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Marianne Painter, Assistant Director Museum of History and Industry 2700 24<sup>th</sup> Ave E. Seattle, WA 98112-2099

Subject: Parking and Traffic Study of South Lake Union Area

Dear Ms. Painter:

This letter summarizes our analysis of parking conditions associated with the proposed relocation of the Museum of History and Industry (MOHAI) to South Lake Union. This analysis includes an executive summary, our understanding of the need for this study, our approach to this work with a listing of primary tasks; and detailed discussions of each primary task.

### EXECUTIVE SUMMARY

MOHAI is considering relocating from its present location in the Montlake neighborhood to the former Armory Building on South Lake Union off Valley Street. The new museum would be part of a larger mix of recreational and cultural uses including: the new Lake Union Park, Center for Wooden Boats, and Northwest Seaport (docks for the Wawona, Virginia V and other historical vessels). Parking and access will be critical to the success of MOHAI and the other constituent activities in the vicinity of South Lake Union Park. Based on a refined analysis of a Parking Management Plan study prepared for the City of Seattle Parks and Recreation Department, the following major findings and conclusions were developed:

- The near term public parking supply is 689 stalls (within a 1/4 mile of the proposed site) and 1220 stalls (1/2 mile). This will decline to 130 stalls (1/4 mile) and 165 stalls (1/2 mile) in the longer term with known redevelopment and creation of the South Lake Union Park.
- The parking supply serving MOHAI should be located within one quarter mile walking
  distance of the site to be considered accessible by employees, volunteers, and visitors
  unless the site is served by a free shuttle or jitney service. This parking supply will need
  to be in sufficient concentrations to be easily identifiable and will need to be controlled
  for use by MOHAI and/or selected others users to avoid encroachment by other general
  public parking demands.
- Parking demand for MOHAI is forecasted to range between 90 and 130 parked vehicles
  due to a combination of increased concentrations of visitor parking and significant
  demand associated with group and special events. When this parking demand is
  combined with other South Lake Union Park users, the cumulative peak parking
  demand ranges between 290 and 435 vehicles on average days and 800 and 860
  vehicles on a peak day.



- The parking supply in the near term may be adequate for an average day but not for a peak day of activity. The long term parking supply will be insufficient to serve MOHAI and other area users even if the 48 stall temporary parking lot at the south end of the park site is retained and the proposed 120 to 140 dedicated parking stalls are provided as part of proposed new development on the south side of Valley Street.
- The conceptual site layout appears to be generally workable but requires substantial refined design to provide adequate circulation and accessibility for larger vehicles, particularly buses and trucks. Operational controls and a management program will be necessary to provide predictable service and maintenance access, bus and shuttle dropoff, and disabled parking access to avoid encroachment by the general public. Such refinements and improvements will be particularly critical for MOHAI and others who provide basic staging, operational support, and catering of special events. A portion of the parking area immediately south of the proposed MOHAI building could possibly be used for these design considerations.
- If dedicated accessible off-street public parking cannot be provided within one quarter mile walking distance of the site, a combination of dedicated or reserved off-street parking, remote parking with a free shuttle, valet parking (particularly for special events), and/or other admission/parking incentive packages will need to be developed for the museum's constituent users. Visitation and participation in museum and other cultural, volunteer, and recreational activities are typically characterized as discretionary activities.
- If parking and access presents a regular and perceived/real constraint, program attendance and objectives will not be met for MOHAI, South Lake Union Park, Center for Wooden Boats, Northwest Seaport, and other users in the area.

## PROJECT UNDERSTANDING

MOHAI is considering relocating from its present location in the Montlake neighborhood to the former Armory Building on South Lake Union off Valley Street. The new museum would be part of a larger mix of recreational and cultural uses, including the new Lake Union Park, Center for Wooden Boats, and Northwest Seaport (docks for the Wawona, Virginia V and other historical vessels). A site plan of the relocated MOHAI is attached as Figure 1.

