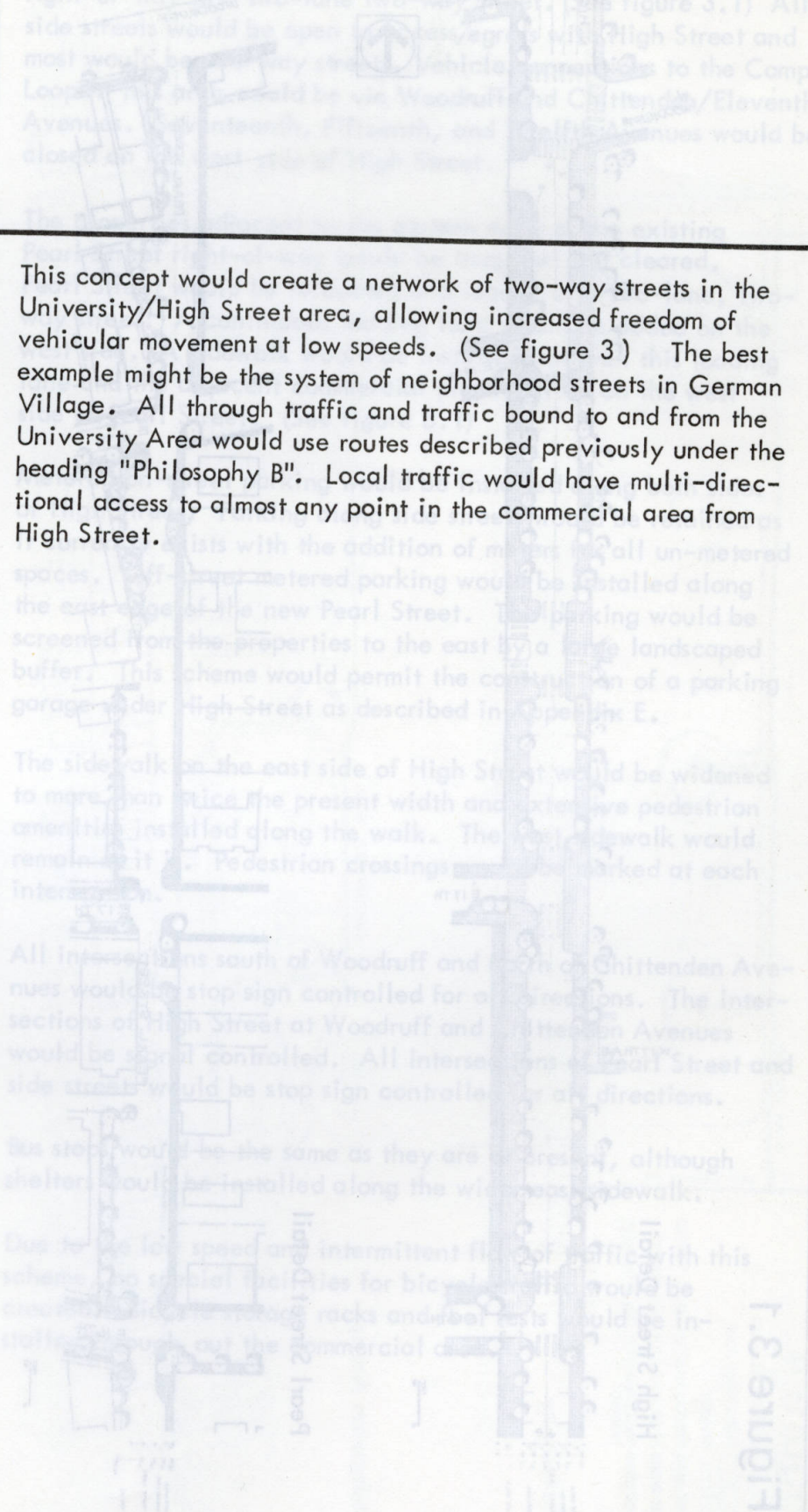
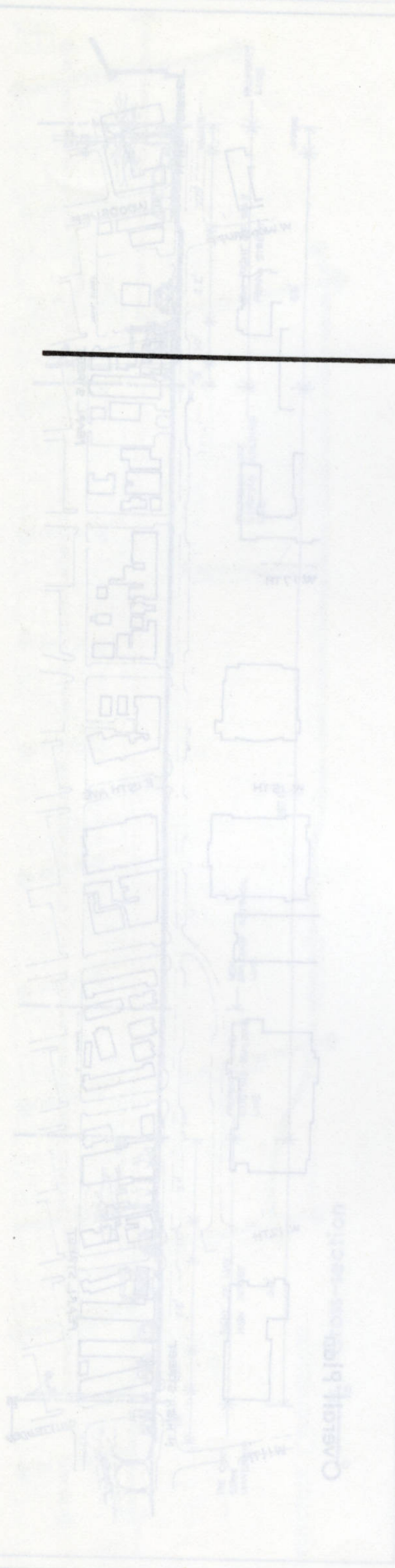
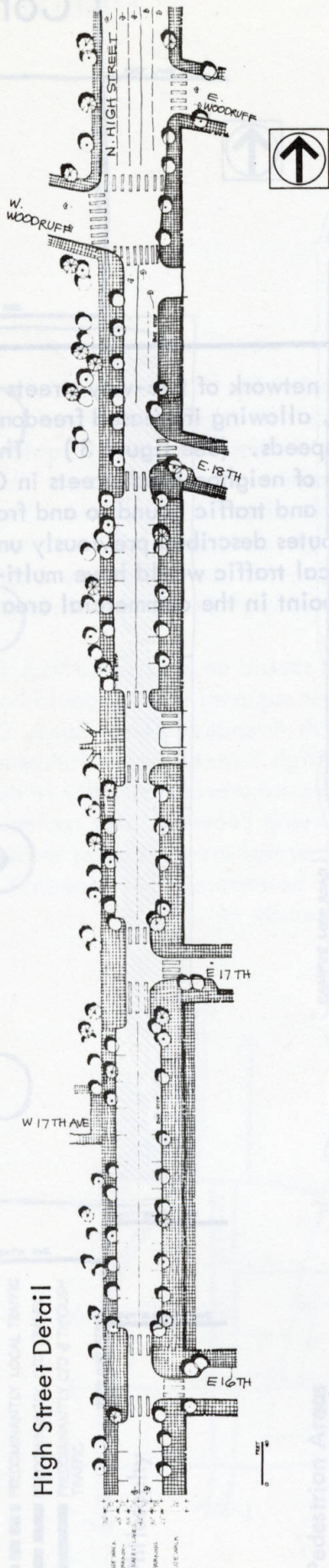


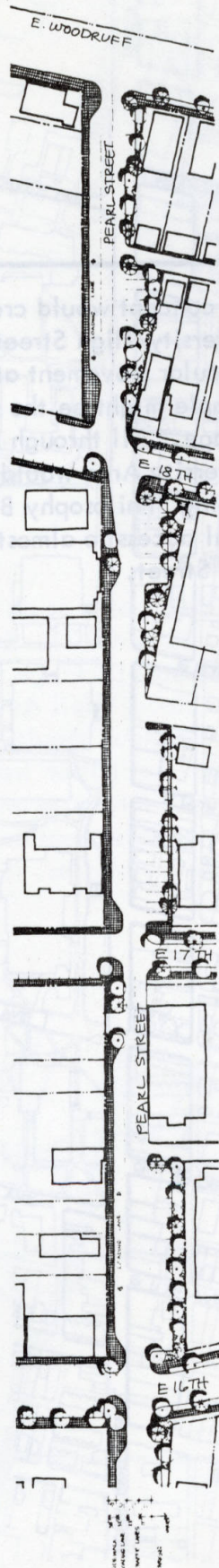
Figure 3.1

Figure 3.1

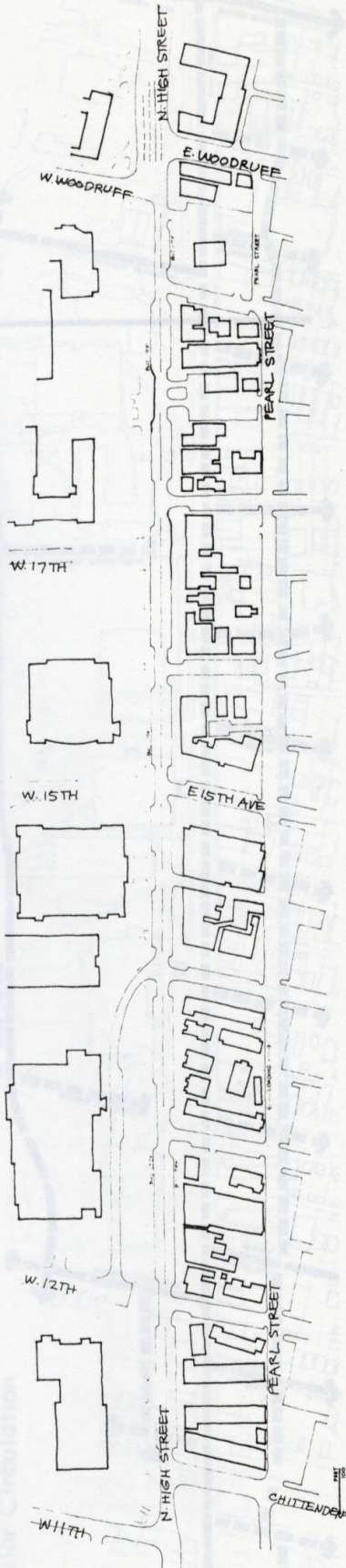
High Street Detail



Pearl Street Detail



Overall Plan



Scheme 3.1

One scheme for achieving Concept 3 would narrow High Street between Woodruff and Chittenden Avenues within the existing right-of-way to a two-lane two-way street. (See figure 3.1) All side streets would be open to access/egress with High Street and most would be two-way streets. Vehicle connections to the Campus Loop in this area would be via Woodruff and Chittenden/Eleventh Avenues. Seventeenth, Fifteenth, and Twelfth Avenues would be closed on the west side of High Street.

The properties adjacent to the eastern edge of the existing Pearl Street right-of-way would be acquired and cleared. Pearl Street would be relocated and rebuilt as a two-lane, two-way street. A continuous loading lane would be added on the west side. A sidewalk would be installed between this loading lane and the adjacent commercial property line on the west side of Pearl Street. (See figure 3.1)

Metered on-street parking would be installed along both sides of High Street. Parking along side streets would be retained as it currently exists with the addition of meters for all un-metered spaces. Off-street metered parking would be installed along the east edge of the new Pearl Street. This parking would be screened from the properties to the east by a large landscaped buffer. This scheme would permit the construction of a parking garage under High Street as described in Appendix E.

The sidewalk on the east side of High Street would be widened to more than twice the present width and extensive pedestrian amenities installed along the walk. The west sidewalk would remain as it is. Pedestrian crossings would be marked at each intersection.

All intersections south of Woodruff and north of Chittenden Avenues would be stop sign controlled for all directions. The intersections of High Street at Woodruff and Chittenden Avenues would be signal controlled. All intersections of Pearl Street and side streets would be stop sign controlled for all directions.

Bus stops would be the same as they are at present, although shelters would be installed along the wider east sidewalk.

Due to the low speed and intermittent flow of traffic with this scheme, no special facilities for bicycle traffic would be created. Bicycle storage racks and foot rests would be installed throughout the commercial area.

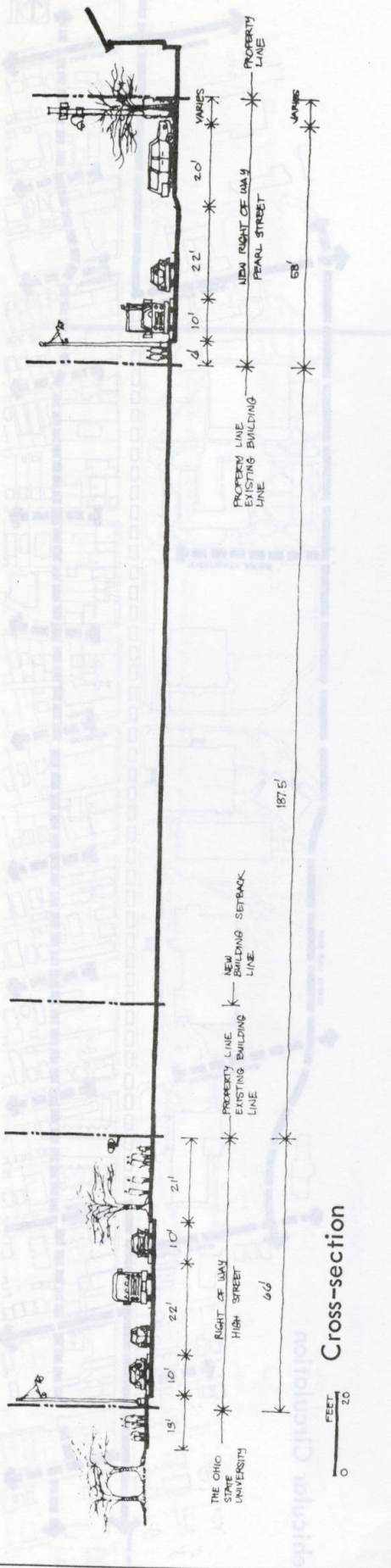
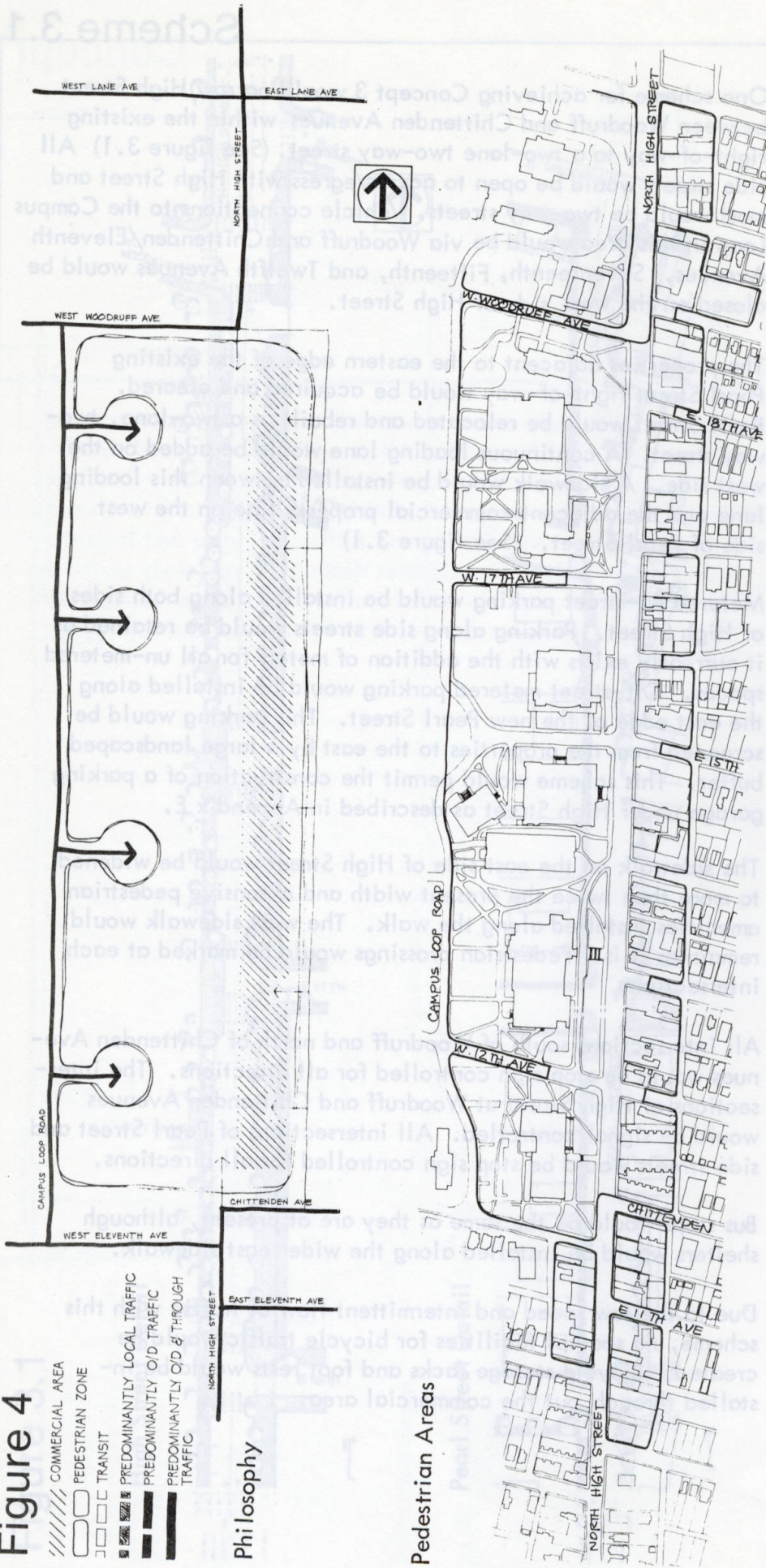


Figure 4

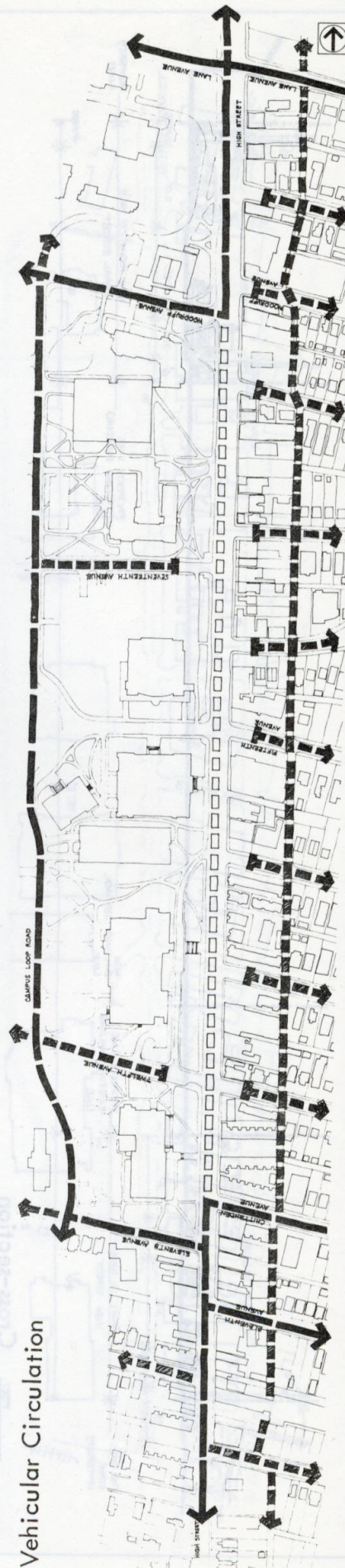
- /// COMMERCIAL AREA
- PEDESTRIAN ZONE
- TRANSIT
- ▨ PREDOMINANTLY LOCAL TRAFFIC
- ▩ PREDOMINANTLY O/D TRAFFIC
- ▬ PREDOMINANTLY O/D & THROUGH TRAFFIC

Philosophy

Pedestrian Areas



Vehicular Circulation



One scheme which achieves Concept 4 would narrow High Street within the existing right-of-way to a meandering two-lane, two-way street. The street would be exclusively for the use of transit and bicycles. (See figure 4.1) Side streets, and alleys between Woodruff and Chittenden Avenues, except Fifteenth Avenue, would be closed at Pearl Street to all but emergency vehicles. Vehicle connections to the Campus from this area would be via Woodruff, Fifteenth, and Chittenden Avenues. Seventeenth Avenue would be closed on the east side of High Street.

