US Department of Transportation
Research and Special Programs
Administration

District of Columbia
Tour Bus Management Initiative
Final Report

Prepared for

District of Columbia Department of Transportation
National Capital Planning Commission
Washington Convention and Tourism Corporation
Downtown DC Business Improvement District
Office of DC Councilmember Sharon Ambrose

Prepared by

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1.0 Introduction: Study Objectives and Technical Approach

Washington, DC draws visitors to experience American heritage, culture, and the dynamics of current-day democracy in a setting of majesty and grace befitting a great nation. The tourism and hospitality industry serving these visitors accounts for close to 20 percent of the total workforce in metropolitan Washington.[1] Tourism, therefore, is a vital force in the local economy and tour buses, which have been estimated to serve as many as one-third of the visitors to Washington's historical and cultural attractions, perform a function crucial to both the economic life of the city and its role as the nation's capital.[2]

The benefits related to tour bus operations currently come at a significant cost, however. Large numbers of tour buses contribute to traffic congestion on the roadways serving the District and its environs. Several factors compound the adverse traffic impacts associated with tour bus operations. Providing adequate parking supplies suitable for accommodating tour buses is difficult, because the destinations most frequently visited by tour buses are located in a high-density area where parking space is at a premium. Loading/unloading space at major points of interest also is constrained, resulting in queuing of motor coaches and obstruction of traffic flows.

In addition to traffic problems, tour buses are perceived as objectionable at times because they may obscure sight lines and view corridors, particularly when several are lined up in one place, forming a "wall of buses" around the District's famous landmarks. Another concern is that diesel fumes emitted by tour buses contribute to air pollution, in a metropolitan area determined to be in severe non-attainment for ozone by the U.S. Environmental Protection Agency. The extra mileage and congestion resulting from tour buses searching for scarce parking and boarding spaces compound the air pollution problem. Tour bus "cruising"—instead of parking between stops—also raises the risk of traffic accidents, including potentially dangerous conflicts with pedestrians. Moreover, neighborhoods frequently complain of tour buses intruding into residential areas, where the air pollution caused by tour bus idling is viewed as one of several critical problems, in addition to tour bus-generated noise, traffic, safety risks, illegal parking, and visual blight, and wear and tear on residential roadways.

The objective of the District of Columbia *Tour Bus Management Initiative* is to develop a plan that will ameliorate the long-standing problems, as identified above, that negatively affect tour bus operations as well as traffic conditions, the visitor experience, and the environment in the city. The *Initiative* is undertaken by five member organizations:

- National Capital Planning Commission
- District of Columbia Department of Transportation
- Downtown DC Business Improvement District
- Washington, DC Convention and Tourism Corporation

[1] District of Columbia Department of Housing and Economic Development, *The Economic Resurgence of Washington,DC*, Chapter 2, November 1998.
[2] Source: interview with tour bus industry representative

- Office of DC Councilmember Sharon Ambrose

This report presents the results of a study performed by the Volpe National Transportation Systems Center for the *Tour Bus Management Initiative*. The study has consisted of an assessment of the problems associated with tour bus operations in the District of Columbia and analysis of potential solutions to those problems. The report is intended to identify the component elements of a tour bus management plan for the District of Columbia.

The study was based on three major sources of information:[3]

- a review of best practices in North American and European cites
- interviews with tour bus operators and other stakeholders whose interests are affected by tour buses
- field observation of tour bus operations and impacts in the District.

Tour buses are operated by private businesses and since the deregulation of private motor carriers in 1982, local government agencies have not maintained data that can be used to quantify tour bus operations. Therefore, the current rough estimates of tour bus market characteristics discussed in this report, including the size, distribution, and seasonality of tour bus activity in the District, are based on stakeholder interviews rather than government or industry data. As part of this study, the Volpe Center has prepared a plan for a tour bus counting effort that will provide the information needed to quantify tour bus market characteristics more precisely. (The bus count plan is presented in Appendix A). This data collection effort, if funded, could be sponsored by the District Department of Transportation. An important issue is whether such a study would be cost-effective and inexpensively replicated over time to obtain information about tour bus trends and the success of various management techniques. The earliest possible survey conducted would be during the Spring of 2004.

[3] The observations and analysis presented in this report may be enhanced and supplemented by the tour bus counts to be obtained through the planned data collection effort. The report findings do not depend to a significant degree, however, on detailed market data

2.0 Best Practices Review

This chapter presents a review of tour bus management state of the practice. Experience is reported for selected cities that share with the District of Columbia the need to accommodate large numbers of tour buses. The following cities in the United States and Canada are included in the review:

- Boston, Massachusetts
- Charleston, South Carolina
- Ottawa, Canada
- Vancouver, Canada
- Baltimore, Maryland
- Savannah, Georgia
- Atlantic City, New Jersey
- Philadelphia, Pennsylvania
- New York, New York
- Kennebunkport, Maine

For each North American city reviewed, plans and specific measures for tour bus management are described, distinctive features unique to local circumstances are noted, and the relevance to conditions in the District of Columbia is discussed, including key insights that might be applicable to the development of a local tour bus management program. The review of North American cities is followed by a summary of current experience in a range of European cities. The reduced level of detail for European cities, relative to the North American examples, reflects limitations on available information. Despite the more general nature of the information provided on European cities, this section of the review also addresses the most central questions concerning best practices.

2.1 U.S. and Canadian Cities

Key tour bus management practices in the U.S. and Canadian cities reviewed are summarized in the table below and discussed in the text that follows. The level of detail varies by city, depending on the extent of information available.

TOUR BUS PARKING MANAGEMENT MEASURES IN NORTH AMERICAN CITIES

	DESIGNATED CURBSIDE LOADING AREAS	DESIGNATED CURBSIDE PARKING AREAS	PERIPHERAL LONG-TERM SURFACE PARKING LOTS	CENTRAL OFF-STREET TOUR BUS PARKING FACILIITES	PROHIBIT PARKING AT TRANSIT BUS STOPS, METERS, AND/OR LOADING ZONES	ALLOW PARKING AT TRANSIT BUS STOPS, METERS AND/OR LOADING ZONES	IDLING LIMITS	DAILY PERMIT REQUIRED FOR TOUR BUS OPERATION	PROHIBITION OF TOUR BUS OPERATION ON DESIGNATED ROADWAYS/
Boston	8 locations - 15-minute limit	1 location – 3-hour limit	2 locations	Surface lot close to historic district	X		5 minutes		
Charleston	6 locations	X			X			X	X
Ottawa	10-minute limit	30 metered spaces	1 location	1 surface parking lot	X		10 minutes	$20 fee includes parking	X
Vancouver	X	Several zones with 2-hour limits	X	X		X	X		X
Baltimore	X		2 locations - $20-$24/day		X				
Savannah	X		X		X			X	X
Atlantic City			X						
Philadelphia	X*	X*		Garage/ Transportation center					
New York	X	X			X		3 minutes	X - $1.50/day	X
Kennebunkport	X		Permanent facility location To be determined		X			X- $35/day includes parking	

* Existing conditions; alternative measures to be implemented.

TOUR BUS PARKING MANAGEMENT MEASURES IN NORTH AMERICAN CITIES

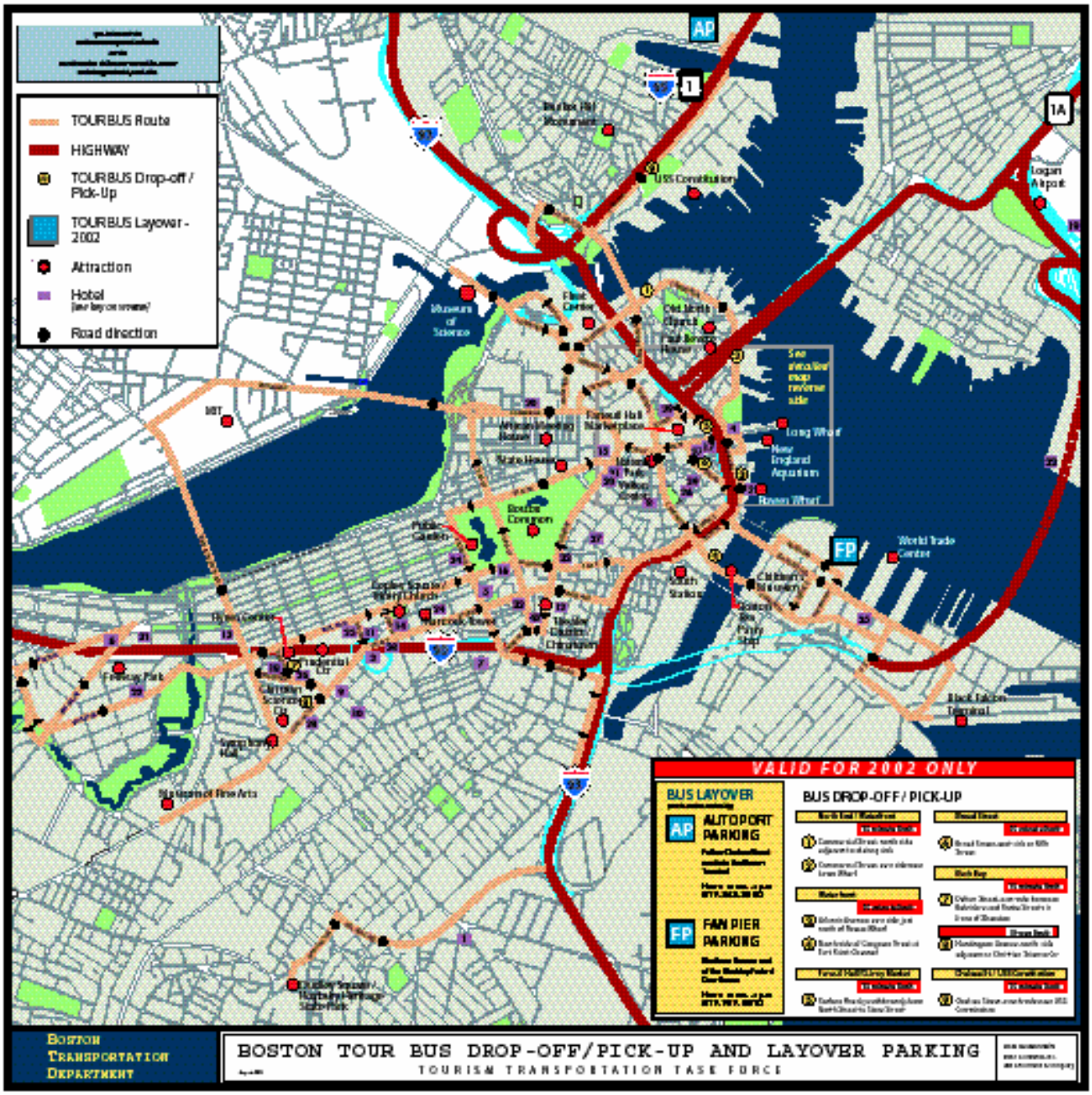
CONTINUED

	DESIGNATION OF RECOMMENDED/ REQUIRED ROUTES	TRANSFER REQUIRED TO CIRCULATOR OR WALKING	RESTRICTIONS ON VOLUME OR DENSITY OF TOUR BUS OPERATIONS	COORDINATED FEE STRUCTURE AT PARKING FACILITIES	REGISTRATION/ RESERVATION SYSTEM	HELP LINE
Boston	X					
Charleston	X		X			
Ottawa	X					
Vancouver	X					
Baltimore		Proposed		X		
Savannah	Individual routing plan required	X	X			
Atlantic City		X		X	X	
Philadelphia		Connections to additional sites				
New York	X				Advance reservation required	
Kennebunkport			X		X	X

2.1.1 Boston, Massachusetts

The Boston Transportation Department issued a tour bus guidelines parking map, illustrated below, and available at http://www.cityofboston.gov/transportation/tour_bus.asp). The map was developed with input from the Tourism Transportation Task Force at the outset of the 2002 fall tourist season. Locations around Boston are identified on the map (in light blue) for tour bus drop-off/pick-up and for long-term (layover) bus parking; designated bus routes are shown in orange. Detailed information regarding tour bus regulations and contact information for tour bus operators also is provided. Regulations prohibit tour bus parking or drop-off/pick-up from metered spaces, transit bus stops, and commercial spaces. No restrictions on routing are identified. The map is a useful mechanism for conveying the spatial relationship between Boston's plan for designated bus facilities (short-term drop-off/pick-up, and long-term layover parking), major historic and cultural attractions, and the core center's major hotels.

The Tourism Task Force has also suggested a concept-design for a centralized visitor gateway center that could provide an inter-modal hub for drop-off/pick-up and layover of tour buses, and the convergence of sight-seeing circulator bus or trolley services. Additional functions would include an orientation center, hotel booking, and museum ticket sales. Locations being considered include City Hall Plaza, the waterfront, the South Boston waterfront, and Charlestown Navy Yard. However, Vineet Gupta, Director of policy and planning for the Boston Transportation Department and a member of the Task Force, is not certain that the city has a proper location for a gateway facility. Gupta suggests that a more feasible alternative is to establish several small satellite visitor centers well distributed around the central core.



Relevance to the District: Boston, like Washington, has a compact core with dense clustering of historic and cultural attractions. Like Washington, Boston too is a Mecca for tourism. Also, neighborhoods abut the central core, and problems with bus routing, noise, and emissions generated during idling are endemic. Boston's tour bus guidelines are a proactive approach to these issues and incorporate common elements found in the plans of other cities that have addressed tour bus needs effectively. The guidelines have achieved a degree of rationalization that balances the multiple interests of the City, its neighborhoods and residences, and commercial and tourism interests. Clear designation of physical facilities (curbside and at remote satellite locations) for tour buses is the most basic plan element and is transferable to the District.

2.1.2 Charleston, South Carolina

One of the distinctive features of Charleston's management of tour buses is that no large bus (> 25 feet in length) may conduct a tour in the various districts of the city without a touring permit authorized by the tourism director. A separate permit is required for each trip into the districts for the purposes of transporting passengers to or from a single designated point, such as hotels, restaurants, the visitor information center or the tour boat facility. The tourism director, in coordination with the director of traffic and transportation, may limit the number of permits in use at any one time for the purposes of traffic management. The ordinance, however, sets an upper bound of no more than six (6) permits per hour between the hours of 9:00 AM to 12:00 PM and 2:00 PM to 4:30 PM. No more than four (4) permits per hour are granted to large buses between the hours of 12:00 PM to 2:00 PM, and 4:30 PM to 6:00 PM. The route and time of transportation (as noted on the permit) are at the discretion of the tourism director upon consideration of such factors as traffic, the width of streets, and the number of permits in use. Buses are granted permission for drop-off and pick-up and associated incidental movement to the designated discharge or pick-up point. Buses are not permitted to circulate through city districts in the interim duration between discharge of passengers and subsequent pick-up.

The Charleston City ordinance[4] also requires the following:

- Licensed tour guide on all tours
- Operation of large buses limited to two perimeter routes, and segments of other designated streets during non-commuter hours
- Designation of specific drop-off and pick-up locations within the city
- Required display of permit placard on vehicle
- The Gaillard Municipal Auditorium and other locations approved by the director of traffic and transportation, with the consent of the City Council committee on traffic and transportation (and designated in the Office of Tourism) are the only approved long-term parking facilities for large buses.

A map illustrating authorized routes, drop-off and pick-up locations, and long-term parking facilities is shown below (see http://www.charlestontour.com/html/map.html).

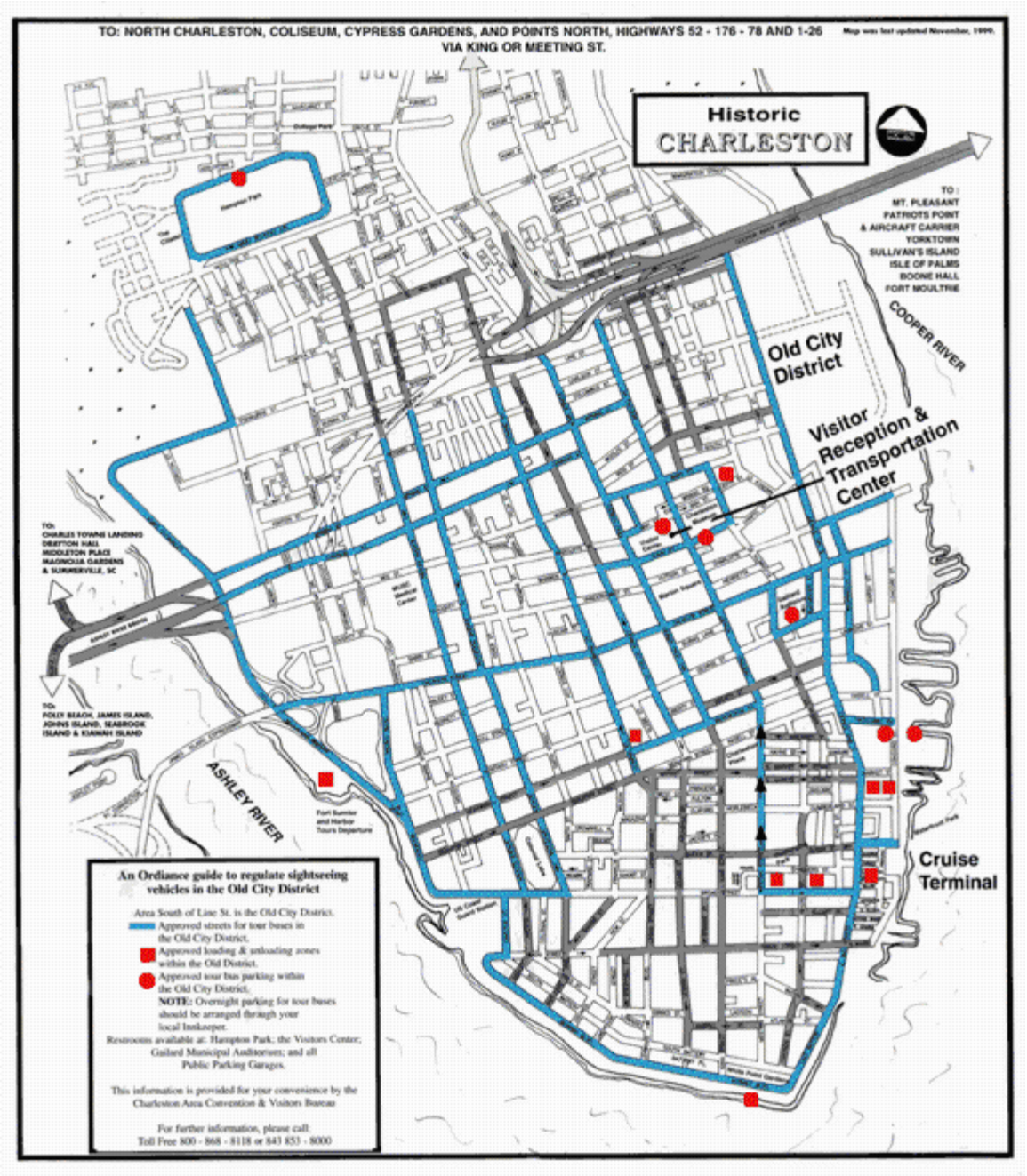
Relevance to the District: Charleston and several other small cities, such as Kennebunkport, ME, Savannah, GA, and Palm Beach, FL, have adopted a stringent regulatory regime that sets absolute limits on the number of tour buses allowed to operate at any one time within their jurisdiction. It is unlikely, however, that a regulatory regime that sets absolute limits on the number of tour buses would be feasible within Washington, DC. On public policy grounds, it sends the wrong message (lack of hospitality to outside 'guests') and, moreover, it may not produce the desired

[4] City of Charleston, South Carolina, Ord. No. 1999-135, adopted September 20, 1999 (Supplement No. 30), Chapter 29, Tourism, Division 5, Large Buses.

balance between the economic development value that tour buses and their passengers hold for the District, and the interests of business and residences to be reasonably free from the negative externalities that stem from tour bus operations. However, such an approach may be appropriate in certain historic or congested neighborhoods.

Ordinances that place an absolute limit on the number of allowable buses simultaneously in operation may raise legal issues (violation of the interstate commerce clause). One thing seems clear[5]: there needs to be a direct nexus between the absolute limit set on the number of allowable permits in use at any one time and objective factors related to the ability of the street network to handle the allowable number of buses, and the ability of sensitive receptors to absorb air and noise emissions. This nexus needs to be well documented in a series of validated studies. This cause and effect relationship needs to be in place in order to exercise properly the jurisdiction's police power to protect the 'public health, safety and welfare'. Administrative discretion needs to be kept to a minimum so that the limits set are not considered arbitrary or capricious, therefore a violation of due process.

[5] Palm Beach, FL town attorney comments, Report of the Strategic Planning Board Meeting, July 10, 2002.


TO: NORTH CHARLESTON, COLISEUM, CYPRESS GARDENS, AND POINTS NORTH, HIGHWAYS 52 - 176 - 78 AND 1-26
VIA KING OR MEETING ST.
Historic
CHARLESTON
TO:
MT. PLEASANT
PATRIOTS POINT
& AIRCRAFT CARRIER
YORKTOWN
SULLIVAN'S ISLAND
ISLE OF PALMS
BOONE HALL
FORT MOULTRIE
COOPER RIVER
Old City District
Visitor Reception & Transportation Center
TO:
CHARLES TOWNE LANDING
DRAYTON HALL
MIDDLETON PLACE
MAGNOLIA GARDENS
& SUMMERVILLE, SC
TO:
FOLEY BEACH, JAMES ISLAND,
JOHNS ISLAND, SEABROOK
ISLAND & KIAWAH ISLAND
ASHLEY RIVER
Cruise Terminal
An Ordiance guide to regulate sightseeing vehicles in the Old City District
Area South of Line St. is the Old City District.
Approved streets for tour buses in the Old City District.
Approved loading & unloading zones within the Old District.
Approved tour bus parking within the Old City District.
NOTE: Overnight parking for tour buses should be arranged through your local Innkeeper.
Restrooms available at: Hampton Park; the Visitors Center; Gaillard Municipal Auditorium; and all Public Parking Garages.
This information is provided for your convenience by the Charleston Area Convention & Visitors Bureau
For further information, please call:
Toll Free 800 - 868 - 8118 or 843 853 - 8000

2.1.3 Ottawa, Canada

Ottawa has initiated special tour bus parking zones from May through October, to relieve congestion during the peak summer tourist season. Until recently, there were two designated tour bus parking lots in the central part of the city: one at Lebreton Flats (between Duke & Fleet, east of Booth Street, which offers free parking) and at Slater & Laurier (which offered parking only between the hours of 6 pm and 7 am for $20 per night). The Slater/Laurier Lot is no longer available to tour buses. There are two designated 10-minute pick-up and drop-off spots and at least 30 on-street metered tour bus parking stalls, at a cost of $1 for 20 minutes. Tour bus operators may not idle for more than 5 minutes due to the city's noise by-law.

A map illustrating Ottawa's tour bus management plan is shown below (see, also, http://www.city.ottawa.on.ca/city_services/parking/16_8_en.shtml).

Legend

On-street metered tour bus parking spaces $1 / 20 minutes

Pick-up and drop-off anytime 10 minutes maximum

Off-peak 10 minute pick-up and drop-off:
Monday to Friday (9 am to 3 pm and after 6 pm),
Saturday and Sunday (all day)

***Relevance to the District*:** Ottawa's plan incorporates several key elements common to a good tour bus management plan that could be emulated in Washington, DC. A feature of note specific to Ottawa is the use of color-coded meters, which facilitates easy enforcement for curbside use management. The meters also provide a needed revenue stream to the city.

This system is potentially compatible with the implementation of peak/non-peak price differentials, using smart-card/smart-meter technology, to help moderate and control the distribution of demand throughout the day.

2.1.4 Vancouver, Canada

Vancouver, Canada has taken a strongly proactive approach that recognizes the economic value of tour buses and balances the operational needs of tour buses with measures to limit intrusive effects on the environmental, quality of life in the city, and general traffic and parking conditions. A key feature of Vancouver's approach is user class zoning of on-street parking spaces, with tour buses permitted to use several different user classes. For example, Vancouver has established zones for passenger or material loading and unloading, including bus, taxi, commercial, tour bus, rush hour, special event, police, handicapped and temporary zones. Tour buses are allowed to use several parking zone categories: i. commercial lanes[6]; ii. commercial loading zones, tour bus loading zones, and passenger vehicle loading zones; iii. parking meters (with full payment); iv. 'No Parking Anytime' zones (5-minute limit).

In a **"No Parking Anytime"** zone, vehicles are allowed to park to load or unload goods, or to take on or discharge passengers for up to 5 minutes.

Vancouver also incorporates several other desired elements characteristic of a good plan. These include designation of four long-term parking facilities for tour buses only, strategically distributed within the city. These facilities are in addition to several on-street zones designated for long-term (2-hour) parking of tour buses. The Downtown Transportation Plan also designates specific arterial-based routes in the form of a specific sub-network that provides connectivity to all relevant attractions for large buses to minimize routing through historic and residential districts. Strict enforcement of no idling laws complements the approach.

***Relevance to the District*:** Vancouver's use of commercial loading zones when unoccupied to accommodate tour bus passenger loading and unloading, its authorization to use contiguous parking meters, and allowing tour bus use of 'No Parking Anytime' zones greatly expands utilization of existing curbside space. This innovative concept of shared use is directly relevant to the competing demands for on-street parking facing the District. Another potentially transferable concept is user class zoning of on-street parking spaces.

As part of its proactive, collaborative and consensus-seeking approach, the City of Vancouver also organized a Task Force (an approach similar to Boston's) consisting of

[6] **Commercial lane -** any lane that abuts commercial property is classified as commercial. Only vehicles with commercial identification are allowed to stop in these lanes.

relevant stakeholders to examine large bus impacts (including but not limited to tour buses) on the city and its districts. The resulting report[7] documents a set of general recommendations in the following areas: enforcement, communication, improved technologies, route network development, urban design and development, parks issues, and future dialogue. The recommendations presented below in summary form are of particular relevance to the District:

- A city-wide bus zone that would restrict the number of buses in certain parts of the City was rejected. It was determined that this action would not achieve the desired results of minimizing bus impacts because of the growth of tourism in mixed used areas, as well as enforcement issues for out-of-town carriers. The Task Force also considered restriction of the area of operation of tour buses to tourist-oriented areas of the city; however, the Task Force did not recommend specific bus zone restrictions due to the detrimental economic impacts on other tourism sectors such as shops and services.
- An on-going action-oriented working group should address location-specific issues (e.g., noise, emissions, parking, loading/unloading, traffic congestion and safety). This group would be available to the public and resolve issues with interaction between groups such as bus and motor coach operators, and stakeholders (tourism and hotel). It would provide mechanisms for input and participation from affected communities and the general public.
- Progressive intervention (i.e. sliding fees) should be applied for continued non-compliance with local ordinances by private operators.
- Major hotels should develop bus management plans and have staff available to manage bus activity during high demand periods
- That City staff should examine options for bus staging areas for large regional attractions within the Downtown Core.
- The City, when considering zoning or rezoning applications and/or building permit approvals, should consider the character of the area and the extent to which new development will attract commercial vehicles. City staff should develop and enforce development criteria to ensure that hotels and major tourist destination development projects have adequate parking, stopping, loading and unloading provisions for buses.
- Specific provisions should be implemented for tour buses serving or operating in the vicinity of parks (particularly relevant to the monument core of the Washington, DC). These include: park-specific, environmentally-friendly bus parking plans that consider: ease of operation for bus movement; safe unloading of passengers; reduced conflict with other forms of traffic; reduced visual impact with proper landscape buffering; and adequate facility size and geometry. This would require the involvement and financial support of the National Park Service and the Smithsonian Institution.

