B. County Roads

As shown in Figure Circ-1, there are six existing streets or street sections in Gloucester City designated as county routes and maintained by Camden County: Broadway, Collins Avenue, Jersey Avenue, Market Street, Hudson Street/Nicholson Avenue, and Essex Street. Figure Circ-2 is a table that identifies the county route designation, right-of-way characteristics, cartway characteristics, and the existing and proposed functional classifications of these roadways. As shown in this Figure, the county road system serves as either collector or arterial roadways capturing traffic from the local street system and linking it into the regional highway system.

In addition to the roads identified above, the Camden County Board of Freeholders, with the recent introduction of an Ordinance, has begun the necessary action required to change King Street from a municipal roadway to a county road. The pending "conversion" of King Street will result in the maintenance and repair for all access roads to industrial areas along the Delaware River being the responsibility of the County.

FIGURE CIRC-2

CHARACTERISTICS OF COUNTY ROADS[1]
GLOUCESTER CITY, NJ

ROUTE #	ROAD NAME	EXIST. R.O.W. (FT)	PROP. R.O.W. (FT)	PROP. CART-WAY (FT)	FHWA FUNCT. CLASS[2]	PROP. CLASS[3]
551	Broadway	66	66	46	UMA	PA
630	Collins Ave.	118	118	46	UC	C
632	Jersey Ave.	60	60	46	UC	C
634	Market St. (East of Broadway)	49.5	60	36	UMA	MA
	Market St. (Broadway to King St.)	60	60	36	--	--
635	Hudson St. / Nicholson Blvd.	49.5	66	36	UMA	MA
755	Essex St.	60	60	46	UC	C

[1]Delaware Valley Regional Planning Commission, "*Camden County Highway Circulation Plan*," July 1993.

[2]FHWA Functional Class applicable in Gloucester City: UPA - Urban principal arterial, UMA - Urban minor arterial, UC - Urban Collector.

[3]Proposed Functional Class applicable in Gloucester City: PA - Principal arterial, MA - Minor arterial, C - Collector.

Figure Circ-2 indicates that two sections of the county roads (Market Street east of Broadway and Hudson Street/Nicholson Avenue) have right-of-way widths that are less than the county standard (49.5 ft. existing versus 60 to 66 ft. proposed). Any efforts by the County to acquire additional land for the expansion of these right-of-ways will impact on existing uses along these streets, particularly in the older areas of the City where residential development has occurred on smaller lots with relatively small street setbacks.

Municipal officials have also identified the occurrence of a significant traffic problem along Broadway during evening rush hour. This is particularly acute on Friday nights in the summer as motorists leaving the Philadelphia area use Broadway as an alternate access route to Route 130 (in Brooklawn) or Route 55 (near Deptford). Using Broadway allows travelers to avoid the congestion present on I-76 at the Route 130 and the I-295 interchanges. The congestion results from additional vehicles attempting to enter Brooklawn Circle, resulting in traffic backing up on Broadway, long delays at traffic lights, etc. This problem is compounded as motorists become familiar with the area and attempt to bypass Broadway through the heart of the Gloucester business district by taking King Street and Jersey Avenue.

The resolution of this problem requires coordination with state and county transportation agencies since the roads used are not under local jurisdiction.

C. Local Streets

The remaining streets in the road network are the streets maintained by the Municipality. Local streets function as collector and sub-collector streets providing access to individual lots and carrying traffic between neighborhoods and to the county road system.

The most serious concerns regarding the local street system are primarily concentrated in the older area of the City west of Broadway and include:

- Narrowness of cartway, requiring the institution of parking restrictions and/or one-way traffic flow;
- The lack of off-street parking, resulting in residents competing with visitors and business patrons for limited on-street parking spaces;
- Emergency vehicle access;
- NJ Transit bus use, particularly on Monmouth Street;
- Access for municipal service vehicles (e.g. trash pickup, street sweeper).

Another significant circulation concern of Citywide impact is the placement of driveways on individual properties and commercial truck traffic moving to and from riverfront industrial businesses traveling through residential areas.

D. Mass Transit Service

Figure Circ-3 illustrates the NJ Transit bus routes currently servicing Gloucester City.

FIGURE CIRC-3

NJ TRANSIT BUS ROUTES SERVICING GLOUCESTER CITY
GLOUCESTER CITY, NJ

ROUTE #	ORIGIN/DESTINATION POINTS
401	Philadelphia-Salem, NJ (via Kings Highway)
402	Philadelphia-Pennsville, NJ (via NJ 44 & US Route 130)
410	Philadelphia-Bridgeton, NJ
411	Philadelphia-Deptford Mall
412	Philadelphia-Glassboro, NJ
457	Camden-Morrestown Mall

A review of the most recent transit schedules (dated 1/7/95) shows that the focus of NJ Transit's bus service is to deliver commuters into the center city Philadelphia employment area. The week-day schedule for a majority of these lines provides the most frequent service and often provides express service from Gloucester City to Philadelphia during the morning rush hour and out of Philadelphia during the evening rush hour. Only Route 457 provides direct access to employment centers outside of the Camden/Philadelphia area, including regional shopping centers and business parks in southern Burlington County. The routing of this bus to travel on Monmouth Street west of Broadway is a concern based on the use of that street by emergency vehicles and the narrowness of the travel lanes.

Currently, a commuter rail service is non-existent in Gloucester City. NJ Transit is in the process of completing a funding and feasibility study evaluating options to expand regional commuter linkages to Philadelphia/Camden along two corridors: a northern corridor (Burlington Corridor) serving southwestern Burlington County terminating at Mt. Holly, and a southern corridor (Gloucester Corridor) serving Gloucester City, Gloucester County, and terminating at Glassboro. For the southern corridor, NJ Transit is evaluating the feasibility of utilizing either a "modified PATCO" train service or a light rail transit (trolley) system.

The proposed routing of the southern corridor would utilize the existing Conrail rail lines. According to published information, NJ Transit is currently preparing a Major Investment Study. Following the completion of that study, the Draft Environmental Impact

Statement (DEIS) is proposed to be completed in mid-1996. Optimistically, restoration of commuter rail service could be completed approximately 2-3 years after completion of the final Environmental Impact Statement depending on such factors as the availability of funding and the extent of rehabilitation and repairs necessary to the track.

