

III. Circulation and Transit

Chapter III

CIRCULATION AND TRANSIT

Circulation is a key factor in the development of a downtown area. Convenient access and egress tend to encourage trips -- and thus stimulate higher levels of activity and a stronger economic base; conversely, inconvenient or inadequate circulation tends to inhibit trips, with a consequential reduction in activity levels and economic strength. The Municipality of Anchorage has identified a balanced circulation system, enabling transit riders, pedestrians, and automobile occupants full access to downtown resources, as a major objective.

This chapter examines the existing circulation pattern in downtown Anchorage, analyzes ways in which future circulation demands can be met and some of the major implications of alternative actions, and gives consideration to numerous factors that have bearing on the overall downtown circulation network.

Analysis in this chapter is focused on vehicular circulation and transit. Pedestrian movement, an essential element to downtown vitality, is the subject of a separate chapter on the pedestrian environment and open space (Chapter IV).

EXISTING CONDITIONS

Grid Layout

The layout of downtown Anchorage is a regular grid pattern that can lend itself well to numerous methods for expediting traffic flow.

Limited Number of Access Routes

A limited number of streets provide access to the Anchorage CBD (Figure III.1). Both north-south and east-west access routes are discussed:

North-South Routes. North-south access is limited by the presence of the park strip, which interrupts half the potential north-south routes. The primary north south access routes are Gambell and Ingra Streets along the east boundary of the CBD study area and -- west of the cemetery -- A, C, E, G, I, and L Streets. At present, A Street is interrupted by the park strip; however, its continuation through the park strip has received final environmental clearance and is scheduled for implementation in the mid-1980s. All analysis in this chapter assumes the extension of A Street to be in place.

East-West Routes. The cemetery interrupts the continuity of 7th and 8th Avenues, leaving only 3rd through 6th Avenues and 9th Avenue available for continuous east-west service.

One-Way Streets. In the north-south directions, there are three one-way "pairs" or "couplets": the Gambell/Ingra couplet on the east side of the CBD, the A/C couplet in the middle of the CBD (which will be continued south of the park strip upon completion of the A Street extension; see previous

discussion), and the I/L Street couplet toward the west side of the CBD.

In the east-west direction, there are two one-way couplets. The 3rd/4th Avenue couplet operates only east of C Street; west of C Street, both avenues offer two-way service. The 5th/6th Avenue couplet continues westward to L Street.

DEMAND/STREET CAPACITY ANALYSIS

As a result of the CBD being situated at the tip of the region, travel demand is disproportionate, with demand to and from the east and south far exceeding that to and from the north and west. This condition places an added burden on the limited access routes available.

As travel demand increases, additional circulation capacity must be provided. One opportunity to supplement existing primary travel routes would involve extending currently discontinuous north-south routes, such as D, F, H, and I Streets, through the park strip and extending currently discontinuous east-west routes, 7th and 8th Avenues, through the cemetery. This was considered an unrealistic option, since the park strip and the cemetery are considered extremely valuable open space resources. A far more feasible opportunity would be to meet growing travel demand by increasing the capacity of existing primary travel routes.

Capacity Problems Today

Today, points of greatest traffic congestion in the Anchorage CBD include the 5th/6th Avenue couplet near Gambell and Ingra Streets; this corridor approaches level of service E or F during peak

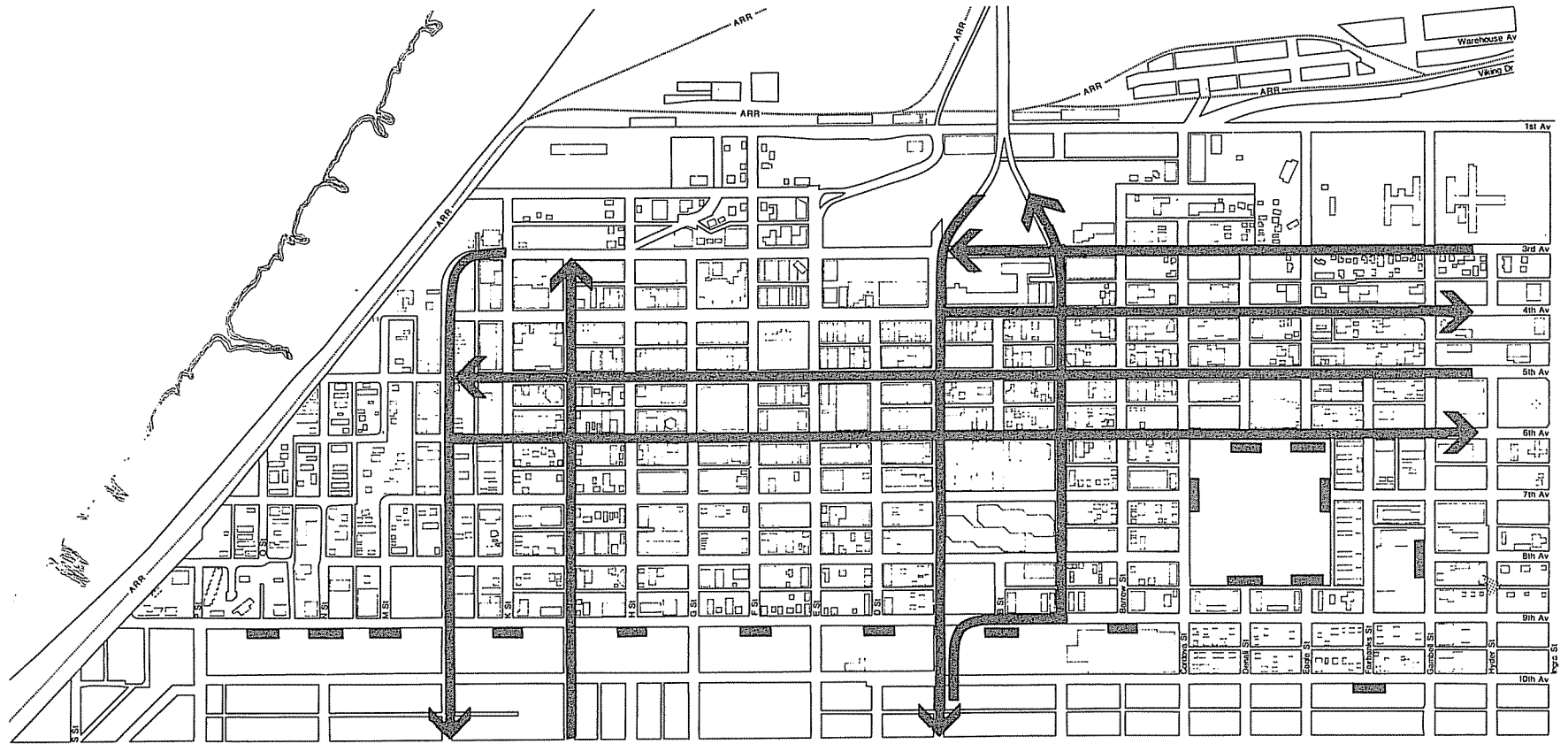
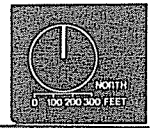


FIGURE III.1

Limited Access To CBD



INTERRUPTION IN STREET CONTINUITY

INTERRUPTION IN STREET CONTINUITY

hours and at midday, according to Municipal studies. (Generally, level of service C or D is considered to be tolerable at peak hours.)