[7] See *City of Vancouver, Bus Impact Task Force Report for City Council*, July 2000, at http://www.city.vancouver.bc.ca/ctyclerk/000711/rrl.pdf

2.1.5 Baltimore, Maryland

The Baltimore City Office of Transportation enforces a new tour bus parking policy for the city. Under this policy, tour buses are now required to load and unload passengers at designated on-street locations only. Parking of buses is only permitted at designated lots (J and C of Camden Yards, and the Central Parking Systems Facility located on Key Highway). Approximately 300 tour buses can be accommodated each day. Daily fees range between $20-$24. Illegally parked buses on city streets are fined $77 per citation. This new policy was the outcome of a collaborative process that included multiple stakeholders (i.e., Office of Transportation, the Parking Authority, Department of Planning, Baltimore Area Convention and Visitors Association, the Maryland Stadium Authority, National Aquarium, Maryland Motorcoach Association, Maryland Schoolbus Association, Maryland Chemical Company, and Central Parking Systems). The Baltimore Area Convention and Visitors Association disseminated the new policy to the tour bus industry. A map illustrating the plan is shown below (see also http://www.baltimore.org/pages/trans_maps_motorcoach.htm).

As part of a major initiative[8] by the Baltimore City Heritage Area Association (BCHA), a bus loop and/or heritage trolley system is proposed to link satellite-parking facilities (including facilities that accommodate tour buses) with heritage and cultural attractions within several heritage and cultural districts within the City. This would potentially allow many of these attractions to be linked via a tourist transit system. Additional streetscape and pedestrian amenities (including a critical new way finding system, see http://www.ci.baltimore.md.us/government/heritage/images/pedway.jpg) would provide accessibility to and help encourage use of the proposed transit system.

***Relevance to the District*:** Baltimore has developed a simple but effective plan that provides the essential elements needed to manage tour buses. These include strategically located public parking lots for tour buses that are centrally located to the main tourist attractions; on-street loading/unloading passenger zones, also well situated to the main visitor attractions; and specific routing that ties these two elements together. The plan was the result of a collaborative and consensual process. The goal was not only to keep tour buses off neighborhood streets (a major issue generating many complaints), but also to proactively address the needs of the industry and maintain and increase the economic value to the city that it provides.

[8] See, e.g., Baltimore City Heritage Area Management Action Plan at http://www.citypaper.com/2002-07-10/mobs.html

Baltimore Motorcoach Information

The Baltimore Area Convention and Visitors Association (BACVA) is pleased to provide you with this important motorcoach information.

Your coaches are important to us!

Please adhere to these loading, unloading and parking instructions to make your visit pleasant. However, unattended, illegally staged/parked vehicles or unauthorized street loading may result in traffic citations up to $77.00.

Loading and Unloading Zone

Area One (West)

Light Street, Inner Harbor

Loading and unloading is allowed on the northbound lane of Light Street, next to the Inner Harbor (between the Science Center & Harborplace). No staging allowed.

Area Two (North/East)

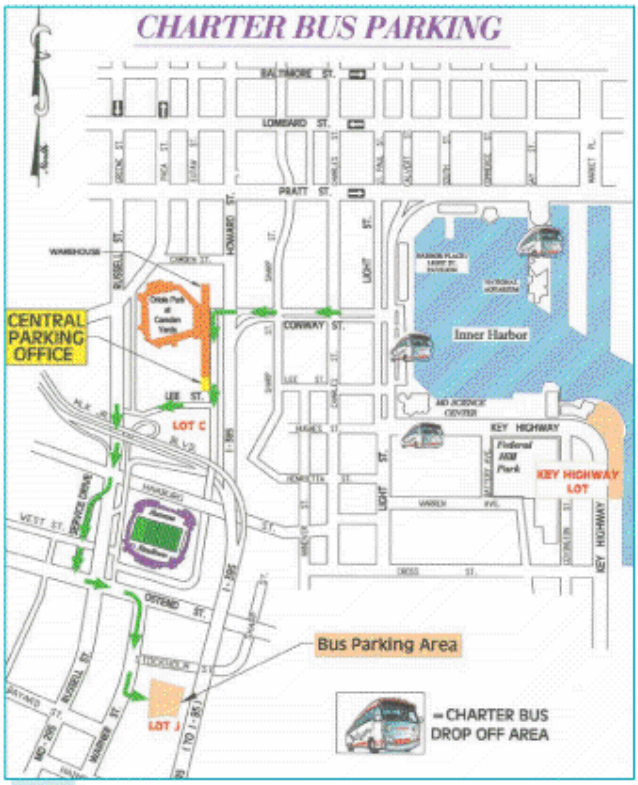
Pratt Street, Inner Harbor, at the National Aquarium in Baltimore

The National Aquarium in Baltimore is sanctioned for loading and unloading on the north side of the Inner Harbor. No staging allowed. The National Aquarium in Baltimore is scheduled to begin expansion construction in September 2002. From the fall of 2002 to the spring of 2005, the Aquarium's bus turn-around area will be slightly reduced in size and may affect disembarking time. Please consider this in the timing of your itineraries.

Area Three (South)

Key Highway, Inner Harbor at the Maryland Science Center

Loading and unloading is allowed on Key Highway, south of the Maryland Science Center. There is 10-minute staging only.



Parking your Coach

Maryland Stadium Authority Lot J

Central Parking Systems, 410-347-9330

From Light Street, head west on Conway Street. At I-395, stay in right lane and proceed straight into the Camden Yards parking lot. Follow the drive aisle to the left and stop near the far end of the Warehouse Building. Enter the Office of Central Parking Systems and pay the parking fee. You will then be given directions to Lot J off of Russell Street.

Rates:

- Daytime entry: $20
- Orioles baseball games: $20
- Ravens football games: $60
- Overnight parking requires payment for 2 days of parking: $40.00

For further details to book parking in advance, call Central Parking Systems at 410-347-9330.

Key Highway Lot

Central Parking Systems, 410-685-2700

The south side parking facility is near AREA THREE at 801 Key Highway.

George Gilliam 410-977-2949.

Rates:

- Daytime entry: $24
- Overnight parking requires payment for 2 days of parking: $48

TOUR Baltimore!™

Tourism Department
1-800-343-3468, Ext.7040
grouptours@baltimore.org

2.1.6 Savannah, GA

Since 1992, with the publication of John Berendt's *Midnight in the Garden of Good and Evil*, visitation to Savannah has grown dramatically. In 1999, 6.5 million visitors arrived in Savannah. Because of the small, compact historic core, the destination for the great majority of visitors, the visitor to area ratio (per annum)[9] is an astounding 3,611,111 per 1 square mile. The compactness of the City and the large number of visitors has created resident-tourist-commercial interest conflicts. Using a similar approach to that of Charleston, Savannah has adopted a comprehensive tourism management approach, with the key implementation mechanism being a legally enforceable tour service ordinance[10].

Savannah's approach is to reduce private visitor vehicular traffic in the historic core, and to encourage transfer of passengers from large tour buses to more adaptable, smaller tour vehicles and trolleys. Savannah achieves these desired target goals in two ways: (1) intercepting visitors at a Visitor's Center[11] strategically accessible to but located outside of the historic core; and (2) adopting, to a limited degree, Charleston's strategy of building and owning (thereby controlling) the majority of parking spaces (structured facilities and surface lots) within or at the periphery of the historic core. The small compact size of the historic core permits visitors to park once at the periphery or in the core at municipal parking facilities and transfer to either circulator bus services or to walking mode.

The main legal mechanism for managing tourism, and in particular tour buses, is the Tourism Management Ordinance. Key aspects include the following:

- Required licensing or permitting of tour operators, and public display of required permit on each tour vehicle operating within the City; motor coaches (> 35 feet vehicles) are required to have a daily permit (date, destination and purpose) for operation within the historic district;
- Authority to remove from operation on the streets any tour vehicle in violation of ordinance articles (e.g., safety and mechanical defects);
- Establishment of non-exclusive stands on city streets, useable by tour vehicles on a first come-first served basis; loading and unloading of passengers restricted to designated tour vehicle stands;
- Leasing, on a long-term basis, stands at the Visitor's Center for use on an assigned basis by tour operators;

[9] See, Newport Collaborative Architects, Inc., *Coping with Success: A Study of Charleston, South Carolina and Savannah, Georgia, Reduction of Traffic Congestion Through Inter modal Transportation, Parking and Tourism Management Systems*, October 2000, pp. 16-17.

[10] See, City of Savannah, Tour Service Ordinance, 1999, at http://www.ci.savannah.ga.us/cityweb/revordinances.nsf/c346e891f01bea7e85256b06004cd58a/30862fc1bf5acfb28525680f0071b7d8/$file/tour_services_ordinance

[11] Crucial factors for the success of an intercept strategy using a gateway-type Visitor Center are its location outside of the congested historic core, ample on-site parking, full-service information systems and competent staff, and easy linkage to the City's efficient public and tourist transportation systems. If any one of these components is missing, the likelihood of success is greatly diminished. Adaptation and/or reuse of an attractive historic building, while not critical, is helpful too in that the building housing this tourism function also becomes a destination in itself, drawing visitors to it.

- Restriction of tour bus parking to designated holding zones, with return to the historic district allowed for loading of passengers only;
- Publication of a street map identifying streets on which tour vehicles are prohibited at all times;
- Requirement for tour operators to submit and have approved specific routes for access, egress and serving attractions within the historic district;
- Designating authority for the City Manager to establish tour bus activity density and traffic controls within the historic district, upon recommendation of the Tourism Advisory Committee and/or City staff:
  - A maximum of two tour vehicles may be present on a square or street segment at the same time;
  - Tour vehicles are limited to a maximum of one trip around a square during the course of a tour.

Relevance to the District: Many of the elements that Savannah employs to manage tour bus operations – on-street tour vehicle stands, adequate holding or parking zones strategically located, municipal parking for residents, visitors and employees, and designated/approved routes and street use prohibitions - are essential strategies needed for sound parking management. The District should emulate these concepts.

DC Code, 2001 Ed. § 50-2609 forbids the acquisition of land by the city to build municipal parking. One unintended consequence is that the growth of population and vehicles has placed enormous pressure on using scarce curbside space to accommodate resident and commuter parking needs. This works to the disadvantage of commercial and tourism interests, which require accessible and extensive curbside space for critical loading and unloading operations. Both Charleston and Savannah have been able to moderate the competitive demands for parking by residents, visitors and employees by building and operating municipal parking facilities that generate a positive net income stream. This has also permitted curbside management to be rationalized within both cities, with care taken to optimize the economic development value to the City by allocating or designating adequate space for commercial use.

Savannah, like Charleston, has provisions allowing for the establishment of limits on tour bus activity tour within the city's historic district. Enforcement of these types of restrictions would be difficult within the much larger area served by tour buses in the District. The scale and configuration of the square and street plan (the 1733 Oglethorpe plan) within Savannah is unique and vastly different from the street network of Washington, DC.

2.1.7 Atlantic City, New Jersey

The major destinations in Atlantic City are the casinos and boardwalk. Motor coaches traveling to casinos that lack facilities to accommodate tour buses are required to first stop at a South Jersey Transportation Authority intercept lot. Some casinos have

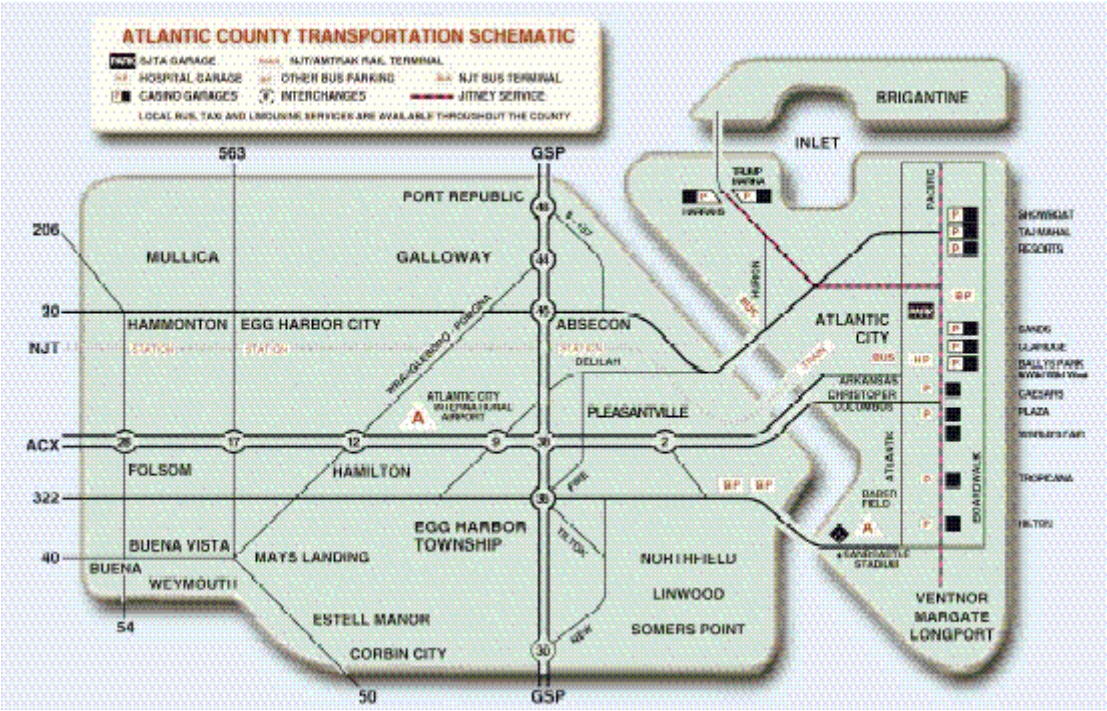
facilities for drop-off, pick-up and bus parking. Procedures have been developed to minimize the time and inconvenience associated with the use of intercept lots. Each casino has a Bus Marketing Department that provides operators with their Authority-approved intercept location, as well as other applicable regulations (see schematic below). Intercept lots are strategically sited to provide good accessibility to the casinos. There is also a jitney service that provides service between the intercept lots and the casinos (as well as passenger distribution among the casinos). Operators pay either a $2 single entry bus management permit fee or $4 per bus for an unlimited daily medallion. Operators are required to display either the permit or medallion on the vehicle.

After passengers are discharged at an Authority approved site, tour bus operators must park in a South Jersey Transportation Authority approved bus parking facility. When returning to pick up passengers, operators are instructed not to arrive more than fifteen (15) minutes prior to scheduled departure. South Jersey Transportation Authority also operates an Operator's Help-Line. Duty supervisors are on duty seven days per week from 8:30 AM to 12 midnight.

Because Atlantic City is located on a small island and welcomes over 400,000 buses annually, specific routes are detailed for traffic management purposes (see map below). Routing information is sent to each operator upon payment of the bus management fee. In particular cases and for special reasons, the Authority may grant a variance from designated routes, sites for loading and discharging passengers, parking and/or intercept.[12]

Bus operators must register with individual casinos and must reserve and confirm each individual trip. To register a motor coach/tour, operators must contact the Bus Marketing Department of an individual casino to receive a registration packet, which is to be completed and returned prior to arrival. Operators, in general, must provide liability insurance bond (> $5 million); Interstate Commerce Commission and the U.S. Department of Transportation authority; a list of officers, owners of the company and others authorized to do business; and a list of equipment in use by the company.

[12] http:// www.sjta.com/bus/approvedcity.html


ATLANTIC COUNTY TRANSPORTATION SCHEMATIC
BRIGANTINE
INLET
563
GSP
PORT REPUBLIC
206
MULLICA
GALLOWAY
30
HAMMONTON
EGG HARBOR CITY
ABSECON
NJT
ATLANTIC CITY
PLEASANTVILLE
ACX
FOLSOM
HAMILTON
322
EGG HARBOR TOWNSHIP
BUENA VISTA
MAYS LANDING
40
BUENA
WEYMOUTH
NORTHFIELD
LINWOOD
ESTELL MANOR
SOMERS POINT
CORBIN CITY
VENTNOR
MARGATE
LONGPORT
54
50
GSP

ATLANTIC OCEAN
UPTOWN
DOWNTOWN
MIDTOWN
MARINA
ABSECON INLET
ATLANTIC CITY APPROVED ROUTES

***Relevance to the District*:** Atlantic City, NJ is unique, and not comparable in most important respects to the District. Nevertheless, there are a number of useful concepts that may be transferable to the District, including the provision of well-sited intercept lots to service attractions that do not have adequate parking and loading/unloading facilities. The viability of intercept lots depends, however, on the availability of parcels (land acreage is essential) and accessibility to major attractions (with good streetscape to encourage walking) that that can be serviced by a high-quality distributor system. As in Charleston and Savannah, a tourist transit system differentiated from the public regional transit system (but with appropriate linkages) and with its own branding is critical if the concept of *intercept lots with passenger transfer* is to work. All this must be seamless, entail little or no waiting time, and feel like part of the visitor's experience.

A staffed Operator's Hot Line is another feature of Atlantic City's approach with potential application in the District, as is the designation of specific tour bus routes. Advanced registration and reservation by major attractions is another concept that may bear further investigation, although the scheduling of multi-stop itineraries among large numbers of tour bus operators is a difficult problem, even with a sophisticated computer system.

2.1.8 Philadelphia, Pennsylvania

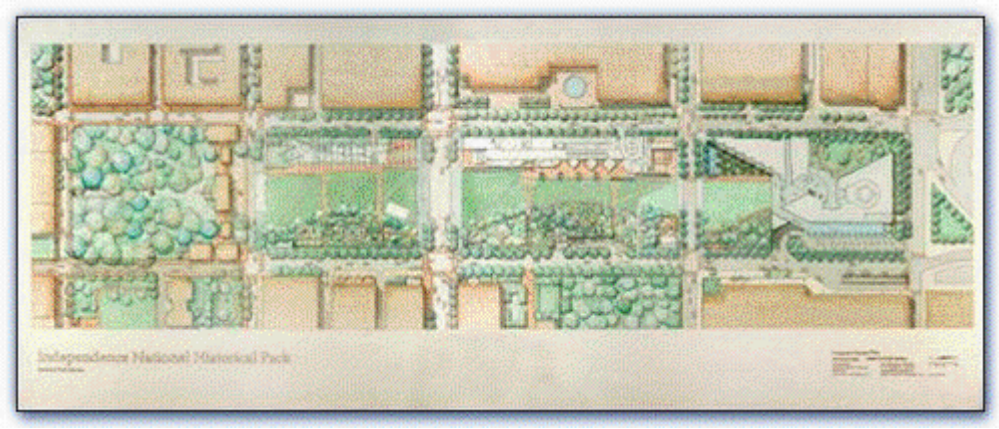
There are many similarities between Philadelphia and the District. Within the central city lies a monumental core (Independence Mall) that includes the Liberty Bell and Independence Hall, both of which comprise elements of the National Park Service's Independence National Historic Park (INHP). Market and Chestnut streets, the two quintessential Philadelphia commercial streets within Center City, bound the first block of INHP.

Forty percent of the three million annual visitors to INHP arrive by tour or school bus. This amounts to about 24,750 buses per year, with over 60 bus arrivals per hour during peak periods. Currently, buses ring the 3-block Mall much of the day, blocking other traffic and pedestrian movement, causing visual clutter, and polluting the mall area with exhaust fumes. All of these negative externalities detract from the visitor's experience and enjoyment. These problems are likely to increase, as bus arrivals during peak hours are expected to grow to 85 per hour.

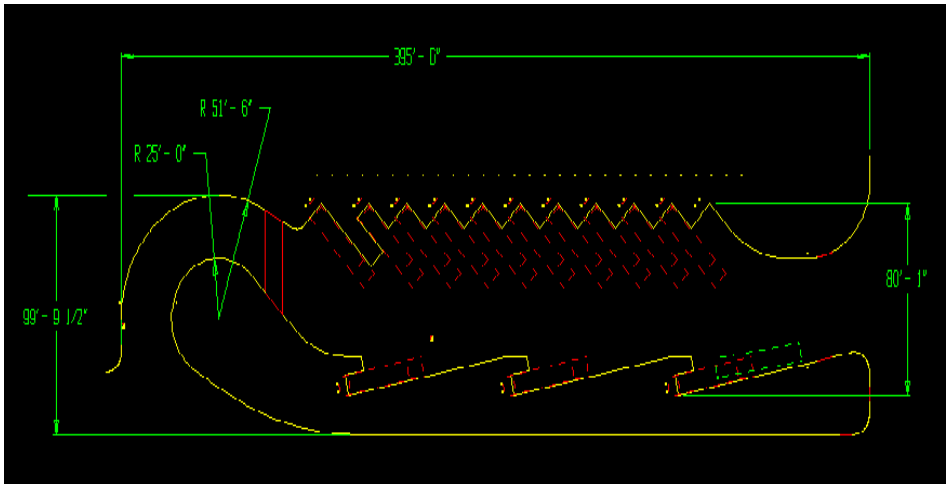
The National Park Service, working with the City of Philadelphia and multiple additional stakeholders, has developed a unique design solution[13] to address these issues. As part of its General Management Plan for the park, the National Park Service partnered with a design team headed by the Olin Partnership to produce a new master plan and design guideline for the Mall. In summary form (see schematic below), the master plan proposes the following:

[13] At the request of the National Park Service, US DOT/RSPA/Volpe Center provided a critical design review of alternatives for a bus terminal, recommended design and operational modifications that informed the preferred alternative, and developed a field test protocol and conducted the field test of the preferred alternative. See, US DOT/RSPA/Volpe Center, *Evaluation of Bus Management Options for Independence National Historic Park*, May 18, 2000; see, also, *ITC Field Test Memorandum for Independence National Historic Park*, December 12, 2000.

- Block 1, between Chestnut and Market Streets, will include a new Liberty Bell pavilion, a First Amendment Rights area, ceremonial space, and new restrooms. Block 2, between Market and Arch Streets, will feature the new Gateway Visitor Center, the Independence Park Institute, improvements to the underground parking garage, and an outdoor café, special events space, and better access to the Free Quaker Meeting House.
- Block 3, between Arch and Race Streets, will highlight the new, Congressionally-authorized National Constitution Center (NCC) museum, a park maintenance facility that will be part of the NCC building program, the National Constitution Memorial, and a new gateway element that marks the Park's northern boundary and beckons the visitor to enter.

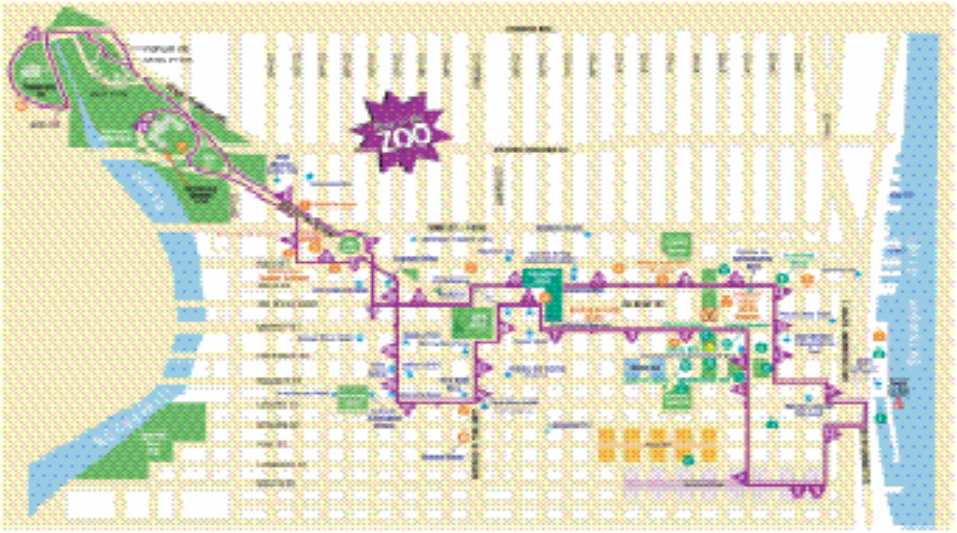


Construction of the new National Constitution Center museum on the third block has provided the opportunity to solve the problems currently created by the 'wall' of buses attracted to the Mall and the commercial core. A bus terminal, known as the Independence Transportation Center (ITC), will be integrated with the museum. The ITC will consolidate all bus passenger loading and unloading operations within a compact and well-landscaped space on the northeast corner of Block 3. A schematic of the ITC is illustrated below. In addition to the fourteen (14) bus bays in the ITC, two (2) additional recessed bus bays are located on the northern boundary (Race Street) of the park.



In support of the effort to revitalize the Independence Mall, Philadelphia has programmed in its capital budget $800,000 for the construction of a long-term tour bus parking lot in the median of I-95, south of Callowhill Street. Buses that drop off passengers at the ITC will proceed to this facility, with return to the ITC for passenger pick up.

Another element of the Philadelphia tour bus program has been a tourist transit system that provides a high frequency circulator and distribution service. A schematic of the system (referred to as the Philly Phlash see http://phillyphlash.com/map.html) is illustrated below. The system has been operated from 1994 through Labor Day 2003 and carried 30,000 visitors in the summer of 2002. The City considered terminating the Plash this year due to budget constraints, but decided to continue the service through last summer. The long-term future of the Phlash is currently undecided.



Relevance to the District: Philadelphia has a number of important characteristics in common with the District. Parallels include the nature of tourism demand and the issues and problems experienced due to a high volume of motor coach traffic in a compact, historic, and monumental core area. Design solutions need to be sensitive to the nature of the hallowed ground that draws the millions of visitors each year.

Except for the Ellipse and certain segments of the National Mall (where such a facility could be placed underground), there are few parcels available to build a compact bus terminal in the core area of Washington, DC. A strategy combining improved allocation of loading/unloading space in the monumental core, combined with long-term parking at the periphery of the downtown area and other measures, appears to be more promising. One of the additional measures that should be considered is connecting peripheral parking to destinations in downtown DC with a high-quality distributor/circulator service, such as the Philly Phlash.