Preliminary NJ Transit studies identify a potential for two rail stops to be established in Gloucester City. One would be at the site of the "Old Train Station" on Monmouth Street (See Figure Circ-1) and the second would be further south near the intersection of Broadway and Jersey Avenue. The NJ Transit studies tentatively identify these stations as "Kiss and Ride" facilities due to the limited parking available.

Gloucester City has already begun taking steps to accommodate restoration of rail service and the reactivation of the "Old Train Station." A preliminary architectural estimate has been completed and the City submitted an application in 1994 for ISTEA Funding to undertake rehabilitation of the train station. Although the City was unsuccessful in its initial attempts to secure funding from these highly competitive grants, it should refine its grant application and continue to pursue this funding source.

As restoration of rail service nears, the City should coordinate with NJ Transit officials to have existing bus service re-routed to the train station facility, expanding its function as a full transportation center.

The establishment of commuter rail service will have a significant impact on local circulation. There are eleven existing grade crossings (streets crossing railroad tracks in Gloucester City): Essex Street (County Route 755), Mercer Street, Chambers Street, Monmouth Street, Market Street (County Route 634), Koehler Lane, Morris Street, Middlesex Street, Hudson/Paul Street (County Route 635), Cumberland Street, and Powell Street.

Undoubtedly, NJ Transit will require many of these grade crossings to be eliminated if commuter train service is instituted. In advance of any action by NJ Transit, it is recommended that the City take a proactive position and authorize its traffic engineer and planning consultant to undertake an independent evaluation of all the grade crossings, the areas served by these streets, their linkage provided by the crossings between neighborhoods and to the surrounding communities, and also any other public safety aspects. The preparation of this evaluation would allow the City to meet with NJ Transit representatives to present a recommended list of grade crossings to be maintained based on local preferences and concerns.

III. RECOMMENDED TRAFFIC AND CIRCULATION IMPROVEMENT PROJECTS

A. Circulation Improvements on the Local Street System

Of significant concern with respect to the local street system is the congestion resulting from narrow roadway widths coupled with the lack of off-street parking. This problem is particularly acute west of Broadway, where the historic pattern of development consists of high density rowhouse units on narrow lots without off-street parking in either the front or rear yard areas. This results in a high demand for available on-street parking on streets that were designed for horse and buggy traffic.

At some locations, the parking problem is compounded by scattered commercial uses in the residential area (traditional "corner" stores, etc.) whose customers compete for parking spaces.

To minimize the congestion and conflicts resulting from two-way traffic and on-street parking on a narrow street system, the City has designated portions of several streets to have a one-way traffic flow and on other streets parking has been restricted to one side of the roadway. While these steps assist in reducing localized circulation conflicts, they do not deal with the issue in a comprehensive fashion.

The City has the opportunity to implement both long-term and short-term strategies to address the parking and circulation deficiencies. The short-term strategy uses comprehensive operational strategies (parking and circulation pattern changes) to achieve this goal. Over the long term, structural changes (density reduction and creating off-street parking areas) are recommended to relieve congestion.

Proposed one-way circulation patterns are graphically shown on Figure Circ-1 and listed on Figure Circ-4. As indicated in these Figures, the recommendations leave much of the existing one-way circulation pattern intact while expanding some of the one-way circulation into the area east of the railroad and south of Market Street. The most notable changes recommended to the one-way circulation pattern are:

- Changing the circulation on Hudson Street so that all traffic travels in a westbound direction. Currently, traffic on the west side of Broadway moves in an eastbound direction;

- Changing the circulation on Monmouth Street to an eastbound direction for the entire length of the roadway. Currently, there is a two-way directional flow of traffic west of the railroad;

- Making Cumberland Street one-way in an eastbound direction from King Street to Broadway.

FIGURE CIRC-4

PROPOSED ONE-WAY CIRCULATION PATTERN
GLOUCESTER CITY, NJ

STREET	SECTION	EXISTING DIRECTION	RECOMMENDED DIRECTION
Linden Street	King-Filmore	2-Way	West
Warren Street	King-Filmore	East	East
Essex Street		2-Way	2-Way
Morris Street	King-Broadway	East	East
	Broadway-RR	2-Way	East
Mercer Street	King-Johnson	2-Way	2-Way
Middlesex Street	King-Broadway	West	East
	Broadway-Johnson	2-Way	East
Chambers Street	Broadway-RR	2-Way	East
	RR-Johnson	2-Way	West
Paul Street	Broadway-RR	West	West
	RR-Johnson	2-Way	West
Gaunt Street	Brown-Johnson	2-Way	East
Hudson Street	King-Broadway	East	West
	Broadway-Johnson	West	West
Bergen Street	King-RR	2-Way	East
Monmouth Street	King-RR	2-Way	East
	RR-Johnson	East	East
Somerset Street	King-Broadway	West	West
	Broadway-RR	2-Way	West
Cumberland Street	Burlington-Sussex	East	East
	King-RR	2-Way	East
Ridge Avenue	King-Burlington	West	West
Ridgeway Street	Burlington-Broadway	West	West

FIGURE CIRC-4

PROPOSED ONE-WAY CIRCULATION PATTERN
GLOUCESTER CITY, NJ
Page 2

STREET	SECTION	EXISTING DIRECTION	RECOMMENDED DIRECTION
Powell Street	King-Broadway	West	West
Orange Street	King-3rd	West	East
Hunter Street	3rd-Broadway	2-Way	East
Division Street	5th-Broadway	2-Way	West
Cherry Street	6th-9th	2-Way	East
Willow Street	Cumberland-Essex	North	North
Burlington Street	Broadway-Market	South	South
Sussex Street	Market-Mercer	North	North
Atlantic Street	Monmouth-Market	South	South
Joy Street	Market-Cumberland	North	North
3rd Street	Market-Water	South	South
5th Street	Market-Jersey	2-Way	South
6th Street	Market-Jersey	2-Way	North
7th Street	Market-Jersey	2-Way	South
8th Street	Hunter-Jersey	2 Way	North
9th Street	Center-Jersey	2-Way	South
Railroad Avenue South (West)	Essex-Monmouth	South	South
Railroad Avenue North (East)	Paul-Essex	North	North
Champion Street	Cumberland-Monmouth	North	North
	Bergen-Monmouth	South	North
Katherine Street	Brown-Johnson	2-Way	North

FIGURE CIRC-4

PROPOSED ONE-WAY CIRCULATION PATTERN
GLOUCESTER CITY, NJ
Page 3

STREET	SECTION	EXISTING DIRECTION	RECOMMENDED DIRECTION
Mary Street	Brown-Market	South	South
Stites Avenue	Railroad-Powell	2-Way	North
Barnard Avenue	Powell-Railroad	2-Way	South
Hunter Street	Lane-Stinson	2-Way	East
Stinson Avenue	Hunter-Thompson	2-Way	South
Marlborough Avenue	Yale-Route 130	East	East

The recommended one-way circulation system attempts, to the maximum extent practicable to create a system of "opposite pairs" where traffic on successive streets moves in opposite directions. Under the proposed scheme, Hudson and Monmouth Streets would operate as a paired street system since the intervening street (Bergen Street) does not have an at grade rail crossing and therefore does not provide a through flow of traffic.