Intersection Problems Today

Circulation on E Street encounters problems associated with left turning movements, which are exacerbated by demand for access to the J. C. Penney parking facility. Traffic flow along 9th Avenue is also hampered by turning movements at major intersections. Consideration has been given to placing restrictions on left turning movements within the CBD to rectify these intersection problems, but this practice would generate additional need for recirculation, as well as motorist confusion.

Rising CBD Employment

The amount of new construction taking place in the CBD and the number of new employees this construction will generate indicate that traffic conditions will deteriorate significantly unless appropriate improvements are made. Downtown employment is expected to increase by 82 percent between 1980 and 2001, from 11,705 employees in 1980 to 21,322 employees in 2001. Data from the U.S. Department of Transportation UTPS model indicate that this is expected to be reflected by an 85 percent increase in the number of trips ending in the Anchorage CBD, from 52,763 in 1980 to 97,353 in 2001 (not including trips from the CBD to outlying areas or trips passing through the CBD).

Impact on Future Circulation

Under auspices of the Anchorage Metropolitan Area Transportation Study (AMATS) program, traffic volumes for the year 1981 were recorded (Figure III.2). Estimates of future CBD traffic for the year 2001 have been developed, based on AMATS projected origins and destinations, and an analysis of overall traffic volumes and capacities in downtown Anchorage was carried out to assess circulation requirements.

Two screenlines were drawn across the CBD for the purpose of comparing total east-west and north-south traffic volumes and capacities. Screenline "A" was drawn in a north-south direction between D and E Streets, while Screenline "B" was drawn in an east-west direction between 7th and 8th Avenues. Traffic volumes were taken from AMATS projections. Traffic capacities were estimated, based on AMATS data, type of street, and number of lanes.

A volume-capacity ratio of 0.90 is considered to be the maximum acceptable ratio for urban transportation planning; higher ratios indicate unacceptable levels of traffic delay and congestion. The 1981 traffic ratios demonstrate that, on an overall basis, adequate traffic capacity was available in downtown Anchorage. However, certain heavily loaded individual streets such as 5th and 6th Avenues currently experience volumes approaching capacity during peak hours.

In 1981, the overall east-west traffic crossing Screenline "A" was operating at a volume-capacity ratio of 0.61, with 3rd through 6th Avenues carrying 60 percent of the east-west traffic -- more than 50 percent more than 7th through 9th

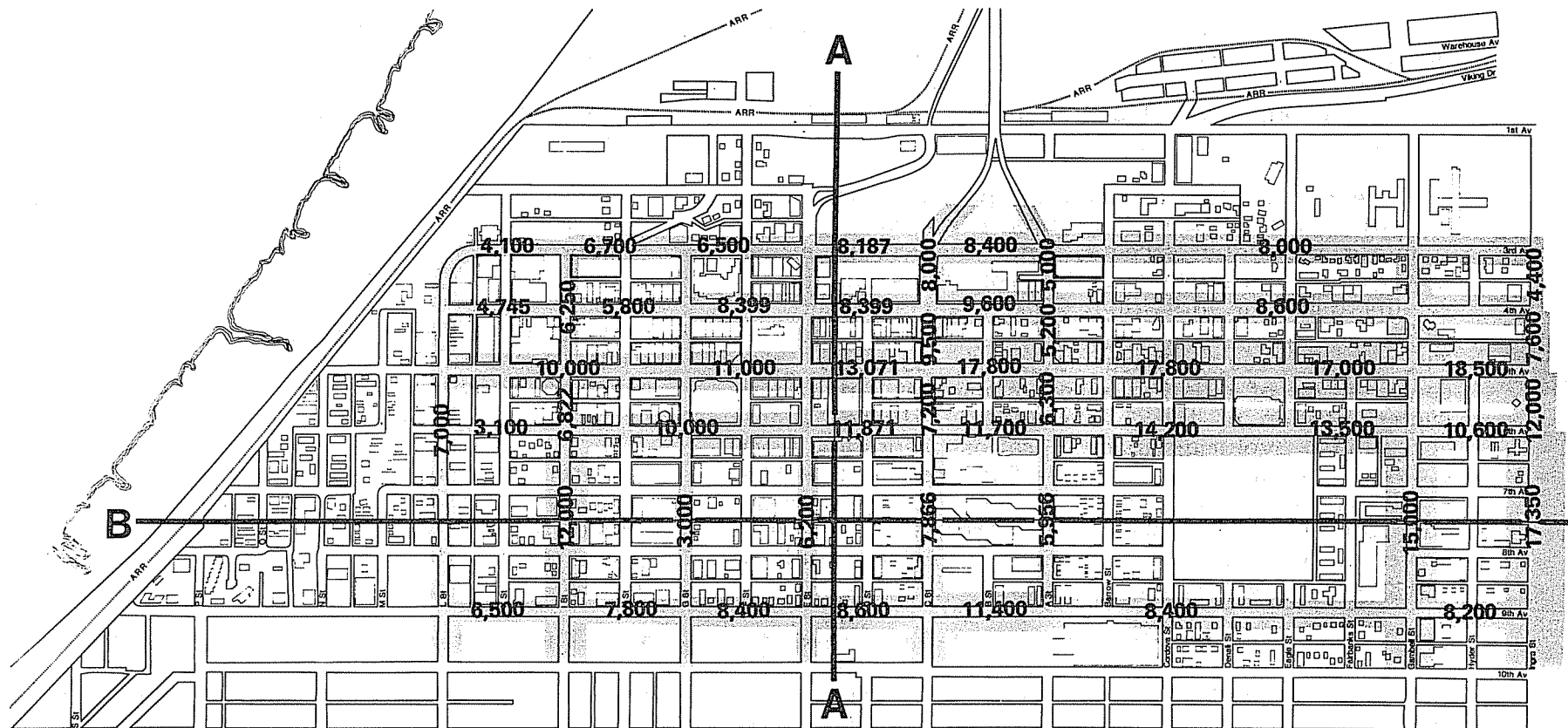
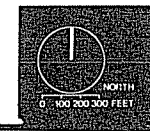


FIGURE III.2
1981 Traffic Volumes



1,000 DAILY VEHICULAR VOLUMES

Avenues. Overall north-south traffic crossing Screenline "B" was operating at a volume-capacity ratio of 0.65, with the volume-capacity ratios on various groups of streets ranging from 0.56 to 0.77 (Table III.1).

The year 2001 traffic volume-capacity ratios were computed for combined groups of streets rather than for individual streets, since the AMATS model is regional in nature and its projections cannot be readily used for individual CBD street analysis.

The year 2001 "base system" assumed the continuation of existing street capacities (including implementation of the A/C Couplet). Under these conditions, volume-capacity ratios ranging from 0.83 to 1.45 were projected. The 3rd - 4th - 5th - 6th Avenue area, the E - G - I - L Street area, and the Ingra - Gambell - Cordova area were projected for moderate to severe overloads unless improvements are made.

This analysis indicates that east-west capacity could be increased substantially with the conversion of 3rd and 4th Avenues to a continuous one-way pair. In the absence of this action, the volume-capacity ratio remains at 1.03 in the year 2001 -- as with the Base System. However, some concern has been expressed regarding the conversion of 3rd and 4th Avenues to one-way operation west of C Street; these concerns are discussed in a later section of this chapter.