MOHAI plans to substantially increase annual Museum patronage to 100,000 museum visitors per year initially and growing to a stable attendance of 110,000 visitors per year within two years of opening. Like the current facility, MOHAI will host group events, leveraging off the central location and lakeside setting. Current site plans for the combined uses call for a very limited amount of on-site parking and restricted access. Parking is a critical aspect of operation of any public assembly facility and particularly critical to MOHAI which is a discretionary destination. A realistic assessment of any such limitations and their affect on patronage could impact MOHAI's growth objectives and financial plan.

Accordingly, MOHAI needs to determine the adequacy and accessibility of existing and future parking supplies; sensitivity of employees, visitors and staff to the availability and location of the parking supply; accessibility of the site for disabled, elderly and bus patrons; and the effect of any restrictions on patronage. If these restrictions appear to constituents to be perceived as a barrier, programs need to be outlined to reduce such resistance.



### **APPROACH**

Based on initial meetings with you and key members of your team, review of materials you provided, and the Final Parking Management Plan report by The Transpo Group, we believe we can effectively address your objectives through the following sequence of tasks:

- Validate existing and future conditions;
- Assess user sensitivity to parking and access;
- Compare parking supply with user characteristics;
- Identify parking and access mitigation options;

## **VALIDATE EXISTING AND FUTURE PARKING CONDITIONS**

To evaluate current parking conditions TSI updated the parking demands anticipated with the proposed MOHAI program. Then a careful review of the Seattle Parks Department's Parking Management Plan was made to validate and analyze the parking supply and utilization information to identify possible issues that may not have addressed the parking issues that will impact the success of MOHAI's operations.

## Parking Demand

As MOHAI has refined their development and operations plans for a possible relocation to South Lake Union, patronage and activity forecasts have also been revised. Based on information provided by MOHAI management the activity levels associated with the new facility were identified and are shown in Table 1. The table summarizes the number of persons involved in working and visiting the museum on typical weekday evenings and weekend days and also shows bus activity associated with school tours, charter bus activity, employment and volunteer requirements, normal museum visitor activity, and group and special events.

The vehicle demands, shown in Table 1, reflect the peak demand within a typical day and generally occur sometime during the midday early afternoon. This tends to coincide with the peak demands associated with other uses at the South Lake Union site.

Comparing these parking demand forecasts (Table 1) with the information found in the Seattle Parks Department Parking Management Plan these forecasts appear to be relatively similar except for the parking demand associated with group and special events. This may be due to the museum's updated/refined activity program. Likewise, the peaks parking accumulation of the general visitor populations appear to be higher. This can be attributed to anticipated longer visitor stays expected to result with the museum's enhanced exhibits and as visitors' couple their visits among the various destinations at this site. The net result of activity and parking forecast refinements is an increase in parking demand that can range between 95 and 130 vehicles.