In conjunction with the revised one-way circulation system, the City can also take actions to ease one-sided parking restrictions. According to recommended design standards,[4] on streets with a one-way traffic flow parking can be permitted on both sides with a cartway width as narrow as 28 ft., with two 8 ft.-wide parking lanes and a 12 ft.-wide circulation aisle. According to the Police Department, many of the streets included in the proposed one-way circulation system have a measured cartway width of approximately 29.5 ft. Thus, two-sided parking could be instituted on these roadways. As an example of the impact of instituting this policy, it is estimated that the adoption of parking on both sides of the street could add as many as 10 additional parking spaces on Hudson Street between Burlington and Willow Streets.[5]

In addition to short-term measures, the City must also initiate steps to implement long-term solutions that over time would minimize the need for a one-way circulation system to satisfy the residential parking needs of the community. The long-term measures essentially consist of two separate elements: reduction in the density of housing and the development of off-street parking areas.

Density reduction, which is discussed more fully in the Housing Plan, includes measures to remove substandard structures, encourage two for one conversions (combining two existing row houses into a single structure), and create development parcels from vacant land that would meet modern design standards for single family dwellings.

To address the parking needs for residential areas, it is recommended that the City adopt a program of developing "neighborhood" parking lots to serve nearby residents. The individual parking lots would be designed to allow multiple uses so that they could be used for block parties or other occasional neighborhood activities.

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[4]Listokin, David and Walker, Carole. *"The Subdivision in Site Plan Handbook,"* Center for Urban Policy Research, 1989.

[5]The tax maps indicate this block to have a length of 260 ft. The estimate is based on the assumption that a No Parking Zone would occupy 20 ft. at either end of the block and that there are no driveways, resulting in a net useable length of 220 ft. Based on the 22 ft. parallel parking space required by the Zoning Ordinance, this block would yield 10 additional parking spaces.

The creation of neighborhood parking lots should initially be targeted along the Market and Monmouth Street corridors -- Market Street, since it will be one of the primary access corridors to the Riverfront Recreational Redevelopment Area, and Monmouth Street, since the municipal and quasi-public (e.g. places of worship) facilities located there create a demand for parking and also because of its use as a primary route for emergency vehicles. In selecting locations for neighborhood parking lots, the priority for acquisition and development should be:

- City or publicly-owned land;
- Vacant, privately-owned land that is not contiguous to a residential property under the same ownership;
- Deteriorated buildings and structures, not of historical significance, based on a comprehensive survey of building conditions in the targeted area.

As neighborhood parking lots are completed along a street corridor, the City could then evaluate the appropriateness of maintaining circulation and parking patterns.

Where neighborhood parking lots are located near concentrations of commercial uses, the spaces in these lots could be metered with residents of the immediate area exempted from using the meters by a parking permit. An example of an appropriate location for this type of metered hybrid is the City-owned land at the southeast corner of the intersection of King and Somerset Streets (See Figure Circ-5). This 60' x 120' parcel could be developed to accommodate up to 14 cars with a 4-5 ft.-wide landscaped area around the perimeter of the site. The revenues generated by the meters would be dedicated to reinvesting in public improvements in the area, including parking lot maintenance, street and sidewalk improvements, and street trees.

In instances where there is a single commercial entity in the midst of a residential area, the City should utilize the findings of the comprehensive survey of conditions to identify nearby parcels suitable for use as off-street parking to serve the commercial entity. The business owner would have the option of purchasing the property on the open market and constructing the parking area. As an alternative, the City would act under a redevelopment plan to acquire the parcel in question and develop the parking area as a "turnkey" project that would be sold or leased to the business. To encourage patron use of the off-street parking areas, parking meters would be installed on the adjacent streets. Residents of the immediate area would be provided with permits exempting them from having to use the meters.