WAYS TO ADDRESS INCREASING TRAVEL DEMAND

Under ideal circumstances, trip patterns to and from the CBD would be distributed among numerous travel modes, including pedestrian trips,

transit trips, carpooling, and personal use of private automobiles, each mode functioning at or below its capacity. The recommendations and transit analysis sections of this chapter deal with some of the means by which people can be encouraged to use alternative modes to private automobiles. However, for the foreseeable future, the majority of trips to and from downtown Anchorage will continue to be made by private automobiles. Therefore, it is essential that the capacity of downtown streets not lag behind rising demand in the near future, as such a situation could have negative implications on downtown economic growth, especially in the retail and office sectors.

Numerous options exist to increase the capacity of existing travel routes, assuming that future travel demand cannot be diverted to supplementary routes (see previous discussion). The options considered have included:

- The addition of lanes to existing travel routes
- Conversion of two-way streets to one-way travel

These options are discussed in terms of their advantages and disadvantages, as well as in terms of where each might best be considered for implementation.

Addition of Lanes to Existing Travel Routes

The addition of more travel lanes to existing routes was considered as one possible means of meeting future travel demand. Adding more lanes would require either of the following:

**TABLE III.1
TRAFFIC CAPACITY ANALYSIS,
ANCHORAGE CBD**

Screenline "A" Between D & E Sts. on	No. of Lanes	YEAR 1981		Vol/Cap. Ratio
		Daily Capacity	Daily Volume ¹	
3rd Ave.	4 lanes 2-way	15,000	8,190	
4th Ave.	4 lanes 2-way	15,000	8,400	
5th Ave.	3 lanes 1-way	13,700	13,070	
6th Ave.	3 lanes 1-way	<u>13,700</u>	<u>11,870</u>	
Subtotal		57,400	41,530	0.72
7th Ave.	2 lanes 2-way	10,000	4,000	
8th Ave.	2 lanes 2-way	10,000	4,000	
9th Ave.	4 lanes 2-way	<u>18,000</u>	<u>8,600</u>	
Subtotal		38,000	16,600	0.44
TOTAL, SCREENLINE "A"		95,400	58,130	0.61
Screenline "B" Between 7th & 8th Ave. on				
Ingra St.	4 lanes 1-way	20,000	17,350	
Gambell St.	4 lanes 1-way	20,000	15,000	
Cordova St.	2 lanes 2-way	<u>10,000</u>	<u>6,000</u>	
Subtotal		50,000	38,350	0.77
"A" St.	2 lanes 1-way	11,600	5,960	
"C" St.	2 lanes 1-way	<u>11,600</u>	<u>7,870</u>	
Subtotal		23,200	13,830	0.60
"E" St.	2 lanes 2-way	10,000	6,200	
"G" St.	2 lanes 2-way	10,000	3,000	
"I" St.	3 lanes 1-way	15,000	12,000	
"L" St.	3 lanes 1-way	<u>15,000</u>	<u>7,000</u>	
Subtotal		50,000	28,200	0.56
TOTAL, SCREENLINE "B"		123,000	80,380	0.65

¹Source: Gruen Associates estimates based on AMATS data.

²Source: AMATS data

- Widening of the public right-of-way
- Removal or restriction of on-street parking

Since many existing private and public buildings have no setback from the street right-of-way, expansion of the right-of-way would necessitate the removal or extensive reconfiguration of existing buildings, both of which are unrealistic propositions.

However, within the public right-of-way, lanes can be reconfigured to allow greater vehicular flow. Without taking away existing pedestrian area, existing curb parking can be removed to allow greater room for vehicular circulation. Two options were considered:

Removal of On-Street Parking. On most downtown streets, on-street parking occurs on both sides of the street. The removal of both of these parking lanes would allow more than enough added width to accommodate one additional travel lane. (Because parking lanes are generally only eight to nine feet wide, in contrast to curb travel lanes, which must be 13 feet wide, it is impossible to gain two additional travel lanes unless existing pedestrian area width is reduced.) The most likely streets on which to consider the removal of on-street parking would be the key downtown access routes: 3rd through 6th Avenues, and the continuous north-south streets.

The key drawback to this option is that many downtown merchants consider on-street parking essential in order to attract customers. The removal of on-street parking could be a concern to existing businesses.

Restriction of Peak-Hour On-Street Parking. The disadvantage of removing on-street parking entirely can be mitigated by allowing on-street parking at all hours except peak commuting hours, when demand is highest. Many cities have had success with this kind of parking policy. Most stores open at the end of the peak morning commuting hour and would be relatively unaffected at that time. In the afternoon peak hour, people are more likely to want to shop than in the morning; a lack of convenient on-street parking might affect businesses slightly at that time. However, for the majority of the daytime and evening hours, some on-street parking would remain.

One advantage to this concept is that the present practice of employees using on-street parking spaces would be reduced substantially, assuming a strict parking enforcement program. It is likely that, under this condition, shoppers would constitute a greater proportion of people using on-street parking spaces than they do today.

Conversion to One-Way Streets

A one-way street grid allows greatly expedited traffic flow. In general, a one-way street can carry up to 30 percent more traffic than a two-way street with the same number of travel lanes due to expedited travel flow; this expedited travel flow is brought about through a reduced number of turning conflicts and the ability to program traffic signals for continuous progressive traffic flow. Smoother travel flow can enhance safety and eliminate needless automobile idling, with beneficial impacts on air quality. And, to the extent that travel flow is enhanced by one-way travel, the need for additional lanes that might be required

for two-way streets can often be postponed or eliminated.

Conversion to one-way travel would most likely be considered in situations where pairs of primary travel routes would allow creation of a couplet, such as E and G Streets or 3rd and 4th Avenues west of C Street.

One disadvantage to a one-way street grid is the need for minor recirculation to arrive at certain destinations -- for example, approaching a location on an eastbound street from the east. Another disadvantage is strictly perceptual: the notion that a one-way street is less amenable to pedestrians. In fact, well-designed one-way streets can be just as attractive as two-way streets.

Nevertheless, there has been some concern expressed about the possible effects of conversion of 4th Avenue to one-way travel. Concerns focus on possible detracting from the quality of the pedestrian environment, which is considered very important along this historic street, as well as the concern that the couplet might attract "through" traffic--traffic not stopping in the CBD.

OTHER CIRCULATION ISSUES

Expressway Proposals

In the recent past, several expressway proposals have been considered in the Anchorage region. Two proposals are currently under consideration:

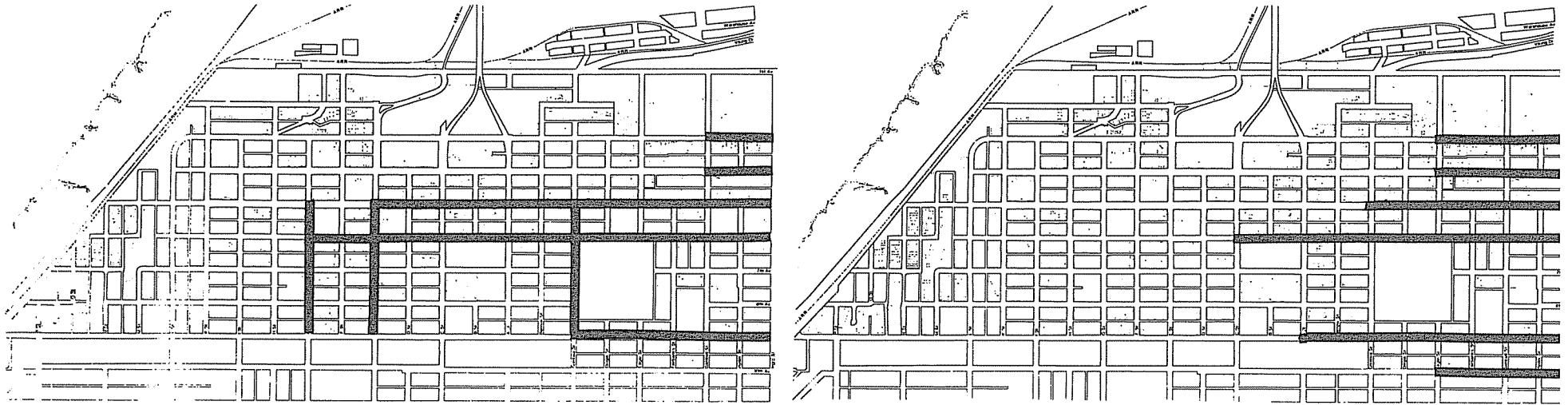
- The Northside Corridor east of the CBD intersecting the existing Seward and Glenn Highways
- A crossing of Knik Arm, which has been proposed, in one of its design alternatives, to divert around the Alaska Native Hospital and connect with Hyder and Ingra Streets