TABLE 1: PERSON ACTIVITY AND PEAK DAILY PARKING DEMAND

Winter					
		Weekday	Weekend	Weekday Evening	Weekend Evening
School Tours	Persons	150	0	0	0
	Vehicles	5	0	0	0
Charter	Persons	30	0	0	0
	Buses	1	0	0	0
Senior Groups	Persons	6	0	0	0
	Buses	1	0	0	0
	s and Vans	7	0	0	0
Senior Management	Persons	3	0	0	0
	Vehicles	2	0	0	0
Employees	Persons	15	10	5	3
	Vehicles	12	8	5	3
Volunteers	Persons	10	10	5	0
	Vehicles	8	8	5	0
Visitation	Persons	270	540	50	0
	Vehicles	32	54	17	0
Events/Meetings	Persons	100	50	150	250
	Vehicles	67	42	68	113
Total Vehicle Parkii	ng Demand	121	112	95	116
		Summ	er		
		Weekday	Weekend	Weekday	Weekend
				Evening	Evening
School Tours	Persons	60	0	0	0
	Vehicles	2	0	0	0
Charter	Persons	30	0	0	0
	Buses	1	0	0	0
Senior Groups	Persons	6	0	0	0
	Buses	1	0	0	0
Total Buse	a and Vana				^
i otai Base	s and vans	4	0	0	0
	Persons	3	<b>0</b>	0	0
		-		_	
	Persons	3	0	0	0
Senior Management	Persons Vehicles	3 2	0	0	0
Senior Management	Persons Vehicles Persons	3 2 15	0 0 10	0 0 5	0 0 3
Senior Management Employees	Persons Vehicles Persons Vehicles	3 2 15 12	0 0 10 8	0 0 5 5	0 0 3 3
Senior Management Employees Volunteers	Persons Vehicles Persons Vehicles Persons	3 2 15 12 10	0 0 10 8 10	0 0 5 5 5	0 0 3 3
Senior Management Employees	Persons Vehicles Persons Vehicles Persons Vehicles	3 2 15 12 10 8	0 0 10 8 10 8	0 0 5 5 5 5	0 0 3 3 0
Senior Management Employees Volunteers	Persons Vehicles Persons Vehicles Persons Vehicles Persons	3 2 15 12 10 8 350	0 0 10 8 10 8 600	0 0 5 5 5 5 5	0 0 3 3 0 0
Senior Management Employees Volunteers Visitation	Persons Vehicles Persons Vehicles Persons Vehicles Persons Vehicles	3 2 15 12 10 8 350 42	0 0 10 8 10 8 600 60	0 0 5 5 5 5 5 5 5	0 0 3 3 0 0

Assuming the forecasts for the Center for Wooden Boats, Northwest Seaport, South Lake Union Park, and the Armory and the United Indian of All Tribes offices, parking demands for each of the seasonal and daily conditions are similar to those presented in the Parking Management Plan and the cumulative parking requirement would increase to those shown in Table 2. Table 2 suggests that on an average day the cumulative parking demand would range between 291 and 441 cars on a weekday and between 310 and 436 cars on a weekend day.



**TABLE 2: CUMULATIVE PARKING** 

Winter				
Group	Avera	ge Day	Peak Day	
	Weekday	Weekend	Weekday	Weekend
MOHAI	121	112	121	112
Virginia V	4	4	97	97
Center for Wooden Boats	117	124	448	469
NW Seaport	1	2	65	70
Park	31	31	31	31
United Indians of All Tribes	17	37	39	72
Total	291	310	801	851
	Summ	er		
Group	Average Day		Peak Day	
	Weekday	Weekend	Weekday	Weekend
MOHAI	131	118	131	118
Virginia V	4	4	97	97
Center for Wooden Boats	255	244	448	469
NW Seaport	1	2	65	70
Park	31	31	31	31
United Indians of All Tribes	19	37	39	72
Total	441	436	811	857

## Parking Supply

TSI also examined the parking inventory and utilization characteristics summarized in the South Lake Union Park Parking Management Plan. TSI found the inventory of total parking supply to be representative of the existing conditions even though there may be some minor changes since the original study was performed. For the purpose of this study, our analysis focused on the available public parking on street or off street. TSI assumed that all private parking would be reserved for specific users at specific times of day and, unless otherwise reserved, would not be available for general use by employees and/or visitors to MOHAI. As noted in the South Lake Union Park Parking Management Plan the survey distinguished a Primary Area from an Extended Area. These two areas are illustrated in Figure 2. This shows the Primary Area to reach approximately one quarter mile from the edge of the Park off Valley Street. The expanded area extends well over one half mile from the site.