FIGURE CIRC-5

CITY LAND AT INTERSECTION OF KING AND CUMBERLAND STREETS GLOUCESTER CITY, NJ

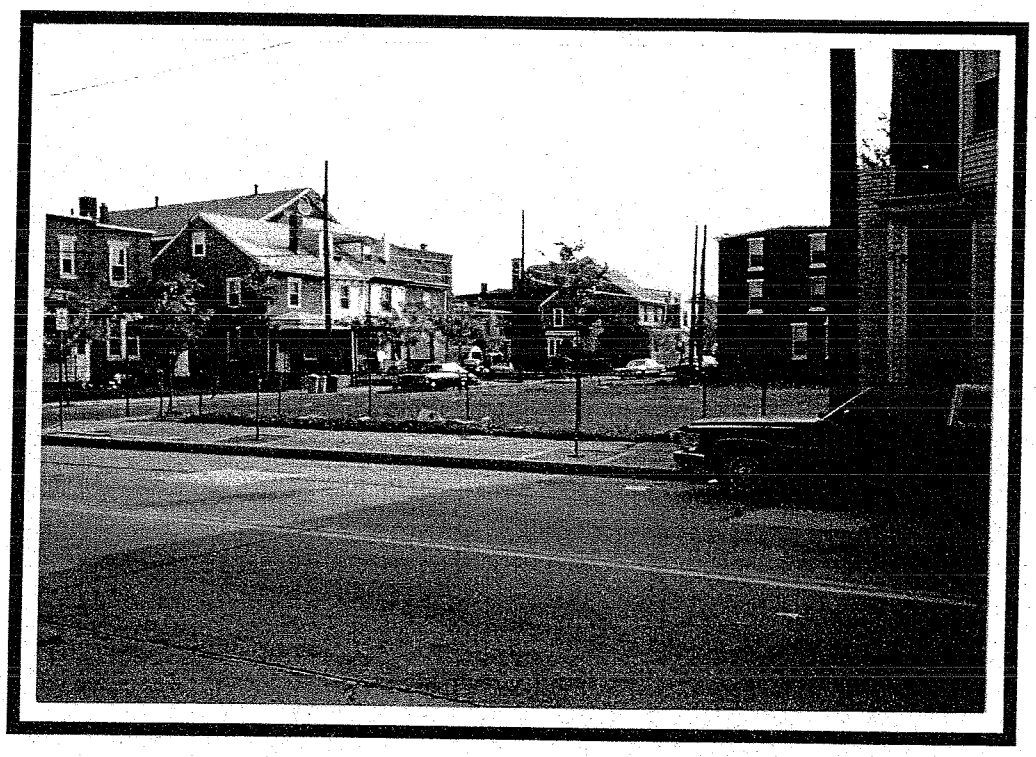

Photo by: Peter P. Karabashian Associates, Inc.

This 7,200 sq. ft. parcel could be developed as a parking lot with a capacity up to 14 cars for use by local residents and patrons of nearby commercial facilities.

To facilitate access by municipal service vehicles, it is recommended that the City adopt the policy of piggy backing all regularly scheduled services (e.g. trash pickup, street sweeping) and that the schedule be coordinated with local parking restrictions (i.e. "No Parking Tuesday 8:00 a.m.-11:00 a.m.).

B. Commercial Parking

In addition to the parking problems experienced in residential areas, there are also problems resulting from an absence of off-street parking on certain portions of the Broadway Commercial Corridor. Where there is off-street parking, it functions in a disjointed manner with each parking area separate from an adjoining facility. To satisfy the parking needs on this key commercial corridor, the following steps and programs are recommended:

1. Broadway Corridor

The recommended solution to address the parking needs along the entire length of the Broadway Corridor would be to create what is referred to as a "Parking Benefit District" in Gloucester City.[6] The designation of the district boundaries would be determined by the governing body. The district would consist of the Broadway Corridor Area defined on the Strategic Plan - Land Use Plan for Gloucester City.

Within the Parking Benefit District, the City should identify specific target areas to focus the initial areas of the implementation. These target areas would be the locations where, based on existing conditions, there is the greatest need to provide off-street parking. Within the target areas, a comprehensive inventory of building conditions would be undertaken to identify structures for removal on existing vacant lots to create off-street parking areas:

Working on a block-by-block basis, the City would acquire the targeted parcels, remove any existing structures and create a series of off-street parking lots. Depending on the specific location, these lots would either be for employees of businesses (if located on a side street) or for customers and employees if located on Broadway. In conjunction with the parking lot construction, parking meters would be installed along Broadway and adjacent side streets in the district. Parking permits would be made available to residents of the district exempting them from paying meter fees.

To discourage all-day parking in meter spaces, the City should set the meter fees to be "back loaded" (e.g. first 1/2 hour 25¢, each additional 1/4 hour 25¢). As a further convenience to customers, reduced price tokens would be available through the downtown merchants association for businesses in the district to distribute to customers.

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[6]Refer to Soup, Donald C. *"An Opportunity to Reduce Minimum Parking Requirements,"* Journal of the American Planning Association, Winter 1995.

The revenues generated by the district would be used for; the development and maintenance of off street parking lots to serve the district, public improvements in the district implementing a corridor improvement program, and potentially as a source for a loan pool made available to businesses for building and signage improvements specified under the corridor improvement plan.

2. Monmouth Street Commercial Area

An area of specific concern regarding parking in commercial areas is the existing parking situation on Monmouth Street between Broadway and the railroad right-of-way. Although there are two municipal parking lots at Monmouth and the Railroad (the train station and library parking lots), parking on Monmouth is still preferred by businesses and residents. Angle parking was allowed in this area prior to the construction of streetscape improvements. Currently, only parallel parking is permitted on Monmouth Street, resulting in double parking frequently occurring in this area (See Figure Circ-6).

Based on the previous recommendation to change the circulation on Monmouth Street to a one-way direction eastbound for its entire length, a return to angle parking along this section of the roadway bears reevaluation.

According to the City Engineer's Office, this section of Monmouth Street has a 47-ft. paved cartway (curbline to curbline). The width of the paving will be the limiting factor in determining the options available to the City with implementing angle parking in this area. Based on published design standards,[7] a 30° parking angle scheme requires a minimum of 42.5 ft. of roadway width, while parking at a 45° angle would require a minimum of 49 ft. of roadway width. Thus, it appears that a 30° angle parking scheme could be implemented on Monmouth Street without requiring modifications to the existing right-of-way. If the 30° parking scheme is implemented, and assuming there are no curb cuts, fire hydrants or similar impediments, the on street parking capacity would be increased to 5.7 spaces per 100 l.f. of curbline, which is approximately an increase of 27% over the 4.5 spaces per 100 l.f. of curbline that can be achieved using the existing parallel scheme.

Another option available to Gloucester City would be to maintain parallel parking on one side of Monmouth Street while allowing angle parking on the other. If this scheme were implemented, it would enable the City to change it to a 60° angle parking, thus increasing the capacity per 100 l.f. of curbline between 9 and 9.5 vehicles, which is more than twice what is currently achieved through parallel parking.

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[7]DeChiara, Joseph and Koppelman, Lee. *"Urban Plan and Design Criteria,"* VanNostrand Reinhold Company, 1982.