This concept would create a pedestrian mall along High Street between Woodruff Avenue and Chittenden Avenues. All traffic would be re-routed from High Street except for busses and bicycles. (See figure 4) Through traffic and traffic bound to or from the University Area would use the routes described previously under the heading "Philosophy B". Local traffic would have access to all side streets and Pearl Street from the collector routes.

The east sidewalk of High Street would feature two wide pedestrian malls varying in width to meet the angle of the meandering roadway. At the narrowest points, each mall would be more than twice the width of the present sidewalk. (See figure 4.1) Extensive pedestrian amenities would be installed and several special areas developed for congregating, street vending, etc. The west sidewalk would be widened to match as well. Since there would be intervals of several minutes between busses, special regulations would be created for the pedestrians and bicyclists to cross the High Street roadway at any point between Woodruff and Chittenden Avenues. Intersections of Woodruff, Fifteenth, and Chittenden Avenues with Pearl Street and High Street would be signal controlled.

Commercial enterprises would be redeveloped into two intra-connected structures with major parking structures at Woodruff, Fifteenth, and Chittenden Avenues. Street level pedestrian walkways would link commercial uses along High Street above the pedestrian malls and cross over the mall and High Street to the University campus. Service to businesses would be from Pearl Street.

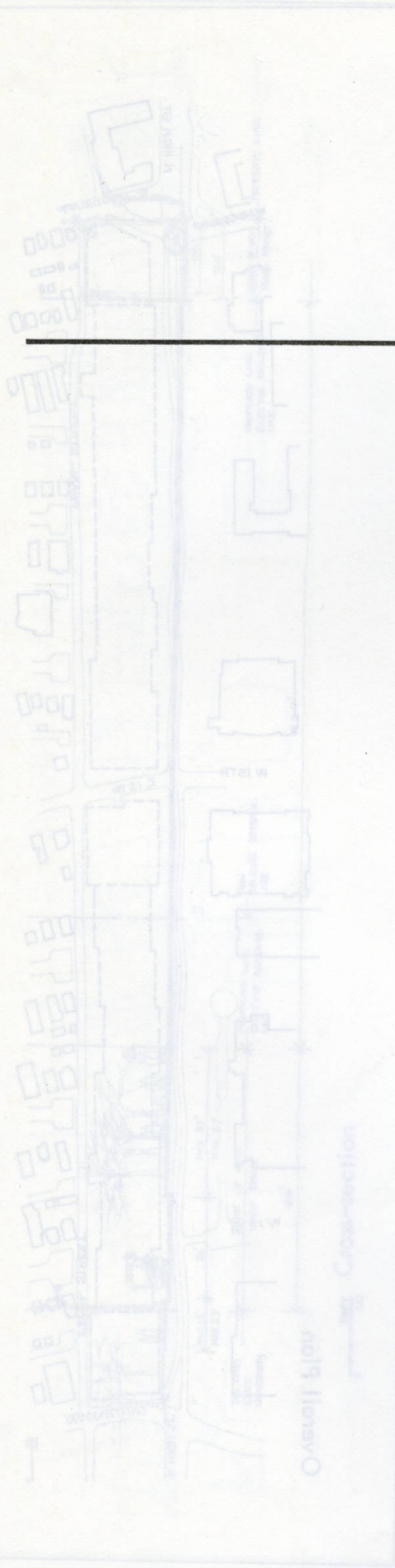
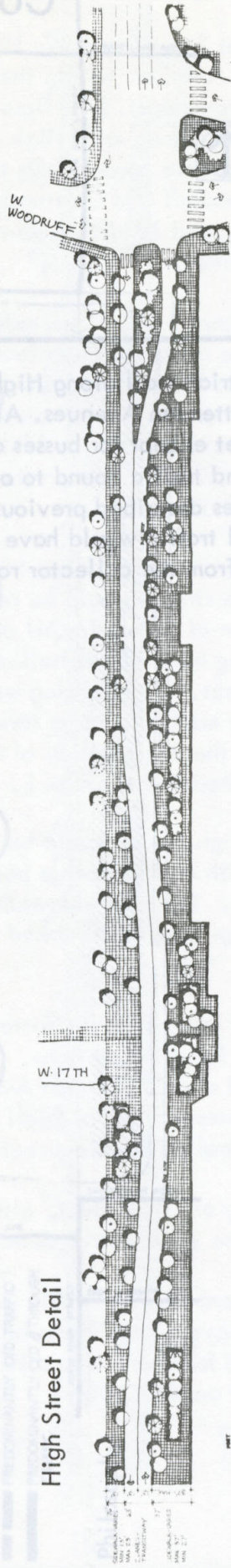


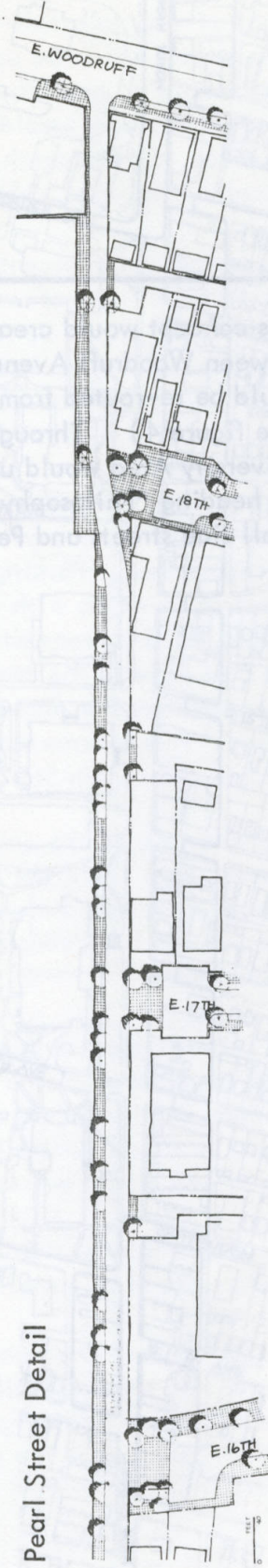
Figure 4.1

Figure 4.1

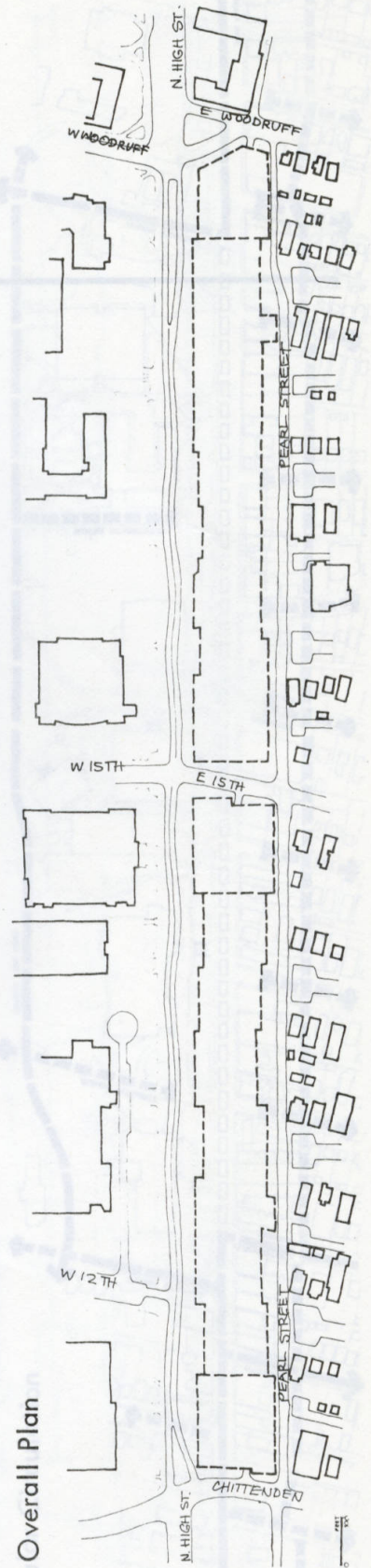
High Street Detail



Pearl Street Detail



Overall Plan



Scheme 4.1

One scheme which achieves Concept 4 would narrow High Street within the existing right-of-way to a meandering two-lane, two-way street. The street would be exclusively for the use of transit and bicycles. (See figure 4.1) All side streets, and alleys between Woodruff and Chittenden Avenues, except Fifteenth Avenue, would be closed at Pearl Street to all but emergency vehicles. Vehicle connections to the Campus Loop in this area would be via Woodruff, Fifteenth, and Chittenden/Eleventh Avenues. Seventeenth Avenue would be closed on the west side of High Street. Twelfth Avenue would be open for transit and bicycles only on the west side of High Street.

Pearl Street would be reconstructed within the existing right-of-way. Utility poles which are presently within the street would be relocated. The radii at the curb line of intersections along Pearl Street would be increased, widening the throats of those intersections.

The east sidewalk of High Street would become two wide pedestrian malls varying in width to meet the edge of the meandering roadway. At the narrowest points, each mall would be more than twice the width of the present sidewalk. (See figure 4.1) Extensive pedestrian amenities would be installed and several special areas developed for congregating, street vending, etc. The west sidewalk would be widened in places as well. Since there would be intervals of several minutes between busses, special regulations would be created to allow pedestrians and bicyclists to cross the High Street roadway at any point between Woodruff and Chittenden Avenues. Intersections of Woodruff, Fifteenth, and Chittenden Avenues with Pearl Street and High Street would be signal controlled.

Commercial enterprises would be redeveloped into two intra-connected structures with major parking structures at Woodruff, Fifteenth, and Chittenden Avenues. Second-level pedestrian walkways would link commercial uses along High Street above the pedestrian malls and cross over the malls and High Street to the University campus. Service to businesses would be from Pearl Street.

For further information on this Scheme contact:
 The University District Organization Inc.,
 30 West Woodruff Avenue
 Columbus, Ohio 43210

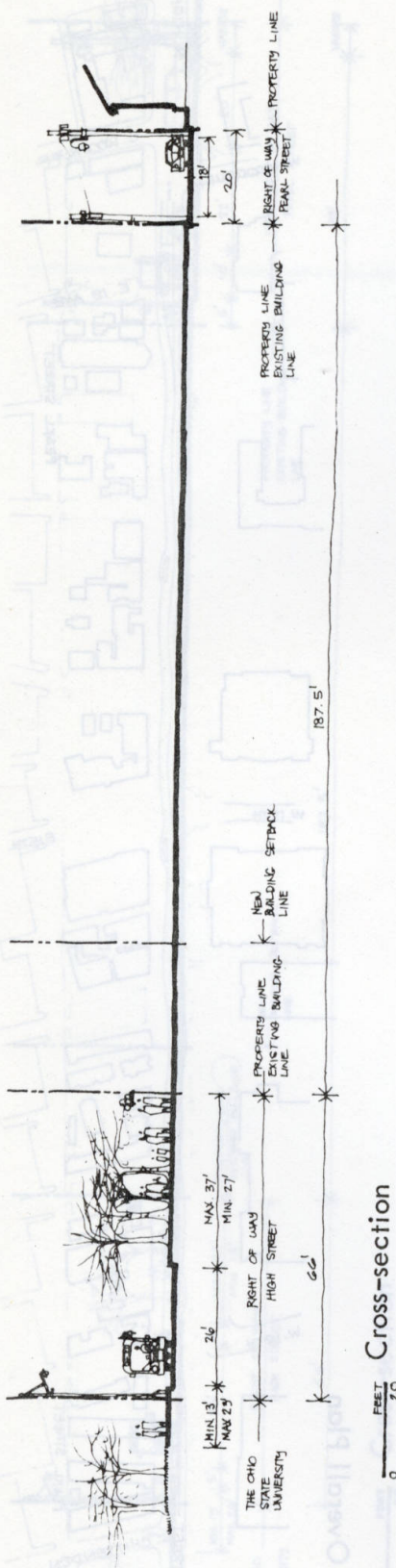
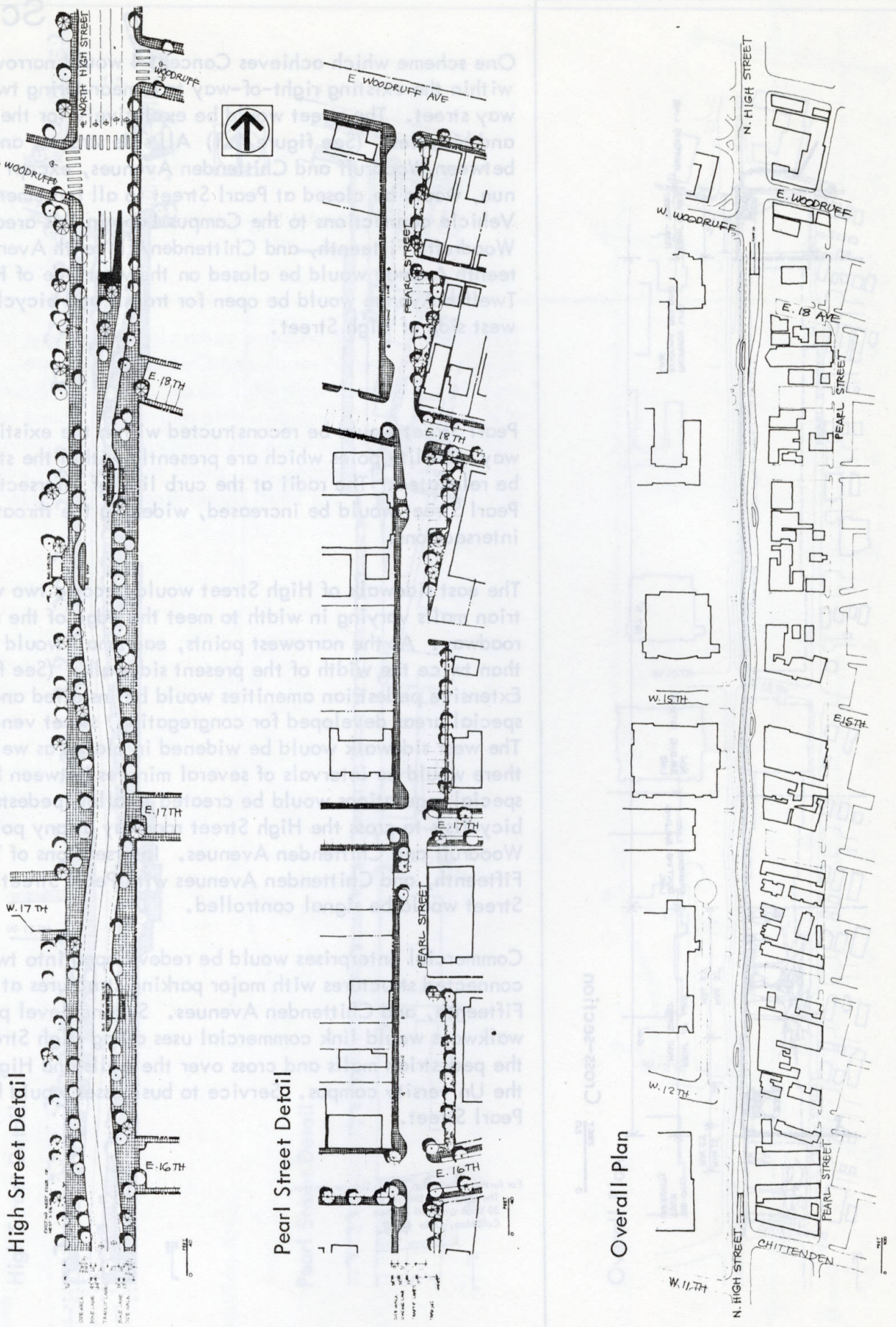


Figure 4.2



Scheme 4.2

Another scheme which achieves Concept 4 would narrow High Street between Woodruff and Chittenden Avenues within the existing right-of-way and create a meandering two-lane, two-way street. The street would be exclusively for the use of transit, and bicycles. (See figure 4.2) All side streets between Woodruff and Chittenden Avenues would be closed at High Street to all except emergency vehicles and bicycles. Vehicle connections to the Campus Loop in this area would be via Woodruff and Chittenden/ Eleventh Avenues. Seventeenth, Fifteenth and Twelfth Avenues would be closed on the west side of High Street.

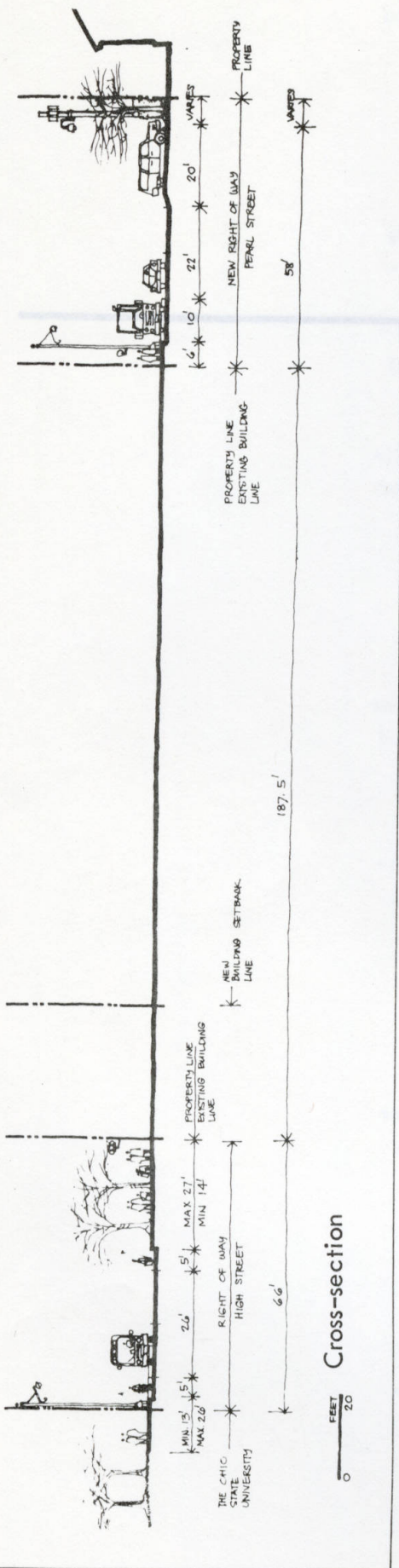
The properties adjacent to the eastern edge of the existing Pearl Street right-of-way would be acquired and cleared. Pearl Street would be relocated and rebuilt as a two-lane, two-way street. A continuous loading lane would be located on the west side. A sidewalk would be installed between this loading lane and the adjacent commercial property line on the west of Pearl Street. (See figure 4.2)

The portions of the closed side streets between High Street and Pearl Street would be widened to accommodate head-in metered parking. (See Appendix C) Off-street metered parking would be installed along the east edge of the new Pearl Street. This parking would be screened from the properties to the east by a large landscaped buffer. This scheme would also permit construction of a large underground parking garage beneath High Street. (See Appendix E) This garage would eliminate need for the side street head-in parking which could be replaced by small plazas and loading bays.

The east sidewalk of High Street would become a wide pedestrian mall varying in width to meet the edge of the meandering roadway. At the narrowest points the continuous mall would be more than twice the width of the present sidewalk. (See figure 4.2) Extensive pedestrian amenities would be installed and several special areas developed for congregating, street vending, etc. The west sidewalk would be widened in places as well. Since there would be several-minute intervals between busses, special regulations would be created to allow pedestrians and bicyclists to cross the High Street roadway at any point between Woodruff and Chittenden Avenues.

A bike lane along each curb of High Street would serve northbound cyclists on the east side and southbound cyclists on the west. The bike lane would not be physically separated from the roadway.

Bus stops would be located on large islands separated from the malls by the bike lane. (See Appendix A)



UNIVERSITY DISTRICT ORGANIZATION
STAFF ANALYSIS OF CONCEPTS 2, 3 AND 4

CONCEPT FOUR TOTAL ELIMINATION OF
PRIVATE VEHICLES FROM HIGH STREET

"Assuming that a widely held goal is to increase the pedestrian-orientation of High Street, there are a range of alternative concepts which could conceivably be implemented. The three concepts examined will represent 'milestones' within the range of possible actions, using High Street as it exists today as a reference point.

A previously conceived first alternative, which would increase High Street traffic volumes, has been eliminated. The reason for this was that it does not represent a viable competing alternative. Rather, it is without support from the Traffic Division and other public agencies, and violates the spirit of the Policy Plan.