Major considerations regarding the various expressway routings have been potential environmental impacts on the areas through which the routings would pass, a desire to avoid the encouragement of through traffic being routed through downtown, and other factors.

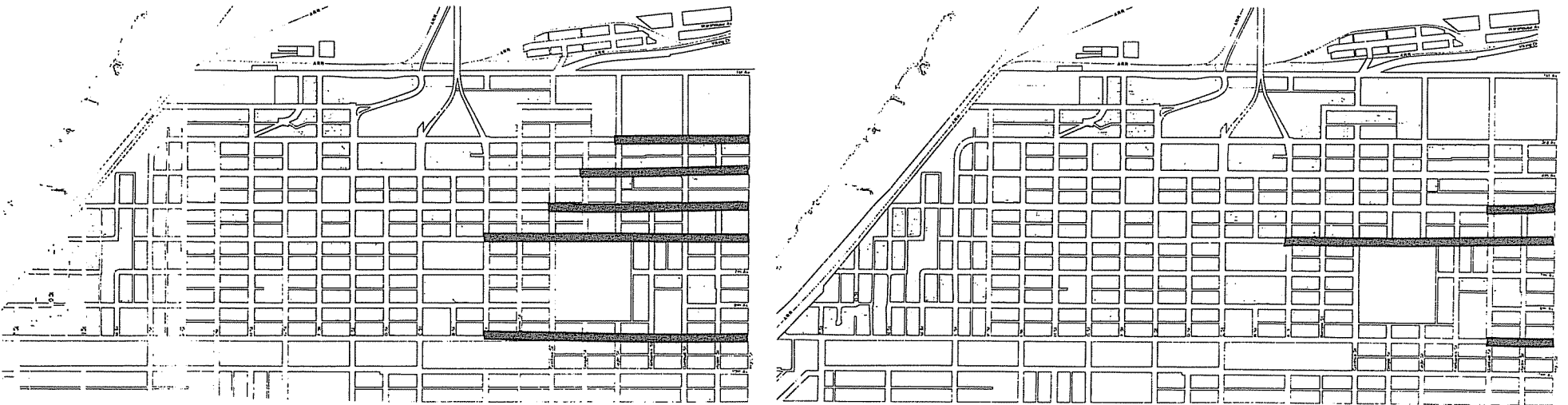
Need for Coordination

It is important that improvements to the circulation system be scheduled in conjunction with need and that they be coordinated with other important downtown improvement programs. Among the most directly affected is the pedestrian amenities program. A pedestrian amenities program designed from the outset to be compatible with possible future circulation improvements would avoid the future expense that might be incurred if pedestrian areas would have to be reconfigured in the future as circulation system modifications are implemented.

Similarly, the removal of any on-street parking, whether at commuting hours only or at all hours, must be coordinated with the provision of convenient off-street parking. In the course of performing any aspect of the phased circulation improvement program, continual monitoring would help to identify opportunities for the fine-tuning of actions taken in subsequent phases.



Figures III.3 through III.6. Links in the Anchorage CBD circulation network that would experience traffic volumes in excess of capacity. Upper left diagram indicates conditions under Alternative 1; upper right diagram the conditions under Alternative 2; lower left diagram the conditions under Alternative 3; lower right diagram the conditions under Alternative 4. Source of data: Municipality of Anchorage; for additional description of analysis, reader is referred to Appendix A.



Municipality Circulation Analysis

The Municipal Transportation Planning Section has analyzed the year 2001 impacts of four possible combinations of circulation system improvements, as well as impacts associated with connections with the Seward Highway. Most of the circulation improvement components considered in the analysis, such as removal of on-street parking and limited conversion of two-way street to one-way travel, have been introduced in the previous section of this chapter. A brief profile of each of the alternatives, keyed to Figures III.3 through III.6, follows.

Alternative 1. The first alternative assumed no circulation system improvements (including no A/C Couplet) and a transit mode split of 12 percent. The assignment of projected trips under these circumstances produced the following results:

- The 5th/6th Avenue couplet would carry more than 35,000 vehicles daily, greater than 25 percent over its capacity.
- Problems would be encountered on 9th Avenue east of Cordova Street.
- Severe congestion would occur on north-south streets, including E, G, and Cordova Streets.

Links in the downtown circulation system that would experience demand in excess of capacity under Alternative 1 in 2001 are indicated in Figure III.3.

Alternative 2. This alternative assumed implementation of two important one-way couplets: the A/C and E/G couplets. It also assumed an

improvement in traffic flow on 5th and 6th Avenues by the transfer of vehicles to avenues further south, including 9th and 15 Avenues (the latter assumed to be grade-separated at the Seward Highway).

The study determined that there would be significant deterioration of conditions along 9th Avenue, as well as further south at 15th Avenue. The combination of actions entailed in Alternative 2 would merely move problems from one place to another without enhancing the overall downtown circulation system.

Links in the downtown circulation network that would experience demand in excess of capacity under Alternative 2 in 2001 are indicated in Figure III.4.

Alternative 3. Alternative 3 added to the actions in Alternative 2 a one-way couplet on 7th and 8th Avenues. While this couplet would, to an extent, relieve pressure on 5th, 6th, 9th, and 15th Avenues, its effect was not found to be significant due to the discontinuous pattern of 7th and 8th Avenues. Serious impairment to the traffic flow along 5th and 6th Avenues near the approaches of the Seward Highway would still remain.

Links in the downtown circulation system that would experience demand in excess of capacity under Alternative 3 in 2001 are indicated in Figure III.5.

Alternative 4. Alternative 4 included the following actions:

- Implementation of the A/C Couplet

- Implementation of a one-way couplet on E and G Streets
- The addition of one peak-hour travel lane on 5th Avenue through the restriction of on-street parking to non-commuting hours
- Intersection improvements on 9th and 15th Avenues, including left-turn bays or a left-turn lane

This alternative also assumed implementation of pedestrian amenities on 4th Avenue. Although this alternative did not improve afternoon peak-hour congestion on 6th Avenue nor did it rectify all intersection problems within the CBD, it was found to be effective in resolving the most serious projected volume-to-capacity conditions along 5th and 6th Avenues.

Linkages in the downtown circulation network that would experience demand in excess of capacity in 2001 under Alternative 4 are indicated in Figure III.6.