FIGURE CIRC-6

EXAMPLE OF EXISTING CONDITIONS BETWEEN BROADWAY AND THE RAILROAD ON MONMOUTH GLOUCESTER CITY, NJ

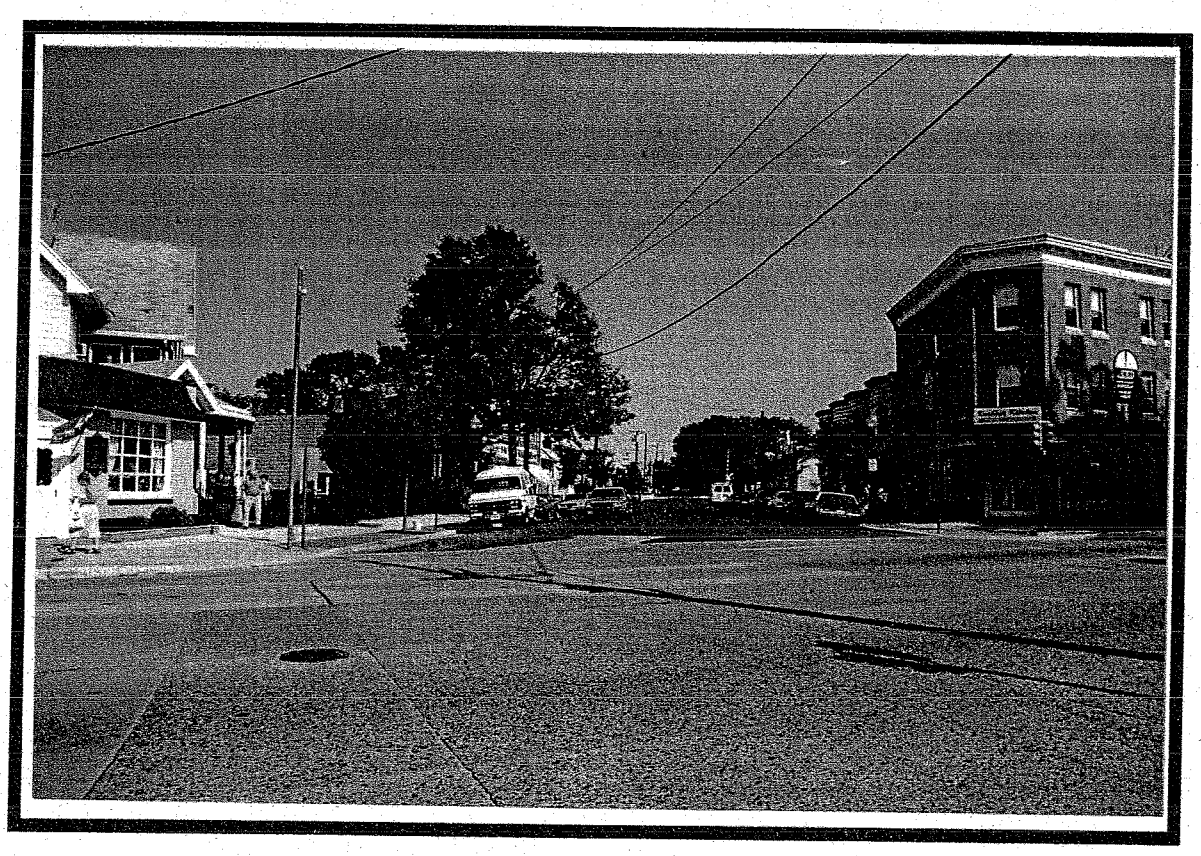


Photo by: Peter P. Karabashian Associates, Inc.

This section of Broadway appears to be wide enough to allow angle parking on both sides of the street, if traffic is limited to a one-way circulation pattern, (proposed as eastbound). Note the double-parked van to the right.

C. Cross Access Easements

Observations made during the preparation of this Master Plan found that there was no driveway linkage between the two largest developments on South Broadway (Acme Market and the Broadway Plaza Shopping Center). Patrons attempting to drive from one center to the other have to either exit the site onto Broadway and then immediately (within approximately 50 ft.) make another turn into the adjoining property or exit through the rear of the site onto Jersey Avenue to access the adjoining land. The quick exit/entry movement on Broadway is of particular concern as this is the major thoroughfare through the downtown commercial district of the City and is subject to frequent peak-hour traffic congestion. Traffic and transportation experts discourage design that forces this quick exit/entry movement since it increases the number of vehicles using the roadway and adds to congestion problems as cars attempt to turn across traffic to enter into an adjoining property.

To alleviate the need for vehicles to make a quick exit/entry movement onto Broadway or other major commercial roadways in Gloucester City, it is recommended that the parking design requirements of the Zoning Ordinances be revised to incorporate a requirement for providing cross access easements between common driveways linking adjoining commercial developments. These standards will not only avoid unnecessary vehicle movements onto and off of major roadways, but also are a convenience to customers of commercial operations and also by delivery or service vehicles. Figure Circ-7 is a photograph showing existing conditions between the Broadway Plaza and Acme parking lot, a potential location for a cross access driveway.

D. Truck Routes

For both the local port facilities (Holt property) and the Gloucester Point Redevelopment Area to maximize their ultimate potential, it is absolutely necessary to provide a routing system that directs trucks to and from these facilities without impacting on residential areas of Gloucester City, where you have a historic development pattern and narrow residential streets with a high demand for on-street parking. Previously, the City had prepared a Truck Routing Plan, but it was never implemented.[8]

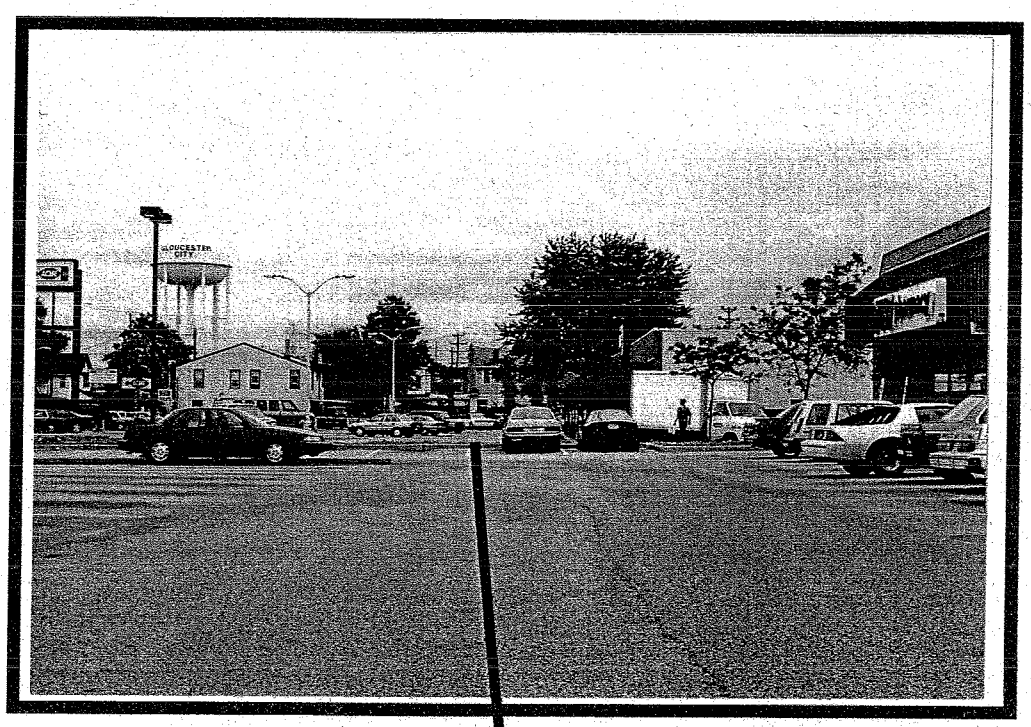
Any effort by Gloucester City to adopt a comprehensive truck route program must include coordination and the participation of state and county transportation agencies, since the existing roadways involved in providing truck access are not under the jurisdiction of the municipality.