CONCEPT TWO NO MAJOR CHANGE IN HIGH STREET
CAPACITY

This concept assumes that there is no immediate way to reduce the volume of vehicles on High Street without causing serious problems in other areas. It also assumes that there is little that can be done to reduce the conflicts between pedestrians crossing High Street and north/south vehicle traffic. Within this concept, however, certain improvements can be made to north/south commercial oriented pedestrian travel. Sidewalks can be widened, side streets can be closed and other pedestrian amenities can be provided. Using this concept as a guide for short range decisions might be considered an 'incremental' approach--making decision based on current reality and reserving more comprehensive decisions for a time when more information is available.

CONCEPT THREE A MAJOR REDUCTION IN HIGH STREET CAPACITY (50-75%)

This concept assumes that most of the current traffic on High Street can be diverted to other routes. It assumes that further steps would be taken to resolve any resulting problems when they became evident (for example, OSU would build its loop road when its internal street system became highly congested). Its primary objective is to reduce the total amount of pedestrian-vehicular conflict, including that between east/west pedestrian travel and High Street auto traffic. Capacity reducing measures could include reducing the number of

traffic lanes, changing the traffic signal system, increasing the amount of on-street parking or any combination of these. This would provide space for wider sidewalks as well as increasing the ease of east/west crossing.

CONCEPT FOUR TOTAL ELIMINATION OF PRIVATE VEHICLES FROM HIGH STREET

This concept assumes that resources will become available to upgrade the peripheral street system to the extent necessary to absorb the entire current volume of High Street. Its objective is to virtually eliminate the east-west 'barrier effect' of High Street. This would contribute to the creation of a strictly pedestrian commercial area along High Street.

In exploring new conceptual roles for High Street, a somewhat simplified approach has been used. The concepts have been categorized on a capacity reduction scale. Three benchmarks can be used to illustrate the way in which capacity could be reduced--four lanes of traffic, two lanes of traffic and no traffic.

From these three benchmarks an attempt can be made to measure the relationship between pedestrian movement and auto traffic flow. The evaluation becomes more complicated and less conclusive as other competing uses for High Street such as bicycles, service, loading and parking are entered into the evaluation. A general evaluation is provided in the following alternative concepts matrix.

Once we move beyond a detailed proposal such as the Ad Hoc recommendation, which has reached a relatively high level of refinement, it is increasingly difficult to do much more than make generalized evaluations or state "best guesses." The difficulty lies in the lack of information and in the inability to quantify the effect of many major changes. As an increasingly complicated number of adjustments are made somewhere else in the system to accommodate a change, the best guesses begin to be compounded upon each other, weakening the evaluation. The assessment becomes weakened further as the number of associated decisions and proposed actions increases and/or are made further into the future. Finally, the evaluation of alternatives is complicated by the wide range of potential design combinations which can be developed for each alternative concept. Many of the general impacts could be mitigated or increased by a change in a particular design solution.

In summary, it should be recognized that while short range proposals can be evaluated with some confidence, much of the evaluation of the long range proposals must be done on a judgmental, or "best guess," basis."

Detailed Impacts

	Concept Two	Concept Three	Concept Four
Functional Elements	little or no capacity change	significantly reduced capacity	total elimination of auto capacity
Pedestrian circulation	vehicle pedestrian conflicts are not substantially reduced	reduced barrier affect some conflicts remain	barrier is eliminated crossing may be
-east/west			
-north/south	depends on sidewalk widening, street closing and other design details may be significant	may be significantly enhanced with more available space	all barriers reduced more space available
-residential area circulation	no major change	negatively impacted some traffic increase in residential areas	negatively impacted by increased residential traffic
Bicycle circulation	east/west movement not changed; barrier remains	east/west barriers reduced	east barriers eliminated
-OSU oriented	north/south movement depends on design detail	north/south can be significantly reduced given additional space	bicycle will become much more practical
Local area circulation	no major change	will be reduced extent unknown	reduced substantially total extent unknown
-access to local destination		possible heavy High Street congestion	
Regional auto circulation	no major change	will be reduced extent unknown	eliminated
-c.b.d. clintonville on High Street			
Commercial	depends on design detail possible on High and in closed street sections	depends on design detail may gain second parking lane on High Street	depends on design detail may use closed street sections
-parking			
-service/delivery	depends on design detail can remain on High Street	can use High Street	probably would not use High Street
-pedestrian amenities	special attention given with closed street plazas	can be increased sidewalk widening, etc.	can be increased to any desired level
Residential	no major impact	will increase extent unknown	will increase to a much greater extent than concept two extent unknown
-auto traffic			
Institutional	can be enhanced depends on design	can be enhanced depends on design	can be enhanced depends on design
-environ image			
-traffic volumes	no major impacts	will increase extent unknown	will increase extent unknown

Detailed Impacts

The following charts contain information about the possible costs and consequences of each of eight schematic alternatives. The first column contains a brief description of the proposed action and the succeeding columns contain projected costs and impacts for each action.

In each instance, as much objective information as available is included. However, due to the nature of projecting some impacts, such as the Social/Psychological ones, a certain amount of subjective analysis is unavoidable.

The cost figures shown are projections, not estimates, and should provide useful comparisons since the methodology for arriving at the figures was consistent in each case. Prior to application for Federal Community Development Act Funds to carry out any one or parts of an alternative, a complete Environmental Impact Statement may be necessary.

Scheme 1.1

Property	Functional	Economic	Social / Psychological	Legal	Environmental
<p>60</p> <p>Property Allow for 20 of additional road-frontage on High Street between Road 1 and Road 2, adjacent to the east side of High Street.</p>	<p>Functional Allow new street to be widened and laid-in parking to be developed.</p>	<p>Economic \$190,000</p>	<p>Social / Psychological Loss of houses - threat of relocation, change of commercial environment with neighborhood.</p>	<p>Legal Potential court proceedings.</p>	<p>Environmental Requires special consideration for adjacent properties during construction.</p>
<p>Buildings Clear the northern properties along the outer side of High Street.</p>	<p>Functional Allow High Street to be widened and laid-in parking to be developed.</p>	<p>Economic 60,000 (see above)</p>	<p>Social / Psychological Loss of houses - threat of relocation, change of commercial environment with neighborhood.</p>	<p>Legal Potential court proceedings.</p>	<p>Environmental Requires special consideration for adjacent properties during construction.</p>
<p>Utilities Install a new water main along High Street, between Road 1 and Road 2, adjacent to the east side of High Street.</p>	<p>Functional Install a new water main along High Street, between Road 1 and Road 2, adjacent to the east side of High Street.</p>	<p>Economic ?</p>	<p>Social / Psychological Loss of houses - threat of relocation, change of commercial environment with neighborhood.</p>	<p>Legal Potential court proceedings.</p>	<p>Environmental Requires special consideration for adjacent properties during construction.</p>
<p>Streets No change.</p>	<p>Functional No change.</p>	<p>Economic ?</p>	<p>Social / Psychological Loss of houses - threat of relocation, change of commercial environment with neighborhood.</p>	<p>Legal Potential court proceedings.</p>	<p>Environmental Requires special consideration for adjacent properties during construction.</p>
<p>Public Transport No change.</p>	<p>Functional No change.</p>	<p>Economic ?</p>	<p>Social / Psychological Loss of houses - threat of relocation, change of commercial environment with neighborhood.</p>	<p>Legal Potential court proceedings.</p>	<p>Environmental Requires special consideration for adjacent properties during construction.</p>

Functional	Economic	Social/Psychological	Legal	Environmental
<p>Parking Increase parking capacity of high street business premises and residential streets. Eliminate the inconvenience of street door delivery. (see source Lots below)</p> <p>PEARL ST</p> <p>SIDE STREETS Increase parking capacity of Pearl St business premises and residential streets. Eliminate the inconvenience of street door delivery. (see source Lots below)</p> <p>RESIDENTIAL STREETS Increase parking capacity of residential streets. Eliminate the inconvenience of street door delivery. (see source Lots below)</p> <p>WALKWAYS Increase parking capacity of high street business premises and residential streets. Eliminate the inconvenience of street door delivery. (see source Lots below)</p>	<p>(Eliminate 74 reduced spaces)</p> <p>(for material across total for all side streets)</p> <p>(# of meters to be added to underpinning) (Add 111 reduced spaces)</p>	<p>Eliminate the barrier formed by parked cars along the side of the road - bring parking traffic closer to pedestrian zone.</p> <p>Positive feelings of less street parking lots</p> <p>Positive feelings of to walk inside parking</p>		<p>Change of residential quality with introduction of parking meters</p>
<p>Walkways No change</p> <p>PEARL ST Increase a 6' wide sidewalk along the west side</p> <p>SIDE STREETS Construct 6' wide walkways along both sides of residential streets</p> <p>CAMPUS Construct enhanced walkways across High Street</p>	<p>Increases a 6' wide sidewalk along the west side</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p>	<p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p>		
<p>Bikeways No change</p> <p>PEARL ST Increase a 6' wide sidewalk along the west side</p> <p>SIDE STREETS Construct 6' wide walkways along both sides of residential streets</p> <p>CAMPUS Construct enhanced walkways across High Street</p>	<p>Increases a 6' wide sidewalk along the west side</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p>	<p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p>		
<p>Service/Delivery Eliminate all loading along High Street.</p> <p>PEARL ST Move 10' wide loading zone along west side of Pearl St from adjacent to residential area.</p> <p>SIDE STREETS Eliminate all but the legally required loading spaces</p> <p>RESIDENTIAL AREA</p> <p>CAMPUS</p> <p>OTHER</p>	<p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p>	<p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p>	<p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p>	<p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p> <p>Increases sidewalk width from 4' to 6'.</p>

Scheme 2.1

Property	Functional	Economic	Social/Psychological	Legal	Environmental
<p>COMMERCIAL AREA Acquire easements for West-W parking on side streets.</p> <p>RESIDENTIAL AREA Acquire easements for 12' of on-street parking west of the present High Street right-of-way.</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p> <p>Alleviate high street to be widened onto Campus property.</p>				
<p>COMMERCIAL AREA Should portions of Revolution Garage.</p>	<p>Alleviate high street to be widened to the west.</p>	<p>(\$50,000)</p>	<p>4,100,000</p>		
<p>UTILITIES Locate all 12" both sides along with new conduits, water, gas, and sewer. Existing traffic signs and street lighting should be replaced with new. (New signs included with street work.)</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>		<p>150,000</p>		
<p>PEARL ST Alleviate parking shortage on West-W parking on side streets.</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>		<p>9,100</p>		
<p>5th STREET Alleviate parking shortage on West-W parking on side streets.</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>		<p>74,000</p>	<p>Eliminate pedestrian violation of 12' law. Reason: provide replacement of lost on-street parking.</p>	
<p>STREETS Within 15th and 18th Aves. to 100' curb-to-curb and 100' curb-to-curb. (New signs included with street work.)</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>		<p>400,000</p>		<p>File cases provided for all closed streets eliminate some existing trees on 18th Ave between High and Pearl Streets.</p>
<p>PEARL ST Alleviate parking shortage on West-W parking on side streets.</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>		<p>172,000</p>		
<p>5th STREET Alleviate parking shortage on West-W parking on side streets.</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>		<p>40,000</p>		
<p>STREETS Within 15th and 18th Aves. to 100' curb-to-curb and 100' curb-to-curb. (New signs included with street work.)</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>		<p>11,000</p>		
<p>PEARL ST Alleviate parking shortage on West-W parking on side streets.</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>				
<p>CAMPUS STREETS Alleviate parking shortage on West-W parking on side streets.</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>				
<p>OTHER</p>					
<p>PUBLIC TRANSPORT Alleviate parking shortage on West-W parking on side streets.</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>				
<p>PEARL ST Alleviate parking shortage on West-W parking on side streets.</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>				
<p>CAMPUS Alleviate parking shortage on West-W parking on side streets.</p>	<p>Alleviate parking shortage on West-W parking on side streets.</p>				
<p>OTHER</p>					

Functional	Economic	Social / Psychological	Legal	Environmental
<p>Parking</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>PEARL ST.</p> <p>SIDE STREETS</p> <p>Increases parking capacity in residential areas (Also loading along the east curb)</p> <p>RESIDENTIAL AREAS</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>SURFACE LOTS</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>STRUCTURES</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>OTHER</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p>	<p>(Increase in reduced space)</p> <p>(\$ 2,000)</p> <p>(No meters that for 24 (residential areas))</p> <p>(# of meters to be added is undetermined)</p>	<p>Provide feelings of less on-street parking (to increase quality of life)</p> <p>Removal of metered parking will increase quality of life</p>		<p>Change of residential quality with introduction of parking meters</p>
<p>Walkways</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>PEARL ST.</p> <p>SIDE STREETS</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>RESIDENTIAL AREAS</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>SURFACE LOTS</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>STRUCTURES</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>OTHER</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p>	<p>(Increase in reduced space)</p> <p>(\$ 4,000)</p>	<p>Increases on-street parking in residential areas (Also loading along the east curb)</p>	<p>Increases on-street parking in residential areas (Also loading along the east curb)</p>	
<p>Bikeways</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>PEARL ST.</p> <p>SIDE STREETS</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>RESIDENTIAL AREAS</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>SURFACE LOTS</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>STRUCTURES</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>OTHER</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p>	<p>(Increase in reduced space)</p> <p>(\$ 4,000)</p>	<p>Increases on-street parking in residential areas (Also loading along the east curb)</p>	<p>Increases on-street parking in residential areas (Also loading along the east curb)</p>	
<p>Service/Delivery</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>PEARL ST.</p> <p>SIDE STREETS</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>RESIDENTIAL AREAS</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>SURFACE LOTS</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>STRUCTURES</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p> <p>OTHER</p> <p>Increases on-street parking in residential areas (Also loading along the east curb)</p>	<p>(Increase in reduced space)</p> <p>(\$ 4,000)</p>	<p>Increases on-street parking in residential areas (Also loading along the east curb)</p>	<p>Increases on-street parking in residential areas (Also loading along the east curb)</p>	

Scheme 2.2

Property	Functional	Economic	Social / Psychological	Legal	Environmental
<p>Property Assume the properties between Pearl and High Streets of 15th Ave are to be sold. Assume additional 8.00 acre along west side of Pearl.</p> <p>COMMERCIAL AREA 15th Ave from College Road and High St.</p> <p>RESIDENTIAL AREA 15th Ave from Pearl</p> <p>CAMPUS 15th Ave from Pearl</p> <p>CITY</p> <p>OTHER</p>	<p>Allows site to be rezoned for North and South connector roads and for central part of 15th Ave. Moves Pearl St. to be widened.</p> <p>(City cost unknown)</p> <p>Units campus to High St. overlaps and Commercial area, to residential area east of Pearl St.</p> <p>Creates large central open space and driveway that point of the main pedestrian entrance to campus.</p>	<p>\$ 7,500,000</p> <p>1,000,000</p> <p>400,000</p> <p>(First investment)</p>	<p>Increases open space in the midst of the commercial area.</p> <p>Requires special consideration for adjacent properties during demolition.</p>	<p>Special consideration for adjacent properties during demolition.</p>	<p>Increases open space in the midst of the commercial area.</p>
<p>Buildings Allow construction of north and south connector roads and 15th Ave part. Allow large-scale renovation and redevelopment of commercial properties.</p> <p>COMMERCIAL AREA 15th Ave from Pearl</p> <p>RESIDENTIAL AREA</p> <p>CAMPUS</p> <p>CITY</p> <p>OTHER</p>	<p>Allow east sidewalk to be widened</p> <p>Allow Pearl St. to be widened to the west</p>	<p>150,000</p> <p>?</p> <p>?</p>	<p>Identical change of scale and loss of existing character of commercial area.</p> <p>Retention of existing features, loss of existing building and commercial area by widening.</p>	<p>High compliance normally for education costs when high street improvement are involved.</p>	<p>High compliance normally for education costs when high street improvement are involved.</p>
<p>Utilities Relocate utilities on east side along with new cars, transit and other existing traffic, signs and lighting. Utilities on the west side of Pearl St. install new or other existing traffic, signs and lighting.</p> <p>High Street 15th Ave from Pearl</p> <p>East Street 15th Ave from Pearl</p> <p>West Street 15th Ave from Pearl</p> <p>Other</p>	<p>Allow east sidewalk to be widened</p> <p>Allow Pearl St. to be widened to the west</p>	<p>650,000</p> <p>300,000</p> <p>100,000</p> <p>40,000</p> <p>11,000,000</p>	<p>Retention of existing features, loss of existing building and commercial area by widening.</p> <p>Retention of existing features, loss of existing building and commercial area by widening.</p> <p>Retention of existing features, loss of existing building and commercial area by widening.</p>	<p>High compliance normally for education costs when high street improvement are involved.</p>	<p>High compliance normally for education costs when high street improvement are involved.</p>
<p>Streets Allow construction of 15th Ave pedestrian connector to campus, reduce barrier to 15th Ave pedestrian and bike movement.</p> <p>High Street 15th Ave from Pearl</p> <p>East Street 15th Ave from Pearl</p> <p>West Street 15th Ave from Pearl</p> <p>Other</p>	<p>Allow east sidewalk to be widened</p> <p>Allow Pearl St. to be widened to the west</p>	<p>650,000</p> <p>300,000</p> <p>100,000</p> <p>40,000</p> <p>11,000,000</p>	<p>Retention of existing features, loss of existing building and commercial area by widening.</p> <p>Retention of existing features, loss of existing building and commercial area by widening.</p> <p>Retention of existing features, loss of existing building and commercial area by widening.</p>	<p>High compliance normally for education costs when high street improvement are involved.</p>	<p>High compliance normally for education costs when high street improvement are involved.</p>
<p>Public Transport Allow all existing and new along High Street, more comfortable steps to Pearl Street.</p> <p>High Street 15th Ave from Pearl</p> <p>East Street 15th Ave from Pearl</p> <p>West Street 15th Ave from Pearl</p> <p>Other</p>	<p>Allow east sidewalk to be widened</p> <p>Allow Pearl St. to be widened to the west</p>	<p>650,000</p> <p>300,000</p> <p>100,000</p> <p>40,000</p> <p>11,000,000</p>	<p>Retention of existing features, loss of existing building and commercial area by widening.</p> <p>Retention of existing features, loss of existing building and commercial area by widening.</p> <p>Retention of existing features, loss of existing building and commercial area by widening.</p>	<p>High compliance normally for education costs when high street improvement are involved.</p>	<p>High compliance normally for education costs when high street improvement are involved.</p>

Functional	Economic	Social/Psychological	Legal	Environmental
<p>Parking Eliminate all parking on High Street between Dale and Colindale Street between Dale and Colindale Street (see 'Surface Lots' below)</p> <p>PEARL ST Improve footway and pavement. Introduce parking in widened portions of 15% of Pearl St and 5% of high street between high street and Pearl Street</p> <p>RESIDENTIAL STREETS Introduce widened parking along 15% of Pearl St to introduce a new road in widened portion along the east side of Pearl St</p>	<p>(Commence at market square)</p> <p>Increases confidence with traffic on side streets</p> <p>10% total reduced spaces on all side streets</p> <p>6 of meters to be added (see table)</p> <p>14,000 (see table)</p>	<p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p> <p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p> <p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p>		<p>Change of residential quality with introduction of parking meters</p>
<p>Walkways Narrow the east sidewalk to 5' in places. Narrow the west sidewalk to 5' in places.</p> <p>PEARL ST Construct a 6' wide walkway along the west side of Pearl St</p> <p>SIDE STREETS Construct 5' wide walkways along both sides of residential streets</p> <p>CAMPUS Widen the Union steps and create walkway</p>	<p>Increases pedestrian space, allows street trees</p> <p>Decreases pedestrian car space</p> <p>Removes a facility where none exists, provides pedestrian and building front setbacks, provides loading space</p> <p>Increases old residential, reduces some planning areas</p> <p>Allows high street to be shared to the west</p>	<p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p> <p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p> <p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p>	<p>Essential documents to property owners</p>	
<p>Bikeways Mark 100 ft wide. Diagonal in High Street, northbound along the east side, southbound along the west side</p> <p>PEARL ST</p> <p>SIDE STREETS</p> <p>CAMPUS</p> <p>MID-BLOCK</p> <p>RESIDENTIAL</p> <p>OTHER</p>	<p>7</p>	<p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p> <p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p> <p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p>	<p>Essential documents to property owners</p>	
<p>Service Delivery Eliminate all loading along High Street</p> <p>PEARL ST Mark a 10' wide loading zone along the east side of Pearl St, between Colindale and Colindale Ave</p> <p>SIDE STREETS Eliminate all but the loading required loading space</p> <p>RESIDENTIAL AREA</p> <p>CAMPUS</p> <p>OTHER</p>	<p>Eliminates conflicts with high street traffic and bicycles/pedestrians, eliminates commercial loading of front door of shops</p> <p>Increases confidence with traffic, increases convenience of rear door deliveries, increases loading capacity and availability of space</p> <p>Increases pedestrian space</p>	<p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p> <p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p> <p>Eliminate all parking on High Street between Dale and Colindale Street (see 'Surface Lots' below)</p>	<p>Essential documents to property owners</p>	<p>Change of residential quality with introduction of parking meters</p>