Seward Highway Connections. It was found that proposed improvements to the Seward Highway and connections to the Glenn Highway would have some impact on downtown circulation. Specifically, there is consideration of:

- Grade separation of the Seward Highway intersections south of 13th Avenue
- Connection of the Seward and Glenn Highways near the Gambell/Ingra couplet between 3rd and 6th Avenues (Northside Corridor project)

The latter project is the subject of a study now under way. It is likely that the Seward/Glenn highway connection would entail some property acquisition associated with construction of ramps; therefore, plans for new construction in this corridor should be reviewed for compatibility with this project.

CIRCULATION RECOMMENDATIONS

Based on analysis of CBD growth and development and on review of the Municipality circulation study, the planning team has developed recommendations for downtown-wide circulation improvements that would be triggered incrementally by specific conditions, to be monitored in an ongoing program. Specific recommended improvements are keyed to Figure III.7. The A/C couplet is included as a major component of the overall downtown circulation improvement program.

Periodic Monitoring of Circulation Conditions

The rate of new construction in downtown Anchorage will bring about increasing levels of vehicular congestion. Therefore, there is a need to monitor the downtown circulation system frequently in conjunction with construction, employment, and other trends in order to make timely decisions on the implementation of circulation improvements. The factors to be monitored include:

- Traffic volumes and capacities
- Bus patronage
- Off-street parking supply

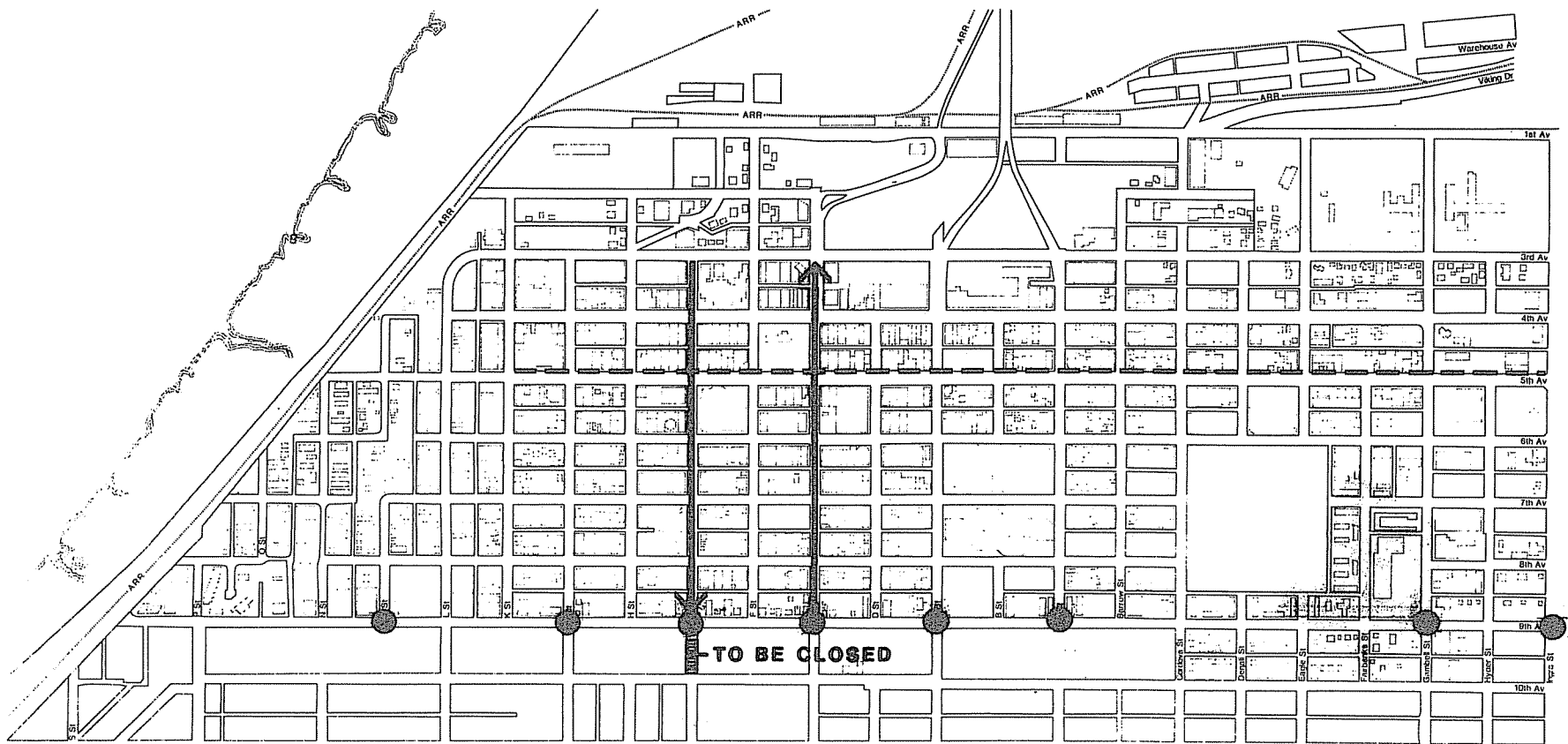





Figure III.7

Recommended Circulation Improvements

- 
CONVERSION TO ONE-WAY TRAVEL
- 
PEAK HOUR PARKING RESTRICTIONS
- 
INTERSECTION IMPROVEMENTS

- Trip origins and destinations
- Changes in downtown office and retail square footage
- Employee and shopper perceptions about downtown's accessibility.

Within the recommended downtown area monitoring program, it is recommended that the Municipality adopt a simple level-of-service standard. Based on this standard, when the level of service approaches "D" on a particular two-way street or on a combination of two-way streets, measures can be taken to increase capacity through conversion to one-way travel or restriction of on-street parking.

E/G Couplet

It is most probable that the E/G couplet will be required with the completion of the major private and public development projects in the central part of downtown Anchorage.

The A/C couplet, when completed, should improve north-south traffic flow for the short term. If and when traffic conditions on north-south streets become congested, additional north-south capacity will have to be provided. A one-way couplet on E and G Streets is one means of providing additional capacity -- and is the only opportunity for an additional north-south one-way couplet remaining in downtown Anchorage. Because this couplet serves the major development area in downtown Anchorage and because it reduces trips on the 5th/6th Avenue couplet, this couplet should probably be developed within the next three years. The installation of the E/G Couplet should

reduce the incidence of through trips within the residential area south of 9th Avenue known as the South Addition, as compared to the existing two-way design. However, to ensure that this incidence does not occur, installation of the couplet, which is designed to improve downtown traffic circulation, should be accompanied by the closure of G Street between 9th and 10th Avenues with reversion of this land to park use.

Intersection Improvements

In order to accommodate projected east-west trips, intersection widening is recommended along 9th Avenue. This could be accomplished by creating left-turn bays at major intersections on 9th Avenue.

Peak Hour Transit Lanes

During peak hours, the curb lane could be restricted to high-occupancy vehicles, available to transit buses exclusively -- or alternately available to all vehicles with a minimum number of occupants. The Municipality has endorsed the concept of implementing such a lane on the north side of 5th Avenue between Cordova and I Streets. The reduced travel times for commuters using these lanes may have some effect in encouraging a greater degree of transit use and ride-sharing. During non-commuting hours, the curb lane could be made available to downtown shoppers for limited-time free parking.

Enforcement of Parking Regulations

Since peak hour travel demands exceed those during the rest of the day, additional traffic capacity is needed in the peak hours. This can be provided by numerous means of controlling on-street parking during morning and evening commuting hours; some of the techniques available were described in the preceding discussions. A strong enforcement program, including heavier fines than those now in effect, will be necessary.