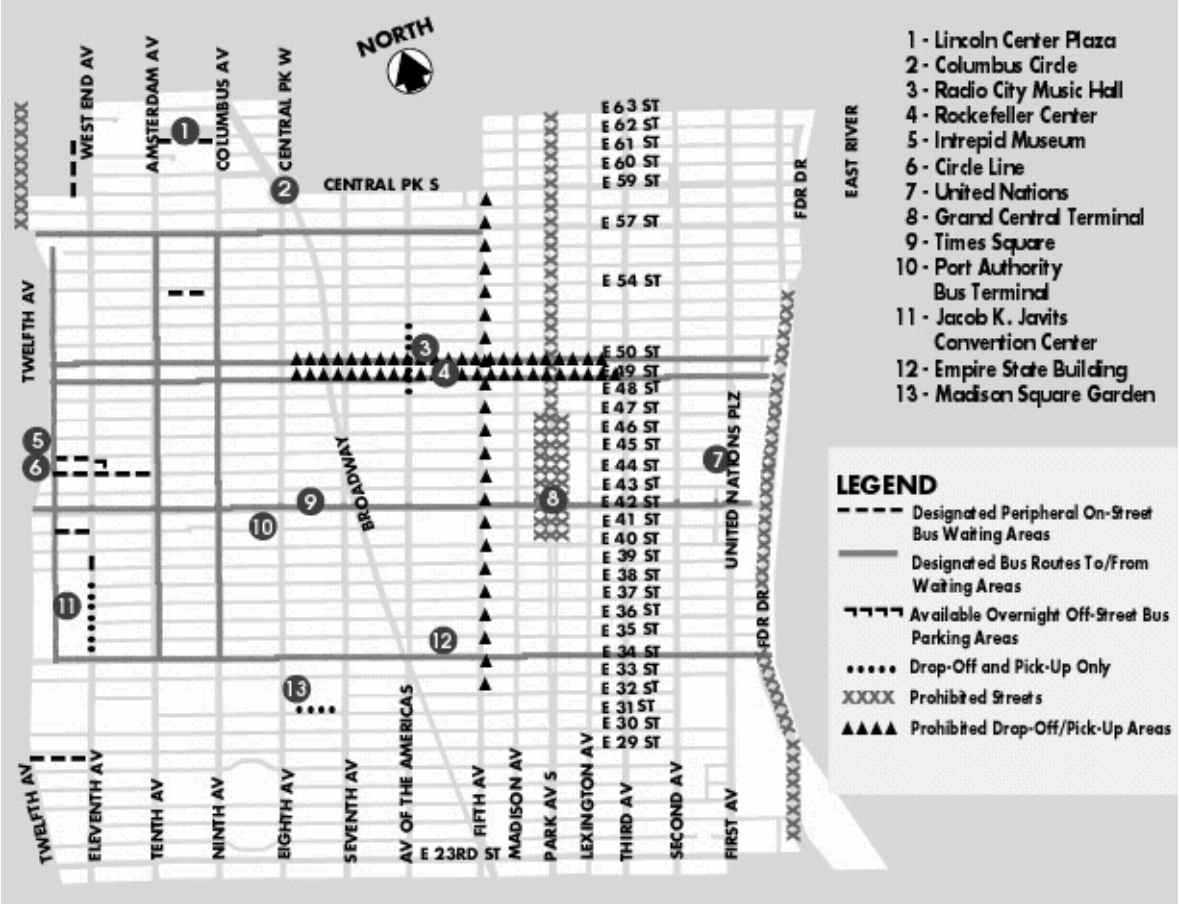
2.1.9 New York, New York

New York City has a well-conceived plan for managing tour buses. Design elements include the following:

- Allowing passenger loading and unloading operations within "No Parking", "No Standing" and "No Standing except Trucks Loading and Unloading" zones
- On-street parking and waiting areas on designated peripheral streets (peripheral, that is, to the main tourist attractions) where buses are instructed to wait after discharge and before pick-up
- Designated special drop-off and pick-up areas (that do not allow long-term parking), with designated routing (generally the same as truck routes) to these locations
- Restricted street list
- Prohibited drop-off and pick-up areas (violation subject to towing)
- Designated bus routes to/from Mid Manhattan waiting areas
- Designated off-street parking facilities
- No idling beyond 3 minutes
- Requirement to pay for and display sticker per trip ($1.50 per trip), available however in books of ten

NYC DOT also provides useful help-lines for contact depending on the nature of the issue/problem or inquiry. A sense of the integrated nature of the plan is conveyed by the maps (midtown, and lower Manhattan respectively) shown on the following pages.[14]

[14] http://www.nyclink.org/html/dot/html/get_around/bus/charterbus.html


NORTH
1 - Lincoln Center Plaza
2 - Columbus Circle
3 - Radio City Music Hall
4 - Rockefeller Center
5 - Intrepid Museum
6 - Circle Line
7 - United Nations
8 - Grand Central Terminal
9 - Times Square
10 - Port Authority Bus Terminal
11 - Jacob K. Javits Convention Center
12 - Empire State Building
13 - Madison Square Garden
LEGEND
Designated Peripheral On-Street Bus Waiting Areas
Designated Bus Routes To/From Waiting Areas
Available Overnight Off-Street Bus Parking Areas
Drop-Off and Pick-Up Only
Prohibited Streets
Prohibited Drop-Off/Pick-Up Areas
WEST END AV
AMSTERDAM AV
COLUMBUS AV
CENTRAL PK W
CENTRAL PK S
TWELFTH AV
BROADWAY
UNITED NATIONS PLZ
FDR DR
EAST RIVER
E 63 ST
E 62 ST
E 61 ST
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E 49 ST
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E 32 ST
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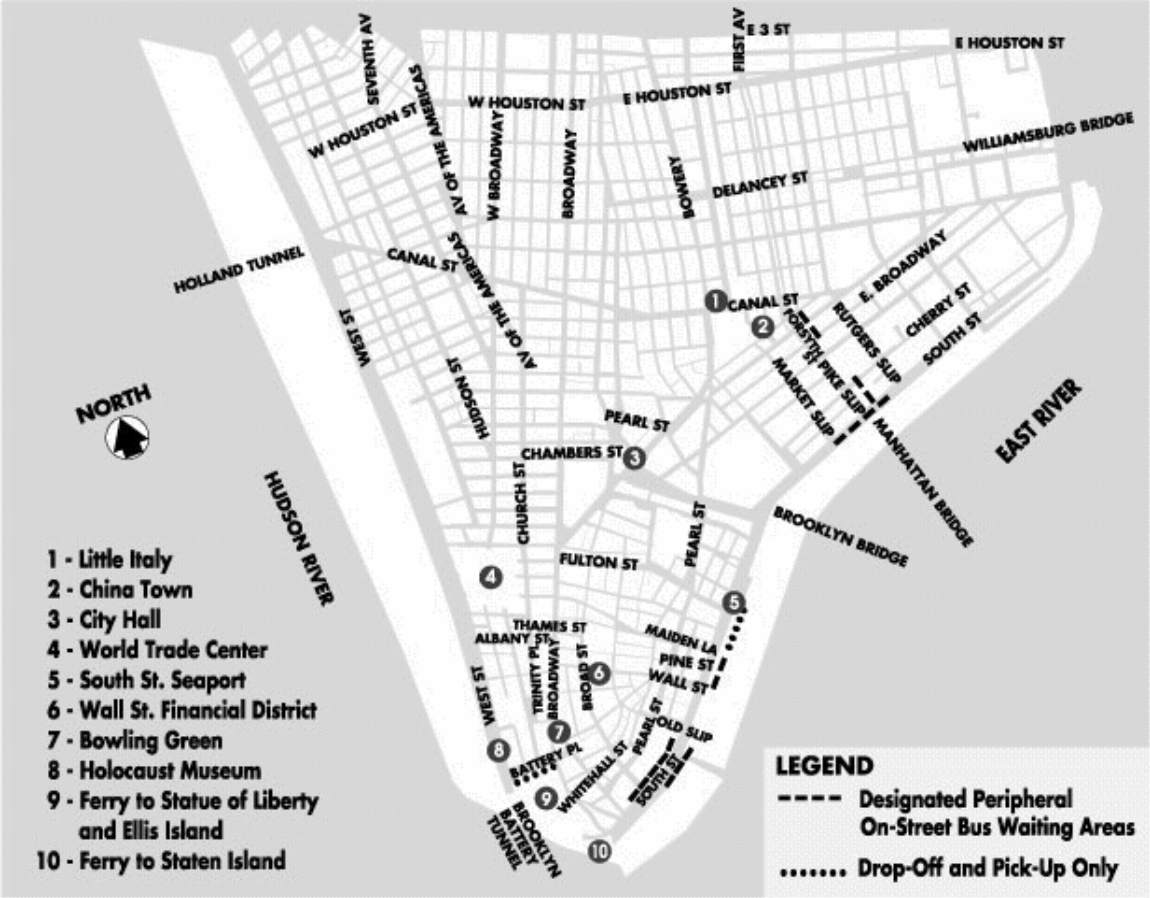
E 30 ST
E 29 ST
TWELFTH AV
ELEVENTH AV
TENTH AV
NINTH AV
EIGHTH AV
SEVENTH AV
AV OF THE AMERICAS
E 23RD ST
FIFTH AV
MADISON AV
PARK AV S
LEXINGTON AV
THIRD AV
SECOND AV
FIRST AV



Relevance to the District: New York City's tour bus management plan effectively serves the industry and economy of the city yet also balances the needs of neighborhoods. The essential design elements are worth emulating by the District. Of particular interest is the concept of a not-too-onerous per trip permitting fee. Such a user fee could provide a useful revenue stream to the District that could be dedicated to the operational and maintenance requirements associated with providing adequate long-term tour bus parking facilities within the District.

2.1.10 Kennebunkport, Maine

Responding to resident concerns over the large volume of buses operating in the narrow and winding streets and dense commercial core of the town during peak season[15], Kennebunkport ME has instituted an advanced reservation system. Like Charleston SC, the ordinance establishing the advanced reservation system also places an absolute limit on the number of tour buses operating simultaneously in the town. Essential elements of the ordinance include:

[15] According to a traffic survey of tour buses done by the Kennebunkport Police Department, for the past five years 62 percent of the estimated 1,000 buses that come to town do so during the Fall foliage season (September-October), see http://www.seacoastonline.com/2001news/yorkstar/ys6_27b.htm

- Requirement to secure advanced permit (3 days in advance of trip) to operate within the town, peak season (May 1 to November 1)
- Advanced reservation system to operate between the hours of 9:00 AM to 7:00 PM, peak season
- Requirement for permit fee ($35)
- Discharge area limited to south side of Cross Street only
- Control on the number of permits issued to achieve a flow rate in the core district of no more than three (3) tour buses per hour loading, and three (3) buses per hour unloading

The selection of a good location and facility for long-term parking is still unsettled.

***Relevance to the District*:** The ordinance has been legally challenged and is now being adjudicated by the Federal court. An emergency relief injunction was denied, however, that would have blocked implementation of the ordinance.[16]. In public hearings, the attorney representing the Kennebunk-Kennebunkport Chamber of Commerce expressed concern that the ordinance might be considered a restraint on trade and a violation of the equal protection and interstate commerce clauses[17]. Similar issues raised by Charleston's tour bus ordinance apply to Kennebunkport's attempt to limit the flow rate of tour buses in the core district. Unless the recommendation for an absolute flow restriction is clearly grounded in a comprehensive and validated study that establishes it as a reasonable accommodation to protect the public health, safety and welfare, an ordinance that contains this type of restriction is vulnerable to legal challenge.

As noted previously, the concept of an advanced reservation system, while attractive, poses technical difficulties when applied to multi-destination tour bus itineraries.

2.2 European Experience

Recent research into tour bus parking conditions in European cities reveals a number of insights concerning tour bus operations and management practices:

- To an even greater degree than in the U.S., tourist attractions frequently are clustered in the historic sections of cities where development densities are high and streets are very narrow, such that circulation by buses is difficult, if not impossible.
- City size is a key determinant of the number, location, and use of tour bus parking areas. The limiting size of a small area that can be served by a single, centralized tour bus facility is approximately 0.6 square miles (1.5 km^2).
- Vehicular circulation within historic centers is minimal; buses typically drop-off passengers at a single location within or close to a historic area.
- Guided itineraries with multiple destinations within historic districts typically are conducted on foot, with buses parked outside the historic center.

[16] See http://www.centralmaine.com/news/stories/o20824buses_kj.shtml and http://www.centralmaine.com/news/stories/020829buses_9_.shtml
[17] See http://www.seacoastonline.com/2001news/yorkstar/ys6_27b.htm

- In larger cities, tour buses sometimes convey passengers among sites that are distributed throughout a large geographic area, parking in reserved spaces that typically are curbside (either parallel parked or in bays) less than 1/3-mile (500 meters) from passenger destinations, or in separate parking areas farther away. In cities where parking is located at a peripheral location, loading/unloading areas are less than 1/5-mile from the groups' destinations. Walking time generally is limited to 5 – 10 minutes.

- A common practice is to drop-off tour groups near a site with relatively good vehicle access and pick-up the groups at a pre-arranged location later in the day. In-between pick-up and drop-off, the tour bus group travels on foot to multiple locations.
- In several cities, such as Edinburgh, loading/unloading and parking occur at a terminal away from the city center and passengers transfer at the terminal to smaller buses. In the medium-sized cities of Dusseldorf and Nurenberg, each with a population of approximately 500,000, travel times in shuttle buses between the tour bus parking area and attractions are a maximum of 15 minutes.
- By pre-arrangement, tour buses frequently are allowed to drop-off and pick-up passengers at hotels in areas where tour bus circulation otherwise is prohibited.

Vienna is an example of a major European city (population 1.5 million) with numerous small tour bus parking areas located throughout sections of the city that have major tourist attractions. A coordinated fee structure is in place under which the use of parking areas closer to the city center requires a fee, while peripheral lots are free of charge, thus encouraging use of less-centrally located parking areas. The duration of parking is restricted to a fixed amount of time (1.5 or 2 hours) at individual parking areas. Amsterdam is another example of a large city (population 718,000) with tour bus parking spaces broadly distributed throughout the city, all at a significant distance from the historic center. The total capacity provided is approximately 170 spaces, at distances ranging from 1/3 mile to just over ½ mile (500 – 1000 meters) from primary tourist destinations. Fees are charged for parking, as they are in Edinburgh's tour bus terminal, located outside the central city. Munich has 9 tour bus facilities, with capacity of about 970 spaces, located between 1/3 mile to nearly 2 miles from tourist destinations.

Paris is an example of a major city where tour bus parking is located largely in broadly dispersed on-street spaces, either parallel to the curb or in small parking bays. These spaces are free and there are no time restrictions governing their use.

Smaller-size cities generally offer better opportunities for centralized boarding facilities, with either remote parking or parking located on-site. Salzburg (population 144,920) is a prime example of a city served by a single, centralized boarding area that is close to

the historic city center (about 1/5 mile or 300 meters). Several peripheral parking areas for buses are located at a significant distance (2 – 2.5 miles) from the center. In contrast, a single central boarding *and* parking facility serving tour buses is located close to the city's attractions in Innsbruck (population 120,000).

Several cities use shuttle buses to transport tour bus passengers between peripheral parking facilities. In the medium-sized cities of Dusseldorf and Nurenberg, each with a population of approximately 500,000, travel times in shuttle buses between the tour bus parking area and attractions are a maximum of 15 minutes. As noted previously, Edinburgh is an example of a large city that uses shuttle buses to connect a remotely-sited parking terminal to the historic city center.

A number of European cities, including Munich, have control systems in place to direct tour buses to available parking areas or away from streets that are closed . Vienna is planning a control system. Signage directing tour buses to parking areas or recommended routes represent an important component of these systems.[18]

2.3 Summary Findings

The review of best practices identifies the following common elements of tour bus management plans that appear to work in other cities, many of which may have applications in the District:

- Dedicated locations for pick up and drop off for tour buses
- Designated routes to/from the central core and arterial and highway system, and designated routing between visitor attractions, generally bypassing sensitive areas such as residential districts and historic districts
- Dedicated locations (usually distributed around the periphery of the core business and cultural district) for long-term parking, and fee structures that encourage usage. Site selection typically is based on three principal factors:
    - operational needs of tour operators: site locations accessible to core attractions and associated drop off and pick up locations; opportunities to provide service facilities for drivers and vehicles.
    - avoidance of preempting higher-value development or redevelopment opportunities, in accordance with the city's comprehensive land use and economic development plan for identified land parcels.
    - minimal impact on adjacent land uses.

[18] The source of published information on European tour bus operations is *Stadvertraegliche Bedien- und Parkkonzepte fuer Reisebusse in der Stadtouristic*, Berdicte der Bundesansatalt fuer Strassenwesen, August 1999.

- Designation of on-street tour bus parking areas; use of designated zones for on-street tour bus parking;
- Generation of revenue from metered tour bus parking spaces and off-street parking facilities;
- Shared use of curb space and off-street tour bus parking facilities by multiple institutions and types of users (e.g. tour buses and delivery trucks);
- Maps and other media for communicating the locations of parking and loading/unloading areas as well as designated routes;
- User-friendly "hot lines" available to operators and/or the general public
- In some cities, advanced reservation systems affect a more even and predictable distribution of tour buses throughout the day.
- Rules, regulations and policies affecting tour bus operations and a mechanism for conveying this information to current and prospective tour bus/group tour operators. Examples are:
  - Limits on idling
  - Legally enforceable designated routing on street network
  - Display of placards showing current inspection of vehicle
  - Restrictions on loading/unloading or parking in other than designated areas and curbside locations;
- Permitting and licensing of tour buses;
- Coordinated signage/control systems to guide tour buses and in some cases, to provide real-time information on street closings and parking availability
- Europe offers several examples of remote tour bus parking/terminal facilities linked to tourist destinations by shuttle bus systems
- Dedicated physical facilities for tour buses (drop off, pick up and parking) are identified on the basis of a collaborative, consensus approach by stakeholders via the mechanism of a committee or task force;
- A proactive approach that recognizes the economic development value of tourism (and tour buses) and that provides adequate and sufficient dedicated facilities for tour buses, rather than a reactive "NIMBY" approach that conveys the message, "Don't Park Here."

3.0 Solutions Matrix and Site Analysis

3.1 Potential Solutions

The major problems associated with tour bus operations in Washington, DC consist of a shortage of parking and loading/unloading space, associated traffic and safety problems and adverse environmental impacts, including obstruction of view corridors, and intrusion into local neighborhoods, often as a result of parking and traffic problems near tour bus destinations. Strategies for addressing these problems may incorporate the following categories of component actions or measures:

- Increased parking supply consisting of *Peripheral Parking* outside the Monumental Core and downtown;
- *Centrally-located Parking* Facilities
- Downtown Circulator
- Walking Circulation among clustered destinations
- Expansion of Curbside Loading/Unloading space
- Parking Facility Pricing Strategies
- Security Measures
- Advanced Scheduling
- Information Systems
- Routing
- Permitting/Licensing and Enforcement
- Driver Facilities/Shuttle between parking lots and hotels

These actions are evaluated in Table 3-1 in terms of criteria that reflect their feasibility, benefits and costs:

- Logistical feasibility—whether the solution is a practical solution to the problem in terms of meeting tour bus operating requirements;
- Impacts on tour bus operators, visitors, the public parking supply, the environment, and costs to the public.

Impacts to *neighborhoods* are addressed subsequently in this memorandum in terms of specific proposed parking sites. The actions evaluated in Table 3-1 are described below. The locations of existing tour bus parking spaces are shown in Figure 3-1.

3.1.1 Major Actions

Measures in this category could produce the most direct results in terms of solving tour bus problems.

Peripheral Parking: Due to the high density of downtown Washington and high downtown land values, the availability of parcels that can be used for parking tour buses is limited. Thus, a logical solution is to identify sites at the periphery of the District that could serve as tour bus parking areas, at least for relatively long-term parking needs of

Table 3-1
Evaluation of Potential Tour Bus Management Measures

		Impacts On:				
Actions	**Logistical Feasibility**	**Tour Bus Operators**	**Visitors**	**Environment**	**Public Parking Supply**	**Cost to Public**
1. Peripheral Parking	***Good*** for long-term (1 hour or more) parking; not applicable for short-term needs	***Positive*** for long-term (1 hour or more) parking	***Neutral; Positive*** if service reliability is improved	***Positive*** for downtown area, including Monumental Core; net positive, despite increase in emissions at and along routes to peripheral parking sites; similar diluting and shifting of noise impacts away from downtown; potential for neighborhood and other categories of environmental impacts (e.g. groundwater)	***Positive*** because more spaces will become available downtown	***Low*** cost for surface lot development, user fees can cover large share of total cost
2. Centrally-Located Structured Parking Facility	***Good*** for long-term (1 hour or more) parking***; questionable*** for short-term parking	***Positive*** for long-term (1 hour or more) parking;use for short-term parking questionable	***Neutral; Positive*** if service reliability is improved	Reduced VMT-related emissions but concentration of emissions near site and along bus travel routes in downtown area, as above, some spatial shifting of impacts	Depends on whether overall downtown parking supply expands	***Expensive-*** user fees unlikely to meet large share of total cost

Table 3-1 (continued)
Evaluation of Potential Tour Bus Management Measures

Actions	Logistical Feasibility	Impacts On: Tour Bus Operators	Visitors	Environment	Public Parking Supply	Cost to Public
3. Downtown Circulator	***Possible*** but requires significant change in current practice; will not alleviate critical need for loading/unloading space; difficult to accommodate large groups; need adequate space for group waiting areas; can be implemented for specific areas--may be most practical solution for Georgetown	Operators will not have desired control over tour bus groups; increased coordination and new procedures would be needed; possible loss of revenue	Convenience of door to door service would be curtailed	Likely reduction in VMT-related emissions due to elimination of cruising and searching for tour bus parking spaces; will not shift and concentrate adverse impacts, as above	Tour buses would occupy substantially fewer downtown parking spaces, thus increasing availability	***Cost covered by other sources***
4. Walking Circulation Among Clustered Destinations	***Possible*** but requires significant change in current practice; *would* alleviate critical need for loading/unloading space; can be combined with Downtown Circulator or implemented only in selected areas.	More difficult to control tour group; less service may reduce groups' willingness to pay for tour bus	Likely to be perceived as significantly less convenient; problematic for senior citizens, people with disabilities	***Strongly positive***--would reduce VMT, emissions, noise and other adverse impacts relative to existing conditions and above options	Tour buses would occupy substantially fewer downtown area parking spaces, thus increasing availability	***Inexpensive-*** peripheral long-term tour bus parking required
5. Expanding Curbside Loading/Unloading Space	***Necessary*** to address most critical site-specific traffic congeston, except where *walk access* is increased	***Strongly Positive***--will reduce queue time and need to circle the block around busy attractions	***Strongly Positive***--faster, improved service will reduce time in bus	***Positive***--reduce emissions from queuing, frequent vehicle starts and stops	Could displace curbside parking at points of interest currently available for private vehicles	Low cost unless displaced on-street parking is replaced in expanded public parking garages

Table 3-1 (Cont'd)
Evaluation of Potential Tour Bus Management Measures

		Impacts On:				
Actions	**Logistical Feasibility**	**Tour Bus Operators**	**Visitors**	**Environment**	**Public Parking Supply**	**Cost to Public**
6. Parking Facility Pricing Strategies	Can be implemented readily at publicly owned parking facilities and at selected private facilities though agreement	***Positive*** if parking supply and options are increased	***Positive*** to the extent that pricing supports improved service and cost-effective allocation of parking spaces	***Positive--***to the degree that it supports efficient allocation of parking spaces	***Positive*** to the extent that pricing supports efficient allocation of available parking spaces	***Positive*** in that efficiency and cost-effectiveness of parking supply development is increased
7. Advanced Scheduling	Feasibility low for coordinating advanced scheduling of all major attractions; increasing the number of attractions with advanced scheduling through coordinated system is feasible	***Positive***-- improve scheduling and reliability of service, adherence to itinerary	***Strong Positive***-- guarantee admission to scheduled attractions; reduce wait/queuing times in buses and on-site	***Positive***--would reduce superfluous travel and queuing at points of interest	No significant impact	Development and continuing operating costs; funding source required
8. Information Systems	Simple information systems (e.g. wayfinding signage, website, telephone helpline) highly feasible, but persent some technical challenges and entail significant expense; could be combined with security systems	***Positive***-but more sophisticated systems require expenditures on special equipment	***Positive*** to the extent that service improves	***Positive***—would reduce superfluous travel and queuing at points of interest, promote efficient use of parking space	***Positive*** to the degree that tour bus drivers are deterred from parking in public spaces	Varies depending on system

Table 3-1 (Cont'd)
Evaluation of Potential Tour Bus Management Measures

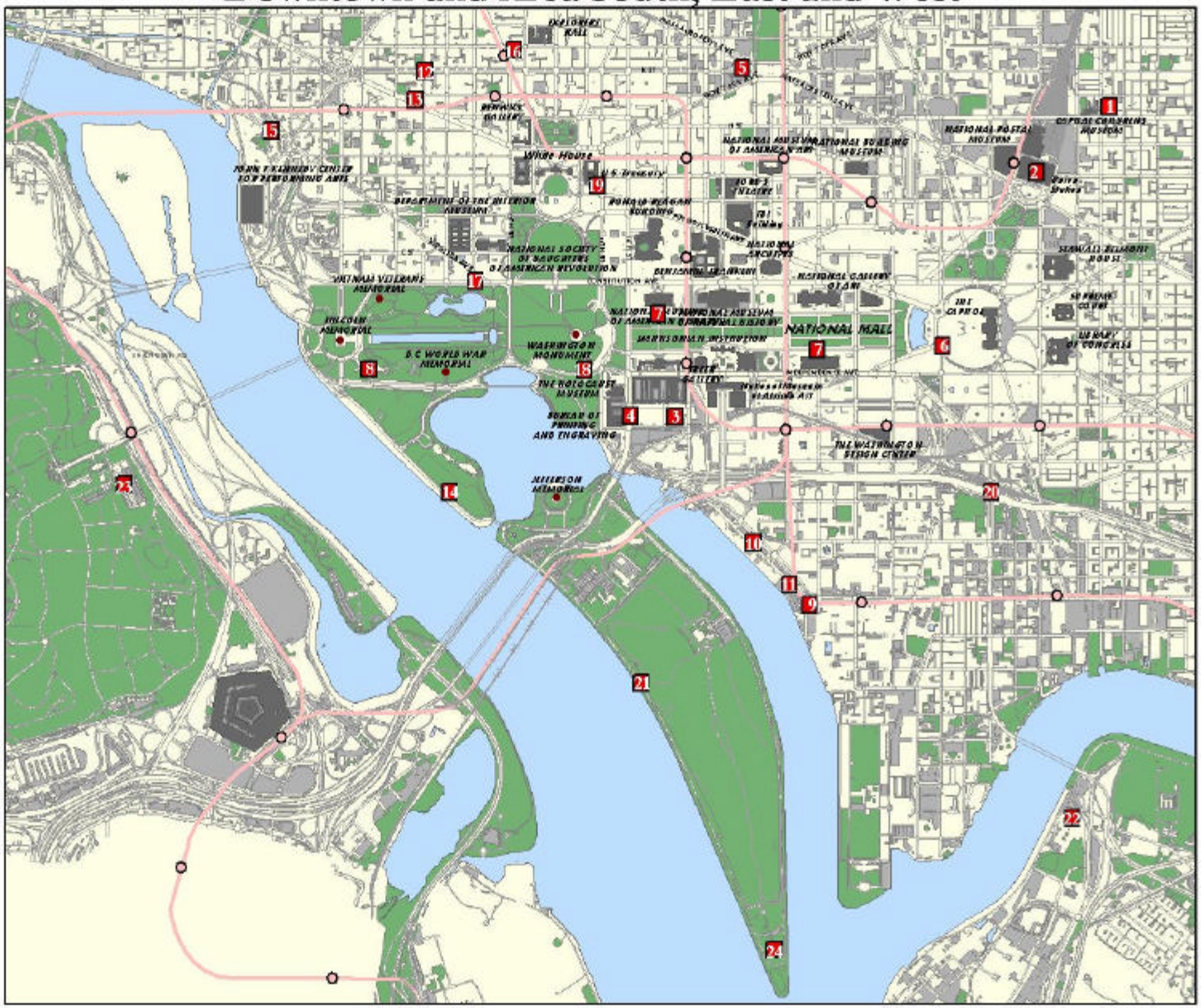
		Impacts On:				
Actions	**Logistical Feasibility**	**Tour Bus Operators**	**Visitors**	**Environment**	**Public Parking Supply**	**Cost to Public**
9. Routing	Highly feasible--DDOT already posts route network on website	Depends on the degree to which movement restricted	May be minor negative impact if travel times increase due to routing restrictions	***Positive***--reduce VMT and associated adverse environmental impacts in neighborhoods and other sensitive areas	Neutral	Primary expense would be for enforcement
10. Permitting and Enforcement	Feasible-current legal challenges to permitting fees must be resolved; increased enforcement is expensive	Additional cost for tour bus operators may be offset by improved operations	Positive if service is improved	***Strongly Positive***--essential to achieve environmental objectives	***Strongly Positive***-Essential to ensure more efficient utilization of parking supply	***Positive***--additional costs for enforcement; permitting can provide funding source
11. Driver Facilities/ Shuttle for Drivers between parking lots and hotels	Feasible-Metro access may also be viable at some parking facility locations	***Strongly positive***	No direct impact	Supports use of peripheral parking facilities	***Positive*** to the extent that peripheral tour bus parking becomes viable	Relatively low cost operated on limited schedule

Figure 3-1. Existing Tour Bus Parking Locations Downtown and Area South, East and West

- Attractions
- Metro Stations
- Railroad
- WMATA
- Water Bodies
- Open Space
- Parking Lots
- Attractions

Bus Parking

1. 3rd & I St., NE
2. Union Station, 30 Mass Ave., NW Bus Deck, 50 Spaces
3. 1200-1300 D St., SW South Side, 10 Spaces
4. 200 14th St., SW East Side, 4 Spaces
5. 900 Block, K Street, NW South Side, 9 Spaces
6. West First Street
7. National Mall
8. Lincoln Memorial
9. 600 Water Street, SW South Side, 2 Spaces
10. 900 Block, Maine Ave, SW North Side, 5 Spaces
11. 700 Block, Maine Ave, SW North Side, 6 Spaces
12. 900 Block, 20th St., NW East Side, 3 Spaces
13. 2000 Block, Penn. Ave., NW North Side, 2 Spaces
14. Ohio Dr., SW, 21 Spaces W. Potomac Park
15. 2500-2600 Block, Virginia Ave., NW, North Side
16. 1700 Block, DeSales St., NW South Side, 8 Spaces
17. 1700 Block Virginia Ave., NW South Side, 5 Spaces
18. 1000 Block, Indepen. Ave., SW (South of Washington Monument), 10 Spaces
19. 200-400 Block, 15th St., NW West Side, 9 Spaces
20. Under Southeast/Southwest Expressway
21. Ohio Drive West, SW
22. South Capitol Street Bridge/Anacondia
23. Arlington Cemetery
24. Haines Point, East Potomac Park