Scheme 4.1

Functional	Economic	Social / Psychological	Legal	Environmental
<p>Property Construct a new structure of parking structures Acquire property for parking Structures at 15th St, 12th St, 11th St, 10th St, 9th St, 8th St, 7th St, 6th St, 5th St, 4th St, 3rd St, 2nd St, 1st St, and 0th St High and local streets</p> <p>RESIDENTIAL AREA CAMPUS OTHER</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>
<p>Buildings Clear, build and construct Structures at 15th St, 12th St, 11th St, 10th St, 9th St, 8th St, 7th St, 6th St, 5th St, 4th St, 3rd St, 2nd St, 1st St, and 0th St High and local streets</p> <p>RESIDENTIAL AREA CAMPUS OTHER</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>
<p>Utilities Install, along the street side of the street along with the new water line, sewer lines and other existing utility lines and streets (15th St, 12th St, 11th St, 10th St, 9th St, 8th St, 7th St, 6th St, 5th St, 4th St, 3rd St, 2nd St, 1st St, and 0th St)</p> <p>RESIDENTIAL AREA CAMPUS OTHER</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>
<p>Streets Construct 3 parking structures for 200 cars each, at 15th St, 12th St, 11th St, 10th St, 9th St, 8th St, 7th St, 6th St, 5th St, 4th St, 3rd St, 2nd St, 1st St, and 0th St</p> <p>RESIDENTIAL AREA CAMPUS OTHER</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>
<p>Public Transport High speed train between 15th St, 12th St, 11th St, 10th St, 9th St, 8th St, 7th St, 6th St, 5th St, 4th St, 3rd St, 2nd St, 1st St, and 0th St</p> <p>RESIDENTIAL AREA CAMPUS OTHER</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>	<p>160,000 2,400,000</p>

Functional	Economic	Social / Psychological	Legal	Environmental
<p>Parking</p> <p>WIDE STREETS Eliminate the convenience of front door parking, reduce parking availability.</p> <p>PEARL ST.</p> <p>SIDE STREETS Reduce parking availability, eliminate the convenience of front door access.</p> <p>RESIDENTIAL SURFACE LOTS</p> <p>PEARL ST. Reduce parking availability, eliminate the convenience of front door access.</p> <p>OTHER</p>	<p>(Eliminate a natural space)</p> <p>(Eliminate a natural space)</p> <p>(Add 100 additional parking spaces)</p>	<p>+75,000 increased parking security and night-time safety</p>		
<p>Walkways</p> <p>HIGH STREET Narrow pedestrian space along street, reduce the width of the sidewalk, reduce the level of the sidewalk, construct a level sidewalk and a ramp.</p> <p>PEARL ST.</p> <p>WIDE STREETS Reduce sidewalk width, remove access ways through the commercial street.</p> <p>CAMPUS</p> <p>MID-BLOCK</p> <p>RESIDENTIAL</p> <p>OTHER</p>	<p>Increases pedestrian space along street, increases the width of the sidewalk, increases the level of the sidewalk, constructs a level sidewalk and a ramp.</p> <p>Reduces sidewalk width, removes access ways through the commercial street.</p>	<p>116,000 2,500,000</p> <p>Increases a sense of pedestrian orientation to the street, increases the level of the sidewalk, increases the level of the sidewalk, constructs a level sidewalk and a ramp.</p>	<p>Increases responsibility for property protection.</p> <p>Increases responsibility for street children.</p>	
<p>Bikeways</p> <p>HIGH STREET</p> <p>PEARL ST.</p> <p>WIDE STREETS</p> <p>CAMPUS</p> <p>MID-BLOCK</p> <p>RESIDENTIAL</p> <p>OTHER</p>				
<p>Service / Delivery</p> <p>HIGH STREET Eliminate the convenience of front door access, increase dependence upon private loading bays.</p> <p>PEARL ST. Eliminate the convenience of front door access, increase dependence upon private loading bays.</p> <p>WIDE STREETS Eliminate the convenience of front door access, increase dependence upon private loading bays.</p> <p>RESIDENTIAL AREA</p> <p>CAMPUS</p> <p>OTHER</p>	<p>Eliminate the convenience of front door access, increase dependence upon private loading bays.</p> <p>Eliminate the convenience of front door access, increase dependence upon private loading bays.</p> <p>Eliminate the convenience of front door access, increase dependence upon private loading bays.</p>	<p>Increases the availability of loading vehicles, increases the availability of loading vehicles, increases the availability of loading vehicles.</p> <p>Increases the availability of loading vehicles.</p>	<p>Essential to ensure the safety of loading vehicles.</p>	

Impacts Summary

The charts shown below indicate how the various schemes relate to the problem statements in the Introduction. Some of the notations may be open to discussion. In no instance are the notations cumulative since there is no weighing as to the relative importance of the problems. That is to say that the number of pluses or minuses cannot be used to indicate the appropriateness of one scheme over another. The charts simply indicate a summary of how each problem is treated by the various alternatives.

TRAFFIC PROBLEMS

O-D traffic conflicts w/pedestrians and bikes.

Regional traffic conflicts w/pedestrians and bikes.

"Parking Search" traffic conflicts w/O-D traffic.

Delivery traffic conflicts w/other modes of traffic.

BICYCLE PROBLEMS

Too little street space for bike safety.

Too much traffic for bikes to use left-turn lanes.

Lack of adequate storage facilities.

PEDESTRIAN PROBLEMS

Inadequate width of eastside sidewalk.

Inadequate space for pedestrian amenities.

Shop entrance doors open onto the sidewalk.

Broken or crumbled sidewalk surface.

No sidewalk on Pearl Street.

Signal timing favors N-S vehicles instead of E-W pedestrians.

Conflict of north-south vehicular movement with east-west pedestrian movement.

Conflict of north-south pedestrian movement with east-west vehicular movement.

	1.1	2.1	2.2	2.3	2.4	3.1	4.1	4.2
O-D traffic conflicts w/pedestrians and bikes.	+	0	0	+	0	+	+	+
Regional traffic conflicts w/pedestrians and bikes.	+	0	0	0	0	+	+	+
"Parking Search" traffic conflicts w/O-D traffic.	+	+	+	+	+	+	+	+
Delivery traffic conflicts w/other modes of traffic.	+	0	+	+	0	0	+	+
Too little street space for bike safety.	+	+	0	+	+	+	+	+
Too much traffic for bikes to use left-turn lanes.	0	0	0	0	0	+	+	+
Lack of adequate storage facilities.	+	+	+	+	+	+	+	+
Inadequate width of eastside sidewalk.	0	+	+	+	+	+	+	+
Inadequate space for pedestrian amenities.	0	+	+	+	+	+	+	+
Shop entrance doors open onto the sidewalk.	0	0	+	0	0	0	+	0
Broken or crumbled sidewalk surface.	0	+	+	+	+	+	+	+
No sidewalk on Pearl Street.	+	0	+	+	0	+	0	+
Signal timing favors N-S vehicles instead of E-W pedestrians.	0	0	0	0	0	+	+	+
Conflict of north-south vehicular movement with east-west pedestrian movement.	-	0	0	0	0	+	+	+
Conflict of north-south pedestrian movement with east-west vehicular movement.	+	+	+	0	+	0	+	+

+ Improves the situation
 0 No effective change
 - Increases the problem

PARKING PROBLEMS

Lack of short-term parking spaces.

Non-metered spaces used by commuting students and staff.

Use of inexpensive one-hour meters by students reduces commercial parking.

Lack of proper parking facilities on Pearl Street.

Conflict of moving and parked cars on High Street.

Illegally parked cars throughout the area.

Off-street parking areas not conforming to City Code.

	1.1	2.1	2.2	2.3	2.4	3.1	4.1	4.2
Lack of short-term parking spaces.	+	+	+	+	+	+	+	+
Non-metered spaces used by commuting students and staff.	0	-	0	0	-	0	0	0
Use of inexpensive one-hour meters by students reduces commercial parking.	0	0	+	0	0	0	+	0
Lack of proper parking facilities on Pearl Street.	+	0	0	+	0	+	0	+
Conflict of moving and parked cars on High Street.	+	+	+	+	+	-	+	+
Illegally parked cars throughout the area.	+	+	+	+	+	+	+	+
Off-street parking areas not conforming to City Code.	0	0	+	0	0	0	+	0
<u>SERVICE AND DELIVERY PROBLEMS</u>								
Inadequate loading & access facilities.	+	+	+	+	+	+	+	+
Conflict of parked service vehicles with moving vehicles, bikes and pedestrians.	+	0	+	+	0	+	+	+
Inconvenient circulation for service vehicles.	0	-	-	+	-	+	-	-
Inadequate width of Pearl Street for service vehicles.	+	0	+	+	0	+	0	+
Inadequate High Street loading space	-	+	0	-	+	+	-	-
No loading space in Pearl Street.	+	0	+	+	0	+	0	+
Lack of delivery entrances from Pearl Street.	0	0	+	0	0	0	+	0
Potential off-street loading areas are used for staff parking.	0	0	+	0	0	0	+	0
High Street loading conflicts with pedestrians on sidewalk.	+	+	+	+	+	+	+	+
Garbage trucks causes blockage or inconvenience to moving traffic on Pearl Street.	+	0	+	+	0	+	0	+

Impacts Summary

+ Improves the situation
 0 No effective change
 - Increases the problem

TRANSIT PROBLEMS

Insufficient sidewalk space on High Street.

Loading busses tie up curb lane traffic.

Non-peak hour parked vehicles and illegal peak hour parked vehicles delay busses.

Narrow lane width on High Street cramps bus maneuverability.

No northbound bus service out of downtown after 9:42 PM.

No east-west neighborhood bus service in the Center Section.

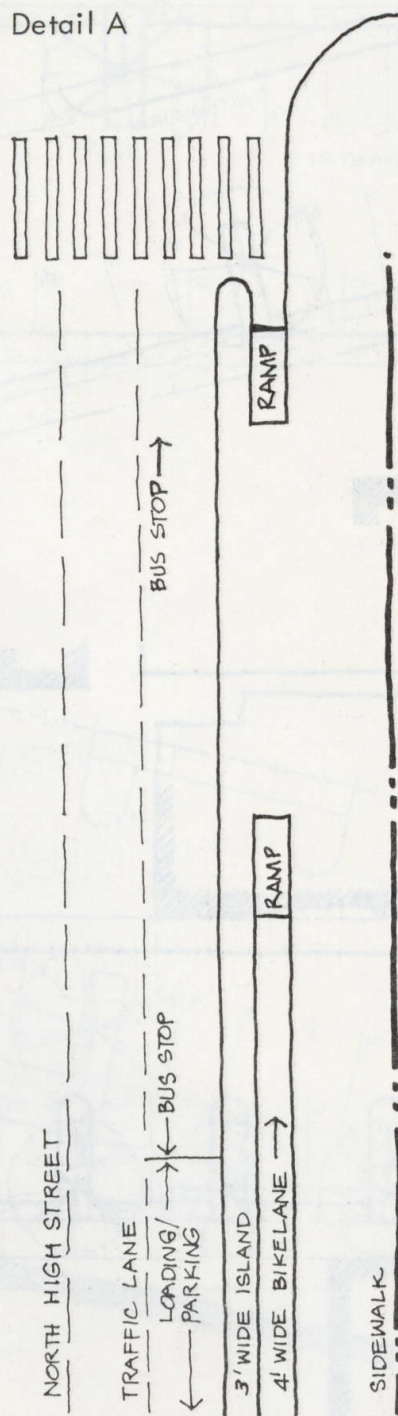
	1.1	2.1	2.2	2.3	2.4	3.1	4.1	4.2
Insufficient sidewalk space on High Street.	0	+	+	+	+	+	+	+
Loading busses tie up curb lane traffic.	0	0	0	0	0	+	+	+
Non-peak hour parked vehicles and illegal peak hour parked vehicles delay busses.	0	0	0	0	0	+	+	+
Narrow lane width on High Street cramps bus maneuverability.	+	0	+	+	0	+	+	+
No northbound bus service out of downtown after 9:42 PM.	0	0	0	0	0	0	0	0
No east-west neighborhood bus service in the Center Section.	0	0	0	0	0	0	0	0

Appendix A

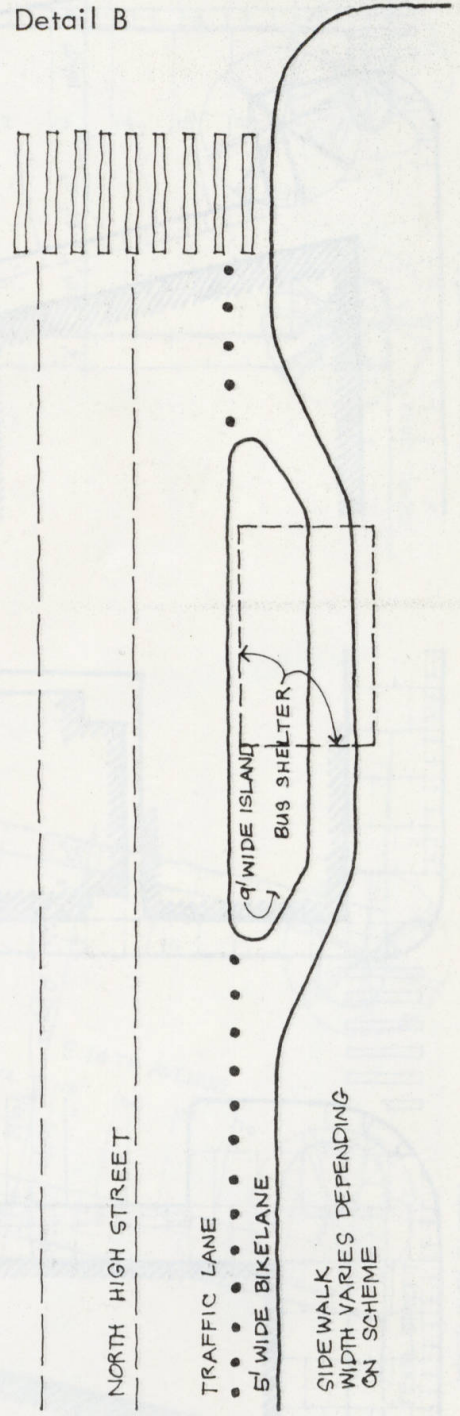
BUS STOP/BIKELANE DETAILS

The following drawings illustrate possible configurations only. Actual design and construction will depend upon detailed preliminary engineering studies and may vary from what is shown here.