8

In 1985, Orth Rogers and Associates prepared a report entitled "Truck Route and Sign Plan" as part of the agreement between the City and Holt Hauling and Warehousing System for UDAG Funding of Holt's Port Development Project. This report focused primarily on the Holt Facility, but did comprehensively review the streets identified in this City's Truck Route Ordinance (Ordinance #9-1980), traffic conditions and patterns and anticipated changes in truck traffic. This report recommended a program of signage and other actions to control the flow of truck traffic and minimize the impact on local residents.

FIGURE CIRC-7

EXAMPLE OF EXISTING CONDITIONS BETWEEN THE BROADWAY PLAZA AND ACME PARKING LOTS GLOUCESTER CITY, NJ



Potential location for cross access driveway

Photo by: Peter P. Karabashian Associates, Inc.

By providing cross access connections between adjoining commercial developments, such as that pictured above, the City could eliminate vehicles entering the highway to move from site to site.

FIGURE CIRC-8

TRUCK ATTEMPTING TO TURN AT INTERSECTION OF 8TH AND CHERRY STREETS GLOUCESTER CITY, NJ

Photo by: Peter P. Karabashian Associates, Inc.

Why does Gloucester City need clearly identified truck routes and signs designating residential areas as "Truck Free Zones"? To avoid trucks attempting to manuever on narrow residential streets, such as this scene at the corner of 8th and Cherry Streets. This driver needed four back and forth movements to make this turn.

To minimize the impact of trucks bound for the Holt or Gloucester Point areas, it is recommended that truck routes be established creating a northern access truck route (for access to Holt) and a southern access route (for access to Gloucester Point). These proposed truck routes are graphically shown on Figure Circ-1. The northern route would use signs on I-76 to direct traffic bound for the Port of Gloucester to take I-676 north, exiting onto Morgan Boulevard, traveling west on Morgan Boulevard to Broadway, then south on Broadway to King Street and the entrance to the Holt Port Facilities. The implementation of this route requires the appropriate signage to be posted along I-76 and I-676, Morgan Boulevard and Broadway. The realignment of the King Street intersection is also recommended to improve sight distances for outbound traffic.

Currently, a major impediment to implementing this truck route is a 10-ton weight restriction that has been posted on the Broadway Bridge for Newton Creek. According to the office of the county engineer[9], the reconstruction of this bridge has been delayed as a result of the need to temporarily relocate a natural gas main during project construction. The utility company (PSE&G) will be temporarily relocating this main to the nearby railroad bridge, but requires the granting of easements from both the Holt Organization and the South Jersey Port Corporation to run the temporary line across their respective properties. The project can go out to bid shortly after the relocation issue is settled. After completion of the bridge reconstruction, weight restrictions on the bridge can be lifted, thus making it possible to implement the northern truck route as the primary means of access to the Holt Properties.

During the course of bridge reconstruction, the City should be conducting ongoing meetings with state and county transportation officials to have signage installed directing traffic to the Holt Property (or Port of Gloucester) as soon as the bridge is opened for use.

As an alternate to the Broadway Bridge access, it is recommended that the City and Holt jointly evaluate the feasibility of constructing a new roadway connecting Collins Avenue to King Street. As shown in Figure Circ-9, the connector road would generally run parallel to the north side of the Walt Whitman Bridge and would require construction of a new bridge crossing Newton Creek. This option has two primary advantages: it provides a more direct route (approximately 1 mile shorter) to the Port of Gloucester facilities and it opens up for development approximately 35 acres of land owned by Holt located on the north side of the Walt Whitman Bridge east of Broadway. Currently, the Holt land is used for trailer storage or is held as vacant, unimproved land. This alternate route could be developed as a public/private partnership between the City, the Delaware River Port Authority, and Holt.

The southern truck route, which is intended to provide access to the Gloucester Point Redevelopment Area, would direct all inbound traffic to take Route 130 to the Brooklawn Circle area, then travel north on Broadway turning at either Stinson or Jersey Avenues. Outbound traffic would travel the same route in the opposite direction. The implementation of the route has been prevented by a height restriction of 13 ft. 3 in. under the railroad bridge spanning Route 130 between the Brooklawn Circles (See Figure Circ-10). This is less than the minimum 13 ft. 6 in. required for safe clearance.

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[9]Telephone conversation with Robert Kelly of the Camden County Engineer's Office, June 28, 1995.

The resolution of this height restriction is a much more complex matter than the Broadway Bridge reconstruction since it involves either lowering the roadway or raising the bridge to provide the 3 inches needed for truck passage. The anticipated start-up of commuter rail service using this rail line has created a window of opportunity for removal of the impediment to the southern truck route. According to preliminary studies,[10] the rehabilitation of old railroad bridges is a cost item that must be considered in the capital cost for the start-up of rail service. Efforts should be undertaken on behalf of Gloucester City to insure that the rehabilitation money includes funding for improving clearance beneath this bridge.

In conjunction with the creation of truck routes, it is further recommended that the City designate its residential neighborhoods as "truck free" zones and that appropriate signage be posted (See Figure Circ-11) at all side streets intersecting with truck routes or other county roadways indicating the areas are no truck zones.