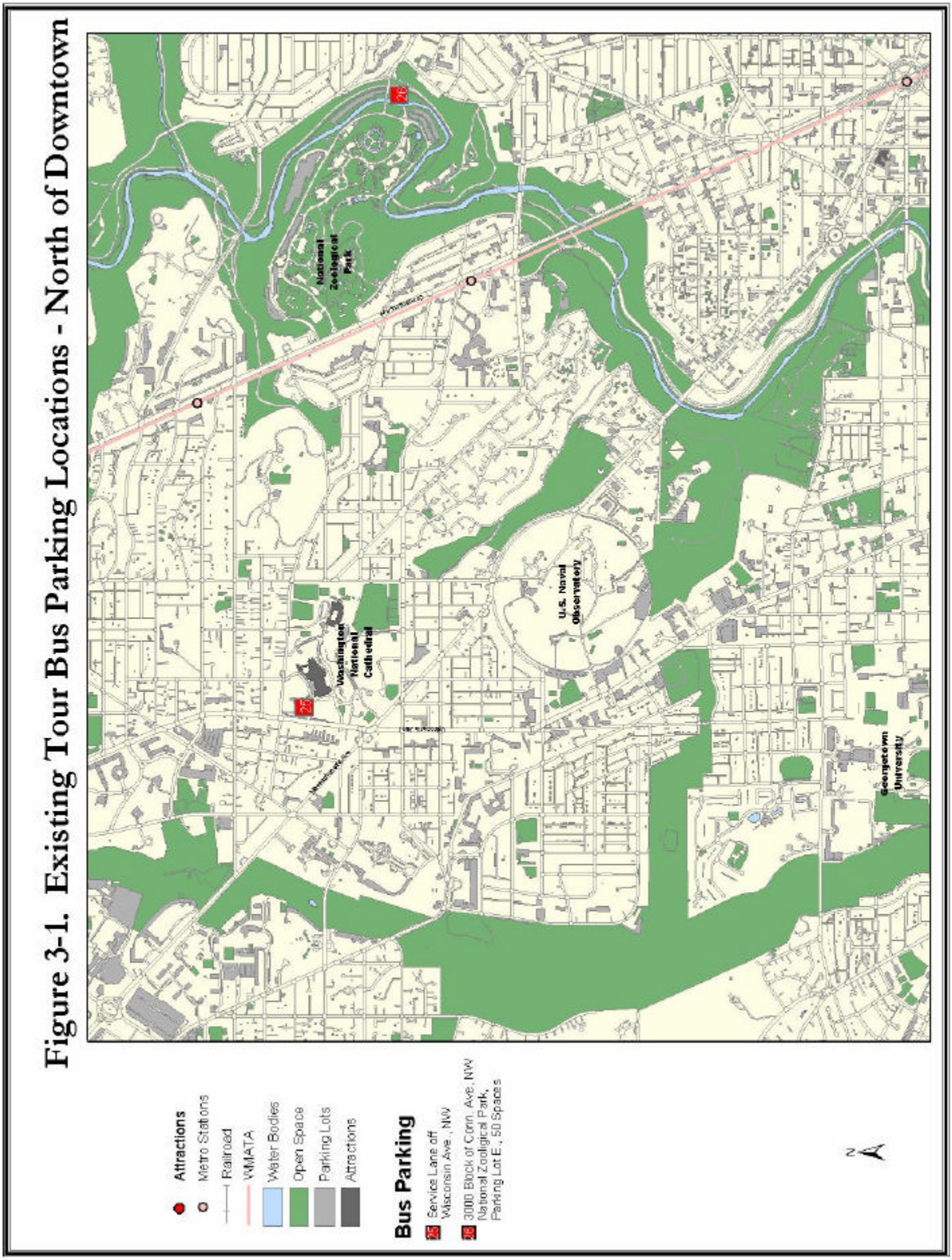


Figure 3-1. Existing Tour Bus Parking Locations - North of Downtown
Attractions
Metro Stations
Railroad
WMATA
Water Bodies
Open Space
Parking Lots
Attractions
Bus Parking
25 Service Lane off Wisconsin Ave., NW
26 3000 Block of Conn. Ave. NW National Zoological Park, Parking Lot E., 50 Spaces
National Zoological Park
Washington National Cathedral
U.S. Naval Observatory
Georgetown University
N

one hour or more. This has been the approach followed in most cities that have developed effective approaches to tour bus management.

Access times between parking sites and visitor points of interest should not be excessive. Tour bus operators interviewed for the study suggested that maximum travel times of 10-15 minutes (per direction) would be acceptable for access to this type of longer-term tour bus parking. This criterion has been used in this evaluation of alternate parking sites later in this chapter. Access times of less than 10 minutes have been considered desirable and the shortest possible access time generally is preferred.

Centrally-Located Parking: Despite the high cost of providing parking within the central portion of the District, which includes most points of interest visited by tourists, a number of locations also have been identified within the downtown area that could serve as potential sites for tour bus parking. Generally tour bus parking would be created through the construction of structured parking facilities at these sites, to provide for relatively intensive and high-value use of scarce and expensive real estate.

Another type of centrally located parking would be on-street or curbside spaces. These spaces would serve the valuable function of providing for *short-term* parking needs, which range from periods of less than ½-hour for "photo stops" to up to 1 hour for fast food lunch breaks and quick visits to outdoor monuments.

Downtown Circulator: A *Downtown Circulator* consisting of several possible routes has been proposed to complement existing transit services in the Monumental Core. The *Circulator* could be used to distribute visitors to/from points of interest within its service area, with a "hop-on, hop-off" mode of operation. The service could be designed to complement tour bus operations, addressing the need for distribution among relatively short-term tour group stops, curtailing the hard-to-address need for short-term parking.

As noted in Table 3-1, the *Downtown Circulator* option would require a significant change in current tour bus operations and presents a number of serious logistical challenges. Keeping a typical size tour bus group together on a *Circulator* would be difficult . Individual tour groups would frequently need an entire vehicle to remain intact or would exceed the capacity of a single vehicle.

Perhaps a more serious concern is that a *Circulator* system would not obviate the need for expanded c*urbside space* at major points of interest (discussed below). The timing of *Circulator* departures could be scheduled to manage the arrivals of visitors more evenly at individual attractions, consistent with facility loading/unloading capacity, but serving high volumes of peak season tourists will inevitably require the provision of substantial loading/unloading space at popular sites. Moreover, substantial *curbside and pedestrian space* would have to be allocated for the transfer of tour bus passengers between tour buses and the *Downtown Circulator*, unless tour bus operations are radically changed, such that tour bus operations are limited to the intercity or "line-haul" travel segments of the group tour. Potentially, the tour bus/*Circulator* transfer

could take place at one or more tour bus parking facilities, such as Union Station, a centrally-located "intermodal transportation center" or even a peripheral parking site, at a location with sufficient space, such as East Potomac Park.

Walking Circulation: Following a model in effect in many European cities and several smaller U.S. cities, walking could serve more frequently as the distribution mode among points of interest located close to one another. This option, which would be implemented by increased restriction of tour bus activity on roadways in and around the National Mall and perhaps on 10th Street at Ford's Theatre and in Georgetown, could act either as a complement or alternative to the *Downtown Circulator* option. A major advantage would be reduction in the need for loading/unloading space at a number of locations. Accessibility for people with disabilities would need to be addressed.

Expansion of Loading/Unloading Space: The need for additional loading/unloading space at individual points of interest is the primary factor contributing to traffic congestion during peak tour bus operations. While the shortage of parking leads to the "cruising" of tour buses on the District's roadways, increased vehicle-miles-traveled (VMT) and associated emission of diesel fumes, and intrusion into neighborhoods, these impacts tend to be diffuse and increases in traffic volumes at *specific locations* generally are relatively small. In contrast, the lack of drop-off/pick-up spaces at or close to visitor attractions results in queuing and concentrated traffic congestion, with spillover traffic to upstream intersections. While traffic police have well-practiced procedures for mitigating impacts on traffic flow, the shortage of loading/unloading space is probably the most noticeable and serious cause of congestion related to tour bus operations. During the peak season, if there are 1,000 tour buses in the District daily, major attractions such as the Capitol, White House, and Air and Space Museum would require about 10 bus berths to accommodate loading/unloading without causing localized traffic back-ups.[19]

This report includes a concept that would allocate over 25 loading/unloading spaces on the National Mall (Exhibit 1 and Figure 3-2). This option would make a substantial impact on the need for bus loading/unloading space in the central area, from which tour groups could walk to multiple attractions.

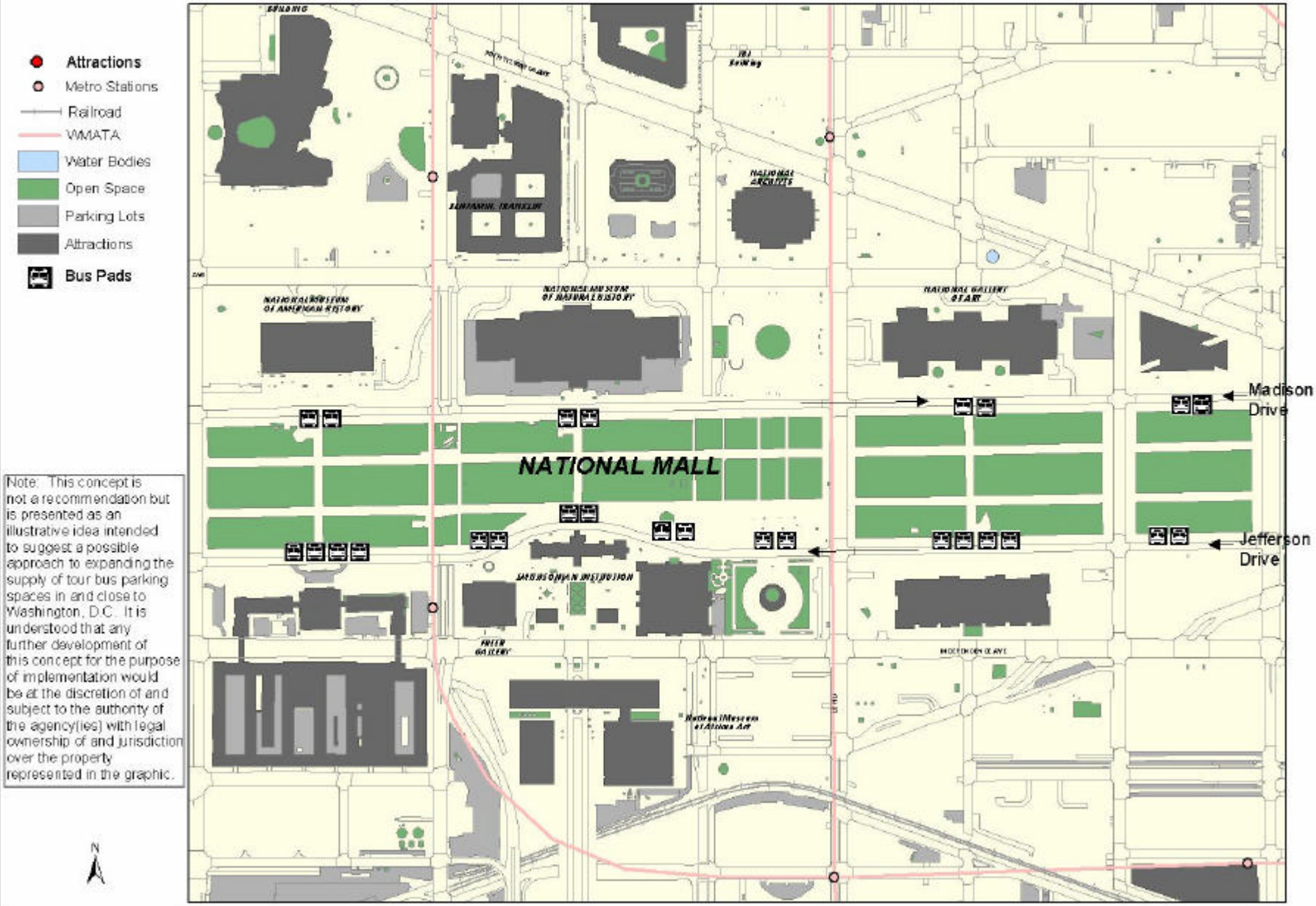
[19] Estimate based on distribution of tour groups among 1-day, 2-3 day, 4-5 day, and 5+day tours, frequency of visiting individual sites, 25% peak hour factor, and 5-minute loading, 10-minute unloading times. Estimates of duration of tours and frequency of visiting sites based on survey data from *Summary Results of Bus Driver Survey*, Barton Aschmann Associates, Inc.

Exhibit 1

Boarding Space Concept: National Mall

- This option would provide for approximately 25 loading/unloading "bus pads" on Madison and Jefferson Drives.
- Reversal of existing one-way flow pattern on Madison and Jefferson Drives to permit right-sided boarding on Mall frontage (Note: continuation of two-way flow pattern on 3rd and 14th), resulting in less crowding and visual impact to the museum frontages.
- Madison and Jefferson are both low volume, very low speed (15 mph limit) frontage streets providing access to Smithsonian Museums (and USDA) as indicated in the figure below.
- Proposed site locations for bus pads are within already designated special permit parking zone (taxi/ disabled plate parking/loading zone)
- Each bus pad would be 60' in length, which permits independent entry and exit at slow speed (i.e., 5 mph) in a forward-flow system (i.e., no parallel parking with backing maneuvers are required)
- Identified bus pads would be appended to existing special permit zones that currently straddle existing curb cuts and marked crosswalks
- For improved enforcement and streetscape, special permit parking zones (including appended bus pads, curb cuts at Mall and Museum frontages, and marked crosswalk would be (re) constructed of different material, texture and color from street surface. Numbered bollards at the Mall frontage would serve to identify to driver and passenger each specific bus pad to assist in loading/unloading of tour passenger groups. Bollards would be of consistent design to those existing.
- The concept distributes bus pads for passenger loading/unloading along 1.2 miles in each direction at central location for Monumental Core, improving visual urban design effects, and avoiding concentrations of large vehicle parking and associated flow congestion induced by access/egress operations.
- The concept supports and is compatible with alternative concepts-of-operation (i.e., loading/unloading only; loading/unloading plus short-term parking; loading/unloading plus long-term parking)
- Mitigation for lost private vehicle (automobile) parking spaces (estimated to be 78 spaces) would include reduction of existing time limit from 3 hours to 2 hours (increase turnover/occupancy rate at curbside for remaining POV spaces), and converting some curbside sections along Mall frontage section to angled parking (increase in number of parking spaces in a given linear length). Angled parking would also have a self-enforcing traffic calming affect on maintaining slow speeds along both streets.

Figure 3-2. Concept: National Mall



Note: This concept is not a recommendation but is presented as an illustrative idea intended to suggest a possible approach to expanding the supply of tour bus parking spaces in and close to Washington, D.C. It is understood that any further development of this concept for the purpose of implementation would be at the discretion of and subject to the authority of the agency(ies) with legal ownership of and jurisdiction over the property represented in the graphic.

3.1.2 Supporting Actions

The following measures have the potential to increase the effectiveness of the major actions identified above and in some cases may be essential to their success.

Parking Facility Pricing Strategies:

The tour bus parking rate at Union Station currently is a $20 flat fee with no "in-and-out" priveleges. Between the hours of 7pm and 7am, this rate is reduced to a $10 flat fee, again with no "in-and-out" privileges. Numerous stakeholders interviewed for this study remarked that this fee is too high. In other cities considered in this study, tour bus parking rates were in the range of $20-$25 per day, with multiple "ins and outs" permitted for the flat fee. Union Station is well situated to serve as a tour bus parking site for stops of 1-hour or longer in most of the Monumental Core and it is reasonable to conclude that the existing fee acts as a deterrent to optimum use of the facility by tour buses. Pricing policies at Union Station and any future facilities made available to tour buses will need to reflect cost considerations from the standpoint of the facility provider in addition to affordability for tour bus operators.

Facility pricing also bears consideration as a mechanism for encouraging efficient allocation of parking facility supply among short-term and longer-term users. Specifically, under a strategy of providing peripheral parking areas for long-term parking and centrally-located spaces, probably on-street, for short-term parking, pricing strategy can be used to encourage longer-term users to park in peripheral facilities, i.e., relatively high rates would be charged for short-term spaces, and lower fees, probably all-day flat fees for multiple ins-and-outs, would be in effect at peripheral parking lots. Pricing policy at short-term spaces could be implemented through metering of spaces or frequent and rigorous enforcement of posted time limits.

Advanced Scheduling:

Several visitor destinations in the District, including the Holocaust Museum and the National Cathedral, use advanced scheduling. Currently, the need to purchase individual tickets early in the day at several sites exacerbates the "bunching" of tour bus activity in peak morning commuting periods, increasing the need for loading/unloading space. This situation not only adds to localized parking and traffic problems, but also to congestion on the bridges and other gateways leading to downtown Washington. A coordinated reservation system could be designed to distribute both tour bus activity and visitation at each participating site more evenly throughout the day, reducing incidences of overcrowding at some times, and underutilization of facilities and resources at other times. From a logistical point of view, however, it will be difficult for all tourist sites to participate. Nevertheless, the use of an advanced scheduling system coordinated among some of the major attractions in the District may produce a significant improvement over the status quo.

Information Systems:

Information systems can consist of elements as simple as coordinated way-finding signage that directs tour buses to points of interest and designated parking areas, as well as interactive electronic communications providing real-time data on parking occupancy and availability at individual facilities. Electronic parking management technology is currently is a nascent stage of development. The only system implemented so far in the United States was an operational test in St. Paul, Minnesota that has since been terminated.

Research is currently under way in Europe to develop a *parking space optimization service* (PSOS) that could be accessed by the general public via cellular phone, personal digital assistant (PDA), or internet to obtain up-to-the-minute information on parking availability at multiple facilities. Adaptation of this type of system might be suitable for tour buses in the District if a system of multiple parking sites is implemented. Widespread improvements in traffic conditions could result, substantially reducing the mileage expended by tour buses searching for parking spaces.

The identification of existing parking spaces and tour bus routes on the District Department of Transportation website is an important first step in providing the information that tour bus operators need. Information systems can also play an important role in supporting city licensing and fee collection operations.

Routing:

A frequent complaint from District residents is the use of neighborhood streets by tour buses, producing unacceptable levels of noise and pollution from diesel fumes. The shortage of parking spaces frequently causes tour buses to venture onto neighborhood streets. Clear designation, communication, and enforcement of tour bus routes and restrictions can serve tour bus operators, particularly those who travel to the District infrequently and are unfamiliar with local roads. These simple actions will also benefit communities that seek to curtail the intrusion of tour buses into city neighborhoods.

In addition, further restrictions on tour bus circulation can be considered to reduce "cruising." Even if parking supplies are expanded, enforcement measures may be needed to deter drivers from driving around instead of parking, especially in the case of short "photo" stop visits to famous outdoor landmarks. Well-placed loading/unloading zones that allow short-term parking may also help to address this problem.

Permitting/Licensing and Enforcement:

Permitting and enforcement are essential to the effective implementation of tour bus management measures. Permitting provides a means not only of tracking and controlling tour bus operations, but also of collecting revenue. All of the other measures identified require funding, many of them in substantial amounts. While parking fees provide a mechanism for collecting needed revenues, maintaining affordable parking rates is necessary to ensure that they are used. Low levels of usage

at Union Station illustrate this point. The permitting process provides another mechanism for funding measures that support tour bus operations and management.

Local tour guides currently require licenses under a District of Columbia ordinance. The Washington Metropolitan Transportation Commission also issues mandatory Certificates of Authority to local operators. DC Code §47-2829 did require vehicles for hire with a seating capacity of over 12 passengers to obtain a license and pay a license tax of $150 per year or $10 per day. The tour bus industry sued the District to prevent enforcement of the licensing fee. Fee collection has been suspended pending resolution of the lawsuit. No certification is required for out of town tour buses or for *Tourmobile* vehicles operated under a concession to the National Park Service. Effective management of tour buses to alleviate existing problems is likely to require licensing or permitting of both local and out of District operators, in part to collect adequate revenues, but also to support compliance with regulations and restrictions and to address security concerns.

Driver Facilities/Shuttle for Drivers Between Parking Lots and Lodging:

Tour bus drivers currently have few opportunities for taking breaks for food or relief during the workday, as the absence of parking forces them to drive most of the time, sometimes continuously. Several of the potential parking facilities offer opportunities to provide needed services for bus drivers. At large peripheral parking sites, driver lounges could be provided with seating, food services (perhaps only machines), restrooms, and other amenities. Costs incurred could be covered by a combination of parking and permitting fees. Alternatively, at one or more central facilities in the downtown area, drivers could avail themselves of the food and amenities provided at local restaurants and other businesses. Shuttle services are likely to be necessary to transport drivers between peripheral lots and overnight lodging, although some of the sites are close to Metro stations. The expense for this service also could be borne by parking and permitting fees.

3.2 Evaluation Summary

Among the major potential actions, *Peripheral Parking* and *Centrally-Located Parking* are both rated "good" in terms of logistical feasibility for long-term parking, i.e. 1 hour or longer. Peripheral parking is not practical for short-term parking, such as would be needed to serve "photo stops." Table 3-1 notes that *Centrally-Located Parking*, in structured facilities, is of questionable feasibility for short-term stops, due to the time that would be required for entry to, exit from, and circulation within the garage, as previously discussed.

The primary advantage of the *Downtown Circulator*, if implemented as an alternative to the distribution of passengers to downtown sites by tour bus, is that the need for short-term tour bus parking would be eliminated. Logistical disadvantages include the need for a major change in current tour bus operations that may not be favorable to the tour bus industry and passengers who value the convenience of door-to-door service. Also, the need for expansion of boarding space at or near attractions in the District would not

be reduced substantially. As noted in Table 3-1, however, the *Downtown Circulator* option may be the most practical solution for serving Georgetown, which is not close to the major potential tour bus parking sites (evaluated in Table 3-2), other than Arlington Cemetery. Increased reliance on *walking* for distribution among destinations that are close to one another *would* reduce the need for curbside loading/unloading space, but can only supplement rather than substitute for other modes of distribution due to the distances separating major attractions visited by tour groups.

Among the supporting measures, simple information systems, coordinated pricing policies, the designation of tour bus routes, permitting, and strong enforcement are all highly feasible measures. Electronic information systems that could be used for real-time communication of occupancy status among multiple parking facilities are not yet practical, but should be available in the near-term following further technological development. Tour bus route designation can be updated in conjunction with the implementation of new parking facilities. Designated tour buses routes should avoid residential neighborhoods, environmentally sensitive areas, and circuitous circulation patterns that facilitate cruising. Generally, tour buses can be restricted to the major wide arterial roadways of the District. Enforcement is both necessary and feasible, but requires funding. Advanced scheduling is practical for a limited number of attractions.

Providing Peripheral or *Centrally Located* downtown parking would be positive for both tour bus operators and the downtown environment. In addition, increasing the supply of parking would have a positive impact on the availability of public parking if, as a result, tour buses occupy fewer spaces currently designated for public use. A significant difference between peripheral and centrally-located parking facilities is that the cost of providing peripheral parking is much lower, both because the land is less expensive and peripheral parking is more likely to be provided in surface lots rather than in structures.

Use of a Downtown Circulator to distribute visitors from tour buses parked at remote lots would require careful design and management to ensure that it remains convenient for tour bus patrons. Additionally, tour bus operators would be required to adjust tour itineraries and business practices to incorporate the use of a circulator system into their tour packages. A more workable solution would be for tour bus patrons to board a circulator with their tour guide once arriving in the Monumental Core, and to use the circulator to move among several attractions before reboarding their tour bus downtown. Increased reliance on *walking* may raise similar issues for tour bus passengers and operators, although to a lesser degree, because walking would not substitute for current tour bus distribution to the same degree. The environmental impacts of walking would be strongly positive. Increased use of walking is the only option that could substantially reduce tour bus boarding space requirements.

The impacts of *Expanding Curbside Loading/Unloading Space* would be positive on tour bus operators and tour groups, as well as the environment, because the associated reduction in traffic congestion would result in reduced air pollution. Potential adverse impacts, including loss of on-street parking displaced by new tour bus parking spaces and visual impacts at attractions (i.e. the “wall of buses” effect) would have to be

considered carefully during planning. While buses pulling into traffic from parking spaces will have some negative effects on traffic flow, the net impact of reducing bus queuing and double parking should be strongly positive.

3.3 Potential Parking Sites

As discussed previously in this chapter, expanding the existing modest supply of tour bus parking spaces in the District will be central to solving the problems associated with tour bus operations. Interviews conducted with several tour bus operators and industry representatives indicated that in the peak spring season, a total of about 1,000 tour buses transport visitors into the District on a daily basis. Assuming a distribution of short- and longer-term tour bus stops, and allocating time for travel between sites, as well as loadingand unloading, peak parking demand is estimated to be 650-700 spaces. Potential parking sites that have been identified to meet this need are identified below and illustrative concept-designs are provided for potential centrally-located facilities.

3.3.1 Peripheral Parking Sites:

1. Area south of South Capitol Street Bridge between I-295 and Anacostia River
2. Barney Circle (surface facility at lower level
3. Arlington Cemetery *(see Exhibit 2)*
4. Buzzard Point, Half and R Streets, SW
5. U-Haul lot on South Capitol Street near north bridge abutment
6. Whitehurst Freeway/K Street (surface area under highway)
7. E Street ramp area under Potomac Freeway (east of Kennedy Center)
8. Harry Thomas Way/Eckington NE (northeast of New York/Florida Avenues intersection)
9. East Potomac Park
10. RFK Stadium
11. Western Division Metrobus Garage, Wisconsin Avenue, NW and Jenifer Street NW (to serve National Cathedral)
12. Carter Baron Amphitheatre (to serve National Cathedral)

3.3.2 Central Parking Garage Sites:

13. New Jersey and I Streets, SE
14. I-395 between H and K Streets NW, Air Rights Parking Deck/Garage
15. Massachusetts Avenue and 9th Street NW
16. Old Convention Center (surface lot short-term; part of mixed-use development long-term)
17. Union Station (air rights expansion over tracks) *(see Exhibit 3)*
18. E Ellipse (underground)
19. Banneker Overlook (surface facility or Intermodal Transit Center development) *(see Exhibit 4)*
20. Waterfront Park-Georgetown (underground)

Major characteristics and issues associated with each of these sites are summarized in Table 3-2. The travel time zones referenced in the Table are shown in Figure 3-3. Each

of the zones, numbered 1-11, defines an area that includes attractions located close together and drawing relatively large numbers of tour buses. Tour bus travel times have been estimated between each of the zones and the potential tour bus parking sites included in Table 3-2. (These estimates are based on measurements of actual travel times for a sample of the sites and estimated average speeds of approximately 15 mph for most of the other sites.) For example, the table shows that travel time between the parking site at New Jersey & I Streets and Zone 1, which includes the Lincoln Memorial, is 15-20 minutes. Routings between each of the parking sites and the major roadways providing access to the attractions they are intended to serve (the eastern, central, or western section of the Monumental Core, Arlington Cemetery, Georgetown, or the National Cathedral, as applicable) are shown in Figure 3-4.

A large number of parking spaces could be provided at several of the peripheral lot sites identified, including New Jersey & I Streets, So. Capitol Street Bridge/Anacostia, RFK Stadium, East Potomac Park/Hains Point, Arlington Cemetery, and Buzzards Point. Smaller numbers of spaces could possibly be provided at some of the other locations, such as Barney Circle and the U-Haul Lot on So. Capitol Street. Most of the sites are in the eastern and southern sections of the District, because the Northwest is developed at high densities. While several different sites provide acceptable (< 15 minutes) travel times to the Monumental Core for longer-term parking, only Arlington Cemetery and East Potomac Park meet this travel time threshold for Georgetown.