Detail A



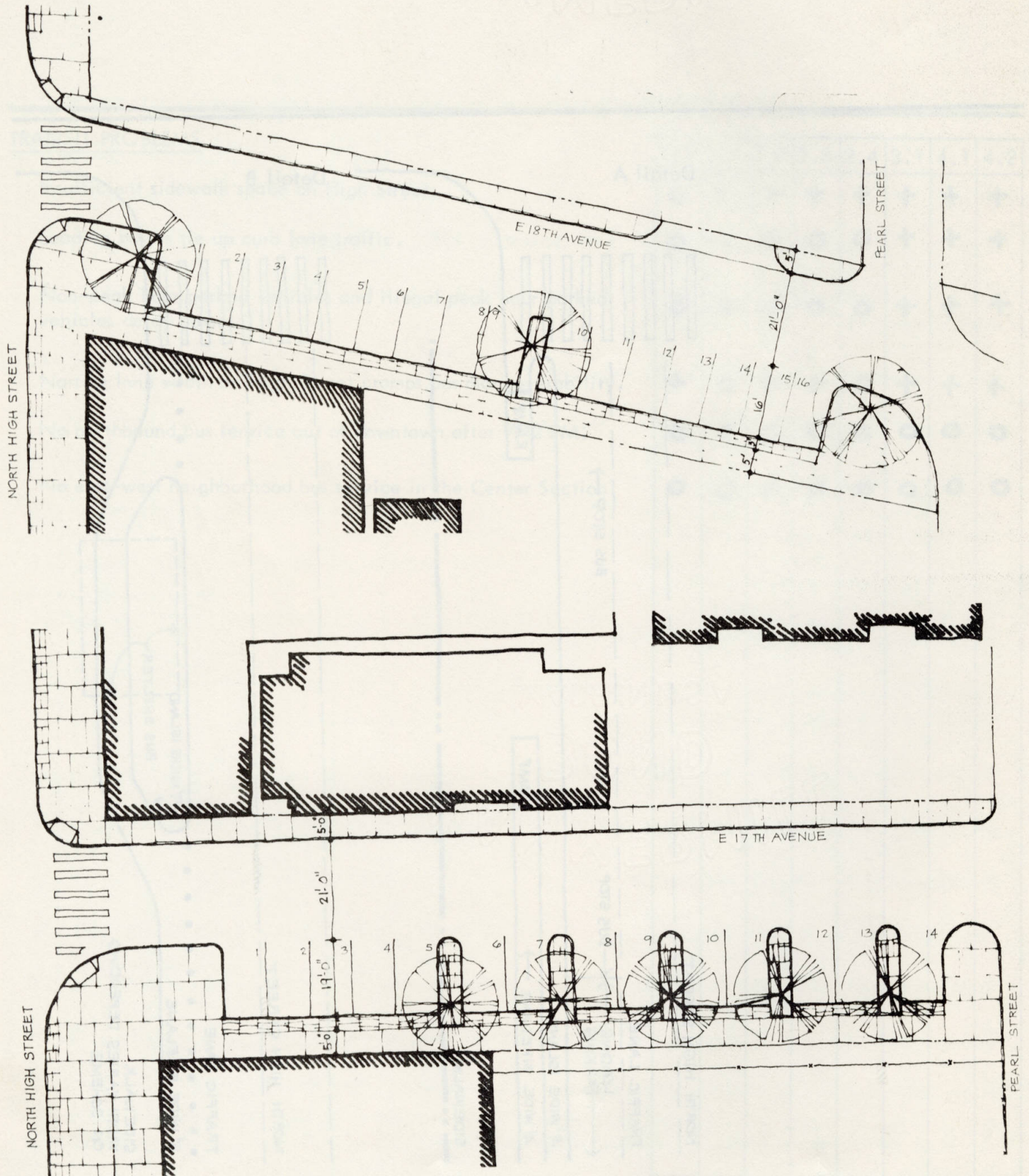
Detail B

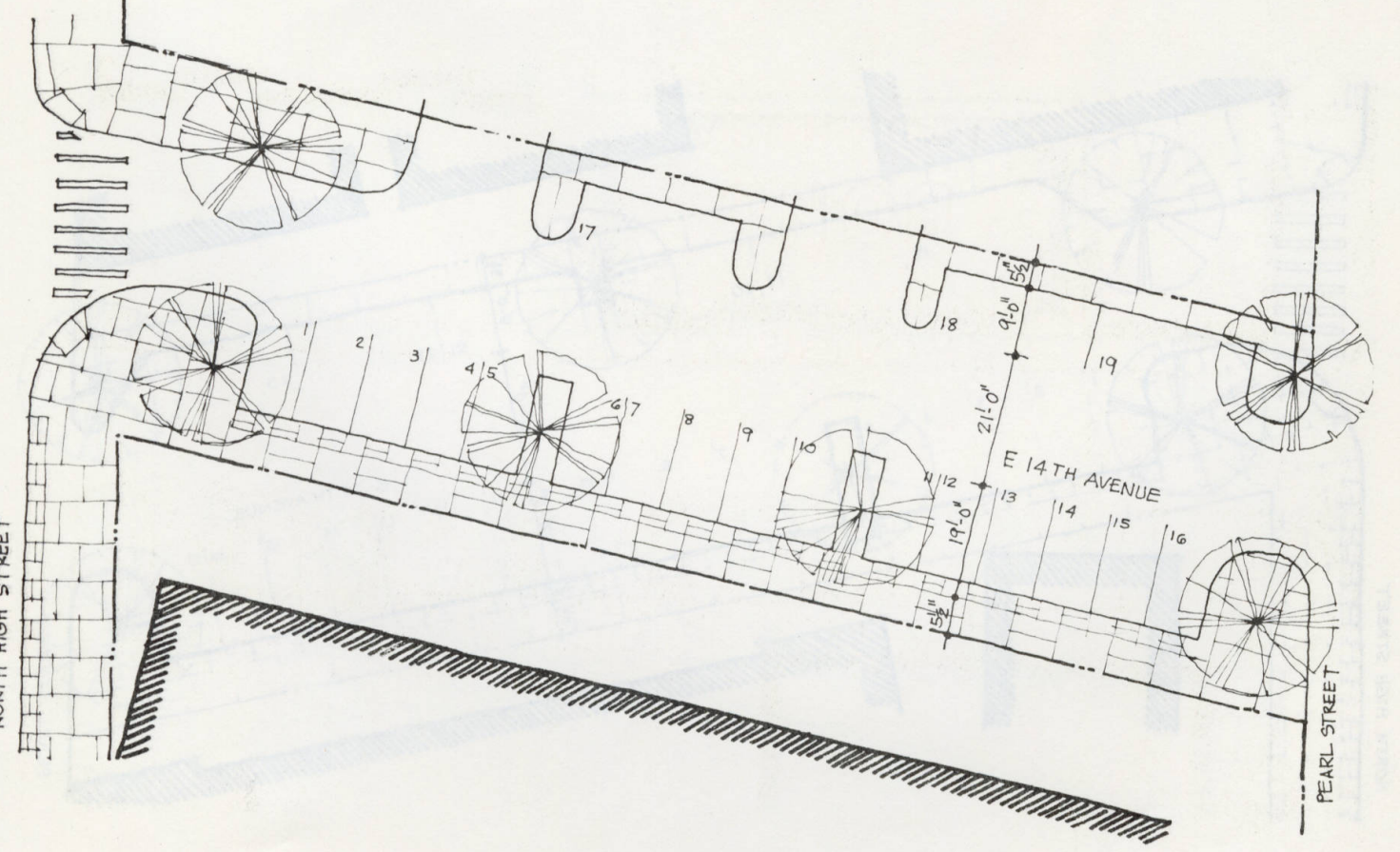
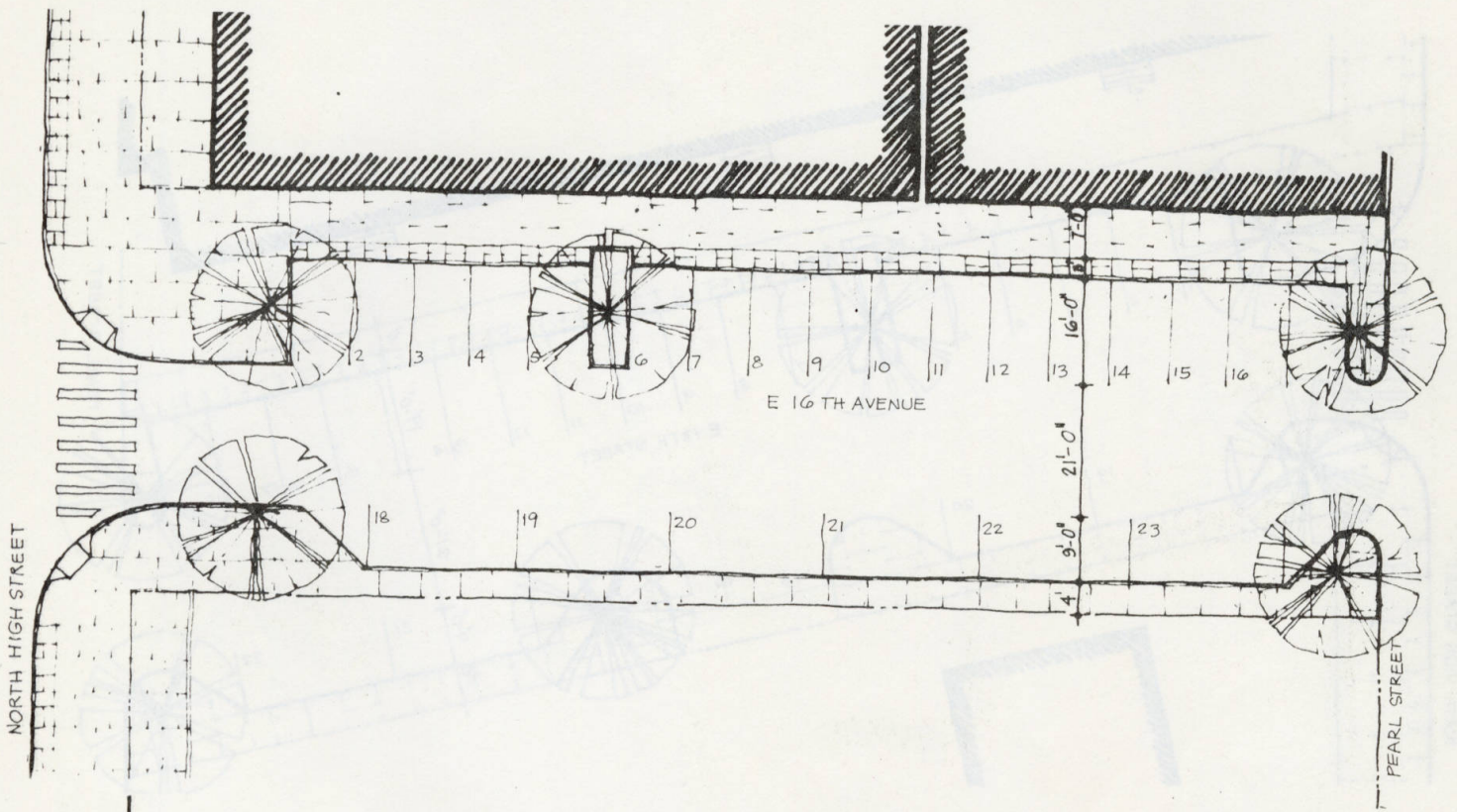


Appendix B

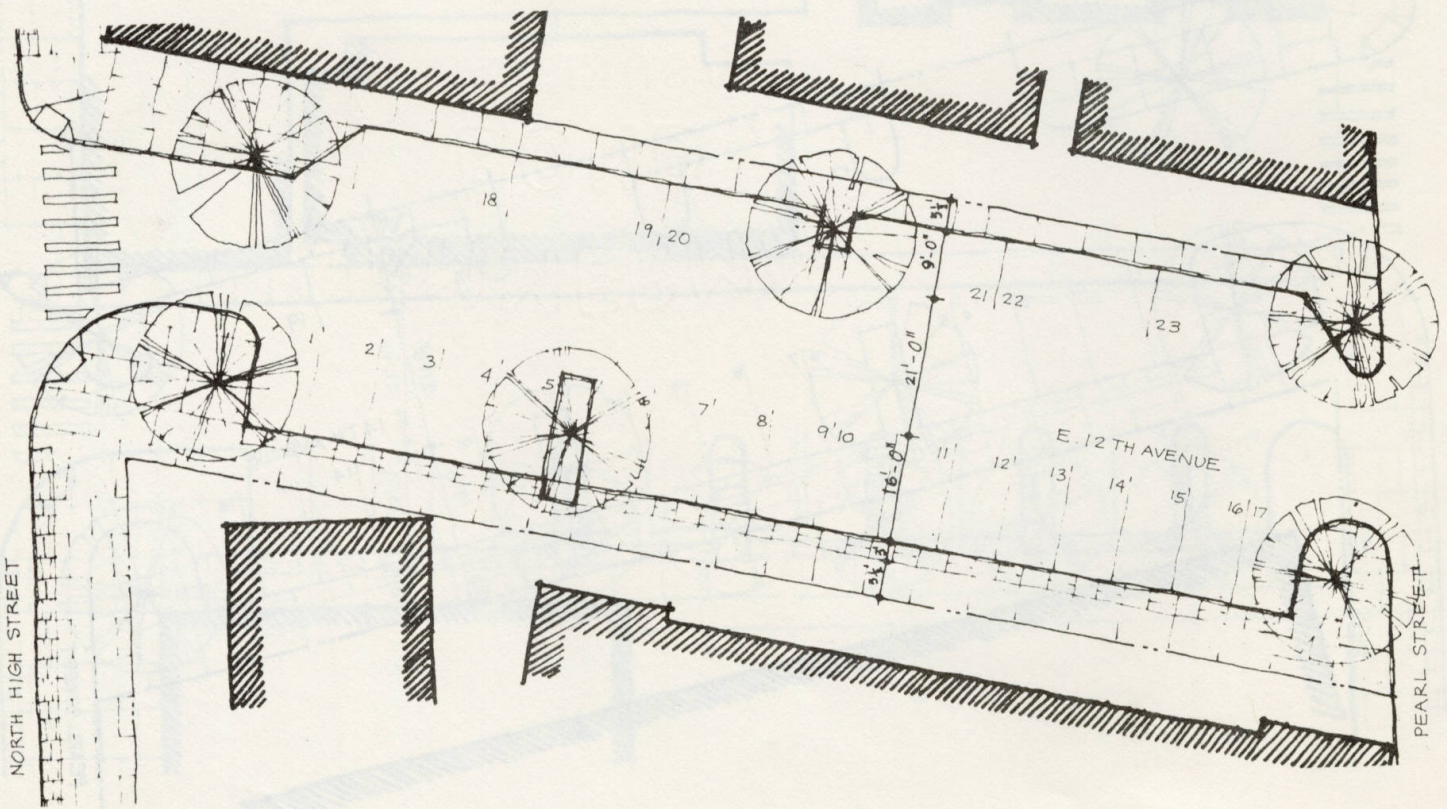
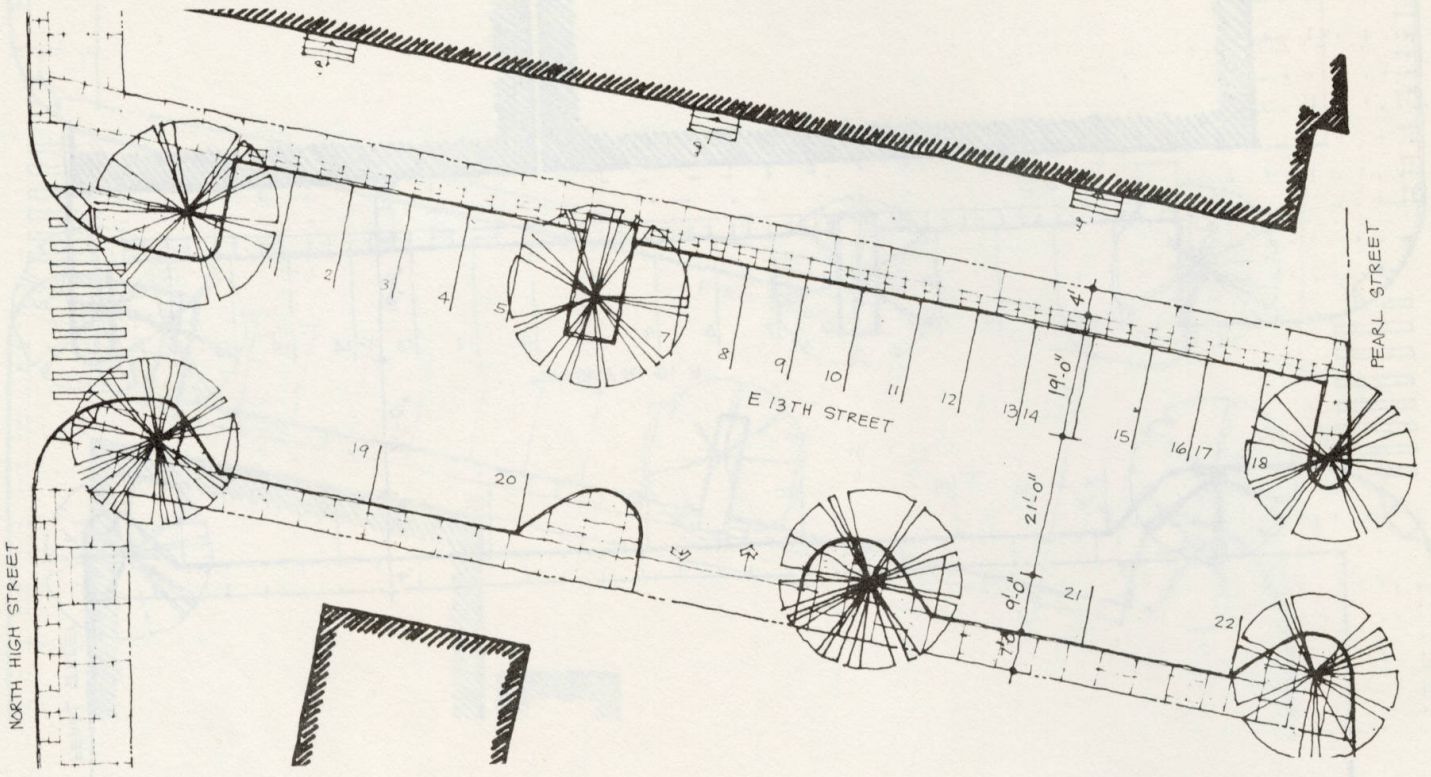
PARKING FOR OPEN SIDE STREETS

The following drawings illustrate possible configurations for the development of parking along selected side streets in the Center Section. Actual development will depend upon detailed preliminary engineering studies and may vary from what is shown here.

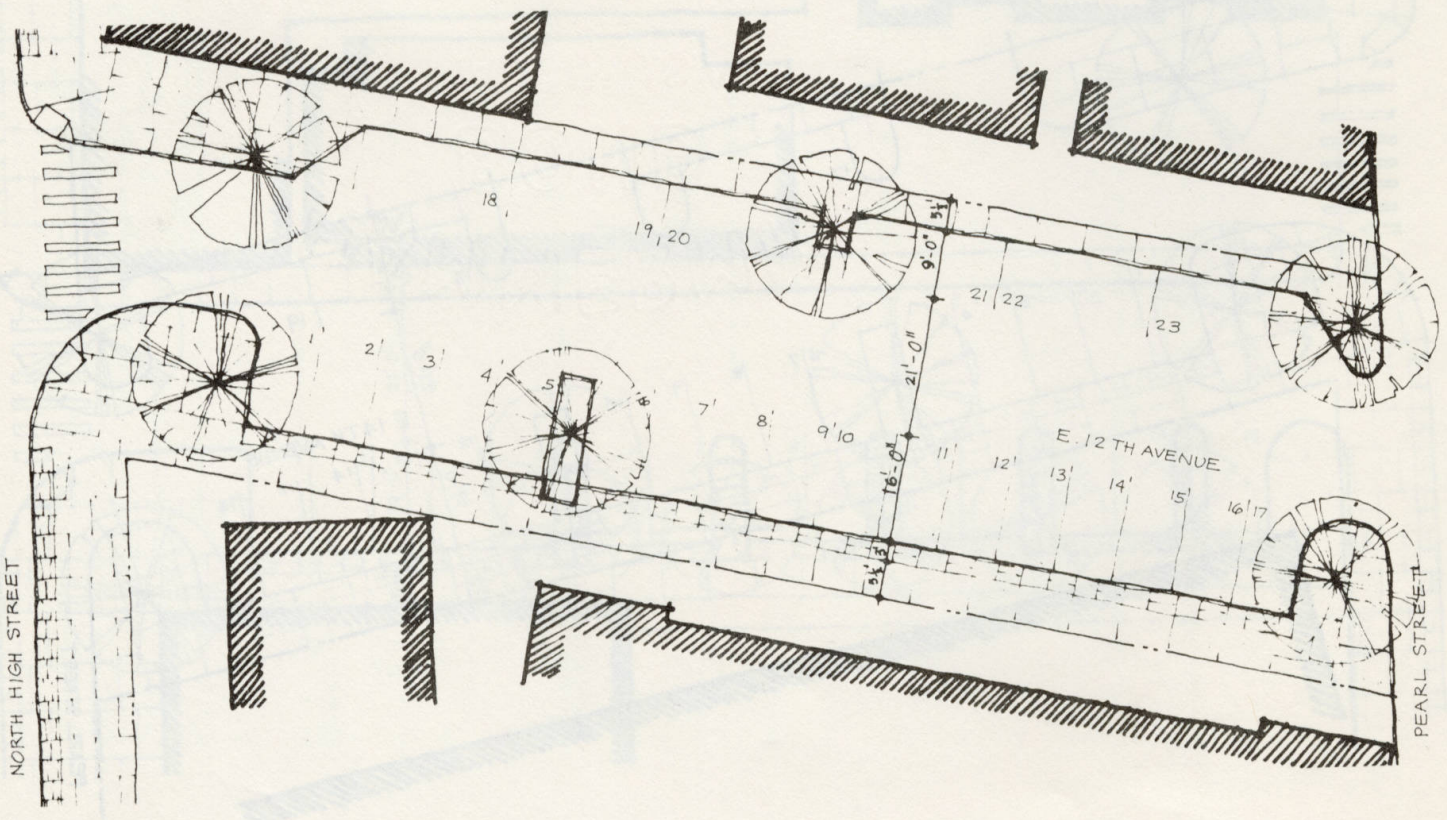
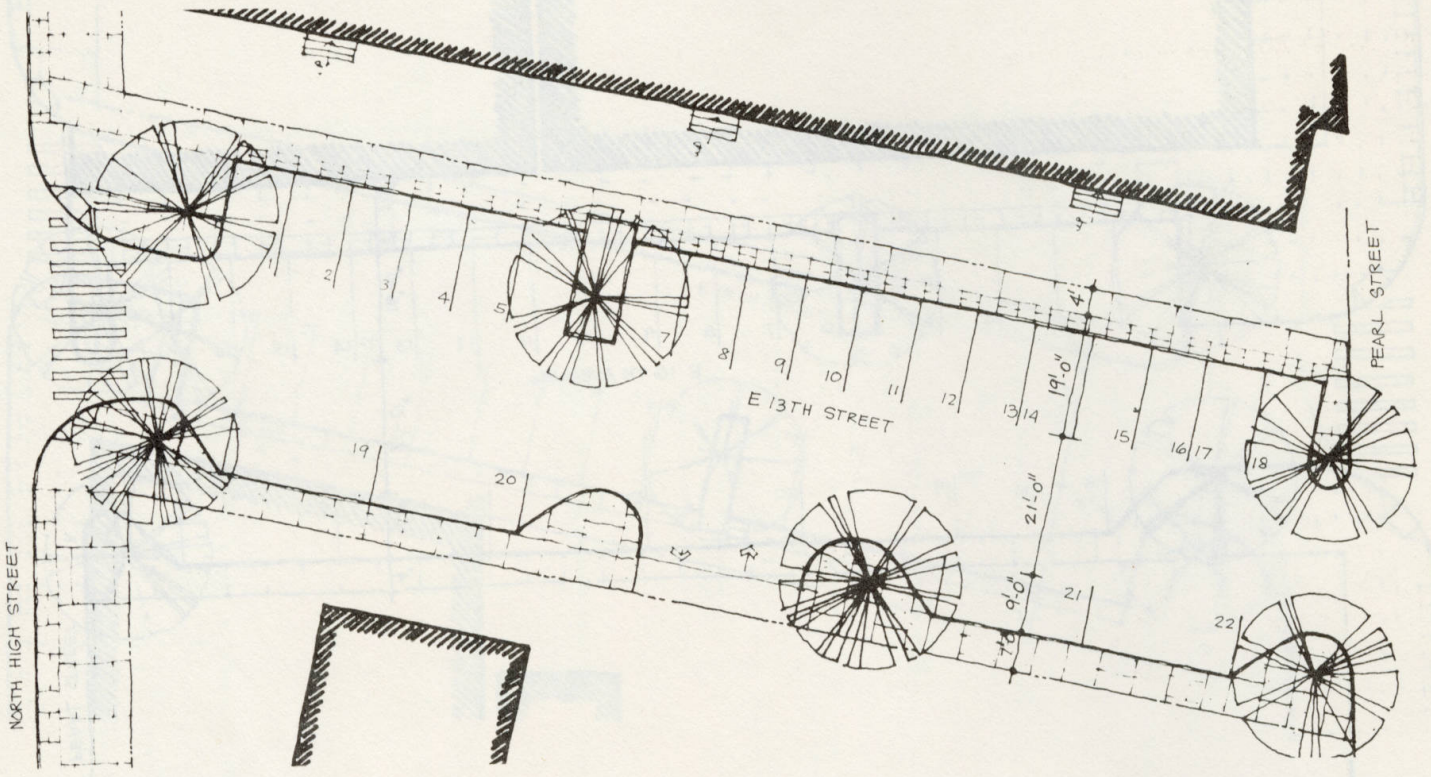