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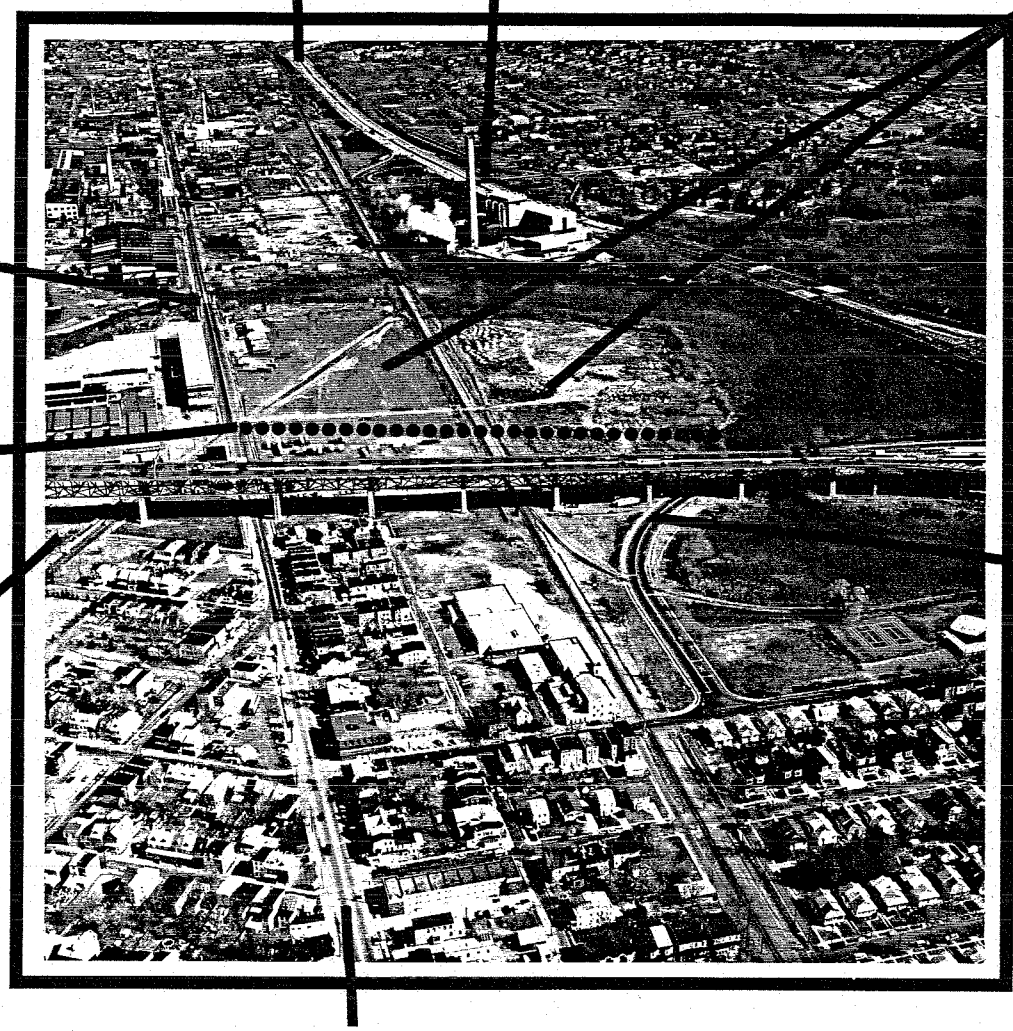
[10]NJ Transit Burlington/Gloucester Corridor Assessment Final Report, April 1993.

FIGURE CIRC-9

RECOMMENDED TRUCK ROUTES TO ACCESS THE "PORT OF GLOUCESTER" (HOLT PROPERTY) GLOUCESTER CITY, NJ



The designation/construction of new truck routes would provide access to the Holt facilities without impacting residential areas. Construction of the Collins Avenue connection would also make land available for development that is currently owned by Holt, but is under utilized.

FIGURE CIRC-10

EXISTING CONDITIONS AT THE BROOKLAWN CIRCLE
GLOUCESTER CITY, NJ

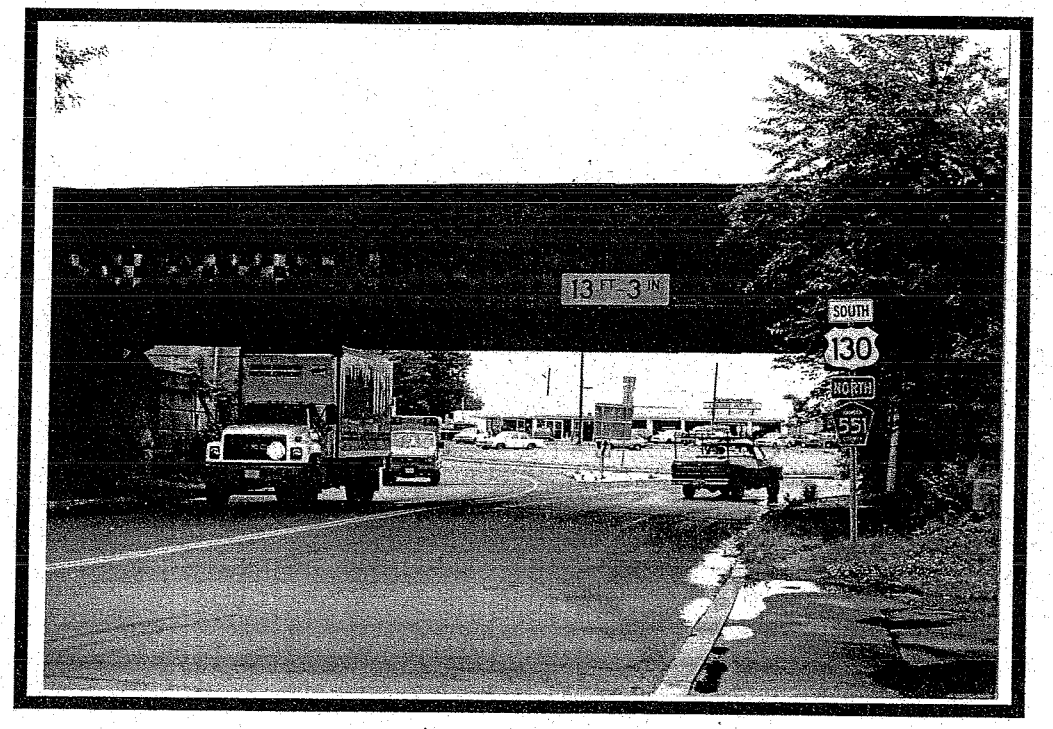


Photo By: Peter P. Karabashian Associates, Inc.