With the exception of Barney Circle, the above sites are located in areas that are not residential. The most significant land use concerns pertain to East Potomac Park/Hains Point, which is parkland under the jurisdiction of the National Park Service, and Arlington Cemetery, where any disturbance of the tranquility and reverent atmosphere would be highly sensitive, even though impacts would be confined to an existing parking facility. Groundwater pollution has been mentioned as a potentially serious problem in connection with the So. Capitol Bridge/Anacostia site and this would require more detailed study. In several cases, potential traffic operational issues are identified in the Table. While these would require further analysis prior to implementation, there do not appear any “fatal flaws” related to traffic that should eliminate any of the sites from further consideration. Generally, land availability and development cost would be the critical deciding factors in selecting from among these sites. The Table notes that necessary reconstruction of the RFK access road and parking area to accommodate tour buses would be expensive. Development of a few relatively large sites is advisable, both to limit costs and to increase the likelihood that space will be available at any individual site that a tour bus driver may first select.

Two potential sites are identified in Table 3-2 that could provide remote parking to serve the National Cathedral: the Western Division Metrobus Garage at Wisconsin and Jenifer Streets and the Carter Baron Amphitheatre. The Cathedral currently provides 17 tour bus parking spaces in two curbside lanes on Wisconsin Avenue. Buses park at these spaces for the entire duration of a group tour. Providing remote spaces would allow the Cathedral either to shift parking off-site or to increase visitation.

A number of sites are identified in Table 3-2 for centrally-located parking facilities. Union Station, which is included in the Table, has an existing parking garage that

accommodates tour buses. Several sites are identified that would be closer than Union Station to Ford's Theatre (Zone 7), where tour bus operational problems rank among the worst in the city. Travel times between Zone 7 and Union Station are only 5-10 minutes, however, so the benefits of constructing additional downtown garages, in terms of improved access, are likely to be small. The former convention center site presents some substantial advantages, however, in that it may offer the opportunity to develop a centrally-located surface lot, on a temporary basis—perhaps extending a few years—that may be attractive to tour bus operators as a short-term parking facility.

Another option that may merit additional consideration is development of parking in a structure, perhaps underground, on the Georgetown Waterfront. The most likely scenario would be to incorporate the parking garage below the planned park. A small surface parking area (illustrated in Exhibit 4) or much larger parking garage could be developed at Banneker Overlook. The garage concept might have the most value as an intermodal transfer facility in conjunction with a *Downtown Circulator* strategy, although Union Station may be an equally good location for this facility.

Table 3-2
Potential Tour Bus Parking Sites

				Traffic Impacts			
Parking Sites	**Area Served**	**Travel Times (min.)**	**Site Character-istics**	**Congestion Reduction**	**Access Conditions**	**Operational Issues**	**Neighbor-hood Impacts**
1. So. Capitol St. Bridge/ Anacostia between Anacostia River and I-295)	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	20 15-20 10-15 10-15 7-10 5-10 15-20 20-25 >20 >25 >25 5	Capacity - 50 buses, site adaptable with surface grading-paving.	Small improvement in Monumental Core.	Moderate/ Good - possible bottleneck at So. Capitol St. Bridge; movement from parking area ramp to the bridge currently is prohibited 7:00-9:30 AM.	Movement from parking area ramp to bridge requires difficult merge. Navy could limit access to lot due to security concerns. Lot would be impacted when bridge is reconstructed m l to So. Capitol possibly difficult	No abutting neighborhoods. Potential environmental impact to Anacostia River requires further assessment
2. Barney Circle	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	15-20 10-15 10-15 10-15 5-10 5-10 5-10 20-25 20-25 >25 >25 5-10	Surface facility below circle possibly could accommodate up to 20 buses with site improvements	Small reduction in Monumental Core traffic	Road construction necessary for access to/from I-395 or local streets; possible access via Pennsylvania could create bottleneck..	Need to assess traffic impacts of bus entry/exit onto surface roadways.	. Abuts neighborhoods to north and west; may be viewed as negative
3. Arlington Cemetery	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	5 5-10 5-10 7-10 10-15 15-20 15-20 0 5-10 15-20 15-20 15-20	Existing on-site lot with surface and two terrace levels. Current 43 tour bus spaces could be increased. Mitigation for displacement of private spaces possible.	Addition of approximately 45 tour bus spaces would have small positive impact on downtown and/or Georgetown traffic congestion. Potentially significant impact at cemetery entrance/exist.	Increased use of National Park Service parkways/ Boulevards is sensitive.	Currently used by tour buses, although crossing G.W. Parkway is difficult.	Increased use of cemetery property for tour bus use (and possible expansion of lot or structure, or construction for auto parking is highly sensitive due to the sacred character of land use.

Table 3-2 (Cont'd)
Potential Tour Bus Parking Sites

				Traffic Impacts			
Parking Sites	**Area Served**	**Travel Times (min.)**	**Site Character-istics**	**Congestion Reduction**	**Access Conditions**	**Operational Issues**	**Neighbor-hood Impacts**
4. Buzzard Point-Half and R Streets, SW	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	20 15-20 10-15 10-15 7-10 5-10 15-20 20-25 >20 >25 >25 5-10	1.6-acre lot has capacity for about 40 buses; tour bus use would require minor site preparation	Small to medium capacity facility would result in a small impact on downtown congestion.	Good access to So. Capitol Street.	No significant problems; major truck activity in area	No current significant impacts in area, which is industrial; potential conflict with redevelop ment proposals.
5. U-Haul Lot on So. Capitol Street (near ramps at north side of So. Capitol Street Bridge)	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	20 15-20 10-15 10-15 7-10 5-10 15-20 20-25 >20 >25 >25 5-10	Variable up to 50 spaces; minor site preparation required.	Small to medium capacity facility would result in a small impact on downtown congestion.	Small to medium capacity facility would result in a small impact on downtown congestion.	Maneuver-ability constrained by compact lot abutting busy street.	Residence s nearby, but existing land use is parking, and So. Capitol Street is a busy arterial.
6. Whitehurst Fwy/K St.	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	5 5-7 5-7 5-7 7-10 10-15 7-10 5-7 5-7 10-15 15-20 15-20	Small number of tour buses currently find parking spaces on K Street on-street and in the K Street lot along the Georgetown Waterfront. Parkland, commercial development (Georgetown Harbor) and highways limit surface capacity and constrain development options.	Minimal positive impact for small number of buses parked at surface.	Access to freeway ramps by local streets possible.	Maneuver-ability constrained by roadway geometry, safety issues.	Residential develop-ment close by. Potential parkland and waterfront impacts.

Table 3-2 (Cont'd)
Potential Tour Bus Parking Sites

Parking Sites	Area Served	Travel Times (min.)	Site Character-istics	Traffic Impacts: Congestion Reduction	Traffic Impacts: Access Conditions	Traffic Impacts: Operational Issues	Neighbor-hood Impacts
7. E St. Ramp Area/Potomac Freeway	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	<5 5-7 5-7 5-7 7-10 10-15 7-10 5-7 5-7 15-20 20-25 15-20	Small number of tour buses currently park unofficially under highway; grade, ramps constrain surface capacity; potential for structure in conjunction with reconfiguration of Kennedy Center Plaza.	Minimal positive impact of surface parking; structure impact variable, potentially greater positive impact.	Direct but possibly dangerous highway access for surface parking; improved access may be possible for structure.	Highway access presents safety issues for surface parking. Coordination required with Federal Highway Administration.	No significant issues.
8. Harry Thomas Way/Eckington NE	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	15-20 10-15 15-20 15-20 15-20 10-15 10-15 20-25 >25 >25 >25 20-25	Medium capacity surface lot would have minimal traffic impact.	Modest reduction in downtown traffic congestion; possible adverse impact on New York Avenue.	Good access to arterial streets—New York Avenue	Turning movement for exits and entrances should be assessed. Major intersections in vicinity experiencing extreme congestion.	Predominantly industrial area adjacent to rail corridor.

Table 3-2 (Cont'd)
Potential Tour Bus Parking Sites

				Traffic Impacts			
Parking Sites	**Area Served**	**Travel Times (min.)**	**Site Character-istics**	**Congestion Reduction**	**Access Conditions**	**Operational Issues**	**Neighbor-hood Impacts**
9. East Potomac Park/Hains Point	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	5-10 5-10 5 5-10 7-10 10-15 7-10 5-10 10-15 20-25 20-25 15-20	Medium surface lot and/or 15-20 on-street spaces on Ohio Drive.	Minimal to small impact on downtown traffic.	Good access to Monumental Core via George Mason and Arland Williams Memorial Bridges (14th Street).	No significant issues	. Located on Park Service land; no abutting neighborhoods
10. RFK Stadium	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	15-20 10-15 10-15 5-10 5-10 5-10 5-10 20-25 20-25 >25 >25 10-15	Moderate-large surface lot behind former mental health clinic readily adaptable for tour bus parking.	Small reduction in downtown congestion for moderate-large surface lot; possible minor traffic increase on local streets.	Required upgrading of RFK access road and parking areas to accommodate tour buses would be expensive.	Access road improvements required.	Upgrading of access road would obviate need to travel through neighborhoods..

Table 3-2 (Cont'd)
Potential Tour Bus Parking Sites

Parking Sites	Area Served	Travel Times (min.)	Site Character-istics	Traffic Impacts: Congestion Reduction	Traffic Impacts: Access Conditions	Traffic Impacts: Operational Issues	Neighbor-hood Impacts
11. Western Division Metrobus Garage (Wisconsin and Jennifer)	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	20-25 20-25 20-25 20-25 20-25 20-25 20-25 20-25 15-20 10-15 15-20 >25	Existing Metrobus garage can accommodate 6-8 tour buses in addition to Metrobus fleet	Could supplement on-site parking at Cathedral and allow increase in visitation, thus resulting in minor increase in local traffic, or on-site parking could be reduced..	Access via arterial roadway (Wisconsin Ave.) and possibly other roadways to avoid left turn to Cathedral..	Left turn from Wisconsin to Cathedral; parking would be difficult	Varies depending on parking policy at Cathedral and routing.
12. Carter Baron Amphitheatre	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	20 >25 >25 >25 >25 >25 >25 >25 >25 20 5-10 >25	Large existing lot; no site improvements required.	Remote parking site to serve Cathedral; as above, congestion impact depends on whether on-site parking is retained.	Beach Road in Rock Creek Park to arterial roadways (Military Rd., Nebraska and Wisconsin Avenues or alternative routing via 34th St. and Massachusetts Ave.).	Difficult left turn from Wisconsin to Cathedral; alternate routing may be necessary. Movements through Park are slow and cumbersome.	Bus routes pass through neighborhoods
13. New Jersey & I Streets, SE	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	15-20 10-15 10-15 5-10 10-15 5 10-15 15-20 20-25 >25 >25 5-10	Large parcel—capacity of 200-300 buses; stie highly adaptable.	Relatively large reduction in tour bus volumes will reduce traffic in Monumental Core.	Good—So. Capitol and alternate routes	Turn from I to So. Capitol possibly difficult	Small neighborhood between D and E Streets can be avoided with alternate routings.

Table 3-2 (Cont'd)
Potential Tour Bus Parking Sites

				Traffic Impacts			
Parking Sites	**Area Served**	**Travel Times (min.)**	**Site Character-istics**	**Congestion Reduction**	**Access Conditions**	**Operational Issues**	**Neighbor-hood Impacts**
14. I-395 Air Rights between H and K Streets/ 2nd Street NW	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	5-10 5 5-10 5 5 5 5 10-15 10-15 20-25 20-25 15-20	Surface area over I-395 tunnel section-parking deck or garage	Possible adverse local traffic impacts of frequent ins and outs on access/egress streets.	Entry and exit from garage potentially difficult and could contribute to local traffic congestion on downtown streets.	Possibly difficult entry and exit from garage would require assessment.	
15.Massachu-setts Avenue and 9th Street NW	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	5-10 5-10 5-10 5-10 5-10 5-10 5 15-20 15-20 20-25 20-25 15-20	Candidate site for structured parking.	Potential adverse impact on Massachusetts Avenue or 9th requires assessement.	Entry and exit from garage potentially difficult and will contribute to local traffic congestion on downtown streets.	Possibly difficult entry and exit from garage requires assessment.	Garage would be located in commercial area where there are other parking facilities; no significant community impacts.
16.Former Convention Center Site	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	5-10 5-10 5-10 5-10 5-10 5-10 5 15-20 15-20 20-25 15-20 15-20	Temporary parking site until construction starts for new development; potential for incorporating tour bus parking in mixed-use development project.	Potential adverse impact on New York Avenue, H or 9th Street requires assessement.	Entry and exit from garage potentially difficult and will contribute to local traffic congestion on downtown streets.	Possibly difficult entry and exit from garage requires assessment. Demolition of convention center planned for December 2003.	Facility would be at non-residential former convention center site on major arterial with high traffic volumes; no significant community impacts.

Table 3-2 (Cont'd)
Potential Tour Bus Parking Sites

				Traffic Impacts			
Parking Sites	**Area Served**	**Travel Times (min.)**	**Site Character-istics**	**Congestion Reduction**	**Access Conditions**	**Operational Issues**	**Neighbor-hood Impacts**
17. Union Station (reallocation of existing spaces or air rights expansion over tracks); also on-street in vicinity	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	10-15 10-15 10-15 5-10 5-10 5-10 5-10 18-23 18-23 20-25 15-20 15-20	Close to 40 spaces for 45' motor coaches in existing facility. Reallocation of spaces could provide an additional 40 spaces. A proposed expansion of the garage would provide 128-132 bus parking spaces.	Entrance/exit can be designed to connect to street with relatively large storage capacity, reducing adverse traffic impacts.	Access via 1st or H Streets, where through traffic volumes are relatively low, would result in relatively low impacts, compared to many downtown streets.	While localized traffic impacts warrant detailed assessment, traffic disruption likely to be less than at other downtown sites.	Location in rail corridor; negligible neighborhood impacts.
18. Ellipse (Under-ground)	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	5-10 5 5-10 5-10 5 5-10 5-10 10-15 5-10 15-20 20-25 15-20	Bus parking would be constructed under Ellipse.	Facility could be designed to minimize traffic impacts on local streets.	Access via 15th, 17th, or Independence.	Security issues associated with location close to White House would need to be addressed.	White House is only residence in close proximity to site.

Table 3-2 (Cont'd)
Potential Tour Bus Parking Sites

				Traffic Impacts			
Parking Sites	**Area Served**	**Travel Times (min.)**	**Site Character-istics**	**Congestion Reduction**	**Access Conditions**	**Operational Issues**	**Neighbor-hood Impacts**
19. Banneker Overlook (surface facility or structure)	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	10-12 5-10 5-8 5 5 10-12 5-10 10-15 15-20 >25 >25 10-15	Circulatory roadway connecting to L'Enfant Promenade and Benjamin Banneker Park would be used for tour bus parking.	Small surface lot would have negligible impact on downtown congestion; localized negative impact on Maine possible, with parking structure.	Convenient access to National Mall via G St. extension and 9th Street to/from Maine Avenue.	Localized traffic impact would be greater with garage than small surface lot; Maine may have more capacity available than other other downtown roadways.	No abutting residences; visual impact on waterfront and Banneker Park should be assessed.
20. Water-front Park-Georgetown (under-ground)	1- Lincoln 2- Wash. Mon 3- Jefferson 4- Mall-E of 7 5- Mall-W of 7 6- Capitol 7- Ford's Thea 8- Arlington 9-Georgetown 10- Nat. Cath 11- Nat. Zoo 12- F.Douglas	5-10 10-15 10-15 15-20 10-15 20-25 15-20 5-10 5 15-20 20-15 20-25	Construction of underground garage.	Garage can be sized to serve Georgetown only; reducing traffic on M, Wisconsin, and other streets in historic district; impacts at entrance/exit require assessment.	Access via K Street.	Traffic impacts of entering/ exiting vehicles can be mitigated by limiting size; visual and environmental impacts require assessment.	Compatibility with National Historic Park, nearby historic district requires further assessment.

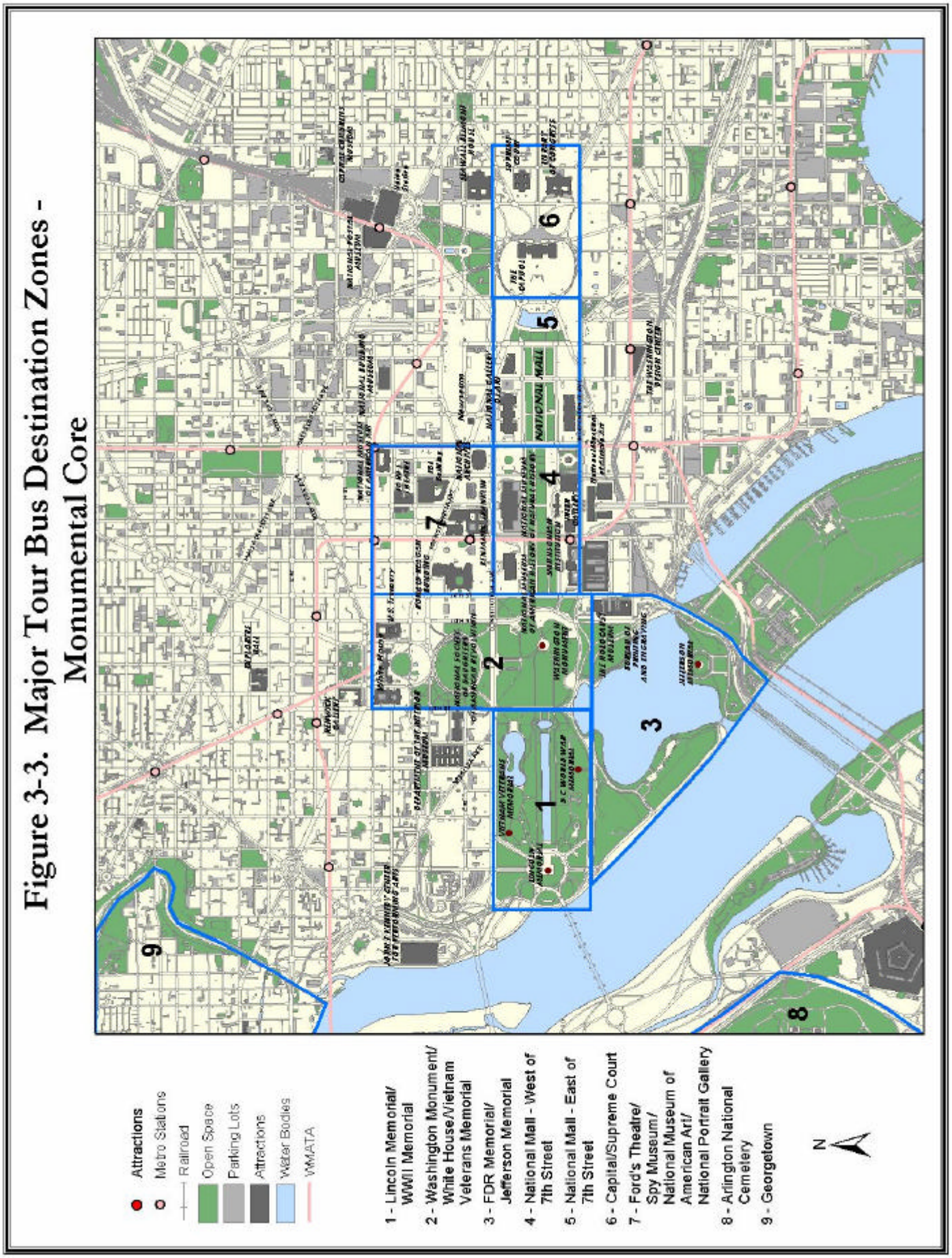
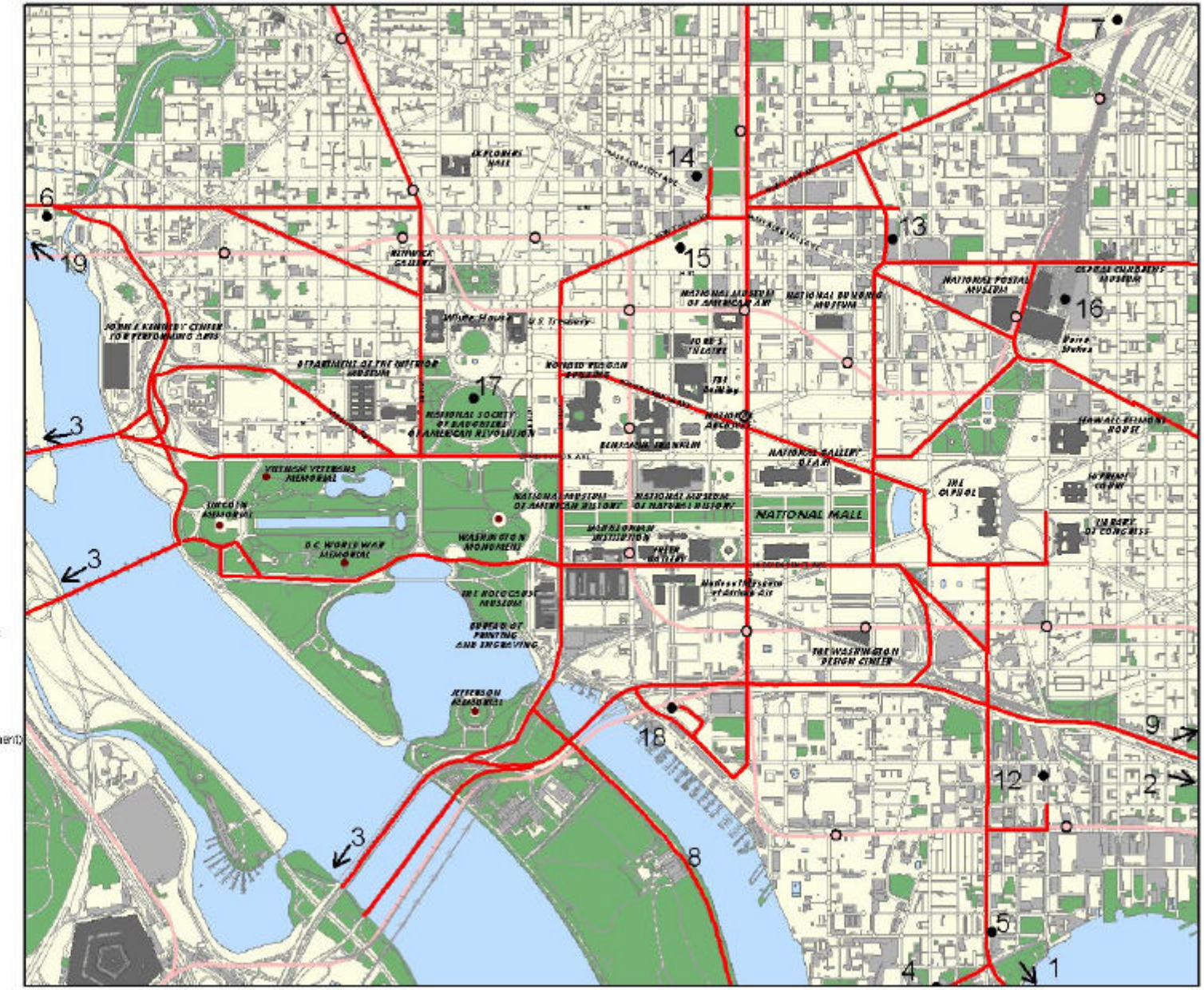


Figure 3-3. Major Tour Bus Destination Zones - Monumental Core

Figure 3-3. Major Tour Bus Destination Zones - North of Downtown

Figure 3-4. Alternative Parking Sites and Routes - Monumental Core



Attractions
Metro Stations
Railroad
Open Space
Parking Lots
Attractions
Water Bodies
WMATA
Tour Bus Routes

Peripheral Parking Sites

1. Area south of S. Capitol St. Bridge between I-295 and Anacostia River
2. Barney Circle (surface facility or air rights development)
3. Arlington Cemetery
4. Buzzard's Point, Half and R Streets
5. U-Haul lot on S. Capitol Street
6. Whitehurst Freeway/K Street (surface area under highway)
7. Harry Thomas/Way/Eckington NE
8. East Potomac Park
9. RFK Stadium
10. Western Division Metrobus Garage, Wisconsin Ave. and Jenifer St. NW (to serve National Cathedral)
11. Carter Baron Amphitheatre (to serve National Cathedral)

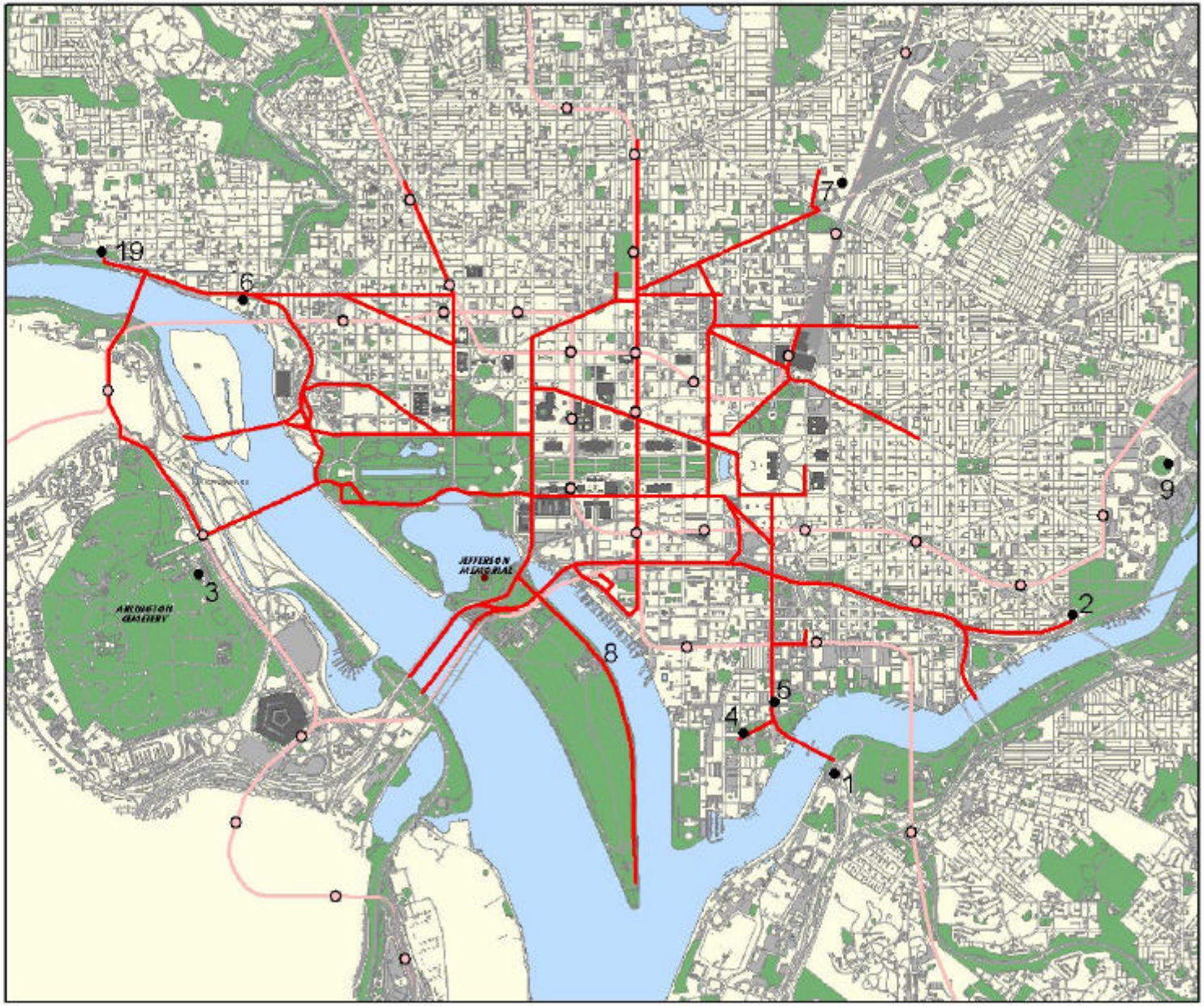
Central Parking Garage Sites

12. New Jersey and I Streets
13. I-395 Air Rights Garage
14. Massachusetts Avenue and 9th Street
15. Old Convention Center (surface lot short-term; part of mixed-use development long-term)
16. Union Station (air rights expansion over tracks)
17. Ellipse (underground)
18. Barneker Overlook (surface facility or Intermodal Transit Center development)
19. Waterfront Park-Georgetown (underground)