Coordination with Pedestrian Amenities

The improvements to the existing one-way street system should be undertaken in concert with recommended pedestrian amenities programs (see Chapter IV). This coordination will assure that modifications of curbs and sidewalk areas for improved traffic flow will also enhance the pedestrian environment. Undertaking one of these programs without considering the other may result in the need for future retrofitting and its associated cost.

Recommended Right-of-Way Configurations

Rights-of-way in downtown Anchorage allow numerous street and sidewalk arrangements to be considered, depending on the number of lanes required, whether on-street parking will be retained on one or both sides of the street, and the amount of pedestrian space desired. Alternative concepts have been developed for both 60-foot and 80-foot wide rights-of-way, assuming one-way travel. These include:

60-Foot Rights-of-Way (Figure III.8)

- Three traffic lanes with one lane available for parking at non-commuting hours
- Two traffic lanes plus a parking lane at selected locations within the widened sidewalk area on one side

80-Foot Rights-of-Way (Figure III.9)

- Four traffic lanes with one lane available for parking at non-commuting hours
- Three traffic lanes plus parking lane at selected locations within the widened sidewalk area on one side

In general, the former concept for both right-of-way widths is preferred from a circulation point of view since peak-hour capacity would be significantly increased over present capacity (assuming a one-way configuration), while available space for pedestrian amenities would also be increased.

Coordination with Parking Program

Some of the recommended circulation improvements involve modifications to the existing on-street parking supply, either by its restriction during commuting hours to increase traffic flow at the times of greatest demand or by replacing it with convenient off-street parking. In either case, the amount of on-street parking available to downtown employees, who seem undeterred by the present need to "feed the meter," will be reduced, assuming that cars parked on the street at peak hours would be stiffly fined or towed. Therefore,

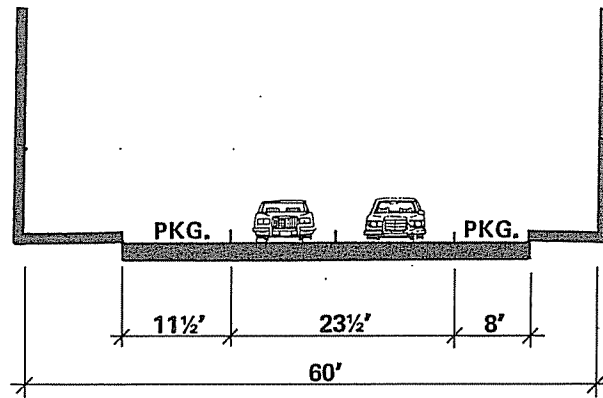
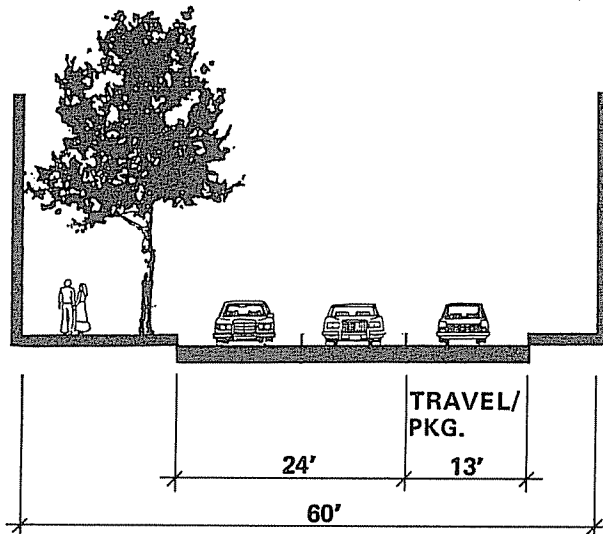
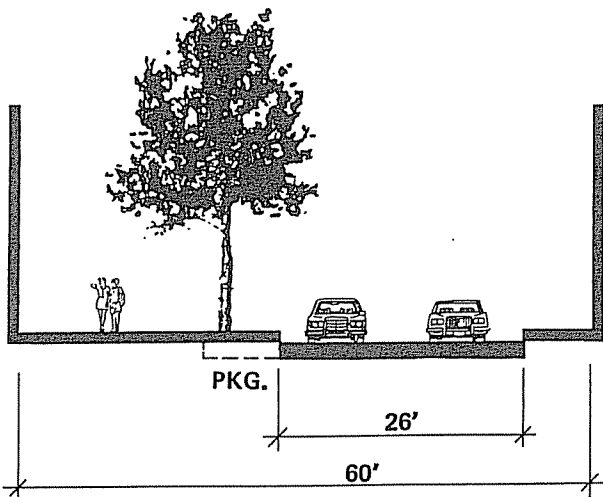


Figure III.8. 60-Foot Right-of-Way Options

Upper Section: Typical existing condition on 6th Avenue: two travel lanes in one direction with two parallel parking lanes



Middle Section: Optional reconfiguration of right-of-way for three one-way travel lanes during peak hours; parallel parking permitted one side only at non-peak hours



Lower Section: Optional reconfiguration of right-of-way for two one-way travel lanes; parallel parking one side only at midblock locations; flared curbs at intersections

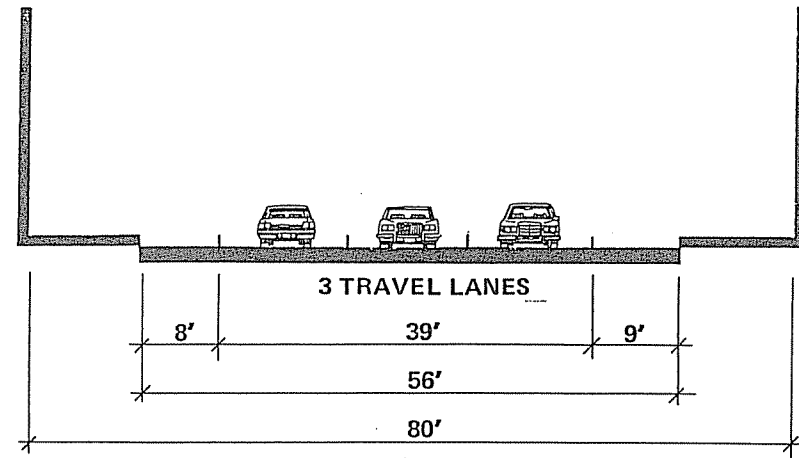
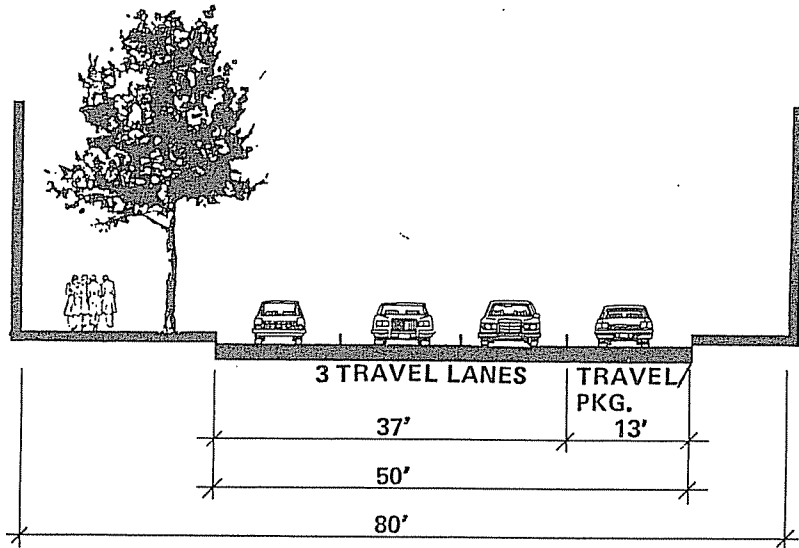
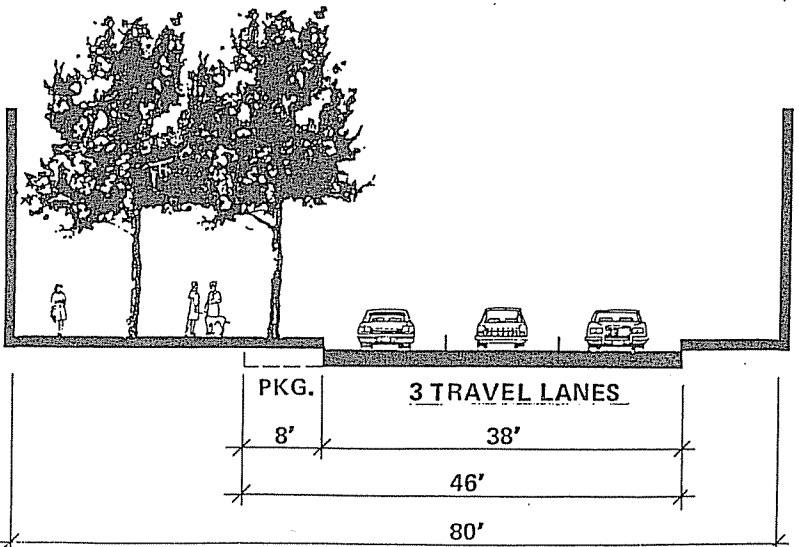