Although this straight-body truck was able to pass beneath this bridge, the listed clearance of 13 ft. 3 in. is short of the minimum required to allow large trucks to pass. Increasing this clearance would allow all traffic bound for the Gloucester Point Industrial Area to enter/exit the area from the south.

FIGURE CIRC-11

"NO TRUCKS" SIGNS AT THE INTERSECTION OF JOHNSON BOULEVARD AND HUDSON STREET GLOUCESTER CITY, NJ

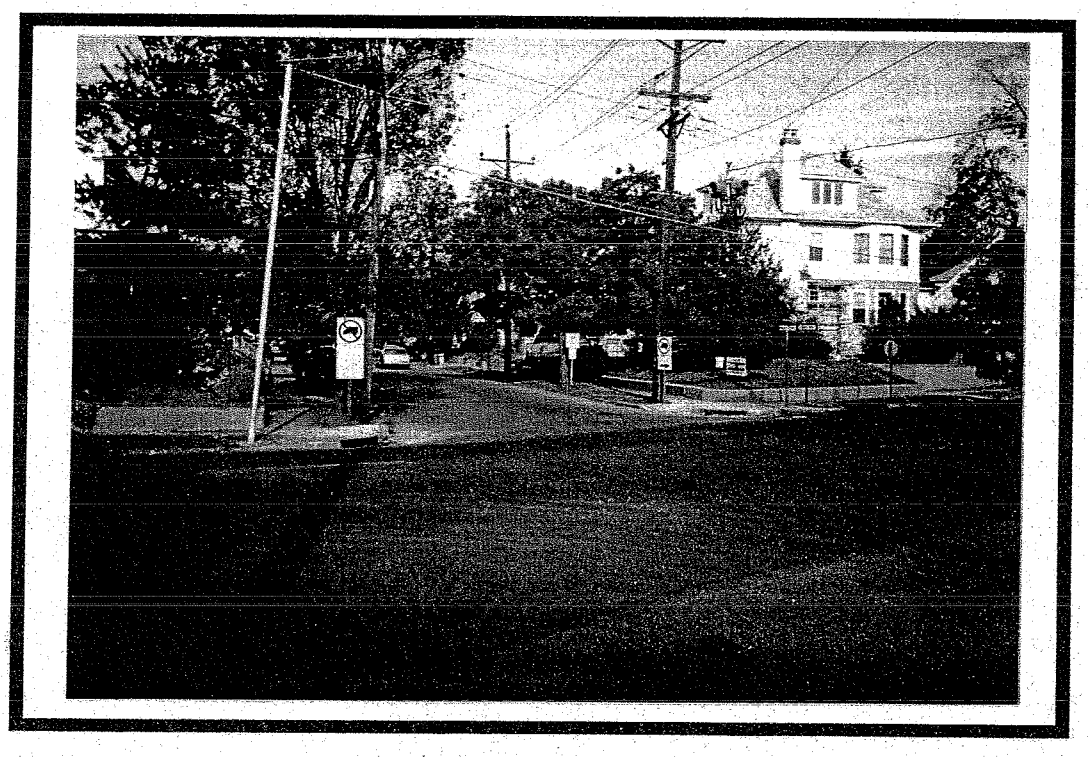


Photo by: Peter P. Karabashian Associates, Inc.

It is recommended that similar "No Trucks" signs be posted on all residential streets directing truck traffic to designated routes servicing the Port and Industrial facilities.

E. Bus Routing Changes

As shown in Figure Circ-1, NJ Transit Route 457 provides service along King Street via Essex Street (CR 755) and Monmouth Street. Maintaining this service provides an alternate means of access to this key employment/recreational area. However, the recent construction of Fire Station No. 1 at the intersection of King and Monmouth Streets has raised concerns regarding circulation conflicts between buses and emergency vehicles operating on Monmouth Street between Broadway and King Street.

The implementation of the recommended one-way circulation system would result in all traffic on Monmouth Street moving in an eastbound direction, creating the need for the bus route to be modified to use another street for its westbound travelers. It is recommended that the City work with NJ Transit officials to have this Route 457 altered to direct buses south on King Street, to Market Street, then along Market Street to Broadway, up Broadway to Monmouth, and out Monmouth, past the train station as currently run. This change would provide several benefits:

- "Front door" service to the senior citizen apartments, the marina/commercial project at the Old Coast Guard Station and Proprietor's Park;
- Closer bus service for residents living south of Market Street.

In addition to the change to Route 457, it is also recommended that all bus routes through Gloucester City be routed past the train station when commuter rail service is restored. This will allow the station to function as a multi-modal transportation center and offer commuters the option of leaving their cars at home and using the bus to catch a train.

F. Issues Requiring Coordination with State and County Transportation Agencies

1. Market Street-Route 130 Intersection

Municipal officials have identified that there are a high number of accidents at this intersection, generally caused by southbound traffic on Route 130 attempting to make an illegal left-hand turn onto eastbound Market Street. The design of the intersection incorporates a reverse jug handle on the southwest corner, which should be used by vehicles desiring to travel east on Market Street. It is recommended that City officials coordinate closely with the New Jersey Department of Transportation to have improved advance signage, lighting, and lane striping provided on the approach to this intersection in an effort to improve driver awareness of the proper turning movement. In addition, the City should also seek to find assistance from the State, either in the form of funding for the local Police Department or in securing the assignment of additional State Police to patrol this area during peak hours.

2. Broadway-King Street Intersection

Currently, King Street intersects with Broadway at an approximate 45° angle making it easy for southbound traffic to turn onto King Street, but difficult for traffic turning northbound. In addition, this configuration restricts vehicles entering the intersection on King Street from clearly seeing the movement of traffic headed norrthbound on Broadway.

It is recommended that the City work with County transportation officials to pursue the realignment of this roadway to a 90° or "T" intersection. This modification would provide better movement for northbound vehicles turning onto King Street and would also provide improved sight distance visibility for vehicles exiting King Street onto Broadway.

G. Other Local Circulation Issues

1. Driveway Location Standards

Under City regulations, residential driveways are not subject to location standards. This creates a random placement of driveways resulting in the loss of much needed on-street parking. Given this demand, the creation of driveway location standards is essential and would maximize a scarce resource.

It is recommended that the Zoning Ordinance and Development Regulations be revised to require that driveways for new construction be placed adjacent to each other on adjoining properties thus creating more extensive curb space for on-street parking.