N

Figure 3-4. Alternative Parking Sites and Routes - North of Downtown

Figure 3-4. Alternative Parking Sites and Routes - Peripheral Parking Sites



Attractions
Metro Stations
Railroad
Open Space
Parking Lots
Attractions
Water Bodies
WMATA
Tour Bus Routes

Peripheral Parking Sites

1. Area south of S. Capitol St. Bridge between I-295 and Anacostia River
2. Barney Circle (surface facility or air rights development)
3. Arlington Cemetery
4. Buzzard's Point, Half and R Streets
5. U-Haul lot on S. Capitol Street
6. Whitehurst Freeway/K Street (surface area under highway)
7. Harry Thomas Way/Eckington NE
8. East Potomac Park
9. RFK Stadium

N

Exhibit 2

Parking Concept: Arlington National Cemetery

- This option would expand the existing tour bus parking facility at Arlington National Cemetery (ANC) for use in servicing the western edge of the Monumental Core (e.g., Washington Monument, Lincoln Memorial, Korean Veterans Memorial, Vietnam Veterans Memorial, Jefferson Memorial, FDR Memorial and WW II Memorial), the ANC (also a major attraction), and Georgetown. A priority would be to accommodate tour groups during visits to Georgetown.
- The concept-design would be compatible with alternative concepts-of-operation: (1) long-term parking only; (2) drop-off/pickup with transfers to/from circulator bus system and long term tour bus parking.
- While a difficult traffic maneuver is required at the circle immediately to the west of the Arlington Memorial Bridge, several factors suggest that this condition, while warranting further study, is not a fatal flaw: (1) tour buses currently execute this maneuver and drivers are professionals accustomed to this type of condition; (2) the incremental volume of tour buses would be small relative to total traffic, particularly if additional tour bus parking areas are developed in other locations; and (3) tour bus volumes would be greater during off-peak driving periods, outside commuter rush hours.
- Site reconnaissance indicated the following (illustrated in accompanying figure) for existing Visitor Parking Facility at ANC. Surface parking consists of a partitioned space with capacity for 43 buses (current use) and 84 private vehicle (i.e. automobile) spaces, 12 of which are reserved for disabled plate personal vehicles. The first terrace level consists of a partitioned space with capacity for 231 private vehicles. The second terrace level consists of partitioned space with capacity for 236 private vehicles. (The number of spaces is approximate.) Road ramps lead from the surface level to the 1st terrace level, and from the 1st terrace level to the 2nd terrace level respectively (terrace levels below surface level elevation) (*See accompanying Figure 4-5)*
- The concept would entail use of all of surface level for tour bus operations. This would expand capacity for tour bus parking by a factor of two, with the approximate number of spaces equal to 90. Existing disabled plate (DP) spaces would remain at surface level. Concept therefore requires potential mitigation of 72 private vehicle spaces.
- Mitigation possibilities are several, with differing technical and cost implications and complexity.
- Mitigation possibility #1: build a surface lot with capacity for at least 72 private vehicle spaces in Section 56, with access via a ramp from the current surface lot to the new surface lot. There would be *an at-grade intersection* with a peripheral road that bounds Section 56 and connects to Halsey Drive.
- Mitigation possibility #2: build a surface lot with capacity for at least 72 private vehicle spaces in Section 56, with access via a ramp from the current surface lot to the new surface lot. There would be *a grade separation via short tunnel section* (only 9' clearance is necessary to service private vehicles) under the peripheral road that bounds Section 56 and connects with Halsey Drive.
- Mitigation possibility #1 and #2: reconfiguration of the existing surface lot for dedication to tour bus operations would require, to avoid bus/private vehicle conflicts, careful siting of private vehicle access roadway/ramp alignment to new surface lot for private vehicle use. This is necessary for both safety and efficiency considerations.
- Mitigation possibility # 3: build new (3rd) subsurface level with capacity for at least 72 private vehicle spaces under the adjacent peripheral highway (Jefferson Davis Highway, Rt. 110) with ramp access via extension of the ramp from 2nd terrace level. This extension would be a tunnel section leading to the 3rd (subsurface) level.
- Supporting policy options include the following. (1) fee structure to encourage use by tour bus operators, including a fee structure that would not be incompatible with multiple pull-in and pull-out possibilities in the course of a multi-stop tour (e.g., per day fee, not tied to per hour usage); (2) use of a pass that would require stamping in Georgetown if parking is designated specifically to serve Georgetown-destined tour groups; (3) circulator bus system design consisting of a well-designed route structure with each route a circuit that starts and stops at the ANC parking facility. The system would have to be a high frequency, short-wait system and with joint ticketing arrangements with tour operators so that service appears 'fareless' to patrons.
- The concept-design exploits well-designed and beautiful landscaped existing infrastructure that can be easily reconfigured to support tour bus operations.

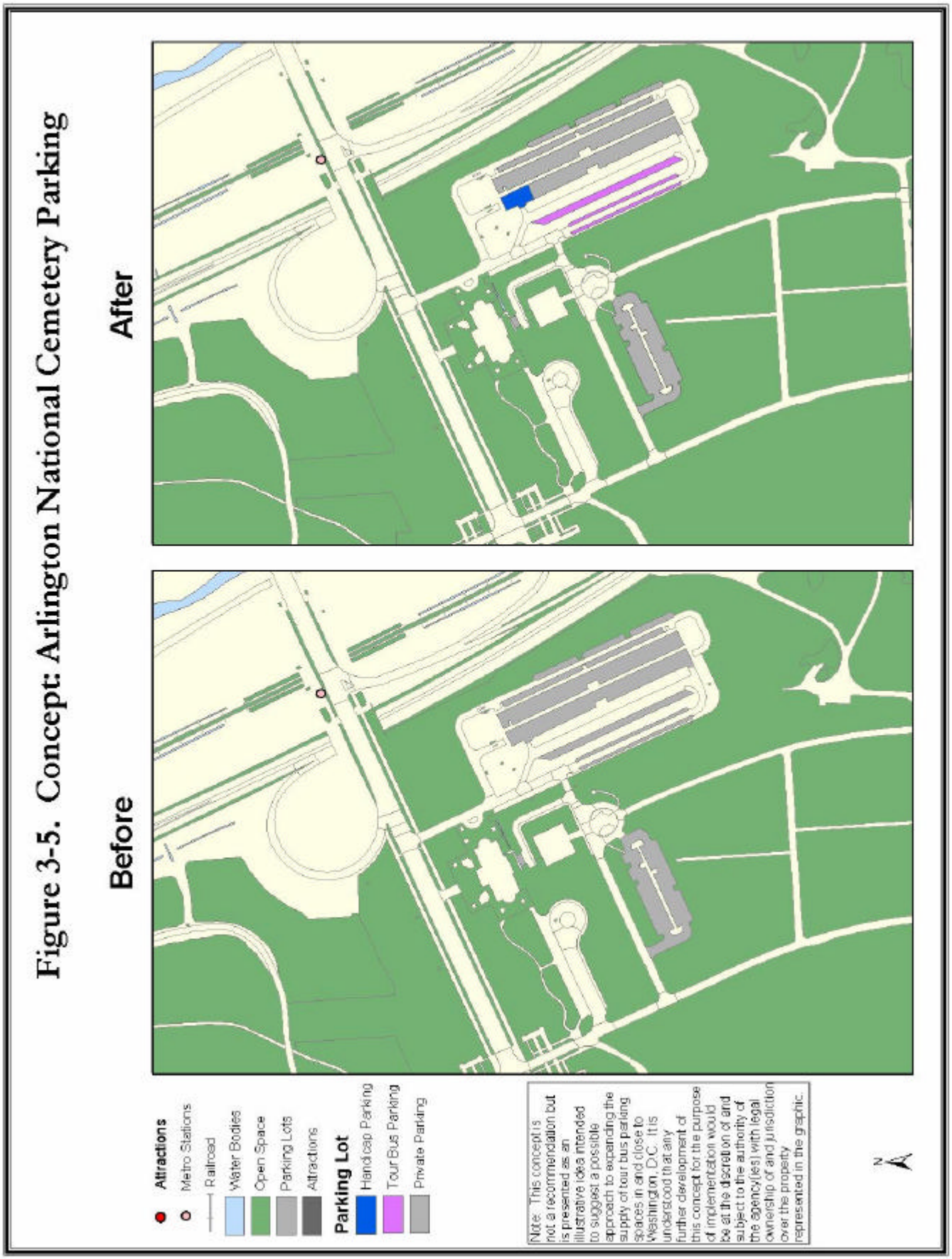


Figure 3-5. Concept: Arlington National Cemetery Parking
Before
After
Attractions
Metro Stations
Railroad
Water Bodies
Open Space
Parking Lots
Attractions
Parking Lot
Handicap Parking
Tour Bus Parking
Private Parking
Note: This concept is not a recommendation but is presented as an illustrative idea intended to suggest a possible approach to expanding the supply of tour bus parking spaces in and close to Washington, D.C. It is understood that any further development of this concept for the purpose of implementation would be at the discretion of and subject to the authority of the agency(ies) with legal ownership of and jurisdiction over the property represented in the graphic.
N

Exhibit 3

Centrally-Located Parking Option: Union Station and Environs

- An option for increasing the tour bus parking supply at Union Station consists of two components: reclamation of (a) the first level (referred to as the 'bus level') of Union Station for tour bus parking only; and (b) curbside space would be designated for tour bus use on adjacent streets in the vicinity of Union Station (identified below) that currently is used for short-term (generally 2 or 4-hour) private occupancy vehicle (POV) parking.

- Site reconnaissance indicated the following spaces and management of spaces on the 'bus level' of Union Station (approximations only): 37 spaces for 45' motor coaches on the right-hand edge of the 'bus level'; of these, 8 spaces are reserved under long-term contract for Greyline, 1 space for Greyhound, and 4 spaces for National Coach. Also observed were at least 5 spaces reserved for unspecified use, many of which were utilized by trucks and cars. Opposite the spaces reserved for motor coaches, and using the same access aisle, were 17 spaces reserved for 40' WMATA buses. These spaces, at time of observation, were empty and are used for layover by WMATA.

- A set of jersey barriers splits the 'bus level'. On the other side are spaces reserved in pockets for employees. The majority of spaces, however, are reserved for monthly contract parking for POVs. Complicating the parking configuration and potential re-configuration are a large number of structural columns and the spacing of these columns. The jersey barriers in front of the wheel stops for the spaces reserved for the WMATA 40' buses also currently preclude use of these spaces for 45' buses because of impingement on the common central aisle.

- While a precise set of alternative layouts for parking spaces for tour buses on the 'bus level' has not been developed, an approximation based on field observation suggests on the order of 80 45' motor coaches could be parked there without displacing those spaces reserved for employees. To provide maximum utilization and turnover ratios, these spaces would be managed on a first-come-first served (FCFS) basis. There would be no reserved spaces. Union Station at the 'bus level' already has good access/egress drives. Circulation to/from the facility is well ordered, including additional egress on the backside.

- If desired, mitigation could be undertaken for the spaces lost (approximately 17) that are used for terminal layover for the WMATA buses either at the planned added section of the Union Station.
- Feasibility of this part of the concept proposal depends on two factors. First, it depends on the ability of the expected number of motor coaches that would make use of this facility on the 'bus level' to pay fees which compensate in whole, or at least substantially, for the lost revenue stream represented by the displaced monthly contract spaces. Secondly, it depends on the ability to accommodate the spaces used by WMATA for terminal layover at the New York METRO station, the expansion of Union Station, or at some other convenient and nearby location. The other aspect of the concept proposal is the reclamation of curbside space on select streets adjacent to and in the vicinity of Union Station. The street and street segments indicated below (and the approximate number of spaces[20] that could be made available for motor coaches) are suggested based primarily on two criteria. These are: low volume of through traffic on the street, and abutting land uses that are not incompatible with use of the curbside for motor coach parking operations. These curbside spaces would be particularly well-suited to address the need for relatively short-term (< 1 hour) parking.

[20] Curbside space for a 45' motor coach assumes a 60' parking space, which allows for independent entry and exit in a forward flow operation at a slow 5 mph.

See accompanying Figure 3-6

- 1st . Street NE adjacent to Union Station – 2 tour buses
- G Place – 7 tour buses
- M Street between 1st St. NE and the Railroad viaduct – 10-14 tour buses (approximate) in angled spaces (45' length) on grass verge (appears to be a "no mans land") adjacent to the road. (The verge may be private property, lease or purchase of site would be necessary).
- Delaware Street on the easterly side of the Railroad Viaduct – 7 tour buses
- 2nd Street NE between L street and Parker Street – 5 tour buses on each side (10 total)
- Total: 36-40

- Delaware Street on the easterly side of the Railroad Viaduct – 7 tour buses
- 2nd Street NE between L street and Parker Street – 5 tour buses on each side (10 total)
- Total: 36-40 spaces

Figure 3-6. Potential On-Street Tour Bus Parking Spaces: Union Station Vicinity

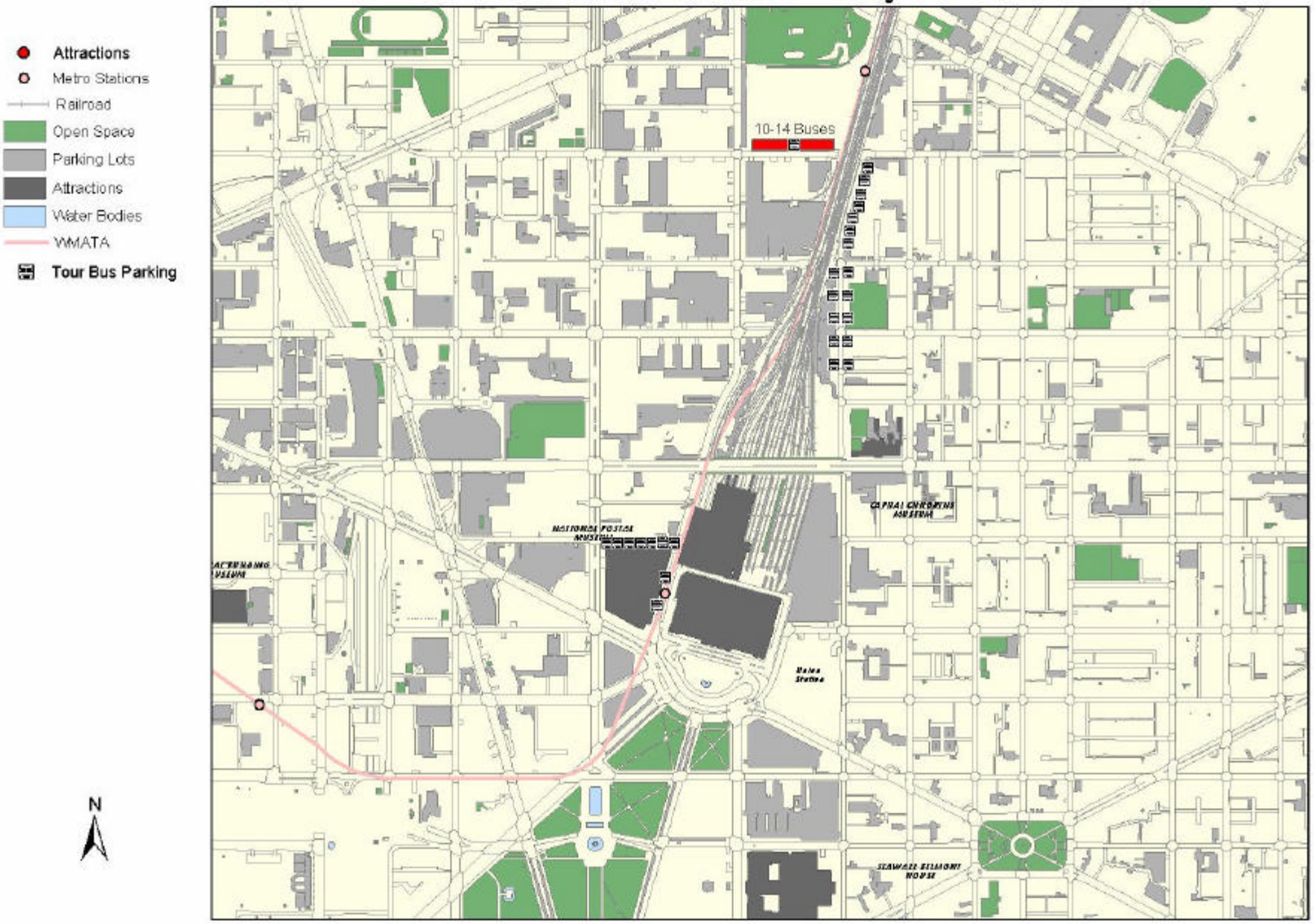
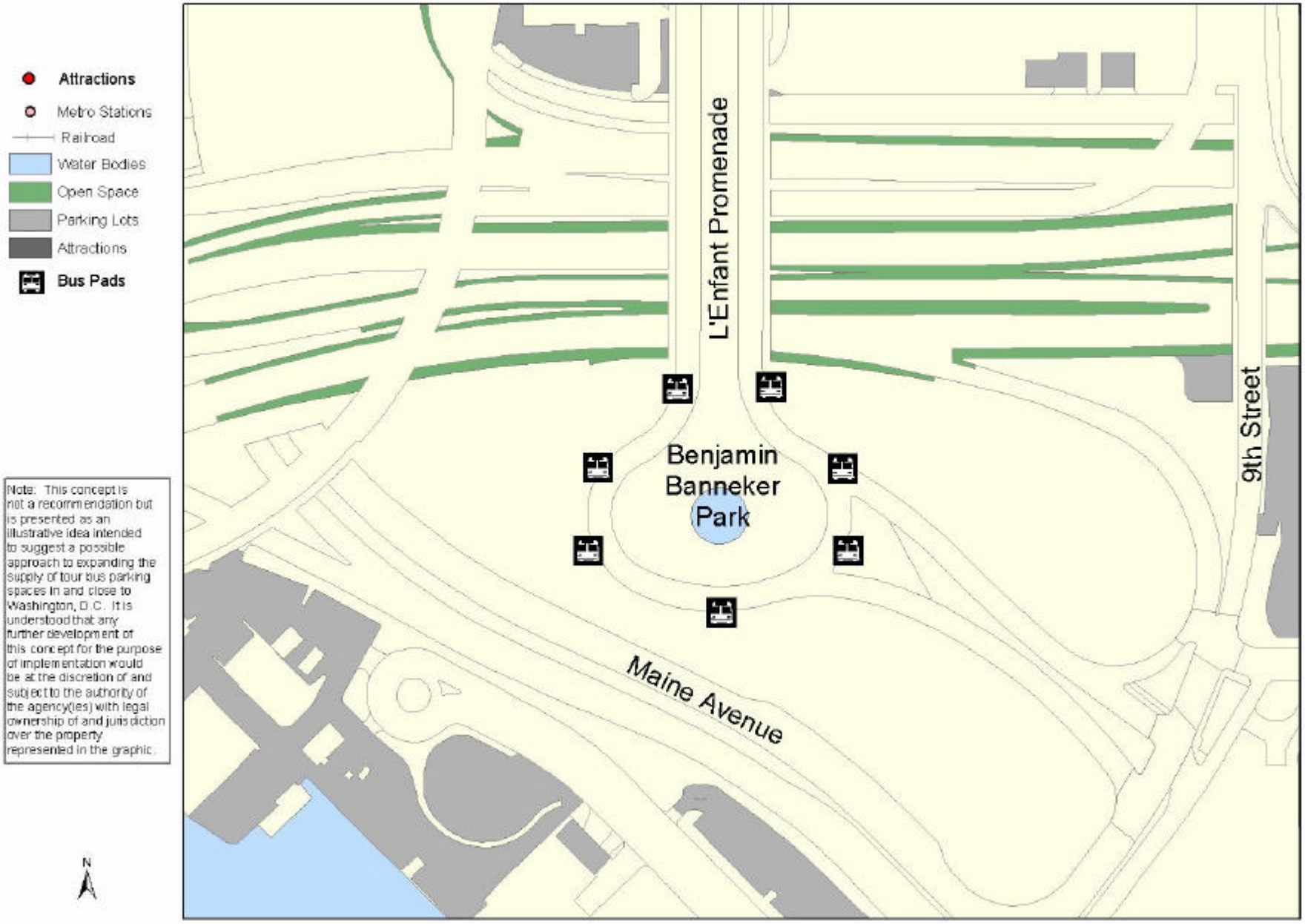


Exhibit 4
Surface Parking Option: Banneker Overlook

X The figures below illustrate the current road configuration and proposed modifications to the complex of roads that include L'Enfant Promenade, Benjamin Banneker Park and circulatory roadway, G Street extension, 9th Street, and Maine and Water Streets

- L'Enfant Promenade serves as an access roadway and on-street parking facility for the high-density office and retail structures abutting the roadway. There is a wide median that separates the two traffic directions. Traffic flows in one direction only on each side of the median. The circulatory roadway, whose elevation is below that of L'Enfant Promenade and Ben Banneker Park, acts as the turn-around for vehicles primarily to/from Independence Avenue, although there is an outlet via the extension to G Street to/from 9th Street as well.
- The concept would make minor modifications to the complex of roads with the objective of restricting use of the circulatory roadway and access to approximately five (5) curbside bus berths for long-term parking to tour buses only (with bus access via the G street extension and 9th Street, and via a ramp off of I-395 (not shown in Figure) that leads to the G Street extension)
- Minor modifications necessary to implement the concept-proposal include the following elements:
    - Median cut at the terminus of L'Enfant Promenade to allow for vehicle turn-around just prior to the circulatory roadway
    - Two removable bollards (one each side of the median) to restrict access by vehicles (other than emergency vehicles) to the circulatory roadway.
    - Five marked bus berths along curb of circulatory roadway. The odd oval shape of the circulatory roadway limits the number of curbside bus berths. The bus berths (preferably delineated by concrete bus pads although pavement markings could serve temporarily) would have a length of 60' to permit easy entry and exit in a forward-flow, one-way circulatory pattern .
    - Careful siting of bus berths along curb to ensure adequate clearance for buses operating within the circulatory roadway

Figure 3-7. Concept: Banneker Overlook



3.4 Summary Findings: Strategic Options

This chapter has presented an evaluation of alternative actions that can be implemented and specific parking sites that can be developed to address tour bus parking needs and current problems. Implications for development of a tour bus management plan on the basis of this evaluation are summarized below.

- The development of peripheral parking sites and ancillary measures such as provision of tour bus driver lounge facilities and amenities are frequently cited as the solution to existing tour bus problems. In fact, peripheral parking is a practical solution to address relatively long-term parking needs of an hour or more, for most points of interest in the District. A number of potentially suitable peripheral parking sites are identified in this memorandum. Travel times tend to be under 15 minutes to most destinations in the Monumental Core. Several facilities of this type would be needed to meet total demand. Needs unaddressed, however, include:

  -service to Georgetown (unless the Arlington Cemetery concept plan is adopted)
  -alleviation of traffic congestion associated with queuing at major points of interest, due to inadequate loading/unloading space

- The development of centrally-located parking structures is another option, which can be implemented as an alternative to or in combination with peripheral parking. A question that emerges is how a new parking structure would improve on the existing parking garage at Union Station, which serves tour buses, but attracts relatively few. One rationale for another downtown tour bus parking garage would be service to Georgetown and the western section of the Monumental Core. Another significant issue associated with centrally-located garages is their localized traffic impacts at entrances and exits, particularly if multiple ins and outs are expected.

- Even a centrally-located parking garage, with short driving times to major attractions, probably is not a practical solution to the need for short-term spaces. Significant time would be required for pulling in and out of spaces, circulating through the garage, and entering/exiting the facility, such that tour bus drivers are likely to find it more convenient to continue current practices of cruising and parking on-street anywhere they can find space. Designation of existing on-street spaces for tour bus use during the peak season is a more viable approach to addressing this need. The streets in the vicinity of Union Station have been suggested in this chapter (Exhibit 3 and Figure 3-6) as candidate locations for reserved tour bus parking. There potentially are many streets where tour buses could park, particularly in the northern section of the downtown area, New York Avenue at Mount Vernon Square, and south of Federal Center Southwest near the Southwest/Southeast Freeway. Metering and vigorous enforcement would be necessary to ensure that tour buses do not occupy on-street spaces for more than ½ hour. The concept plan for Union Station included in this memorandum provides for a substantial number of on-street spaces located in the immediate vicinity of the station.

- The *Downtown Circulator* option would supplement or provide an alternative to dedicating on-street parking to short-term tour bus use. In addition, this option could obviate the need for parking to serve Georgetown destinations. The *Downtown Circulator* could be designed to complement either the peripheral parking or central parking options. A centrally-located Intermodal Transportation Center could provide tour bus parking as well as connections to the *Downtown Circulator*. Increased reliance on walk access among clustered points of interest also would be compatible with the *Downtown Circulator* concept.

  The *Circulator* option, however, would entail a major change in current tour bus operations. Many tour bus patrons would find transferring to the *Downtown Circulator* less convenient than the virtual door-to-door service currently provided by tour buses. Another potential disadvantage may be reduced accessibility for people with disabilities if additional walking is expected. Moreover, the *Downtown Circulator* probably would not significantly reduce the need for loading/unloading space at major attractions.

- The concept for the National Mall area included in Chapter 4 of this report would address much of the need for loading/unloading space at the Smithsonian Museums and other nearby points of interest.

- Most of the other potential actions identified in this memorandum, including pricing strategies, information systems, and permitting and enforcement, support the parking supply expansion options and should be considered necessary concomitants of tour bus parking strategies. Pricing policies should allow tour bus operators to use multiple parking facilities, with unlimited ins and outs, for a single daily payment of about $20-$25.

4.0 Summary and Conclusions

4.1 Needs Identification

The following are the principal problems associated with tour bus operations in the District of Columbia, as identified in earlier sections of this report:

- traffic congestion caused by tour bus "cruising," as a result of inadequate tour bus parking space
- traffic congestion caused by a lack of space for loading/unloading tour buses at major points of interest
- intrusion of tour buses into local neighborhoods, by buses seeking parking spaces and waiting to pick up tour groups
- air pollution caused by diesel fumes, exacerbated by excessive mileage and traffic congestion related to the lack of parking and loading/unloading space, as well as idling in residential neighborhoods
- noise, vibration and air pollution in District neighborhoods
- obstruction of view corridors at major landmarks, especially when a "wall of buses" blocks sight lines.
- impacts to neighborhood infrastructure/pavement conditions

Major potential actions that can be implemented to address these problems consist of expanding the supply of tour bus parking and boarding spaces, designating tour bus routes, and developing alternative means of distributing tour bus passengers. More specifically, three categories of parking have been identified that may play a role in tour bus management:

- parking outside the downtown area, i.e. *peripheral parking*
- structured parking facilities within the downtown area
- on-street or off-street surface parking located close to major points of interest.

The first two of the above types of parking may serve relatively long-term layovers, i.e. one hour or longer. Conveniently located on-street or surface parking would serve shorter-term needs, ranging from brief "photo stops" to visits to outdoor monuments or memorials lasting up to roughly an hour.