Appendix B
PARKING FOR OPEN SIDE STREETS



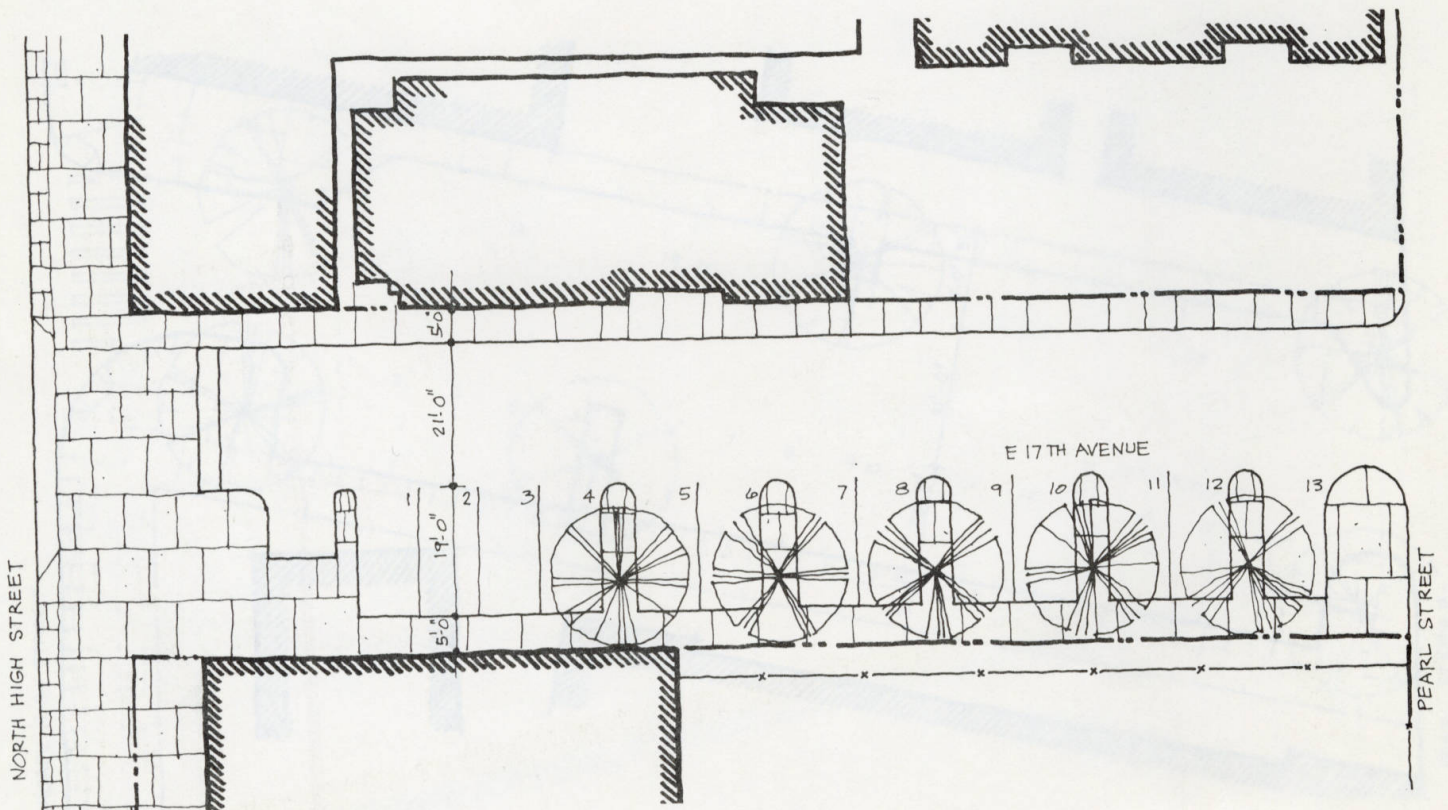
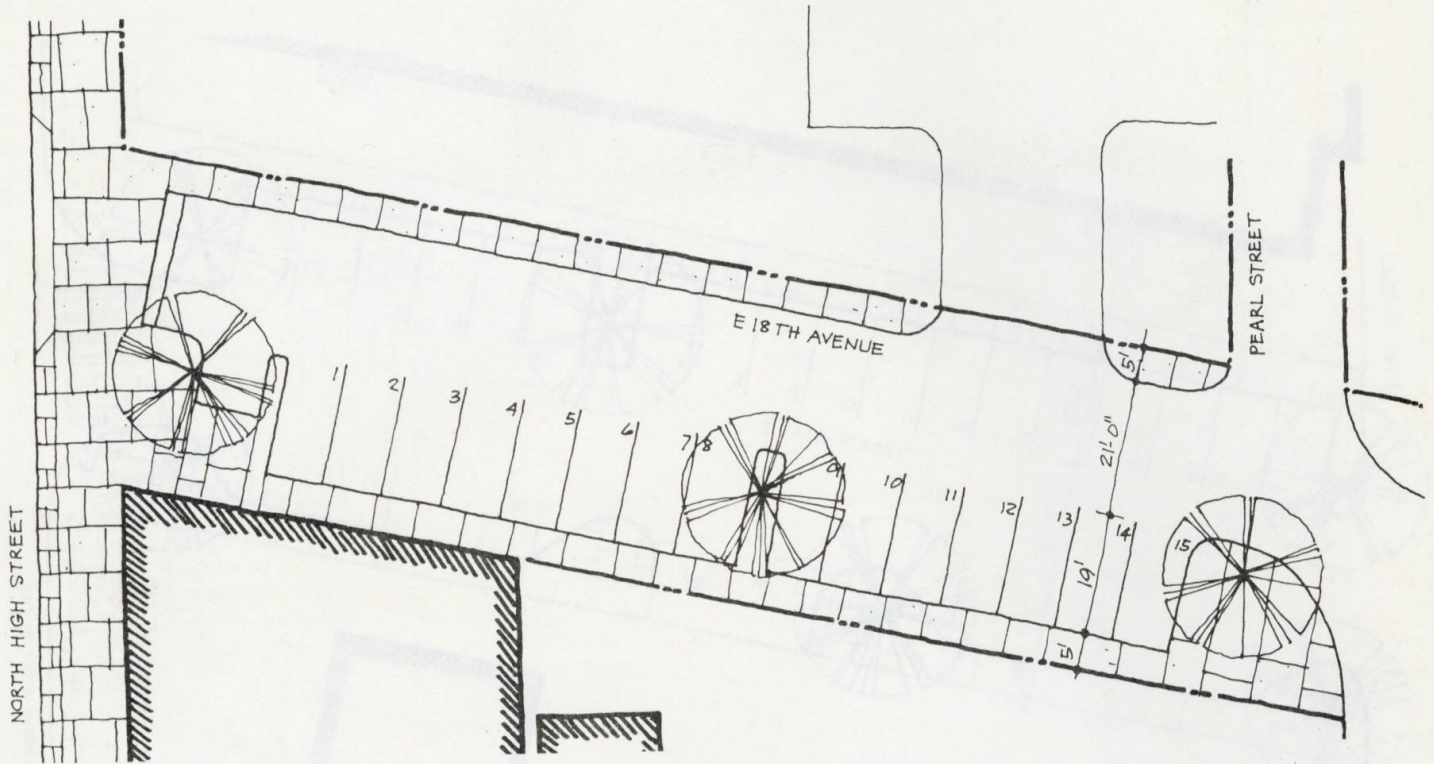
Appendix B
PLANS FOR OPEN SIDE STREETS

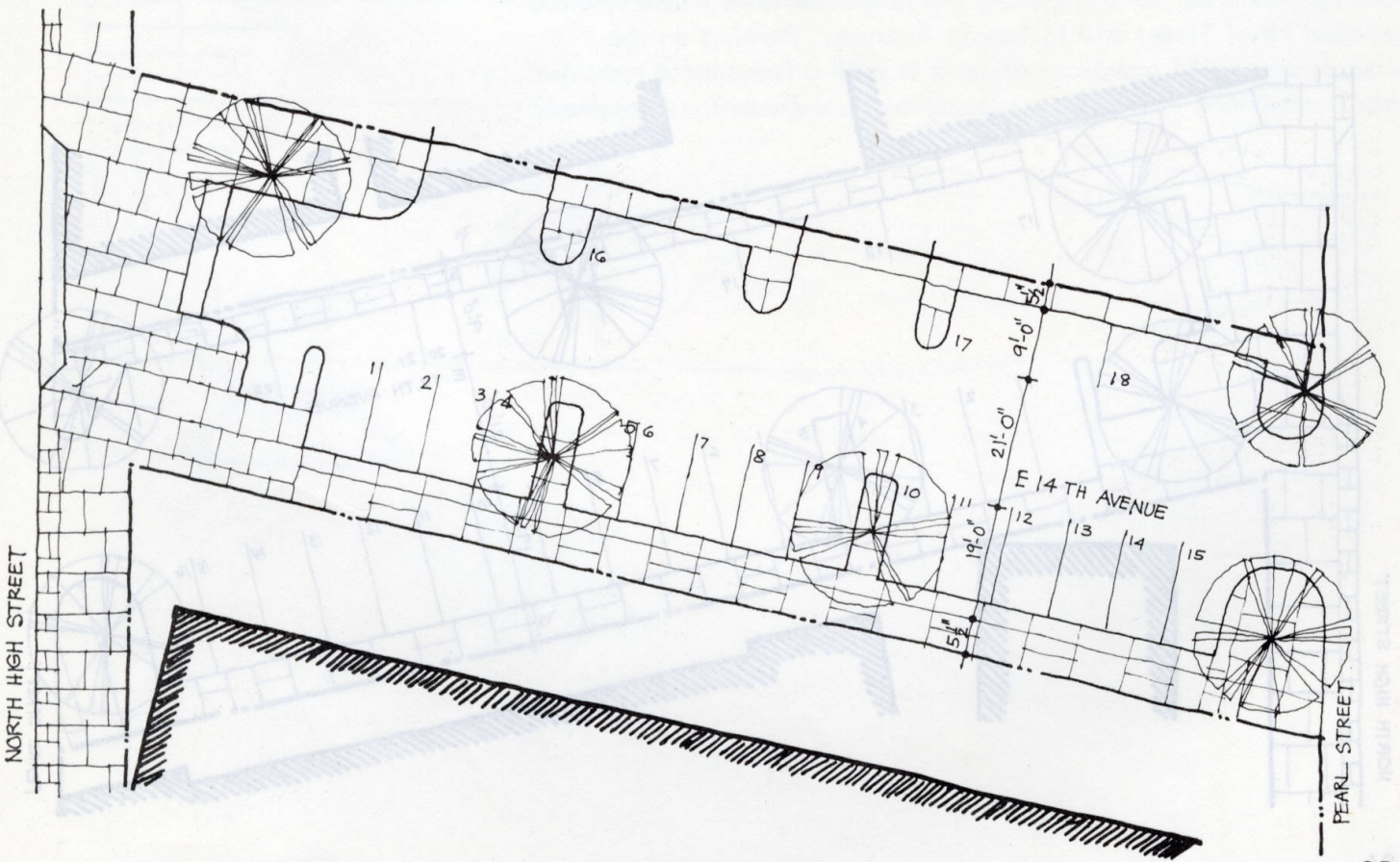
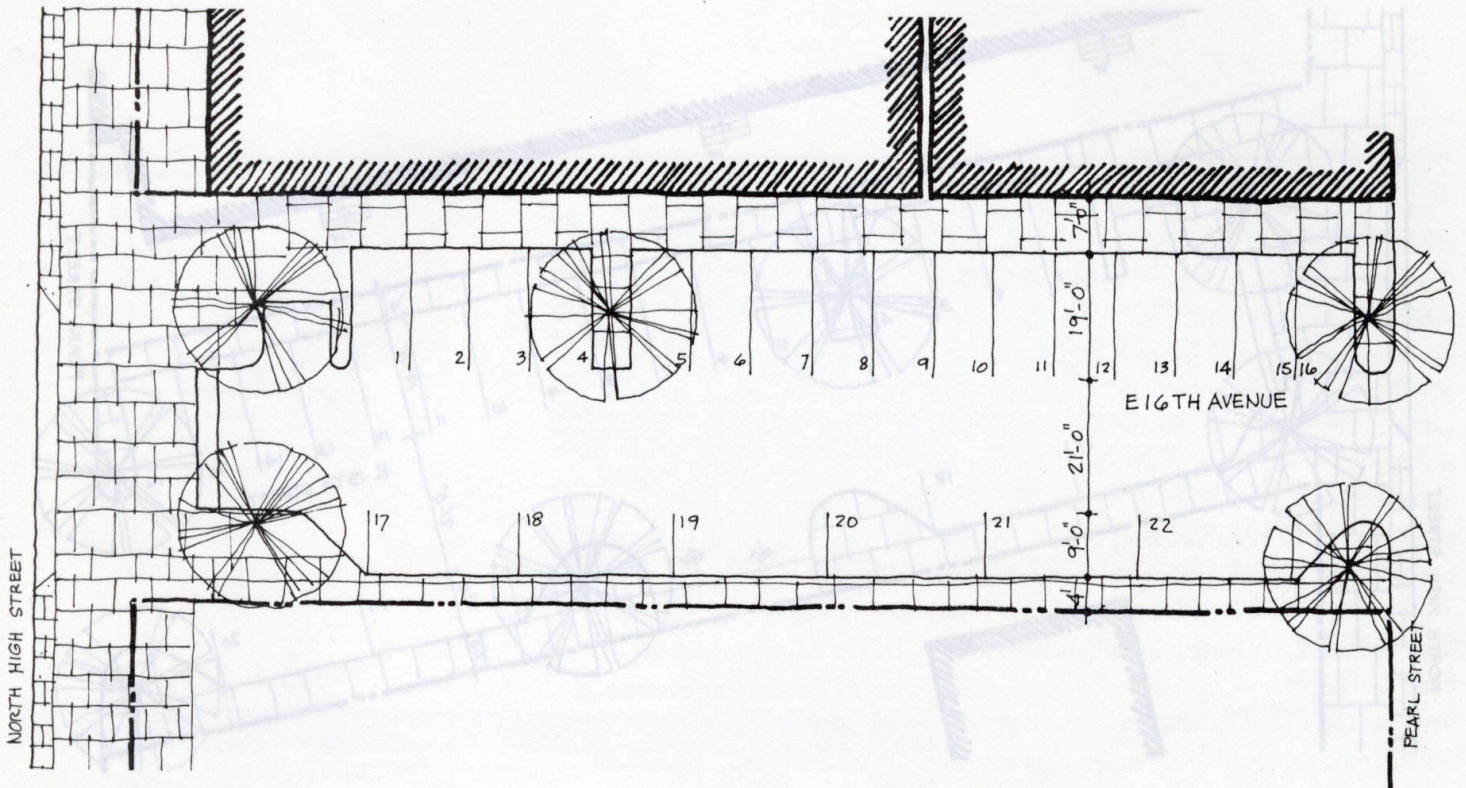


Appendix C

PARKING FOR CLOSED SIDE STREETS

The following drawings illustrate possible configurations for the development of parking along selected side streets in the Center Section. Actual development will depend upon detailed preliminary engineering studies and may vary from what is shown here.

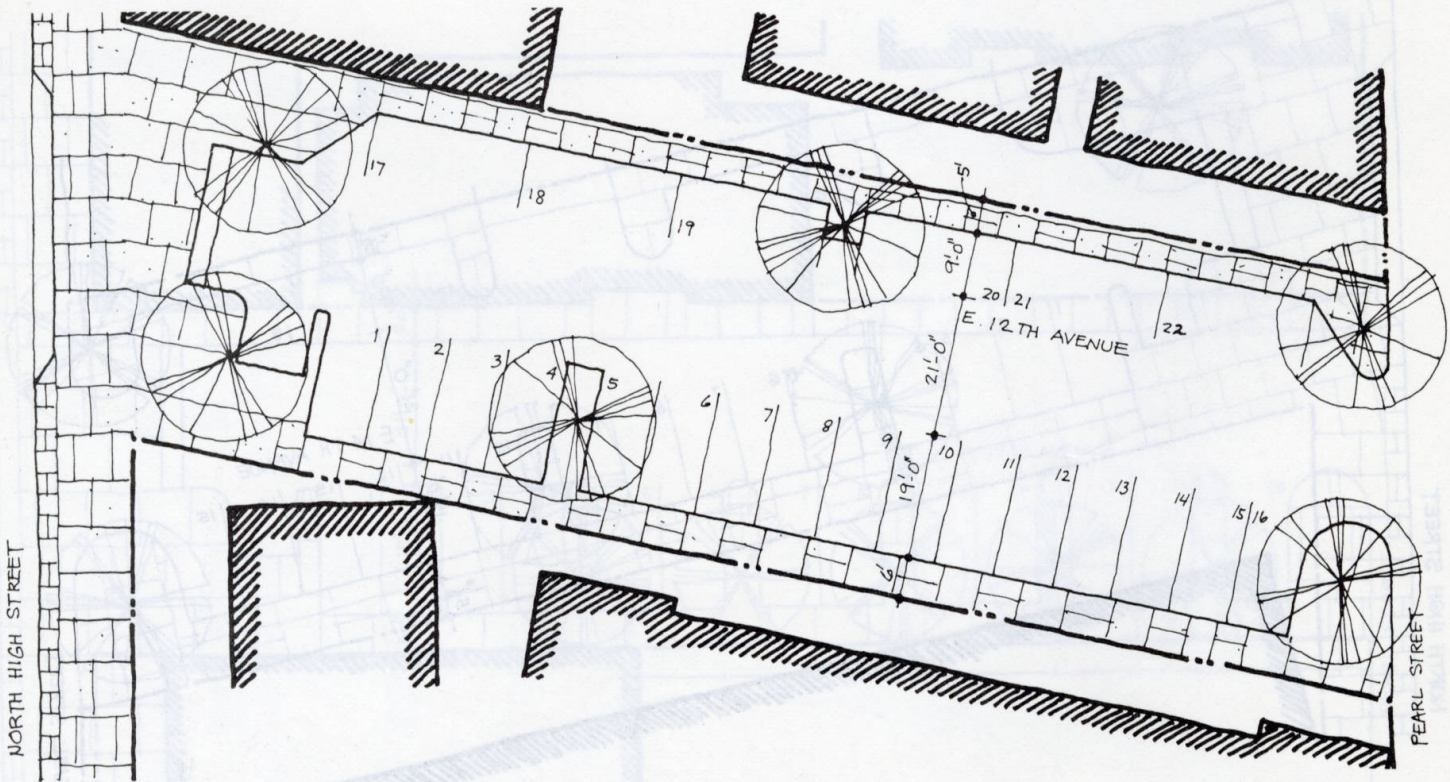
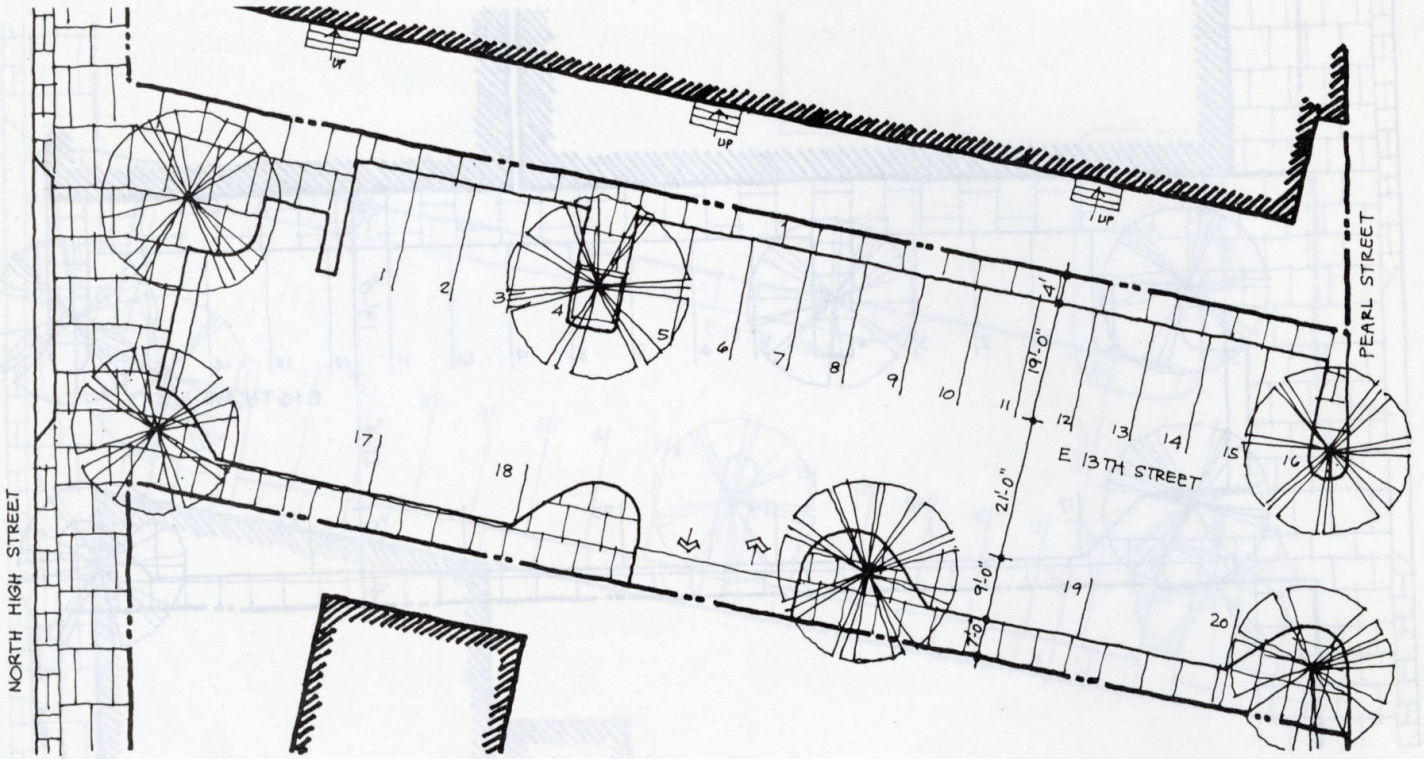




Appendix C

PARKING FOR CLOSED SIDE STREETS

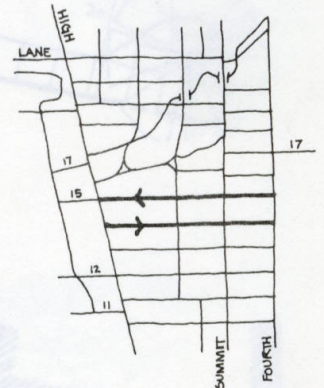
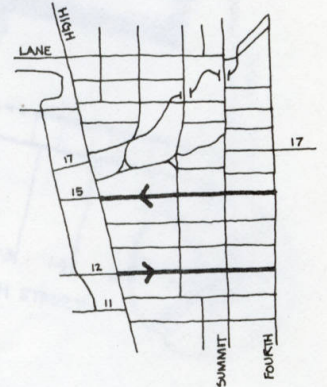
The following drawings illustrate possible configurations for the development of parking along closed side streets in the Center District. The final development will require approval from the Planning Department and may vary from what is shown.