Figure III.9. 80-Foot Right-of-Way Options

Upper Section: Typical existing condition on 5th Avenue: three travel lanes in one direction with two parallel parking lanes



Middle Section: Optional reconfiguration of right-of-way for four one-way travel lanes during peak hours; parallel parking permitted one side only at non-peak hours



Lower Section: Optional reconfiguration of right-of-way for three one-way travel lanes; parallel parking one side only at midblock locations; glazed curbs at intersections

whatever amount of on-street parking is removed from availability to commuters must be replaced by at least as much convenient off-street parking or by equivalent increases in transit system capacity or ride-sharing.

Future Potential of Expressways

The potential impact of expressway developments on close-in neighborhoods, their impact on distributor arterials within the downtown area, and the potential for direct connection with recommended future peripheral parking facilities are all major considerations when evaluating expressway proposals. In this last regard, it will be especially important to coordinate decisions pertaining to long-term expressway proposals with the parking management strategy.

Preliminary plans for both the Northside Corridor expressway and a crossing of the Knik Arm indicate relatively little direct impact on the key downtown development area. However, peripheral parking and potential impacts on residential development areas should be considered.

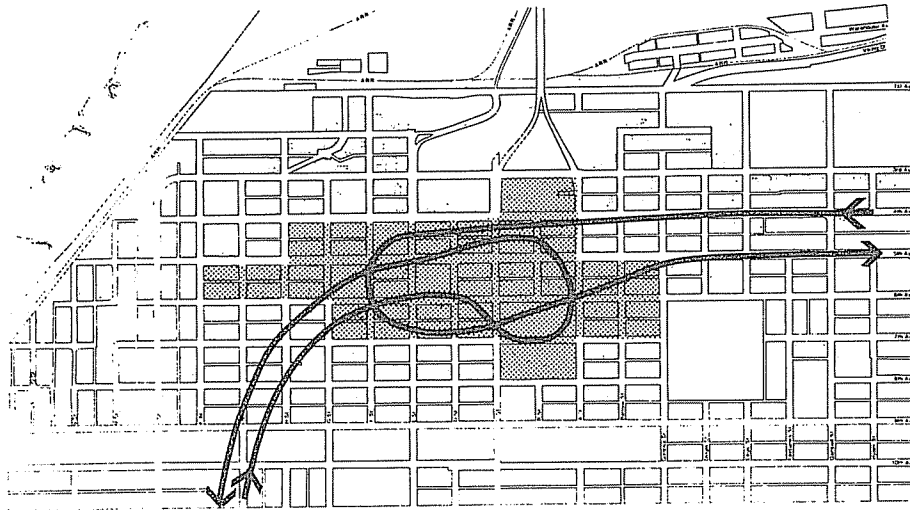
Linkage with Peripheral Parking. Although route location studies for a Knik Arm Crossing are very preliminary, a terminus of the route in the general vicinity of Hyder and Ingra Streets could allow a direct linkage to future peripheral parking facilities. Coordination with the recommended long-term parking management strategy (see Chapter V) is recommended.

Environmental Impacts. The key development area of the CBD west of Cordova Street would experience little environmental impact except possible traffic impacts. The disposition of the

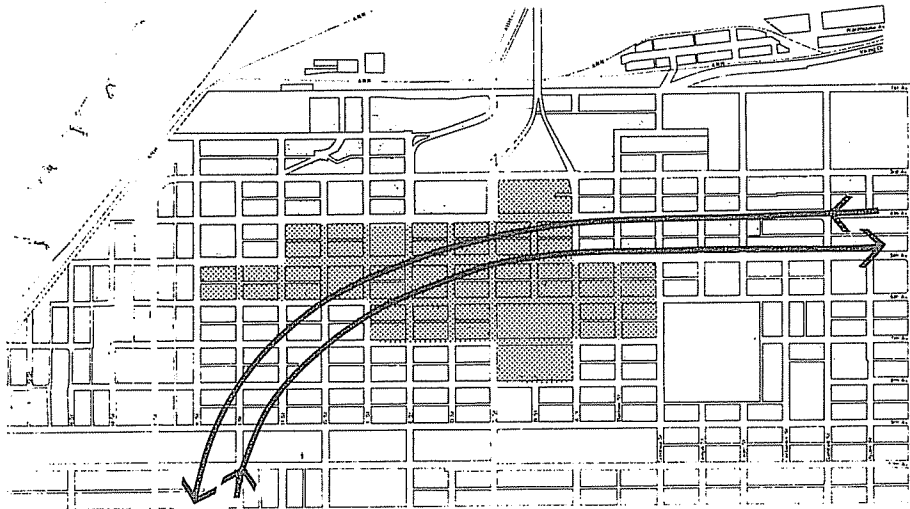
long-range development plan for the area east of Cordova Street would, however, be affected by possible routes leading to and from a Knik Arm Crossing. It would be desirable for residential developments in particular to be located away from these routes. Also, as noted in the Municipality circulation study, new developments near the proposed Northside Corridor project, in the vicinity of the Gambell/Ingra couplet between 3rd and 6th Avenues, should be reviewed for compatibility with possible ramps that would have to be developed in implementing grade-separated connections between the Seward and Glenn Highways.

Summary of Recommended Action Program

- (1) Establish program to monitor important factors with bearing on circulation.
- (2) Define the threshold at which action must be taken, based on an acceptable level of traffic service.
- (3) Determine the optimum combination of modification of travel lanes, on-street parking, and pedestrian amenities within available right-of-way and establish detailed physical plans in anticipation of eventual implementation.
- (4) The most likely first action for implementation is the conversion of E and G Streets to one-way couplet and intersection improvements along 9th Avenue, followed by implementation of a peak-hour travel lane on 5th Avenue.