If sufficient parking spaces are made available to accommodate tour buses, cruising and resultant adverse impacts—including air pollution and intrusion into residential neighborhoods--will decrease. It also will become more practical to channel tour buses onto designated routes leading to and from parking areas and points of interest. There also are a number of supporting measures that can increase the likelihood that tour bus parking facilities will be fully and efficiently used:

- parking facility pricing strategies—coordinated pricing of tour bus parking facilities to ensure a high turnover of premium spaces intended for short-term use

- advanced scheduling—to provide for a more stable flow of visitation and tour bus traffic at major destinations
- information systems—to let tour bus drivers know where parking spaces are available and also to facilitate billing, licensing, and other administrative functions
- permitting/licensing and enforcement—essential to ensure compliance with tour bus management measures, including use of designated parking spaces and routes;
- security measures
- driver facilities—services and amenities required for tour bus drivers during layovers.

4.2 Primary Requirement: Tour Bus Parking

Responding to the need for relatively long-term parking is relatively straightforward. The study has identified over 20 potential sites for *surface parking lots* at the periphery of the District or *structured parking* in the downtown area. The availability of parcels for tour bus parking downtown is limited, as a result of high real estate costs. The logical solution is to seek locations for developing parking outside the downtown area with good access to the Monumental Core and other points of interest visited by tourists. Another criterion for site selection is lack of adverse impacts on neighborhoods or environmental resources. Generally, these sites could be developed as surface parking lots.

Most of the prime candidate sites for peripheral parking are in the eastern section of the District, however, and would not provide as convenient access for sites in the western section of the District as for central destinations. As discussed in Chapter 3, access times ideally should be under 10 minutes. Thus, the study did consider a number of options for providing tour bus parking in structured facilities located downtown.

The provision of structured parking for tour buses, however, presents several issues:

- the financial viability of constructing parking facilities in the downtown area for tour bus use;
- adverse traffic impacts at entrances and exits of garages;
- practicality of tour bus usage of garages, in light of low usage of tour bus parking spaces at Union Station.

Preliminary analysis performed for this study suggests that the construction of parking spaces in above-ground structures may be financially feasible, depending on land costs. Follow-on studies are necessary to determine the traffic impacts of parking facilities that may be constructed at any of the individual potential sites identified in this report. The existing low level of demand for tour bus parking at Union Station appears to reflect pricing policy, under which buses are charged $20 for three hours. In other U.S. cities, tour bus parking rates are in the range of $20 per day, allowing for buses to enter and leave the garage several times.

4.3 Distribution Strategies

Responding to the need for long-term parking is relatively straightforward, compared to meeting short-term tour bus parking needs. For short-term parking, further actions would be required to meet boarding space requirements and to alleviate the congestion associated with concentrated tour bus activity in the Monumental Core and other areas where major attractions are located. Beyond the need for tour bus parking, these problems relate to the *distribution* of tour bus passengers in core activity areas. Two alternative strategies may be pursued:

- Distribution by tour bus, requiring the provision of short-term parking and boarding space
- Distribution by alternative mode(s).

4.3.1 Strategy 1 - Distribution by Tour Bus

Tour buses, as currently operated, provide essentially door-to-door service for tour bus groups, which remain intact while visiting points of interest. Thus, tour buses serve as the *mode of distribution* for tour bus groups throughout the District. It is possible to develop a tour bus management plan that continues the current mode of operation for tour buses, including their role in distributing passengers among tour group destinations.

The success of this strategy depends on meeting several needs that could not be addressed effectively by either peripheral lots or downtown garages:

- short-term stops (less than 1 hour), which could be best served by on-street parking or off-street surface parking downtown
- expansion of boarding space at major tour bus destinations.

Thus, surface parking, whether in on-street spaces or off-street lots, would be needed if the short-term “photo stop” is to be preserved. There are, in fact, a large number of existing on-street spaces that could be reserved for tour bus usage and they may need to be made available only during the peak spring and fall seasons. The study has identified an area with approximately 40 on-street spaces near Union Station that could be reserved in peak seasons for tour bus use. The trade-off inherent in this solution is that the availability of convenient parking to the general public would be reduced. Possible mitigation for the lack of public parking spaces would be to expand the supply by constructing new parking facilities and to encourage users of displaced parking spaces to use public transit, at least during peak tourist season.

Providing adequate space for loading/unloading tour buses also is critical to reducing adverse traffic impacts. Preliminary analysis, based on an estimate of 1,000 tour buses per day operating in the District in peak season, indicates that boarding space for 10 buses is needed at major points of interest, such as the Capitol, White House, and Lincoln Memorial. This report includes a concept for providing 25 bus boarding spaces on the

streets bordering the National Mall as part of the solution to the current shortage of loading/unloading space in the Monumental Core.

4.3.2 Strategy 2- Distribution by Alternative Mode

In several of the U.S. cities reviewed for the best practices section of this study and virtually all European cities, tour buses do not serve as the primary distribution mode among destinations located in the historic city center or core area for tourism. Tour buses transport groups to one of several staging locations, from which the groups circulate to points of interest, either on foot or, frequently in Europe, by public transportation. In the past, it has been proposed that Metro be used to complement tour bus operations, serving to distribute tour bus groups within the Monumental Core. More recently, a *Downtown Circulator* service has been proposed that would complement existing public transit services. The *Downtown Circulator* could substitute for or reduce the role of tour buses as the mode of distribution for tour groups in the downtown area. *Downtown Circulator* operations also would be compatible with increased reliance on walking as a mode of transportation among sites located close to one another.

Implementation of the *Downtown Circulator* for tour group distribution Could reduce the need for circulation of Tour Buses within downtown Washington.

Disadvantages associated with a strategy based on distribution by *Downtown Circulator* are:

- The need for loading/unloading space would persist. The timing of *Downtown Circulator* departures could be managed to produce more even arrivals at individual attractions, thus resulting in some reduction in the queuing of traffic. The *Downtown* Circulator, therefore, would not substantially reduce the need for boarding space, unless the volume of visitation is constrained or reliance on walking is increased for distributing tour groups among sites that are clustered close together.
- Tour bus operations would need to change in ways that may be perceived as detrimental to some types of tour groups and the tour bus industry. The convenience and perceived security of door-to-door service currently offered by tour buses is valued by many school groups and senior citizens, in particular. Maintaining a group intact is more difficult—and in many cases may be impossible—if the group is required to board transit vehicles shared with the

public. Because tour buses would play a reduced role in serving the tour group, providing regional or "line haul" transportation to the District, but only limited service as a mode of distribution within the city, the share of revenues received by tour buses might decline if operators did not adjust their business plans to accommodate the circulator service.

- Passenger boarding areas, including substantial waiting and queuing space for pedestrians as well as loading/unloading space for buses, would need to be created for the transfer of tour groups to the *Downtown Circulator*.

Regarding the need for boarding areas, a logical solution would be to create one or more intermodal transfer facilities close to the Monumental Core. This concept is a variation on the provision of structured tour bus parking facilities in the downtown area. Parking for tour buses would be needed at the intermodal center(s), which would serve as terminals or stations for the *Downtown Circulator*. Promising sites for the creation of an intermodal center include Union Station, Banneker Overlook, and a site in the western section of the District (several options are identified in Chapter 3) well-situated to serve Georgetown.

It also is relevant to consider that there are several "hop on/hop off" privately-operated sight-seeing bus and trolley services in the District, including the *Tourmobile* operated under contract to the National Park Service. These services add to the demand for boarding space and contribute to traffic. Tour Bus passenger distribution needs should be assessed in relation to these existing services and necessary coordination needs to be provided for the management of boarding space.

4.4 Next Steps: Development of a Tour Bus Management Plan

The current study has served to identify the components of tour bus management plan. Most critically, the plan must address the need for parking and boarding space. The total number of spaces needed to meet total peak season demand is likely to exceed 600 spaces; bus counts currently scheduled for the fall of 2003 should provide a basis for refining this estimate. A logical approach to addressing this need would consist of the following actions:

- Develop a small number of central/peripheral parking lots to accommodate several hundred buses—prime potential locations include New Jersey and I Streets, So.Capitol Street Bridge/Anacostia, Buzzard's Point, and East Potomac Park/Hains Point for the Monumental Core area and Carter Baron Amphitheatre and Western Division Metrobus Garage for the National Cathedral;
- Reinforce Union Station as a tour bus parking location. Two primary actions are needed: (1) modify pricing policy to allow multiple ins and outs for each tour bus, at a daily fee of approximately $20; (2) re-stripe and reserve more spaces for tour buses, particularly as the planned capacity expansion of the garage is implemented; develop temporary surface parking lot at former Convention Center site;
- Consider reserving on-street spaces for tour buses in peak season; on-street tour bus parking could first be implemented in the area around Union Station on a trial basis;

- Consider implementation of concept for adding tour bus loading/unloading space on National Mall (presented in Chapter 3);
- Work with relevant stakeholders to evaluate the feasibility of expanding loading/unloading space at and near major points of interest, such as the Capitol, White House, Lincoln and Jefferson Memorials; implement and enforce policies to increase turnover of space by limiting standing time in curbside spaces to 10 minutes, to accommodate loading/unloading only—parking for any longer duration must be off-site in designated parking areas.

The above actions represent relatively low cost, non-capital intensive measures--the "low lying fruit"—and should produce significant benefits in terms of alleviating some of the problems related to tour bus operations. In addition, the approach of implementing tour bus management on an incremental basis will provide the opportunity to test and fine-tune different elements of the tour bus management program. This experience will provide the basis for determining whether larger-scale projects, investments, and perhaps changes in existing tour bus operations—such as the construction of new structured parking facilities or intermodal terminals downtown or the implementation of a *Downtown Circulator*—are warranted.

In addition to the approach outlined above, supporting measures such as advanced scheduling, information systems, permitting, and enforcement need to be pursued. The short-term actions implemented should be followed by cooperative work with stakeholders to address the following program elements:

- Parking facility pricing strategies: estimation of capital and operating costs and revenues as basis for establishing a coordinated multi-facility rate structure;
- Advanced scheduling: determine the level of interest among organizations responsible for candidate sites in being included in a coordinated advanced visitor reservation/scheduling system;
- Information systems: specify system requirements (e.g. number of parking facilities, role of system in billing, licensing), track advances in systems technology, determine effectiveness for communicating information on parking facility occupancy and program administration
- Permitting, licensing and enforcement: pending the outcome of litigation concerning tour bus permitting fees, fee structure revisions should be considered in conjunction with the development of a financial plan to support parking programs and increased enforcement of tour bus regulations; legal restrictions on tour bus routing should be considered as parking facility plans are advanced .

This study has identified the constituent elements of a tour bus management plan for Washington, DC. Options have been presented, advantages and disadvantages of each option have been identified, and a course of action has been recommended for further development of and selection among options. These study products are intended to provide a foundation for policy choices by officials and citizens that will support better tour bus service and improved traffic, environmental conditions, and quality of life in the nation's capital.

Appendix A
Stakeholder Interviews

Tour Bus Management Initiative stakeholders include representatives of the motor coach industry serving Washington, DC and the governing agencies, institutions, businesses and communities within the city that are affected by tour bus operations. These stakeholders have direct experience with and detailed knowledge of the conditions creating the need for improved tour bus management. An important source of information for the *Initiative* was a series of over 20 interviews conducted with key stakeholders:

- American Bus Association
- World Strides
- New World Tours
- Old Town Trolley Tours of Washington DC
- National Tourist Association
- Capital Entertainment Services
- National Cathedral
- Professional Tour Guides of Washington DC
- Office of Council Member Sharon Ambrose
- District of Columbia DOT
- The National Park Service
- U.S. Capitol Visitor Services
- U.S. Capitol Police
- Smithsonian Institution
- Union Station
- Office of the Architect of the Capitol
- Washington DC Convention and Tourism Corporation
- Downtown DC Business Improvement District
- District Department of Transportation
- National Park Service
- Newseum
- Georgetown Partnership

Individual interview participants are identified at the end of this appendix.

The interviews conducted combined a set of standard questions, asking respondents to identify major issues of concern to their organization, needs related to tour bus service, and expectations of the study. In addition, the interviews were tailored to the nature of the organization represented by the respondent: tour bus operator or other industry representative; agency with authority for a site visited by tour groups; or governing agency with jurisdiction for some aspect of tour bus operations (including parking) or tourism. Respondents were asked for data or quantitative aspects of tour bus activity or visitation, as appropriate, in addition to the questions that were more subjective in nature.

The results of these interviews are reported in this appendix, with responses organized into four categories: 1) Characteristics of Tour Bus Operations 2) Factors Affecting Tour Bus Operations; 3) Problems Associated with Tour Bus Operations; and 4) Recommended Solutions.

A.1 Characteristics of Tour Bus Operations

This first category comprises information on the volume, distribution, and nature of tour bus activity in the District.

A.1.1 Service Characteristics

Service Area

Tour bus operators report that tour bus operations are concentrated in the "Monumental Core" area between the Lincoln Memorial and the Capitol. Major routes through the area are Pennsylvania, Constitution, and Independence Avenues. Several destinations, among them Fords Theatre, five of the 15 Smithsonian museums and Georgetown, are located outside this area. Eight main geographic areas for tour operators were identified:

(1) Capitol/Union Station/Supreme Court/Library of Congress;
(2) Lincoln Memorial/Korean Veterans Memorial/Vietnam Veterans Memorial;
(3) Jefferson Memorial (over the Kutz Bridge);
(4) Holocaust Museum/Bureau of Engraving;
(5) Fords Theatre;
(6) Smithsonian museums (National Mall);
(7) Georgetown
(8) National Cathedral/Washington Zoo/Naval Observatory; and
(9) Alexandria, Virginia/Arlington Cemetery/ Mt. Vernon.

Main tour bus routes to and from the District are New York Avenue, Pennsylvania Avenue, GW Parkway, Rt. 66, Connecticut Avenue, Wisconsin Avenue, Memorial Bridge and South Capitol Street.

A.1.2 Mode of Operations

Types of Tours: Four basic types of tours and operators were identified:

(1) Motor coach tours originating from outside the DC area, generally with "step-on" tour guides that go with groups to visit multiple sites, on a largely planned itinerary (that may be subject to change, based on ticket availability and other contingencies); bus operators and drivers may be either local or from out of town; some operators do not own buses but contract with companies that do, while others own some vehicles directly and contract for others. One industry representative with this type of operation described his role as "on-demand transportation provider."

(2) Local school groups on field trips, often using school buses;
(3) Sight-seeing trolleys that let passengers, who typically are not in organized tour groups, on and off at multiple stops; "Lecture" drivers do not depart from vehicles and buses do not park;
(4) Special event charters transporting groups to a single destination or to a few related destinations.

In the case of the first two categories above, drivers usually attempt to park as close as possible to destinations. Pick-up and drop-off generally are at the same location, as a matter of convenience and comfort for seniors and children, in particular. In addition, tour bus operators find that loading and unloading at the same location facilitates group formation and order. Designated parking spaces, sometimes on-site, may be provided for special event charters.

Tour Bus Parking Locations:

There are about 15 curbside locations where tour buses currently park. Local operators/drivers know where to find them. Out-of-town drivers do more searching. Based both on knowledge and opportunity, the ability to locate available on-street spaces reflects the following "pecking order:" 1) commuter buses; 2) local motor coaches; 3) out-of-town motor coaches. The following are specific curbside parking locations identified:

- Independence Avenue west of 15th Street behind the Washington Monument (10 spaces)
- Ohio Drive in West Potomac Park
- West Basin Drive in West Potomac Park
- Near Ford's Theater, as well as the Lincoln and Jefferson Memorials
- A small number of tour bus spaces (1-2 or 3-4) are located under the bridge by the Jefferson Memorial (George Mason Memorial Bridge)
- Virginia Avenue across from Watergate
- Haynes Point area (East Potomac Park)
- At and around Lincoln Memorial are 20-25 spaces for drop-off/pick-up
- The Basilica of the National Shrine of the Immaculate Conception, in the northwest quadrant of District, 3 spaces close to Metro
- Maine Avenue, SW near the Fish Market

Space is also available in the area immediately to the south of the South Capitol Street Bridge, between I-295 and the Anacostia River, as well as beneath the Southwest/Southeast Freeway.

The Union Station garage, governed by a board consisting of the U.S. Department of Transportation, Amtrak, the Federal Railroad Administration, the Federal City Council, and the District, is the only tour bus parking facility available in the central part of the District. While parking is available at this site at the rate of $20 for several hours, tour bus operators desire to move around more frequently and seek free spaces. Peak bus occupancy rates at Union Station are 11:30AM-2:30PM and 5:00PM-7:00PM. Bus flows to and from

Union Station and the adjacent area were measured as a basis for allocating 50-70 spaces for buses within the garage; some of these spaces, however, are leased to specific tour operators, such as Grayline and Greyhound, and are not available to other motor coaches on a first come first served (FCFS) basis. In the future, Greyhound may lease all of the tour bus spaces at Union Station. Also, automobiles currently are allowed to park on a garage deck that was built to accommodate buses. As a result, tour bus capacity at Union Station is somewhat artificially constrained.

Another parking facility used by tour buses with District destinations is in Pentagon City. Tour bus operators prefer to take tour groups to Pentagon city for meal times because parking is free.

In Spring 2002, the National Cathedral introduced a reservation system that limits the number of buses to available spaces and uses software to schedule trips in advance. As a result, visitation has been cut in half. Before, buses brought visitors to the Cathedral at any time.

Two curbside lanes in front of the Cathedral on the eastern side of Wisconsin Avenue accommodate 17 tour bus parking spaces. The maximum capacity of the spaces, with average turnover, is 54 buses per day. Spaces are posted "No Parking 10 AM –4 PM Without Emergency Parking Permit," year-round. The community can park in the curbside lane from 4:00 PM to 9:30 AM. Bus marshals (paid $30/hour) welcome tour bus guests. The Cathedral arranged for use of the lanes for tour bus parking in exchange for land it ceded to the City to develop bus service lanes and curbside parking on Wisconsin Avenue. The Cathedral has attempted to establish neighboring parking garage partnerships and the National Presbyterian Church has agreed to provide spaces for 2-3 buses.

The National Zoo has 100 spaces (general parking spaces) and uses the parking area at the Carter Baron amphitheater parking lot for overflow. The National Zoo's parking lot is used for parking buses transporting passengers to the zoo on weekdays during the peak season of March through June. Priority is given to buses arriving from local schools, which must make reservations to park. Tour and other school buses can reserve parking only with the purchase of a group tour package. There is no bus parking available on weekends unless the group is registered for a group tour package.

The Washington Monument also has a reservation system for tour buses and Ford's Theatre is looking into it. The Smithsonian does not operate any public parking facilities, with the exception of those at the National Zoo.

Duration of Parking

According to information provided by tour operators and representatives of individual sites visited by tourists, the length of time a tour group spends at the individual stops included in an itinerary varies from as little as 20 minutes to as long as four hours, as illustrated by the following examples.

- Ford's Theater – 1 hour

- Jefferson and FDR Memorials – 20-30 min. visits ea.
- Lincoln, Vietnam Veterans, Korean Veterans Memorials – 1 hour visits
- Smithsonian Museums - 2-4 hours.
- Groups are required to be on a guided tour at the National Cathedral; they are not allowed to wander on their own. Guided tours of the Cathedral are 1 - 1 1/2 hours long

"Picture or photo" stops take place outside attractions like the Capitol, White House, and Library of Congress when groups cannot get tickets for admission. These stops are short in duration, generally less than ½ hour. Sometimes, the groups take a quick picture while the bus waits in traffic. Then, minutes later, the group reboards the bus. At other times, the bus will circle the block or loop around several blocks.

A.1.3 Tour Bus Market

Number of Tour Buses and Visitors

Although data collection has not been a high priority for any of the stakeholders interviewed, some tour bus operators and a few of the institutional representatives conveyed a rough sense of tour bus ridership and visitation. An unofficial estimate from a bus industry representative is that tour bus traffic represents about 1/3 of all visitors to the District and that on a typical spring day, approximately 1,000 tour buses transport visitors to the District's sites. An estimate offered by one of the bus operators—1,100 tour buses per day in the peak season-- is roughly consistent with this figure. Yet another tour bus operator reports that from February to July, his company organizes tours for 75-100 buses per day in the District and that his service carries 118,000 passengers per year. Another bus operator estimates that on an annual basis, 120,000 tour buses operate in the District and that his company transports over 4,000 students per day in the District under various contracts.

The Smithsonian Museums record the number of visits to individual sites (but not visitors, because there is no way of eliminating repeat visitors from counts), but no other data are collected. The Museums attract approximately 21 million visits per year.

Seasonality

The busiest time for tour bus activity is in April and May and secondarily, in March and June. The tour bus market can be divided roughly into three seasons: a primary peak spring season from late March 15 to June 15; a secondary peak fall season from mid-September through mid-November; and the off-peak winter (December through February) and summer (July through mid-September) seasons. A large proportion of tour bus passengers in the spring—estimated at about 40 percent--consist of school groups. The fall season, however, is primarily an adult market.

Estimates of the degree of peaking vary among several of the stakeholders, perhaps reflecting the segment of the tour bus market with which they are most familiar. One of the

tour bus operators reports that the fall season, extending from September 15 through November 15, is a secondary peak, rivaling the volume of buses in the spring. Also, according to this respondent, the number of buses in service in the summer is 20 percent lower than in the spring and fall peak seasons, and tour bus activity declines by 40 percent in winter, compared to the peak seasons. Another respondent reported that tour bus activity was off by 50 percent in the winter. According to a different operator, in May and June the number of vehicles his company has in service declines by 50 percent, compared to April. One operator, who currently does not operate in the summer, is trying to encourage schools to schedule trips during this time frame.

Ridership Characteristics

Ridership during the peak spring season consists primarily of seniors and students. Characteristics of tourism that are unique to the District have a major affect on the circulation patterns of tour buses. Specific factors of note include the large proportion of school children (particularly in the spring) and senior citizens (year-round), as well as the fact that Federal attractions generally are free of charge. Children, in particular, have short attention spans and the duration of visits to individual attractions is very short—frequently, tour buses stop at 12 or more sites per day. Moreover, free admissions serve as an incentive for short visits to multiple sites, resulting in relatively large impacts on traffic and use of lots of curbside spaces. Also, due to liability concerns (and perhaps consumer preference) buses make frequent drop-offs/pick-ups, transporting passengers even very short distances between sites, rather than requiring passengers to walk. One bus operator observed that visitors want to see as much as they can in a short amount of time. The tour group needs to have the ability to "jump on the bus and go right to Ford's Theatre or the National Theatre, etc."

Organized events and activities at the National Cathedral, such as the Medieval Workshop and DC history school program partnerships, bring students to the District on school buses, adding to demand for curbside space.

A further characteristic of group tour visitation patterns is that they tend to avoid remaining in the District after popular tourist destinations have closed. Most tour groups stay outside the District to take advantage of economy hotels. One operator also suggested that tour groups are deterred from spending the night at hotels in the District due to a lack of convenient and secure overnight parking for motor coaches.

The typically student-oriented market has been drastically affected by current world events and security threats:

- A major current concern to the tour bus industry is the drop in demand due to security threats.
- The Department of Homeland Security's issuance of code orange in early Spring 2003 caused school districts to cancel trips to Washington, DC. This is a large proportion of the tourist market in DC.
- Security concerns and restrictions around the Capitol have limited the area available for tour bus drop-off, pick-up and parking.

- District and New York schools are not allowing group trips to the District or New York City due to the terrorism threat. According to one respondent, upwards of 80 percent of the schools in the Washington area currently are subject to such a restriction.

A.2 Conditions Affecting Tour Bus Operations

A.2.1 Changes in Conditions

A number of comments concerned specific policies that changed tour bus parking supply or usage:

- New Jersey Avenue formerly had more bus parking, which has since been removed. A respondent observed that many on-street spaces for tour bus parking have been lost over the years, but could not quantify or indicate specific streets affected. Another respondent said that there used to be tour bus parking spots on 10th street, which have since been eliminated.
- In recent years, the price of parking at Union Station has risen from $7 for 3 hours to a $20 flat fee.
- Revenue sources for tour bus management are in question. DC Code (1981 edition) §47-2829 required that vehicles for hire, having a seating capacity of more than 12 passengers, obtain a license and pay a license tax of $150 per year or $10 per day at the option of the operator. This law was administered by the Taxicab Commission, which ignored the law and collected $10 per year for tour bus license fees. When the Council placed collection of the fee under the jurisdiction of the Department of Public Works and the DPW sent out letters indicating its intent to collect the fee as established by the statute, the tour bus industry sued the District. Prior to any formal decision, the Office of Corporation Counsel (OCC) required that the District abandon collection of the fee in exchange for a dismissal of the suit.
- Fines for illegal parking and idling were raised last year from the $20-$50 range to $500.
- In the past, the National Cathedral hired off-duty police to ticket double parking, deter idling, and manage tour buses and other traffic, but found this strategy to be ineffective.
- The District used to have a tour bus map, which was very useful, but it is out of print.[21]

A.2.2 Current Conditions

- The management of tour bus traffic and parking -- combined with wear and tear on infrastructure -- impose costs on the District Government. Several years ago, a tour bus registration fee was invalidated. As a consequence, the District obtains no revenues from the tour bus industry

[21] An updated tour bus map has been posted on the District Department of Transportation website since the interview was conducted.

that can be used to manage this activity. An analysis of how this could be reinstated would be tremendously helpful.

- Buses are limited by the 3 minute idling restriction for loading/unloading and violators who exceed this limit are subject to the $500 fine for illegal idling. The substantial fine serves as a strong incentive to obey laws. The driver, rather than the tour bus company, pays the ticket.
- Different tour bus companies decide independently where they go. The Smithsonian institutions have no way to predict or monitor where they go.
- Major new developments (e.g., new convention center, Newseum, Museum of the American Indian, Spy Museum) have no provision for bus parking.
- Smithsonian Institutions have no parking management plan. Tour bus parking has been very limited on the National Mall, including Jefferson and Madison Drives. The space on the mall is owned by the National Park Service, which control the space.
- Buses drop-off and load at the "Big Three" Smithsonians: Air and Space museum, Natural History museum, and the American History museum.
- There is a large parking garage under the Air and Space museum, which has been closed due to security concerns. Even if the garage can accommodate only automobiles, keeping it closed makes curbside spaces for buses that much harder to come by.
- During construction of the Capitol Visitor's Center, loading/unloading space for up to 10 tour buses is provided on the drive connecting to 1st Street West.
- One of the operators expressed the opinion that there is ample parking for buses outside the spring and summer peak seasons and there would be ample parking for local bus operators were it not for the out of town motor coaches.

A.2.3 Future Development

A major problem is that more memorials and places to visit are being built (e.g., the Spy Museum, World War II Monument, and the new Convention Center) but new parking spaces are not being created for buses and sometimes existing spaces are being displaced. The Smithsonian is building a new facility on the Mall.to open in September 2004, the Museum of the American Indian, between 3rd and 4th Streets, SWThis space used to provide 8-10 tour bus spaces.

When the Newseum comes on-line, an additional 200 buses per day may be attracted to the immediate vicinity along Pennsylvania Avenue, according to one of the bus operators. The Newseum expects visitation of 1.5-1.7 million per year. Many of these visitors will travel on foot to the Newseum from another nearby point of interest. Perhaps 20 percent of visitors may be part of a tour group.

The New Convention Center at New York Avenue and 9th Street NW opened in early 2003. This facility is the fifth largest convention center in the country, with the capacity to

accommodate 20,000-30,000 visitors at one time. The Center has limited facilities for tour bus parking. Also, there will an inadequate number of hotel rooms in the immediate vicinity, which may lead to stays outside the District with bus shuttle operations to the Convention Center, again with no parking provision.

The long-range plans for the National Cathedral retain the site as a pastoral landscape. Cathedral planners envision the creation of a sacred precinct, with cars removed along the Cathedral perimeter on Wisconsin Avenue, Woodley Road, and 34th and Garfield Streets.The Cathedral does not plan to increase visitation, but is concerned about neighbors' continuing requests that special parking permits for the curb lanes be denied to the Cathedral. It is the perception of Cathedral officials that these requests are due to past grievances, rather than current operating conditions. The Cathedral is considering redesigning the west side of its property to accommodate buses in front.

When the new Capitol Visitors' Center opens in 2005, six bus drop-off/pick-up sites will be provided on 1st Street East.