For the purpose of this analysis TSI used the utilization observations summarized in the Parking Management Plan. Based on spot observations, it appears that parking utilization has increased slightly from utilization levels reported in the Parking Management Plan. This may be due to day-to-day variations in parking utilization. Nonetheless, it is interesting to note that those parking areas located adjacent to Lake Union tended to be used to a substantially higher level (over 70% occupied) as compared to parking lots located just south of Valley Street which tended to be only 30% occupied. We generally observed that parking utilization increased in the immediate vicinity of recent redevelopment or in parking areas that were closer to the downtown core. Within the primary area, this analysis shows there would be approximately 690 public parking stalls available for use with almost double that



number (1225 parking stalls) if the primary area were extended to the Expanded Area boundary. This is summarized in Table 3.

The adjusted parking demand for all of the uses in the vicinity of the South Lake Union Park on weekdays and weekend days appear to be reasonably accommodated within the primary parking area provided people could identify the location of the parking supply. Under existing conditions, this would be relatively simple due to the temporary parking that is planned at the south end of the site as well as large surface lots that are located immediately south of Valley Street opposite the site.

TABLE 3 - EXISTING WEEKDAY PUBLIC PARKING SUPPLY

		ACICICIONEICE).		
	Primary	Expanded		
Projected Parking Supply				
Public On-Street	1166	2937		
Public Off-Street	1017	1436		
Total Supply	2183	4373		
Future Utilization				
Public On-Street	899	2373		
Public Off-Street	595	777		
Total Utilization	1494	3150		
<b>Available Supply</b>				
Public On-Street	267	564		
Public Off-Street	422	659		
Total Available	689	1223		
Source: The Transpo Group				

As noted in Seattle Parks Parking Management Plan, there will be substantial changes to the available parking supply. Much of the existing supply that is located in the vicinity of the Center for Wooden Boats as well as the parking on the south side of Valley Street opposite South Lake Union Park will be eliminated as major redevelopment moves forward. Therefore much of the available parking in the area will be eliminated.

Accordingly, a forecast of future parking availability was developed using the data in the South Lake Union Parking Management Plan to determine future parking supply available following known or anticipated redevelopment in the South Lake Union area. The parking utilization was adjusted to reflect increased parking utilization resulting from spillover parking needs that will not be met by the on-site parking supply provided with new redevelopment in this area. This pattern of increased parking use is typical in redeveloping areas and is a natural outgrowth of the City of Seattle's objectives to encourage use of non-automobile modes of travel. It was assumed that parking utilization would increase by 20% over existing conditions. Table 4 summarizes the forecasted parking demand increases.

Table 4 shows the substantial declines in the amount of available parking (compared to Table 3) if parking utilization were to increase by 20%. In the primary area the parking supply will decrease to about 131 parking stalls and in the expanded area (which includes the primary area) the available parking will decrease to about 166 stalls. These values represent less than 10% of the total parking supply in these areas.



TABLE 4 - FUTURE WEEKDAY PUBLIC PARKING SUPPLY

	Primary	Expanded		
Projected Parking Supply				
Public On-Street	1114	2884		
Public Off-Street	810	1061		
Total Supply	1924	3945		
<b>Future Utilization</b>	1			
Public On-Street	1079	2847		
Public Off-Street	714	932		
Total Utilization	1793	3779		
Available Supply				
Public On-Street	35	37		
Public Off-Street	96	129		
Total Available	131	166		
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Source: The Transpo Group;

<sup>1</sup> with 20% increase in utilization by TSI

When parking utilization reaches 90% to 95% of the parking supply, the parking supply is functioning at capacity, allowing only for turnover of parking stalls. Consequently, with planned future redevelopment in this area and increased parking utilization due to spillover demand created by such redevelopment, the public on- and off-street parking will be functionally full. This would in turn leave no room for the parking demand created by a new facility like MOHAI. Therefore, as implied by the South Lake Union Parking Management Plan some aggressive alternative programs or measures will need to be adopted to accommodate the future parking demand generated by MOHAI and the other associated uses in the South Lake Union area.