Appendix D

PROPOSED ONE-WAY PAIRS FIFTEENTH AVENUE/FOURTEENTH AVENUE FIFTEENTH AVENUE/TWELFTH AVENUE

The Columbus Traffic and Parking Division has recommended that a one-way pair of streets be created east of the High Street Center Section to facilitate east-west access in the University Area. Two alternatives have been discussed. Both use E. 15th Avenue as the westbound leg from N. Fourth Street to High Street. One alternative would utilize E. 14th Avenue as the eastbound leg and the other would use E. 12th Avenue. The signal at 15th Avenue and High Street would remain and a signal would be installed at either 12th or 14th Avenue depending upon which alternative is used and whether the legal warrants for a signal are met. At present the Traffic Division favors the 15th/12th Avenue pair. In either case, the northbound and southbound left turn lanes in High Street would be eliminated at 15th Avenue. A southbound left turn lane in High Street would be created for whichever other street is chosen as the eastbound route. In conjunction with this change in operations, metered parking would be installed along the north side of E. 15th Avenue between Pearl Street and Indianola Avenue. Parking on the other street would remain much as it is with a few spaces removed near Summit and Fourth Streets to permit turn lanes to be marked.

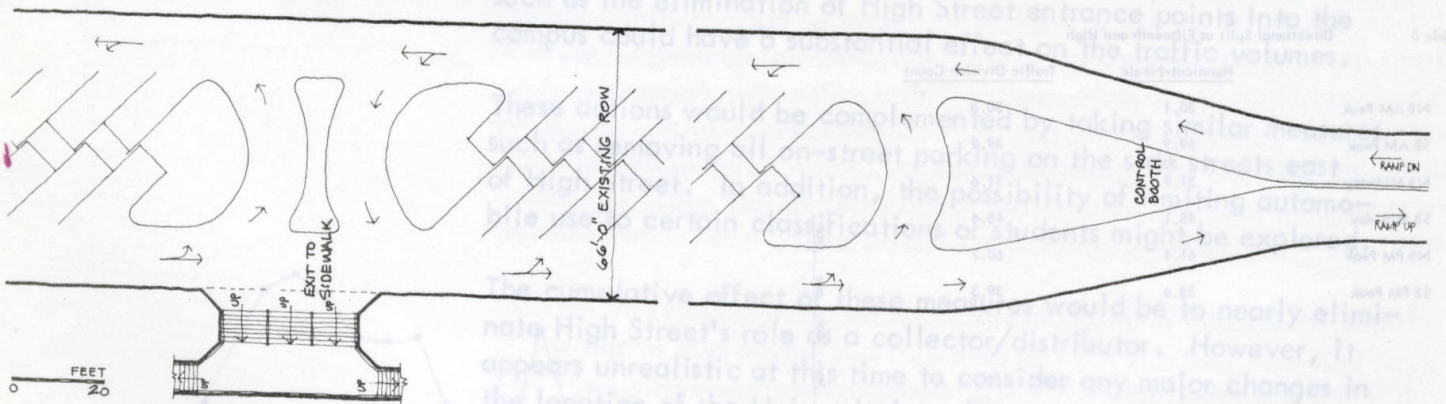


Appendix E

GARAGE UNDER HIGH STREET

The following drawings illustrate possible configurations only. Actual design and construction will depend upon detailed preliminary engineering studies and may vary from what is shown here.

The following diagrams indicate the possibility of constructing a parking garage, within the existing right-of-way, under High Street. The entrance and exit ramps for vehicular traffic would be controlled. It would have one way circulation inside the garage. There would be entrance and exit stairs for people at convenient locations and would have adequate openings to provide ventilation and sunlight. This underground garage would have the possibility of being connected with the underground Mershon Auditorium garage and any other future underground garages that might be built under redevelopment projects along High Street.



Appendix F

TRAFFIC DATA

Table 1 Origin/Destination Summary
(Includes northbound and southbound AM and PM traffic at Fifteenth and High)

(Source: Hunnicutt-Neale North High Street Study)

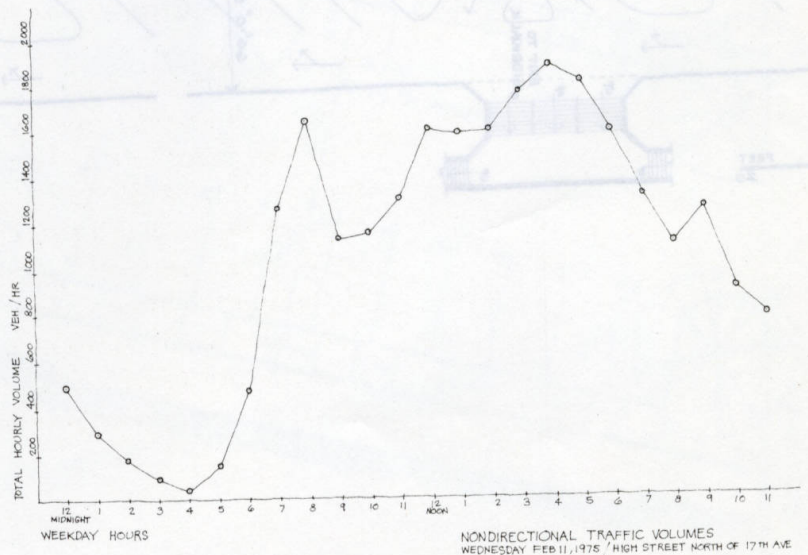
	1	2	3	4	5	6	7	8	9	10	11
1. Columbus Metro - North											
2. University - North											
3. Ohio State University	10	1.8	7.1								
4. University - East	1.2	.6	3								
5. University - South	4.2	1.2	1.8	.6							
6. Near North Side	3.6	1.8	2.9	1.2							
7. Columbus Metro - N/E			2.9			1.2					
8. Center Business District	7.0	2.9	7.6				1.8				
9. Columbus Metro - East	1.2		7.0	.6			.6				
10. Other	1.2	1.2	7.0	1.8	.6	.6	1.2	.6			
11. Unknown		.6	2.4	.6			.6	3.0	4.7	1.8	

Table 2 % of Trip Ends By Zone

1	28.4
2	10.1
3	53.5
4	9
5	8.4
6	11.3
7	7.7
8	21.1
9	14.7
Other	16
?	13.7

Table 3 Directional Split at Fifteenth and High

	Hunnicutt-Neale	Traffic Division Count
NB AM Peak	30.1	30.8
SB AM Peak	69.9	69.2
NB Mid-day	51.9	51.6
SB Mid-day	48.1	48.4
NB PM Peak	61.4	60.7
SB PM Peak	38.6	39.3



UNIVERSITY DISTRICT ORGANIZATION STAFF ANALYSIS OF PHILOSOPHY B

"A second avenue used by the staff to explore the merits of the three conceptual roles of High Street was to take the strategic issue of reducing traffic volume by itself, consider the various ways it could be achieved and evaluate the merits of the approaches. We have identified four approaches--(A) reduce the demand for travel on High Street, (B) change the mode of circulation of the persons using High Street, (C) provide alternative routes to accommodate current auto traffic, and (D) reduce capacity without other actions and accept the consequences.

REDUCING THE DEMAND

One way to reduce the volume of traffic on High Street would be to remove the primary factors for its being used. Taken to the extreme, this would lead to the elimination of the University as this is the fundamental reason for the majority of the current traffic. This is an unlikely proposal. However, since most of the High Street traffic is OSU related, a less extreme proposal such as the elimination of High Street entrance points into the campus could have a substantial effect on the traffic volumes.

These actions would be complemented by taking similar measures such as removing all on-street parking on the side streets east of High Street. In addition, the possibility of limiting automobile use to certain classifications of students might be explored.

The cumulative affect of these measures would be to nearly eliminate High Street's role as a collector/distributor. However, it appears unrealistic at this time to consider any major changes in the location of the University's parking structures, because of the massive investment in the facilities. Likewise, changing the University's entrance points may create intolerable congestion of its internal street system. In short, while it is feasible to consider some small scale changes in the demand to use High Street, a substantial reduction of traffic volume would depend on actions which do not appear practical in the foreseeable future.

CHANGING TRAVEL MODE

Assuming that most congestion and the need for large capacity streets is caused by moving vehicles and not moving people, it may be possible to eliminate private vehicles from High Street by persuading auto users to ride some type of public transit or to walk or bike. In fact, the University already encourages auto users to leave their vehicles on the edges of campus and walk or take a bus to their final destination. This is accomplished by locating major parking nodes at the periphery of the campus. If this policy were expanded to include High Street within the pedestrian center, a substantial reduction in the number of vehicles could be expected if a convenient connecting transit system could be implemented. A person driving in from Clintonville destined to the south campus, for example, might park at the north end of campus and take a bus to his area.

This very approach was suggested in the original UDO Policy Plan. However, even if it were possible to get all OSU personnel to use such a system, the other types of traffic would still remain. Since this other traffic is very diverse in its origins and destinations, it is unlikely that a transit system would adequately serve its needs. In conclusion, though the proposal has some merit and in fact is already in use to some extent, a substantial reduction of High Street volumes would be very difficult to obtain using this approach.

PROVIDE ALTERNATIVE ROUTES FOR PRESENT HIGH STREET TRAFFIC

Assuming that origin/destination points are not realistically moveable, and that mode of travel is also fixed, it may be possible to change the routes used. Changing the routes of current High Street users would be a complex problem however, as each of the three basic High Street auto users: (1) thru, (2) origin/destination, and (3) local, would require particular improvements in the system. Although there are other possible changes, three fundamental improvements required as alternative routes prior to any major High Street capacity reduction have been identified.

1. High/Indianola/Summit/Fourth Connector at Hudson

This could divert thru traffic onto Summit/Fourth which currently has some excess capacity. This connector would also serve as a partial alternative to origin/destination traffic. The cost of this improvement is impossible to accurately assess at this time although preliminary estimates indicate that it will be several times the amount of the CDA amount allocated to High Street improvements.

2. Connections from Summit/Fourth to the Eastern Edge of Campus

This would include improvements to the Chittenden/11th pair connections to College Road. Other improvements such as a 17th Avenue/Lane Avenue connection may also be required. There are no cost estimates available for these actions.

3. Improvement of College Road and Extension of the Loop Road

Internal circulation within the University may require the implementation of University plans for upgrading the capacity of the east Loop Road.

In terms of city improvements it would be necessary to change the city's official thoroughfare plan and its capital improvements Budget/Plan through City Council action before any action to de-emphasize High Street would be possible.

Without a detailed traffic assignment exercise, it is impossible to determine to what extent these improvements would provide alternatives to High Street. In any case, given sufficient resources, it is probably possible to adequately serve current users. The resources necessary to do this, however, are enormous and far beyond the scope of CDA or CIP funds presently earmarked for the community.

REDUCE THE CAPACITY OF HIGH STREET WITHOUT TAKING OTHER ACTION

Although it is always possible to reduce the capacity of High Street without making improvements in the system and accepting the consequences as a practical solution, it could only be recommended if there were supporting evidence available indicating that no major adverse impacts would occur. In the absence of such information, however, and realizing that High Street currently carries about 26,000 cars per day which may have to be absorbed elsewhere, it would appear that reducing the capacity under this 'take the consequences' strategy would risk a major adverse impact and would be an unsatisfactory proposition.

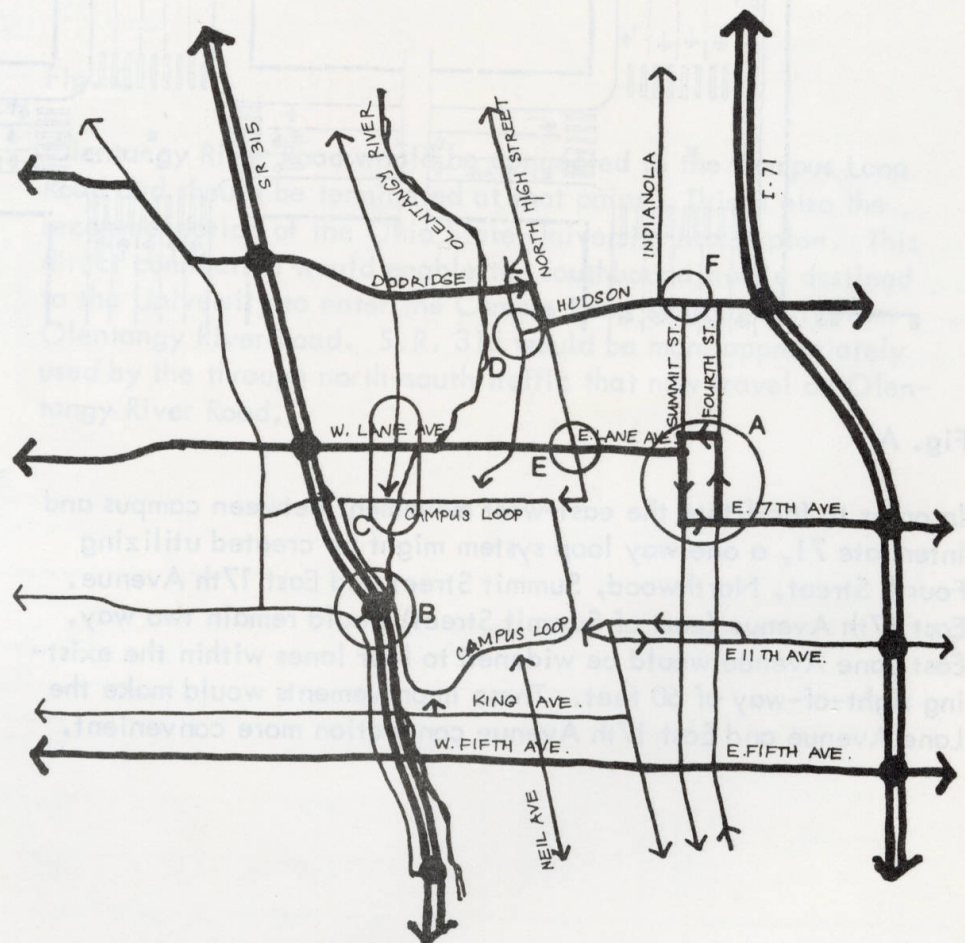
In order to reduce traffic on High Street one or a combination of the above approaches must be chosen. Of the four, we feel that the first three approaches have varying degrees of merit (particularly the 'create alternative routes' strategy) as an approach, but all remain unfeasible to implement in short run, practical terms. Further, although additional study would be required to reach a final conclusion, the fourth approach or 'suffer the consequences' has no merit if a substantial amount of traffic is to be reduced from High Street. As a general guideline we would recommend that if High Street is to be substantially reduced in capacity, it should be preceded by alternatives for the current users."

Appendix H

COMPANION PROJECTS FOR PHILOSOPHY 'B'

The following diagrams illustrate possible ways to carry out the re-ordering of traffic in the University Area as described under the heading 'Philosophy B'. Some of these projects reduce the arterial function of High Street in the Center Section. Actual design and construction will depend upon detailed preliminary studies and may vary from what is shown here.

The following diagrams indicate improvements to complete the re-ordering of traffic as described under 'Philosophy B'. They are not necessarily required to begin any of the schemes under concepts 3 or 4. By carrying out these projects in conjunction with projects on High Street, campus origin and destination traffic would be better accommodated.



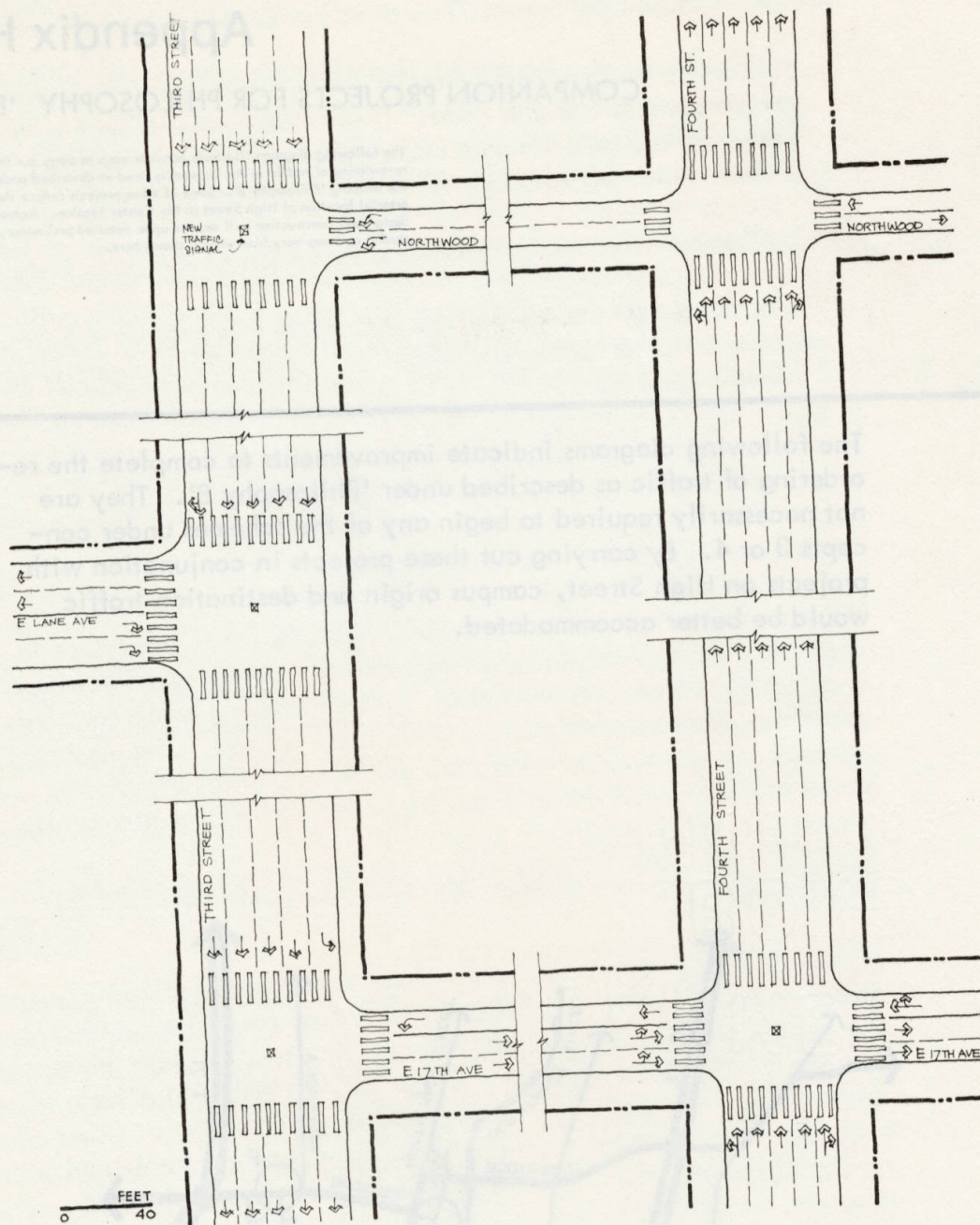


Fig. A

In order to facilitate the east-west movement between campus and Interstate 71, a one way loop system might be created utilizing Fourth Street, Northwood, Summit Street and East 17th Avenue. East 17th Avenue (east of Summit Street) would remain two way. East Lane Avenue would be widened to four lanes within the existing right-of-way of 60 feet. These improvements would make the Lane Avenue and East 17th Avenue connection more convenient.

