ADDENDUM TO THE CERTIFIED EIR

The Grand Avenue Project

Los Angeles, California

State Clearinghouse No. 2005091041

Prepared for:

Grand Avenue Authority
445 South Figueroa St., Suite 3400
Los Angeles, CA 90071

Prepared By:

CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

July 2010

TABLE OF CONTENTS

Page

INTRODUCTION 1

PROPOSED CHANGES TO THE GRAND AVENUE PROJECT 4

Changes to Development on Parcels L and M-2 4

Changes to Development Implementation Schedule 12

ANALYSIS OF ANY CHANGES IN CIRCUMSTANCES UNDER WHICH THE PROJECT WOULD BE UNDERTAKEN 15

ANALYSIS OF ANY NEW INFORMATION OF SUBSTANTIAL IMPORTANCE THAT WAS NOT KNOWN AT THE TIME THE PREVIOUS EIR WAS CERTIFIED AS COMPLETE 15

ENVIRONMENTAL ANALYSIS 15

Impacts Related to Proposed Changes in Development on Parcels L and M-2 16

Land Use 16

Land Use Compatibility 16

Land Use Policy Consistency 17

Consistency with Zoning Requirements 17

Traffic, Circulation, and Parking 18

Construction Traffic 18

Operational Traffic, Access, and Parking 19

Aesthetics and Visual Resources 24

Visual Quality 24

Views 26

Light and Glare 27

Shade/Shadow 28

Historic Resources 28

Population, Housing, and Employment 29

Air Quality 32

Noise 57

Hazards and Hazardous Materials 58

TABLE OF CONTENTS (CONTINUED)

Page

Public Services 59
Fire Protection 59
Police Protection 61
Schools 63
Parks and Recreation 65
Libraries 66
Utilities 67
Water Supply 67
Wastewater 69
Solid Waste 72
Impacts Related to Proposed Changes to Development Implementation Schedule 75
ANALYSIS OF VIEW IMPACT OF ALTERNATE DESIGN ALTERNATIVE 79
CONCLUSION 82

APPENDICES

APPENDIX A: TRAFFIC STUDY, LADOT LETTER, SUPPLEMENTAL MEMOS TO LADOT

APPENDIX B: GHG EMISSIONS CALCULATIONS

APPENDIX C: WATER LINE REPORT

APPENDIX D: MITIGATION MEASURES APPLICABLE TO MUSEUM COMPONENT OF REVISED PROJECT

APPENDIX E: RELATED PROJECTS STATUS

LIST OF FIGURES

Page

Figure 1 Certified EIR Aerial Photograph 2
Figure 2 Certified EIR Conceptual Development for Parcels L and M-2.....6
Figure 3 Revised Project Conceptual Site Plan.....7
Figure 4 Revised Project Cross Section 9
Figure 5 Alternate Site Configuration.....81

LIST OF TABLES

Page

Table 1	Comparison of Approved Project and Revised Project on Parcels L and M-2	8
Table 2	Timelines for Construction Start and Deliverables	14
Table 3	Revised Project – Trip Generation Comparison	21
Table 4	Revised Project Population and Employment Projections	30
Table 5	Comparison of Revised Project to SCAG Projections	31
Table 6	Description of Identified Greenhouse Gases	36
Table 7	Atmospheric Lifetimes and Global Warming Potentials	38
Table 8	Predicted Greenhouse Gas Emissions Associated with Revised Project on Parcels L and M-2	44
Table 9	Revised Project Consistency with ARB AB 32 Scoping Plan Recommended Greenhouse Gas Emission Reduction Measures	46
Table 10	Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies	49
Table 11	Estimated Student Generation for the Approved Project	64
Table 12	Estimated Water Demand	68
Table 13	Estimated Wastewater Generation	71
Table 14	Estimated Solid Waste Generation	74
Table 15	Comparison of Revised Project with Changes in Development Schedule to SCAG Projections	78
Table 16	Comparison of Approved Project to SCAG Projections (from Certified EIR)	78
Table 17	Summary of Revised Project Compared to the Approved Project	83

ADDENDUM TO THE ENVIRONMENTAL IMPACT REPORT FOR THE GRAND AVENUE PROJECT
SCH NO. 2005091041

INTRODUCTION

This Addendum to the Environmental Impact Report (EIR) for the Grand Avenue Project (State Clearinghouse No. 2005091041) has been prepared to evaluate potential environmental effects that may be associated with proposed changes in the previously-approved Grand Avenue Project. These changes are related to potential changes in development plans for Parcels L and M-2 and changes in the implementation schedule for the Grand Avenue Project (described in full below under "PROPOSED CHANGES TO THE GRAND AVENUE PROJECT").