# **USER SENSITIVITY TO PARKING AND ACCESS**

As noted earlier, parking and accessibility to parking can be perceived as a significant barrier by users, particularly discretionary users. Prior surveys conducted by MOHAI have indicated that employees and volunteers consider parking a very important consideration in their choice to work and volunteer at the museum. Relocating the museum to South Lake Union would certainly represent a significant change for employees and volunteers compared to their existing parking conditions. Currently employees and volunteers have dedicated parking located immediately adjacent to the MOHAI facility in Montlake.

Based on work with other museums, cultural and special event facilities, visitors and attendees generally expect a recognizable, reasonably accessible reservoir of parking when they attend an event or activity. Thus, parking to serve MOHAI and other activity centers around the South Lake Union Park will likely need to be in a concentrated area or areas that are exclusively or predominantly reserved for MOHAI and/or other South Lake Union Park users. Parking areas that can be readily identified with signing or some other signature feature will enhance the perception of parking availability.



TSI conducted an extensive search of studies to identify tolerable walking distances, and found limited information relating to facilities like MOHAI. Generally however, a one quarter mile walking distance is considered a practical maximum particularly for discretionary users.

The planned trolley service will provide some enhanced accessibility since there will probably be a stop directly adjacent to the South Lake Union Park. Nonetheless, this will still require visitors to park elsewhere, pay for parking, and pay again for the trolley before they pay their admission to enter MOHAI. The cumulative effect of area fees and transfers between modes of travel create increased resistance or impedance. Considering the many social and recreational opportunities available to people in the greater Seattle area, such resistance is expected to have an adverse affect on use of the trolley by a substantial number of volunteers and visitors.

#### COMPARISON OF PARKING SUPPLY WITH USER CHARACTERISTICS

(EVALUATION OF VEHICLE, DELIVERY/SERVICE AND BUS ACCESS)

TSI met with LMN Architects regarding the MOHAI site to review on-site circulation for key users of the South Lake Union Park site. A concept design is illustrated on Figure 3. The plan calls for development of parking in two areas: (1) at the north end of the site adjacent to the south side of the MOHAI building to include 31 reserved parking stalls including 4 disabled parking stalls, and (2) at the south end of the site off Valley Street to include 48 parking stalls serving the general public, volunteers, employees, and others taking part in activities generated by the various users on and around the South Lake Union Park site. The parking stalls closest to the building are anticipated to remain as a permanent part of site development. The parking stalls off Valley Street are intended to be temporary and are proposed to be replaced by 120 to 140 parking stalls that are proposed to be developed as part of a private development on the south side of Valley Street.

Pedestrian access is proposed through a system of serpentine trails with a center and westerly pedestrian promenade. The center promenade will also function as an exit for buses, service vehicles, and other large trucks. Additional pedestrian access will be provided via a pedestrian bridge linking Westlake Avenue on the west to the formal entrance to the MOHAI building on the west side of the building. This pedestrian connection is intended to be served via the existing public parking situated where the pedestrian walkway intersects Westlake Avenue.

Vehicular access is proposed to occur at a right turn in and right turn out driveway located on the east edge of the site. As noted above visitors and other non-exclusive users are expected to park in the area near the south edge of the site off Valley Street. Disabled parkers, shuttle, charter and school buses, catering service, traveling exhibit vehicles, and other selected service users are expected to travel north through the northerly parking area or around the building near the waters edge and exit via the center aisle that is intended to also be the main pedestrian corridor leading to/from Valley Street. The Valley Street access will be controlled by a traffic signal.



Based on a review of the conceptual site plan, it does not appear that the design has accounted for adequate turning radii for buses and large trucks. There are several locations near the northerly parking area where turning radii will need to be increased to accommodate these vehicles. Furthermore, for larger trucks to access the loading area planned to be located on the east side of the MOHAI building, there is likely a need to provide additional turning radii for backing vehicles into the loading dock. TSI believes some parking may be lost to accommodate these service truck maneuvers.