Fig. B

An exit ramp might be constructed off of SR 315 and be connected to the western leg of the campus loop road. This would enable northbound vehicular traffic to exit onto the Campus Loop Road from SR 315.

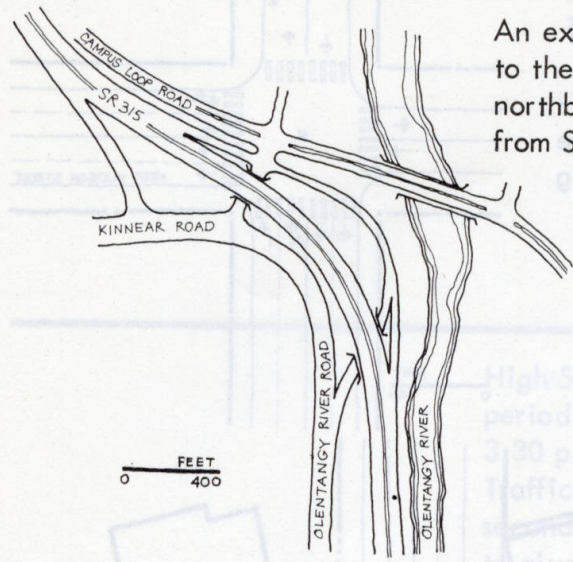


Fig. C

Olentangy River Road would be connected to the Campus Loop Road and should be terminated at that point. This is also the recommendation of the Ohio State University Masterplan. This direct connection would enable the southbound traffic destined to the University to enter the Campus Loop Road directly from Olentangy River Road. S.R. 315 would be more appropriately used by the through north-south traffic that now travel on Olentangy River Road.

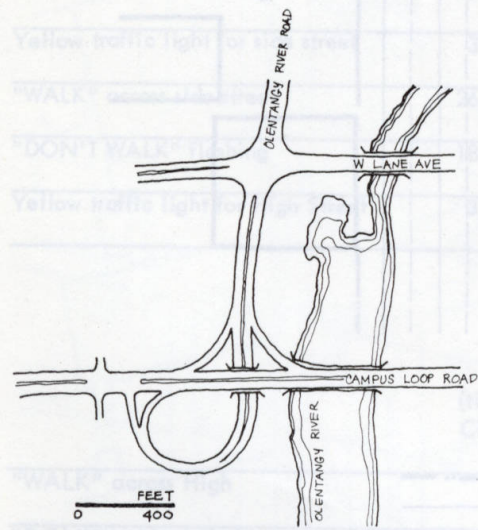


Fig. D

Hudson Street might be widened to four lanes (two lanes each way) east of Neil Avenue within the existing right-of-way of 60 feet. Neil Avenue south of Hudson Street would also be widened to four lanes, within the existing 60 feet of right-of-way, leading to the Campus Loop Road. This would facilitate the flow of traffic to or from the Campus Loop Road by-passing High Street.

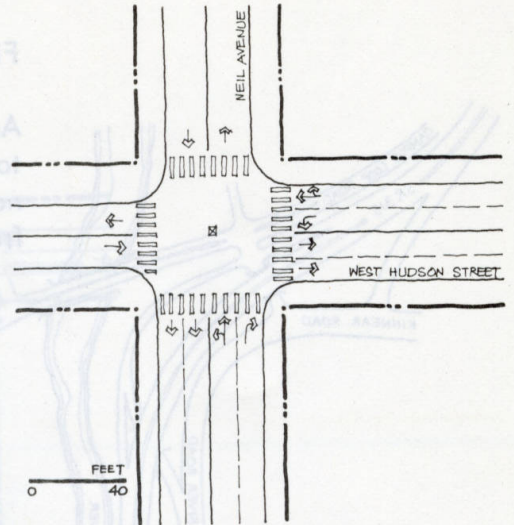


Fig. E

Left turns might be permitted at the intersection of Lane Avenue and High Street with the help of proper signalling and lane markings as indicated in the diagram. Lane Avenue might be widened to four lanes within the existing 60 feet right-of-way from the intersection to Third Street.

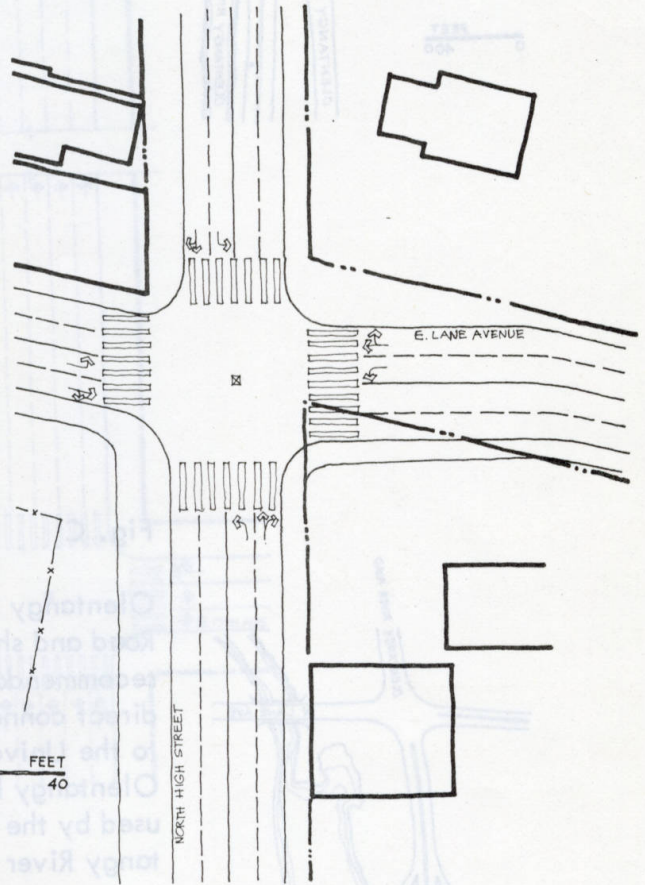
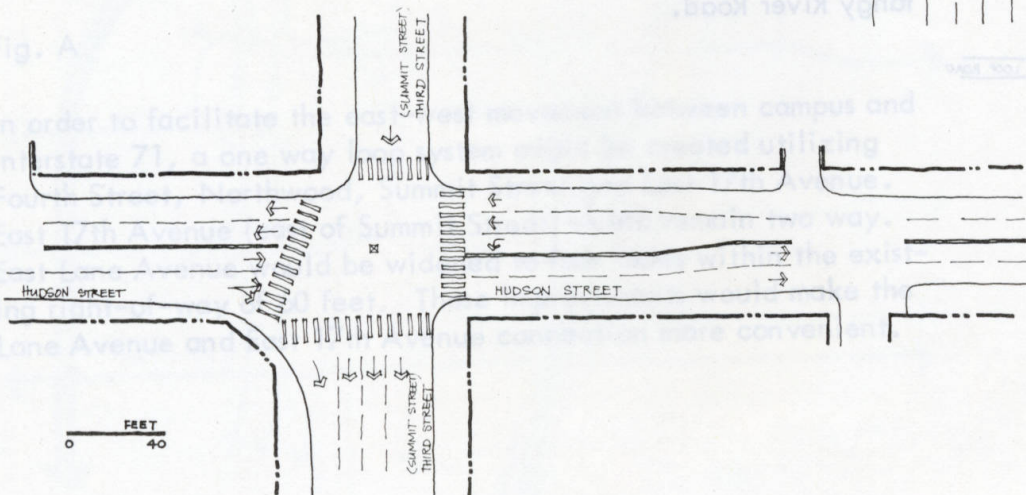


Fig. F

A southbound left lane might be accommodated on East Hudson Street at the intersection of East Hudson and Third Streets. This improvement would make it convenient for southbound traffic from the east side or from I-71 to use Third Street instead of High Street.



High Street signals operate on several cycles during a 24 hour period. The two cycles indicated here occur from 6:00 a.m. to 3:30 p.m. and from 3:30 p.m. to 6:30 p.m. The Columbus Traffic Division uses the applicable State standard of 4 feet per second minimum walking time. In practice, the engineers prefer to give more time to the pedestrian by calculating based on 3.5 feet per second whenever possible. High Street is 54 feet curb-to-curb, and at 4 feet per second, requires 13.5 seconds to cross. (The north leg of the Woodruff intersection is 64 feet wide and requires 16 seconds to cross at 4 feet per second.)

6:00 a.m. to 3:30 p.m.

	(times in seconds)						
	Chittenden	13th	15th	17th	MacDonald's	Woodruff	
"WALK" across High Street	11.25	7.5	15.0	8.25	7.5	8.25	time allowed to cross High Street
"DON'T WALK" flashing	11.25	11.25	11.25	10.5	11.25	10.5	
Yellow traffic light for side street	3.75	3.75	3.75	3.75	3.75	3.75	time required waiting to cross High Street
"WALK" across side street	26.25	30.0	26.25	22.5	45.0	22.5	
"DON'T WALK" flashing	18.75	18.75	15.0	26.25	3.75	26.25	
Yellow traffic light for High Street	3.75	3.75	3.75	3.75	3.75	3.75	

3:30 p.m. to 6:30 p.m.

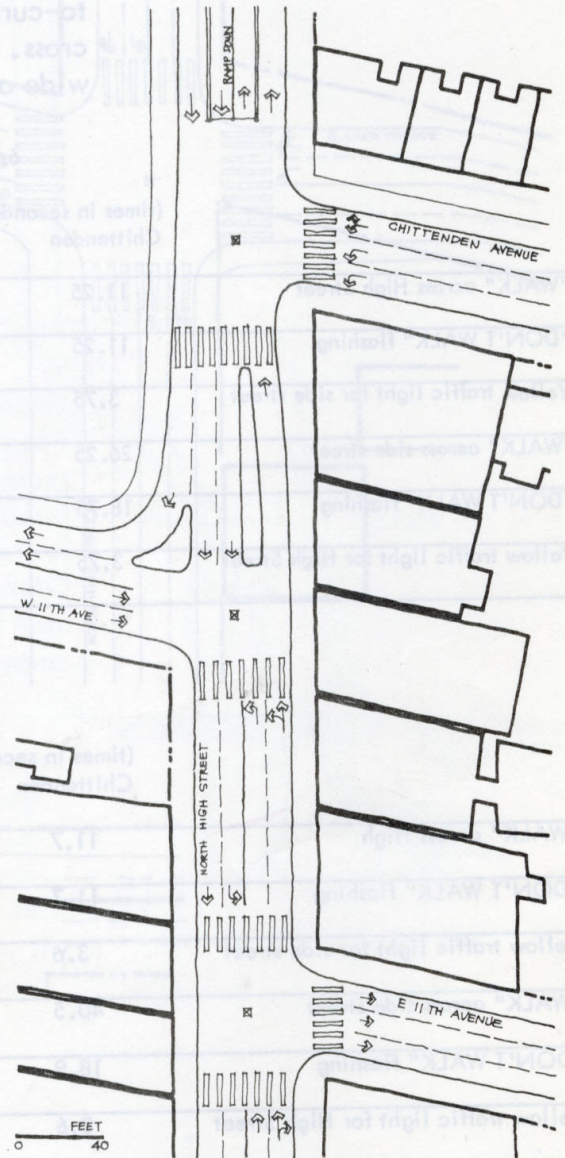
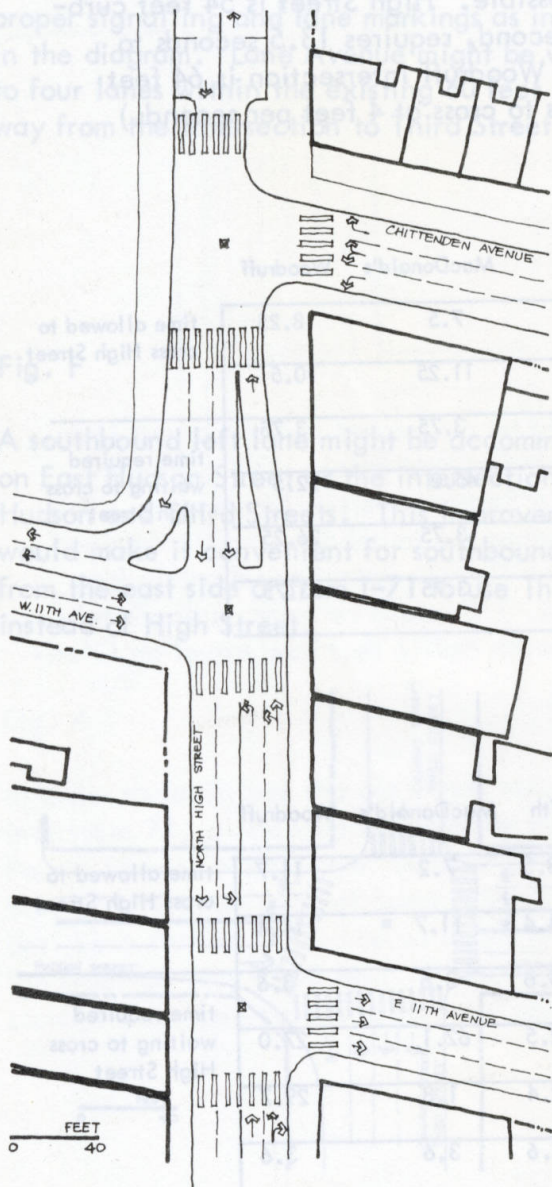
	(times in seconds)						
	Chittenden	13th	15th	17th	MacDonald's	Woodruff	
"WALK" across High	11.7	9.0	18.0	13.5	7.2	11.7	time allowed to cross High Street
"DON'T WALK" flashing	11.7	14.4	14.4	14.4	11.7	14.4	
Yellow traffic light for side street	3.6	3.6	3.6	3.6	3.6	3.6	time required waiting to cross High Street
"WALK" across side street	40.5	40.5	31.5	22.5	62.1	27.0	
"DON'T WALK" flashing	18.9	18.9	18.9	32.4	1.8	29.7	
Yellow traffic light for High Street	3.6	3.6	3.6	3.6	3.6	3.6	

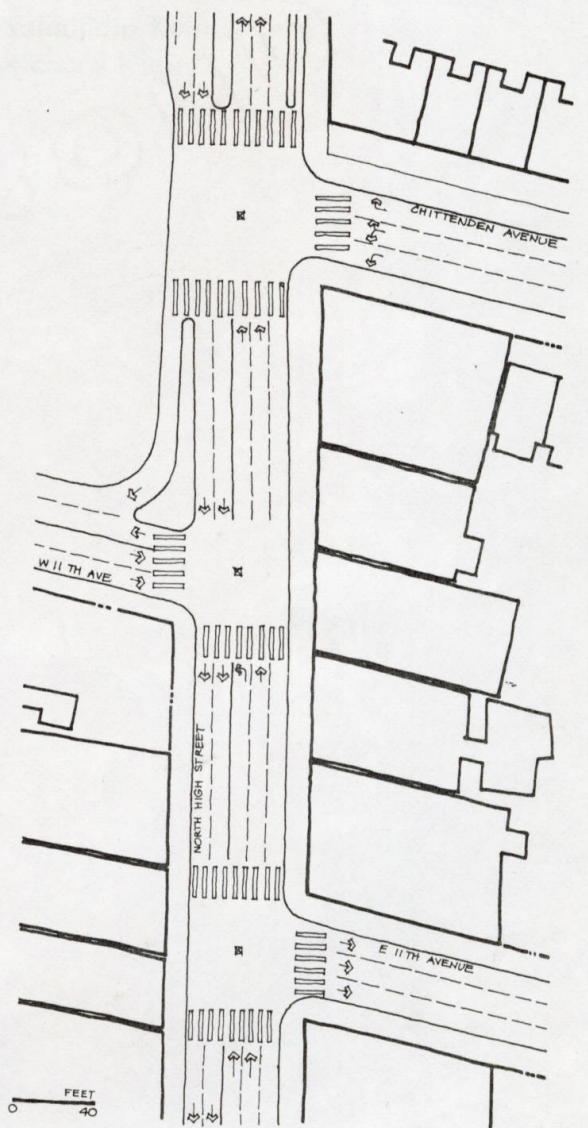
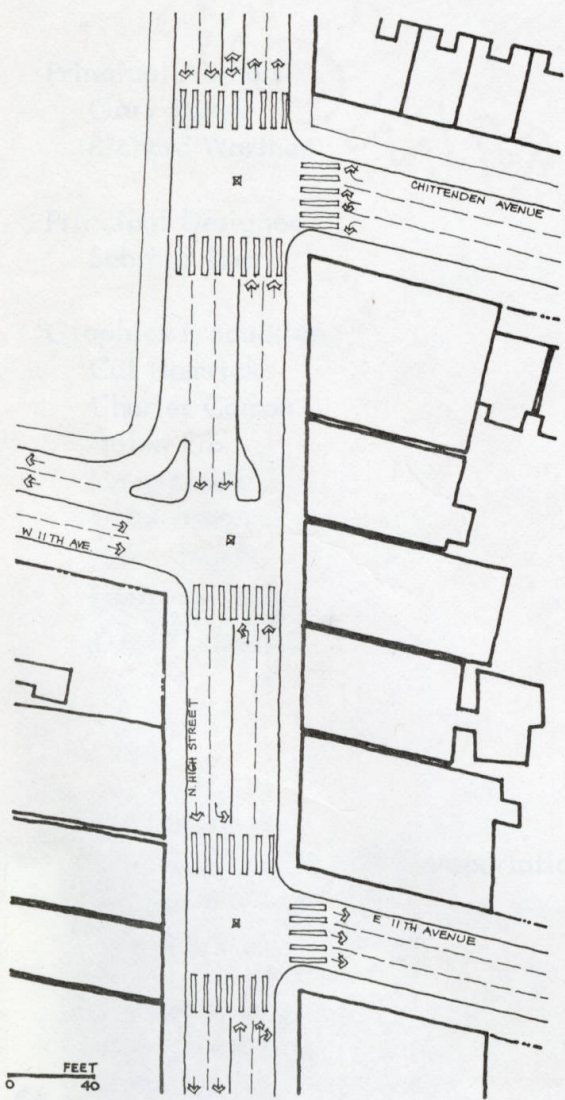
Appendix J

ELEVENTH AVENUE / HIGH STREET INTERSECTION IMPROVEMENTS

The following drawings illustrate possible configurations only. Actual design and construction will depend upon detailed preliminary engineering studies and may vary from what is shown here.

The following drawings indicate some possible ways of improving the E-W connection of Chittenden and 11th Avenues at High Street. They correspond to schemes 3.1, 4.1 or 4.2, 1.1 and 2.1 respectively.





UNIVERSITY/HIGH STREET REPORT

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