Figures III.10 and III.11. Upper view indicates current bus routing system where buses circulate through the CBD on inbound trips, then recirculate on outbound trips. Lower view indicates expedited service potential with "through" bus routing system where routes on opposite sides of CBD are combined.



TRANSIT ANALYSIS

Existing Transit Service

At present, transit buses serving the Anchorage CBD travel in a loop pattern through the CBD (Figure III.10). According to the Municipality of Anchorage Transit Subcommittee, buses currently make nearly 700 east-west passages through the CBD each day; this is twice the number of bus revenue trips to the CBD, which now total 347. The reason for the disparity in numbers is the need for buses to pass through the entire CBD on approach and then to recirculate through the CBD on the outbound leg of the next trip. The consequence of this loop routing is impeded traffic flow, inefficient use of transit equipment, and some inconvenience to passengers.

Transit System Recommendations

The following recommendations have been proposed to improve the service provided by the Municipal transit system and to preserve circulation capacity on streets within the Anchorage CBD:

- "Through" transit routing
- Augmented transit accommodation facilities
- Downtown shuttle service
- Bus lanes on key downtown streets

"Through" Transit Routing. The combination of two routes serving areas on opposite sides of downtown Anchorage (Figure III.11) can eliminate many of the inefficiencies inherent in the existing loop routing system. Bus layovers within

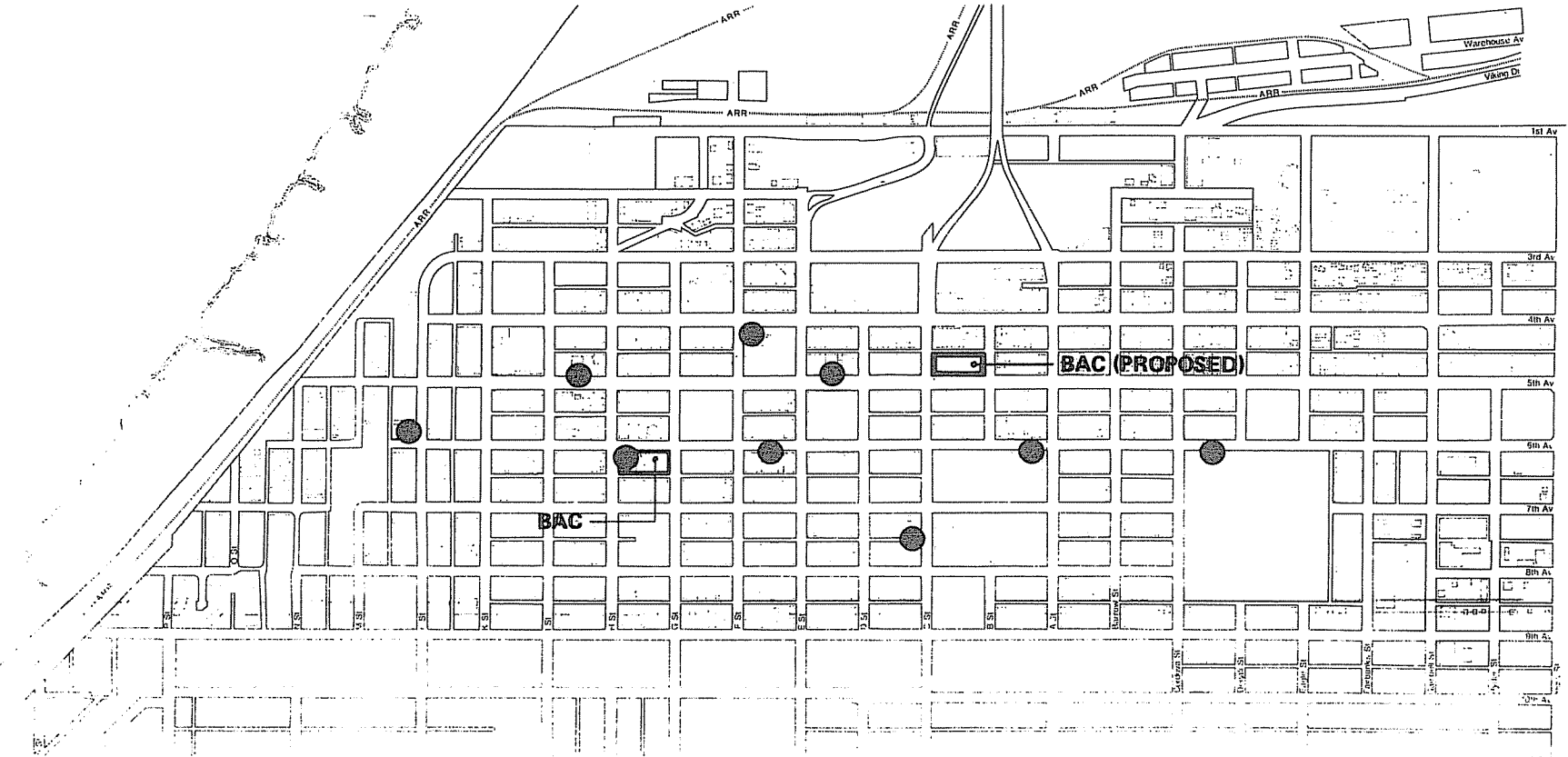


FIGURE III.12

Proposed Bus Shelter Locations



BAC: BUS ACCOMMODATION CENTER

SOURCE: MUNICIPALITY OF ANCHORAGE TRAFFIC ENGINEERING DEPARTMENT

downtown can be shortened; and the efficiency derived from each vehicle can be improved with the elimination of the need for vehicles to recirculate through the CBD, resulting in shorter headways.

Augmented Transit Accommodation Facilities. The existing Bus Accommodation Center was developed recently in the block immediately west of the Hill Building, at the southwest corner of 6th Avenue and G Street. The facility incorporates an enclosed passenger waiting area, token purchase counter, and restrooms. Plans call for an expanded Bus Accommodation Center to be incorporated into a parking garage proposed for this site (see Chapter V).

It has also been proposed that a second Bus Accommodation Center be built near proposed new developments in the north-central part of the Anchorage CBD. In particular, it seemed desirable to incorporate such a facility into the first floor of a proposed parking garage between 4th and 5th Avenues and B and C Streets (see Chapter V).

In addition to a second Bus Accommodation Center to supplement the existing one, major bus shelters throughout the CBD have been proposed. These shelters would be enclosed on three sides, lighted (but not heated), and would provide transit information such as bus routings and schedules. A preliminary analysis by the Municipal Planning Department has indicated proposed locations for eight shelters that could serve most existing downtown transit users (Figure III.12); more could be added in response to future downtown development. The exact number and location of the transit facilities depicted on this figure will be

determined during the routing and scheduling analyses associated with conversion to the through-routing system.

Downtown Shuttle Service. A downtown shuttle transit service, which would operate free of charge, has been proposed by the Municipality to link park-and-ride lots with employment centers and promote easy circulation throughout the CBD for shoppers.

Bus Lanes on Key Downtown Streets. As discussed in the earlier section on vehicular circulation, there may be some potential to assign one lane at peak hours to high-occupancy vehicles, such as transit buses or carpool vehicles; many possibilities exist for the precise policies that might be considered.

A review of this potential by the Municipality of Anchorage has resulted in its conclusion that such action would not be justified by current bus volumes or by bus volumes projected for the next five years. Nevertheless, in conjunction with recommended peak-hour parking restriction policies (see earlier section of this chapter), the option for bus lanes on key downtown streets should be maintained.