Another issue with the site relates to control of vehicle access on the northerly portion of the site. Presently, there does not appear to be any gates or other controls that would preclude the general public from accessing the northerly parking area. There does not appear to be any control that would restrict vehicles entering the center spine road from the south other than possible signage. Presently, this center driveway forms the fourth leg of the signalized intersection of Terry Avenue at Valley Street. Without some physical control we believe this access would be violated on a regular basis. Likewise, the easterly driveway will need controls located north of the public parking area to ensure that only delivery, bus, disabled parking, and other service vehicles are permitted. This can be accomplished with some automated gate/pneumatic bollard system coupled with some form of keypad and/or two-way voice command to permit access to appropriate users only. If such program were not implemented the northerly parking area will become overly congested. The additional traffic volume exiting on the center roadway would be substantial and could conflict with pedestrians walking through South Lake Park between MOHAI and Valley Street.

Based on the design, it does not appear that there is a clear understanding among the various site users regarding how parking stalls should be allocated or managed and how access to the northerly portion of the site can be controlled and managed. Considering the multiple user interests on the site and the wide variety of access needs, some operational plan will need to be developed to ensure efficient and consistent access and control.

#### PARKING AND ACCESS MITIGATION OPTIONS

Recognizing that the cumulative parking demand will not be satisfied by the available public parking supply within a reasonable walking distance, there are several mitigation options. Combinations of these options can be used to address different activity conditions. The basic attributes associated with each option and the degree to which they could effectively serve various users is described in detail in the following section and is summarized below in Table 5.



## **TABLE 5 PARKING MITIGATION OPTIONS**

Option	Capital Cost	Operating Costs	Operational per Administrative Considerations	User Considerations
Retain Temporary On- Site Parking	Minimal	• \$300–\$500 per space per year	Should not be used by employees     Could be dominated by a single user group without time limit controls	Most convenient for visitor use
Purchase Additional Off-Street Dedicated Parking	<ul> <li>Land cost for 325 ft <sup>2</sup> per space</li> <li>\$3k per space for surface lot.</li> <li>\$10k-\$20k per space for structured parking</li> </ul>	• \$400–\$600 per space per year	Can adjust parking fees to encourage per history selected users	Predictable parking space availability
Rent per Lease Additional Off-Street Dedicated Parking	Minimal	• \$5–\$10 per space per day	Supply can be adjusted to adapt to Seasonal or daily fluctuations	Requires clear signing and advanced notice or visitors will not use
Remote Parking and Shuttle	• \$100k–\$250k for rolling stock if operated by owner	• \$150k-\$300k per year plus cost of remote parking	Requires high frequency to be effective (remote parking lot in close proximity to site)	Should be free as part of admission.
Valet Parking	Negligible (signing, uniforms, tickets, radios, etc.)	Variable dependent on activity or event.	<ul> <li>Should be included in, Admission per event fee</li> <li>Still need to find nearby off-site parking to be effective</li> <li>Can be contracted with outside service</li> </ul>	Best for use on special events
Special Transit per Trolley Pass with Prepaid Entry	Negligible	• \$25k- \$40k if 10% to 15% of users take advantage of this option	May be difficult to coordinate with ticket vending system for trolley and Metro Transit	<ul> <li>Will likely be used by a limited number of people</li> <li>May be more viable for employees and volunteers as part of comprehensive TMP</li> </ul>

**Retain Temporary On-Site Parking** –Possibly the most cost effective way to address near term parking needs would be to retain the temporary on-site parking located at the south end of the site. While this space will need to be regulated, it provides 48 parking stalls that can be made available for short to intermediate term parking that services visitors to the site. Further, because this parking is not located near other adjacent commercial establishments, it is likely that most of this parking would be used by those visiting one of the users at the South Lake Union Park. In combination with the 120 to 140 parking stalls proposed as part of development on the south side of Valley Street, the combined supply of on-site and off-site parking should accommodate most average winter days of operation. Even with conversion of this temporary parking to permanent parking, it will be necessary to



encourage employees and volunteers to use alternate means of transportation particularly when there are special events.