A.3 Problems Associated with Tour Bus Operations

All stakeholders mentioned a shortage of tour bus parking spaces as the primary problem affecting tour bus operations. A number of those interviewed discussed different aspects of the problem: loading/unloading space; short-term parking; longer-term layovers, including overnight parking; location-specific issues; pricing; and lack of information.

A.3.1 Parking

The problem at its most basic, as universally identified by those interviewed, is a lack of parking space for tour buses. Respondents said that there is no place to park during the day or during the night. "There has never been enough parking," according to one bus operator, who expressed the opinion that the last few years has seen a worsening of the problem due to the removal of previously existing spaces. Lack of even short-term drop-off and pickup locations leads to illegal curbside drop-off/pickup activity, excessive cruising between drop-off and pick-up, and double/triple parking. Sometimes cars are parked in the few areas where tour bus parking signs are posted. The lack of enforcement of existing regulations reserving designated parking spaces for tour buses is not enforced adequately.

In addition to the need for simple storage of vehicles, there is a need for layover areas for longer-term parking (one hour to overnight) where services are available for drivers. No service facilities currently are available offering food, rest rooms/lounges, exercise facilities, etc.

As a consequence of the lack of parking space and the high fees and limited availability of spaces at Union Station, tour buses cruise the city streets searching for on-street parking, both legal and illegal, frequently driving continuously between drop-offs and pick-ups without parking at all. One of the bus operators expressed frustration that the new Capitol

Visitor Center will not include tour bus parking. Further exacerbating the parking shortage is lack of knowledge about the location of existing spaces, particularly among out-of-town drivers.

Specific problem areas that have been identified in the Monumental Core are: the area around the White House, where parked tour buses block view corridors; the Lincoln Memorial, where there is no place to load/unload buses due to parked buses occupying all the space, and where maneuverability is difficult due to ongoing construction activities; 15th Street NW along the ellipse; 17th Street; and Constitution Avenue, where problems are confined largely to the spring. In addition to the physical constraint on curb space, buses lined up near tourist destinations are sometimes considered a visual blight.

The parking shortage obviously is most critical during peak seasons. At the National Cathedral, parking problems and traffic congestion associated with tour bus operations are limited to the hours of 10 –11:30 AM and 12:45 – 3:15 PM, because tours are only offered during those times, and even at those times problems tend to occur only during the four-month spring season. School bus schedules result in a timing problem: because buses do not become available until 10:00 AM, "bunching" or concentration of bus traffic occurs mid-day.

A.3.2 Traffic

The traffic problems associated with tour bus operations relate to the volume and concentration of tour bus activity in peak seasons, the concentration of bus arrivals at specific times of day, and parking, as noted previously. Tour buses contribute to morning peak hour traffic, because tour groups need to buy tickets early in the day for a number of sites. A serious manifestation of the problem, as expressed by one of the tour operators, is bus queuing and stacking in the through lanes of city streets. Severe traffic congestion occurs at such destinations as Ford's Theatre. Some destinations (e.g. Holocaust Museum) require timed tickets (that are free) to keep the flow of tourists more orderly. At others (such as Ford's Theatre) groups show up all at once and form huge lines. This overloading is

F Street North of Ford's Theatre

problematic for both pedestrians and vehicular traffic. Solving problems at Ford's Theatre is a high priority for the Downtown Business Improvement District.
Compounding the long-standing causes of tour bus-related traffic problems are recent measures enacted to increase the level of security at key federal landmarks that are prime tourist destinations. Specifically cited was the portion of 17th Street west of the White

House, which is now restricted only to Metrobuses, with no tour buses allowed. Except for drop-off at the U.S. Grant Memorial and pick-up at the Peace Monument, tour bus and other traffic now generally is restricted from streets in the immediate vicinity of the White House.

Moreover, one tour bus operator complained that the city closes streets on a short-term basis, as for an event, without advance notice to "anyone," including tour bus operators. He cites this as an example of a more general problem with coordination and communications. He also noted that he has requested that the city set up a hotline to call with questions about street closings and regulations. Currently, the District Government's website home page and DDOT's web page contain information about street closings for construction and special events.

A.3.3 Neighborhood Impacts

Another set of frequently mentioned problems concerned the impact of tour bus operations on neighborhoods. Parking is, to a significant degree, a root cause of these problems. Bus operators expressed concern that neighborhoods want to eliminate tour buses, citing in particular the efforts of communities around Capitol Hill. Generally, neighborhoods object to tour buses traveling on local streets; on-street parking or double-parking is regarded as being even more objectionable. The speed of buses on neighborhood streets also is cited as a concern. Capitol Hill residents view Constitution and Independence Avenues between 2nd and 19th Streets NE as neighborhood streets.

The problem is viewed to a significant degree as being caused by buses seeking parking spaces in neighborhoods when spaces are lacking in primary tourism areas. Some of the neighborhoods, particularly historic ones such as Georgetown, Capitol Hill, DuPont Circle and Old Town Anacostia, have streets that are not suitable for buses due to their geometry and inability to sustain vehicles of such weight. The District desires to provide access to historic areas without jeopardizing safety or destroying the street and sidewalk infrastructure. The District, as well as the National Park Service and other organizations administering points of interest, face neighborhood pressures to curtail tour bus operations.

A further problem results from buses idling in on-street spaces to keep air conditioning going in hot weather. The diesel fumes emitted by idling buses cause air pollution, both in local neighborhoods and in the vicinity of sites. Operators report that buses require 20-40 minutes to cool off or warm up. Thus, the limitation of idling time to only a few minutes is unworkable if reasonably comfortable conditions are to be maintained for bus passengers. Even new bus models require a minimum of 5 minutes to activate pneumatic systems to the minimum PSI threshold (120 lbs.) for the air brakes to work. Neighborhoods also have expressed concern about presumed leakage of oil and fuel from idling tour buses. District communities have lobbied the City Council successfully to restrict tour bus idling--hence the City's adoption of steep $500 fines.

An associated problem is that buses taking neighborhood residents from the District to other cities (e.g. Atlantic City) cannot park in convenient locations for pick-up and drop-

off. One of the bus operators expressed the opinion that problems with neighborhood impacts are confined for the most part to the peak four-month spring season.

Neighborhood issues are the primary factor that motivated the tour bus parking policy of the National Cathedral. While no formal complaints have been received since the current policy was instituted, residents on local neighborhood streets want all tour bus operations confined to Wisconsin Avenue, while residents of Wisconsin Avenue do not want the tour buses either. On behalf of the neighbors, the Cathedral requested that the city post a sign stating "No right turns for buses" from Wisconsin Avenue onto Woodley Road. The city has not agreed to post the sign. The Cathedral want to encourage buses to turn around at Tenley Circle, to the north.

A.3.4 Licensing, Regulations, and Enforcement

Obtaining the revenues needed to support tour bus management, including parking, has proved to be a challenge. As noted previously, legal challenges to licensing fees for large-capacity vehicles for hire has jeopardized the most promising source of funding.

Another issue is lack of licensing for out of town tour guides. Local tour guides are required to obtain licenses under District ordinance (Chapter 19, Section 12). Also, the Washington Metropolitan Transportation Commission issues mandatory Certificates of Authority to local operators, but no certification is required for out of town tour buses or tour guides. The *Tourmobile* concession operated for the National Park Service, which competes with private trolleys, is not required to have registered vehicles, commercial drivers licenses for tour bus drivers, or tour guide licenses.

A.4 Recommended Solutions

Stakeholders presented a variety of potential solutions, including suggested parking sites and policies, facilities, amenities, and regulatory measures to address the problems associated with tour bus operations.

A.4.1 Potential Parking Sites

- New Jersey Avenue, SE and I Street, SE, south of New Jersey Avenue bridge: described as an ideal location; Marty Tchernoff is the owner of part of the site and has indicated his willingness to either sell the property or participate in a public/private partnership to build a parking structure with tour buses at ground level and autos on a second level. Office development is occurring in the area nearby, so there will be a market for a private parking facility. The other part of the parcel is owned by the CSX Railroad and it is unclear how cooperative they are likely to be. The owners of a privately operated club across the street has expressed interest in operating a restaurant/lounge to serve tour bus drivers. The site is near two Metro stations.
- South of Frederick Douglas Memorial (South Capitol Street)Bridge between I-295 and Anacostia River; a limited number of motor coaches

currently park there now. The site is owned by the Department of the Navy, which has expressed willingness to have the parcel used as tour bus parking site. The site has good highway access, no intersections; and is approximately ½ mile from the Anacostia Metrorail Station—some passengers could transfer to Metro. There is a possible environmental problem associated with use of the site for parking a large number of tour buses, because it is so close to the Anacostia River.

- Paid parking lot under Southeast/Southwest Expressway (I-395) owned by City and leased to private operator
- Site of old Convention Center, on temporary basis until site is redeveloped
- Barney Circle under access road
- Massachusetts Avenue and 3rd Street NW City garage
- Massachusetts Avenue and 9th Street NW, 2 blocks north of old Convention Center
- Navy Yard/Federal Center is possibility for long-term parking
- RFK Stadium: The site is approximately 3 miles and 10-15 minutes from the Monumental Core. Open the SE/SW freeway ramp to the stadium to allow buses to bypass neighborhoods. Need to get buy-in to this option from the DC Sports and Entertainment Commission and the National Park Service. A disadvantage of this site is that there would be some time periods where the parking area would be unavailable to tour buses because of events held at the Stadium.
- A planning study for rehabilitation of the L'Enfant Promenade is considering the development of an intermodal transportation center (ITC) under Banneker Overlook, which is now the termination of the Promenade. A memorial and/or museum would be built atop the ITC. The ITC would contain spaces for tour bus parking and auto parking.
- There are relatively few potential new "on-street" locations at this time. A possibility that could be explored is use of the E Street expressway near the Kennedy Center and parts of the SE/SW Freeway near Barney Circle. There seems to be excess pavement in these locations that is not being used for traffic. However, there are likely to be institutional and safety issues of concern to the Federal Highway Administration regarding these sites.
- There is a need for a distributed system of long-term parking facilities, perhaps one in each quadrant of the District. Sizing of facilities in each quadrant would be in relationship to the number of attractions and expected bus flows drawn to these attractions.
- The Cathedral submitted a proposal to “borrow” some of the Western Metrobus Garage parking spaces, but is having difficulty coordinating times with WMATA The lot is approximately two miles from the Cathedral, and may therefore may be too far. The Cathedral is open to a strategy of drop-off/pick-up on-site at the Cathedral, with bus layover at a parking facility farther away.

- For National Cathedral: Carter Baron amphiteater parking (about 2 miles from Cathedral), might dovetail quite nicely with a "drop-off/pick-up" strategy (not currently used).
- The National Zoo has parking, but access is constrained due to traffic on Connecticut Avenue
- Construction of a large garage under the Ellipse or other centrally-located Federal property
- Preferred solution may be smaller number of parking spaces in multiple locations well-distributed throughout District: 50-100 buses per site, rather than one large 1000-bus capacity location.
- There is a need for bus "stand by" short-term parking near major sites (White House Visitor Center, Washington Monument, Capitol Visitor Center), as well as remote sites for longer-term layovers.
- There is a need for a smaller lot for 15-60 minute stops in the vicinity of Ford's Theater.
- Smaller visitor sites beyond the Monumental Core are not generally configured for tour bus parking.

A.4.2 Facility Requirements

What types of facilities are needed to better accommodate tour bus operations in the District? Bus operators and industry representatives are the primary source of the comments on preferred bus layover/parking facility characteristics:

- A primary criterion for any future bus layover facility is very good accessibility, but that there is some flexibility in terms of maximum acceptable travel times (e.g., 5 minutes to Capitol/Monumental Core is ideal, but 10-15 minutes would be acceptable)
- Parking facilities would need a building, television, food, rest rooms/lounges, and ideally internet and office support capability as well as exercise rooms; also, vehicle services (fuel, washing, vehicle inspection, minor repair/maintenance, bus dumping facilities for waste, non-restricted engine-warming/idling location, possibly emission filtering/cleaning)
- Bus drivers, like truckers, like to congregate with other bus drivers. A central, accessible place to support this social interaction is critical but currently lacking in the District.
- A state-of-the-art bus parking facility is needed; requirements are 10-15 acre parcel, 2-3 acres used for driver and bus service facilities. Rule of thumb is 75-100 buses can be parked per acre depending on configuration and performance standards; a 10-acre parcel could support (with accompanying service facilities) a capacity for parking 500-600 buses.

A.4.3 Management Options

Ideas for managing the flow of tour bus traffic ranged from different means of distributing tour bus passengers to sites within the District, to scheduling, tour bus routing, and possible shared use of parking areas.

- Strategies must recognize intrinsic nature of operations: drop-off/pick-up at multiple locations, buses in and out, relatively short duration of 1-2 hours at a time
- One of the tour bus operators suggested a three-part parking solution: (1) designated parking areas for commuter buses; (2) designated parking for tour buses during peak seasons; (3) designated loading/unloading areas for local charter buses to pick-up/drop-off locals. In addition, restrictions on loading/unloading frequency should be implemented, as in Atlantic City, to regulate traffic flow.
- One respondent who was not a tour bus operator suggested that local operators who know the metropolitan area should park outside of city limits to free up limited parking space for out-of-state operators.
- Walking must be encouraged among sites in close proximity to each other. Tour groups could walk from Jefferson to FDR, and around the Smithsonian Museums.
- One of the tour bus operators suggested that there should be no tour bus parking within the National Mall, citing the prohibition of tour bus parking from designated areas near attractions in other cities.
- The District Department of Transportation would like to enlist the National Park Service as a partner in the tour bus management effort. Perhaps the Park service could provide some underground parking near the Mall to avoid visual blight or perhaps they could make some other accommodation.
- Another tour bus industry representative suggested that distribution of tour bus passengers in the downtown area by local public/private tour operators (e.g., Tourmobile, Old Town Trolley) from a central tour bus parking facility/hub might be acceptable, provided these local operators provide a circulator service that started and ended at the central bus facility for easy passenger transfer back to their original tour bus. The respondent referred to Atlantic City as a “model” long-term parking and service facility for tour buses, but acknowledged that the nature of operations is different between the two cities (i.e. the District has multi-stop operations).
- Use of the proposed Downtown Circulator should be considered to distribute tour bus passengers from one or more parking sites at the periphery of the downtown area.
- Good way-finding signage is critical, particularly for out-of-state drivers. Way finding at major attractions would indicate location(s) and route(s) to any future long-term bus parking/service facilities.

- A bus operator suggested that security concerns could be addressed by affixing some type of security clearance sticker to a tour bus indicating that the bus has been inspected/checked and is now cleared for operating around the Monuments. [22]
- Formal Best Practices Guidelines – The City could create guidelines and cite examples of how other cities have tackled similar problems
- From the perspective of the Smithsonian, a mandatory coordinated scheduling system may be difficult to implement Smithsonian-wide. The National Zoo, which is part of the Smithsonian, already has a group reservations system in place that is tied to the availability of tour bus parking, and some other individual Smithsonian museums and/or programs might also be candidates for coordinated scheduling.
- If bus parking was placed outside the District in the suburbs, individuals could get to the Smithsonian via Metro very easily. Tour bus companies oppose this option because it takes more time and is more inconvenient, and schools would find it cheaper to rent buses and take school groups directly to the District. Several bus operators and other stakeholders stated that it is not realistic to expect tour buses to park at Union Station or other terminals and have tour groups take the Metro for circulation and distribution to/from City attractions. One bus operator wanted "to dispel the myth" that tour groups can be dropped off at Metro stops and use Metro to connect to/from venues and attractions. He stated that groups want bus pick-up and drop-off at the same location, explaining that tour groups want a certain personal safety and security comfort level that they can only get by having "their" bus in view and available for pick-up at the same location as the drop-off point.
- The American Bus Association has recommended, as part of the reauthorization of TEA 21that WMATA allow use of Metrobus lots during the day by tour buses, after WMATA buses pull out. The shared use of facilities, at a reasonable fee for tour buses, is possible because Metrobuses and tour buses often require parking at different, complementary times.
- An integrated and automated electronic recognition, occupancy and payment system is needed to provide real-time information on the occupancy of tour bus lots. The database would be used for coordinated dispatching to available parking spaces, in conjunction with one-time daily fee payment, and perhaps automated billing to the bus operator's company account.
- Recommended tour bus routing: Commercial corridors in Capitol Hill to which tour bus operations should be confined are Pennsylvania, H Street, Benning Road, Maryland and New York Avenues, So.Capitol and No. Capitol Streets.
- Another possible suggestion: stripe pavement to designate bus routes (for out of town operators).

[22] Editor's note: Controlled access would be required at all times to ensure that bus remained secure.

- Should consider exclusive traffic lanes for buses
- Shuttle service could be provided to transport tour bus drivers at night and first thing in the morning to and from remote lots
- More rigorous enforcement of laws will be necessary to motivate bus drivers to change existing behaviors, particularly to use remote lots.

A.5 Interview Participants

Bus Industry:

Chuck Andrews, World Strides
John Best, Capital Entertainment Services
David Bolen, New World Tours
David Cohen, Old Town Trolley
Jim Santini, National Tourist Association
Peter Pantuso, American Bus Association

Non- Industry Stakeholders:

Julie Cooke, National Cathedral
Skip Coburn, Office of Council Member Sharon Ambrose
Maureen Cyron, Professional Tour Guides of Washington, DC
Ted Daniel, Director, U.S. Capitol Visitor Center
Len Foxwell and Joe Sternlieb, Downtown Business Improvement District
Ken Gray, Georgetown Partnership
Susan Hinton, Heidi Strickfaden, Alexa Viets, Karen Cucurullo, Lance Hatten, Audrey Calhoun, Claudia Anderson, Jacque Lavelle, Bob Karoth, Gayle Hazelwood, Stephen Lorenzetti, Susan M. Oregor, Kathy Kupper--National Park Service
Linda Jeffries, Newseum
Peter May, Architect of the Capitol
Lisa McClure, Union Station
Chuck Morse, Washington DC Convention and Tourism Corporation
Russ Preble, Guild of Professional Tour Guides of Washington, D.C.
Captain Michael Prelow, U.S. Capitol Police
Katherine Neil Ridgley, Smithsonian
Rick Rybeck, District Department of Transportation

Appendix B
Proposed Tour Bus Counting Plan

A. Locations/Types of Counts:

Note--Two different types of counts are requested: (1) Counts near major destinations and (2) Gateway counts.

Priorities: Locations with highest priority are noted with asterisk (*). If necessary to cutback on number of locations due to resource constraints, locations *without asterisk* could be eliminated.

(1) Bus Operations Near Major Destinations

Priorities: Locations with highest priority are noted with asterisk (*). If necessary to cutback on number of locations due to resource constraints, locations without asterisk could be eliminated.

- 23rd and Constitution * *Just counts*
- Lincoln Memorial Access/Egress Roads * *counts and stops*
- Arlington Memorial Bridge * *just counts*
- Independence south of Washington Monument * *counts and stops*
- Ohio Drive at 14th St. Bridge (east of I-395 spur) * *counts and stops*
- Maine Avenue east of 14th St. Bridge * *counts and stops*
- Capitol: 1st St. West and Independence * *just counts*
  Constitution and 1st St. East * *just counts*
  1st St. East from Constitution to East Capitol
  1st St. East from East Capitol to Independence * *just counts*
  1st St. West and Pennsylvania * *just counts at intersections; stops on circular drive on south and west sides of Capitol*
- Madison Drive:
  14th -12th * *counts and stops*
  12th - 9th
  9th – 7th
  7th – 4th
  4th - 3rd * *counts and stops*
- Jefferson Drive:
  14th - 12th * *counts and stops*
  12th – 7th
  7th - 4th
  4th – 3rd * *counts and stops*
- New York Avenue NW between 11th and 12th (frontage of new Convention Center) *counts and stops*
- 10th Street NW between E and F * *counts and stops*
- P St. and Wisconsin * *counts only at intersection; stops on Wisconsin*
- Wisconsin and Woodley (National Cathedral)* *counts and stops*
- Connecticut at National Zoo entrance *counts only*

- Frederick Douglass House (exact location to be determined- *W between 13th and 14th*) *counts and stops*
- Arlington National Cemetery (exact location to be determined—*passing Visitor's Center*)

Counting Characteristics *for* ***"Stops"*****:** ***Just note whether vehicle drop-offs or pick-ups of passengers OR parking and the approximate location of stop. Optional—note double parking or other problems.***

Disregard Following Previous Count Instructions: For this set of counts, the following information would be desirable (two person teams would be helpful) for each sampled street/street segment. Data can be collected over several days, sampling different streets/street segments each day.

- tour bus flow per hour per direction (non-stopping buses)
- annotation on parcel-based base map (field copies) of approximate location at curb where each bus stops (annotation would indicate which curbside of street is utilized)
- for each stopped bus, pull-in time and pullout time
- for each stopped bus, indication of whether loading passengers or unloading passengers
- field notes on observation of additional operational issues, e.g., whether tour bus stopped in lane for passenger loading/unloading, double parking, parking in illegal stop zone, difficult turning movements at intersections, undue delay in merging into traffic stream from curbside stop, tour bus backing movements, off-loaded passengers crossing within 'blind spot' of bus, pedestrian crowding/interference with through pedestrian flow on sidewalk at stop zones, etc.
- weather conditions at time of observation, annotation of other relevant factors that would help interpret the field data collected

Just Counts by Direction:

(2) Gateway Points (for estimation of total tour bus volumes)

- New York Ave and Bladensburg Rd. No (or No. Capitol St.) *
- Arlington Memorial Bridge (included above, also)
- Roosevelt Bridge *
- Key Bridge *
- 14th and D St. *
- 14th Street Bridge (approaching 14th Street) *
- Connecticut and Nebraska *
- 16th North of downtown (Q or Florida?)*
- Rhode Island Avenue
- So. Capitol at M *
- I-395 ramps (eastbound and westbound) and C St. SW *
- Pennsylvania SE and 2nd SE *

Counting Characteristics: For these "cordon" counts, the information to be collected should include the following, as possible:

- Volumes of tour buses by time of day (i.e. counts)
- Designation of operator/owner (including school buses)
- License plate number—*last 3 digits* (will be very helpful in avoiding double-counting and establishing tour bus movements)

Note: Preliminary analysis by the District Department of Transportation indicates that a survey such as this, conducted only for a single day, may cost between $120,000 and $150,000. Other more simplified survey methods that provide useful information over several days might be more cost-effective.

B. Distinguishing Tour Buses:

1- The most obvious distinction is to *eliminate Metrobuses*
2- Also, *eliminate private suburban commuter* buses
3- *Include full size* school buses
4- Motor coaches serving as tour buses usually have luggage compartments and are taller and somewhat longer than standard transit buses

C. Desired Count Schedule

Month
April is the optimal time to conduct the counts. May would be second choice.

If it is possible to count during 2 months, March *and then again* in April would be first choice. April and then again in May would be second choice.

Days
1-3 days, preferably Wednesday, Friday, Saturday, but Thursday-Saturday or Tuesday, Friday, Saturday also would be fine. Friday and Saturday would be highest priority days.

Hours
7:00 AM – 9:00 PM would be ideal, although the evening hours could be cutback if personnel are not available after the regular workday.

Appendix C
Preliminary Financial Analysis – Structured Parking

This analysis addresses the financial feasibility of providing structured parking for tour buses in a centrally-located section of downtown Washington, D.C. near primary tour group destinations. The analysis compares estimated costs of structured parking spaces to the annual revenues that could be expected, assuming a reasonable range of demand.

Costs

Capital costs consist of expenses for construction, land, and financing and are annualized over a 20-year period.
The factors applied in the analysis are as follows:

Construction (superstructure, electrical, mechanical, plumbing, engineering, contingencies, etc):

- above-ground structure: $26,000 per space
- below-ground structure: $53,000 per space

Land purchase:

- $35 – $50 per square foot

Debt service:

- 3% per year over 20 years

Spaces (including aisles) are 770 square feet.

Estimated ***annual operating costs*** (see references) are $640 for above-ground spaces and $1830 for below-ground spaces.

Revenues:

Several of the bus operators interviewed for the study estimated that on a peak day in the spring, 1,000 tour buses serve the District. The peak season was estimated to last from March 15th through June 15th. A secondary peak was identified in the fall, from September 15th – November 15th, summer volumes were estimated to be somewhat lower, and winter volumes were estimated to be 50-60% of peak spring volumes. With daily parking fees of $20 that would allow buses multiple ins and outs, total average annual

revenue *per space,* for a 1,000-space supply, assuming the peak season tour bus volumes and seasonal distribution estimated by interview respondents, is estimated be $5,300.[23]

There is no hard data to corroborate the bus volume estimates reported in the interviews, however, and a conservative assumption would be that they represent upper bound estimates of actual bus volumes. If, in actuality, a total of 400 tour buses are in the District on a peak spring day, with a proportional distribution of buses by season, total average annual revenues per each of 400 spaces supplied would remain the same, at $5,300. If 400 spaces are supplied, but demand is considerably higher, with peak season average daily volumes of 800 buses, average annual revenue per space is estimated to be $10,550.

Average costs and revenues per space are compared below for several scenarios in which land costs per square foot, type of structure (above- or below-ground), and tour bus demand and supply volumes are varied.

Estimated Costs and Revenues Per Structured Bus Parking Space	
Capital Cost (including land at $35/sq.ft.)- above ground–3-level structure	$3,760
Capital Cost (including land at $50/sq.ft.) - above ground–3-level structure	$5,370
Capital Cost (including land at $50/sq.fot) – below ground –1 level	$9,560
Revenue (1,000 buses per day in peak season—1,000 spaces provided)	$5,270
Revenue (400 buses per day in peak season—400 spaces provided)	$5,270
Revenue (800 buses per day in peak season—400 spaces provided)	$10,550
Net Revenue (land at $35/sq. ft.) –above-ground structure—1,000 spaces	$870
Net Revenue (land at $50/sq. ft.) – above-ground structure – 1,000 spaces	($740)
Net Revenue (land at $50/sq. ft.)-below-ground structure-1,000 spaces	($6,110)
Net Revenue (land at $50/sq.ft.) – above-ground structure – 400 spaces (peak demand – 800 buses/day)	$4,530
Net Revenue (land at $50/sq.ft.) –above-ground structure – 400 spaces (peak demand – 400 buses/day)	($740)
Net Revenue (land at $50/sq.ft.) – below-ground structure –400 spaces (peak demand – 800 buses/day)	($840)

The table shows that positive net revenues could be obtained under a few scenarios, specifically if land costs are $35 per square foot (or lower) rather than $50 per square foot and if only 400 spaces are supplied at $50 per square foot—in an above-ground structure--while peak season daily demand is about 800 spaces per day, such that the 400 spaces are fully-utilized year-round.

There are several conservative assumptions incorporated in the analysis:

X The spaces will not be used by other vehicles when not occupied by tour buses.
X No innovative financing will be applied.

[23] Peak season (spring) daily volumes are assumed to be either 1,000, 800, or 400 buses, as noted. Fall , summer, and winter volumes are calculated as 80%, 70%, and 50% of spring daily volumes. Total of 362 parking days per year assumed.

X Costs are not shared by other uses, e.g. commercial or office development.

A necessary condition is that regulations prohibiting illegal parking by tour buses are strictly enforced, providing a strong incentive for tour buses to use the parking facilities intended for them and pay the required fee, assumed to be $20 per day, allowing multiple ins and outs.

Conclusions

In summary, this preliminary feasibility analysis suggests that providing a *conservative supply* of structured parking spaces in one or more central locations within the District may be a financially viable option. While tour bus industry representatives interviewed for this study have estimated that there is a total of 1,000 buses per day in the District during the peak season, a prudent approach would be to provide a considerably smaller number of structured parking spaces initially and to expand the supply of structured spaces *incrementally* if justified by high occupancy rates. As discussed in the draft *Solutions Matrix and Site Analysis* memorandum, providing surface parking in areas at the periphery of the District also should be considered to address a substantial share of the demand for tour bus parking spaces. The feasibility analysis presented herein suggests that structured parking located downtown may also be a financially viable component of a comprehensive tour bus management strategy.

References:

RS Means. 1999. *Building Construction Cost Data 2000: 58th Edition. Robert S. Means Co.*

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