**Purchase Additional Off-Street Dedicated Parking** —While this option is relatively costly (\$3,000-\$20,000 per parking stall for construction costs alone), this option would provide a predictable reservoir of parking, particularly for key employees and volunteers as well as an overflow area for special events or valet parking. The notion of expanding the 120 the 140 parking stalls proposed as part of one of the developments on the south side of Valley Street opposite South Lake Union Park could be an option.

Rent/Lease Additional Off-Street Dedicated to Parking – This option provides less long term certainty as new development and redevelopment occupies existing market rate surface public parking. At the same time, the rent/lease approach is substantially less costly and the parking supply can be adjusted to adapt to seasonal fluctuations in visitation. As available rental/lease opportunities decline with redevelopment, this option will require continual updating of communications to direct visitors to new locations which will reduce the predictability desired as part of an effective parking strategy.

Remote Parking and Shuttle –This option will require some off-site parking reservoir in reasonable proximity of this site to ensure high-frequency service and a short travel time between MOHAI and the parking reservoir. This option will also require substantial advance notice and effective communication via brochures and the internet since it is likely that such a parking reservoir will be located several blocks or miles away from the site. If such a system is operated by MOHAI there will be some substantial capital costs and/or significant leasing costs as well as significant operating costs. It may be prudent to contract the operators of a shuttle provider and then contract separately for the remote parking. A remote parking and shuttle plan can serve visitors, volunteers and employees.

**Valet Parking** –Valet parking is an operational strategy that can be used effectively, particularly for special events. This option may be less effective for general visitor parking. There will still require some reservoir of off-site parking available that can be either contracted by the valet vendor or by MOHAI. The off-site parking will need to be close to the site to provide responsive vehicle retrieval. To be effective, it is likely that this option be incorporated as part of the admission ticket.

Transit/Street Car/Pass with Prepaid Entry —With the increased emphasis on use of non-automobile modes of travel, one option for reducing parking demand would be to encourage the use of Metro Transit and the new street car. This may be a particularly effective means of transportation for people who are already in the downtown area and could be particularly useful for groups meeting at MOHAI and which draw from a downtown population. Due to the ticket vending system for the street car and Metro Transit's emphasis on simplifying its fare collection system, it will take some extra work to develop a fee system where a ticket can be issued with a prepaid admission. An alternative could be to reduce the cost of the admission if a visitor or guest provides a Metro Transit or street care transfer upon admission. It is anticipated that less than 15% of the visitors to the museum will use this option even if there is some incentive. As part of a comprehensive Transportation



Management Program (TMP), it may be appropriate that MOHAI subsidize the cost of transit passes for employees and volunteers

Although not presented in Table 5, a comprehensive Transportation Management Program should be developed for MOHAI and the other users on the site. Peak parking demand can be moderated through a cooperative scheduling process that can be part of such a TMP through a Parking Management Committee composed of the various usurers at the South Lake Union site. The measures outlined in the Transportation Management Planned prepared for Seattle Parks can be a start for developing such a program.

Should any of the above outlined options appear to be viable, they will need to be investigated in greater detail to ensure that costs are refined and the administrative and operational requirements are supportable by the structure of the museum's resources and organizational management.

As noted in the Executive Summary, we believe there is a large shortfall in parking supply for MOHAI and other South Lake Union Park users. Some substantial measures will need to be taken to effectively address this parking shortfall. I invite you to call me if you have follow-up questions or need further explanation of these findings.

Sincerely,

Transportation Solutions, Inc.

David Markley President

Attachments:

Figures 1: Site Plan

Figures 2: Block Number of Study Areas Showing Available Off-Street Public Parking

Figures 3: Site Access Circulation