The Los Angeles Grand Avenue Authority (Authority)[1], acting as lead agency for the Grand Avenue Project under the California Environmental Quality Act (CEQA), certified the EIR for the Grand Avenue Project in November 2006. This document is hereinafter referred to as the Certified EIR. In November 2006, the Authority approved the Grand Avenue Project, which consisted of the following three components to be located in downtown Los Angeles: (1) the creation of a 16-acre Civic Park that builds and expands upon the existing Civic Center Mall that connects Los Angeles' City Hall to Grand Avenue; (2) streetscape improvements along Grand Avenue between Fifth Street and Cesar E. Chavez Avenue to attract and accommodate more pedestrian traffic; and (3) development of five parcels, which are referred to as Parcels Q, W-1, W-2, L, and M-2 (refer to Figure 1 [Certified EIR Aerial Photograph]). Two development options were analyzed in the Certified EIR: the Project with County Office Building Option and the Project with Additional Residential Development Option. Under the Project with County Office Building Option, up to 2,060 residential units, including up to 412 affordable units; up to 449,000 square feet of retail floor area; up to 275 hotel rooms; and a County Office Building containing up to 681,000 square feet, would be constructed. Under the Project with Additional Residential Development Option, up to 2,660 residential units, including 532 affordable units; 449,000 square feet of retail floor area; and up to 275 hotel rooms would be constructed. The County Office Building would not be constructed under the Project with Additional Residential Development Option. The total floor area to be developed under both options is 3.6 million square feet. The Grand Avenue Project, as approved by the Authority, is hereinafter referred to as the Approved Project.

[1] *The Los Angeles Grand Avenue Authority (Authority) was established through a Joint Exercise of the Powers Agreement between the Community Redevelopment Agency of the City of Los Angeles and the County of Los Angeles.*

	Gross Acres	Net Acres*
Parcel Q:	3.68 acres	2.98 acres
Parcels W-1/W-2:	3.92 acres	3.28 acres
Parcels L and M-2:	2.71 acres	2.24 acres
Total:	10.31 acres	8.50 acres

* Excludes easements and street and sidewalk rights-of-way.

Source: Grand Avenue The Related Companies, 2005.

CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

Figure 1
Certified EIR Aerial Photograph

The Certified EIR for the Grand Avenue Project evaluated the potential environmental impacts of a project that would be developed in a series of phases. Initially, the Approved Project was to involve the development of Parcel Q concurrently with the development of the Civic Park. Improvements to Grand Avenue, from Second Street to Temple Street, would also be implemented during this phase. Parcels W-1/W-2, L and M-2 would be developed in later phases, along with the completion of the Grand Avenue streetscape program, from Fifth Street to Second Street, and from Temple Street to Cesar E. Chavez Avenue.

This Addendum addresses proposed changes to the Approved Project, consisting of: (1) proposed changes to development of Parcels L and M-2; and (2) proposed changes to the original schedule for implementation of the overall development. These changes are hereinafter referred to as the Revised Project. Other than the changes set forth in this Addendum, all aspects of the Approved Project would remain the same as originally analyzed in the Certified EIR.

This Addendum was prepared under the authority of State CEQA Guidelines Section 15164(a) which allows a lead agency to prepare an addendum to a previously Certified EIR if some changes or additions to the previously Certified EIR are necessary but none of the conditions described in Section 15162(a) of the State CEQA Guidelines calling for preparation of a subsequent EIR have occurred. Section 15162(a) of the State CEQA Guidelines states that preparation of a subsequent EIR or a Negative Declaration is required when one of the following occurs:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects of a substantial increase in the severity of previously identified significant effects;

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:

   (A) The project will have one or more significant effects not discussed in the previous EIR;
   (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
   (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative;

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but project proponents decline to adopt the mitigation measure or alternative.

The Addendum to the EIR neither controls nor determines the ultimate decision on the Revised Project. The information in the Addendum will be considered by the lead and responsible agencies only if and when they consider separate discretionary actions to implement either a change in the Scope of Development and/or a change in the schedule of performance for separate phases of the originally approved Grand Avenue Project. Those actions are separate from action on the Addendum, discretionary and may differ for each agency based upon its required actions under the Grand Avenue Project's Disposition and Development Agreement or other transactional documents.

This Addendum describes the proposed changes to the Approved Project and provides an analysis of the potential environmental effects of the proposed changes as compared to the environmental effects of the Approved Project as set forth in the Certified EIR. As discussed in the sections which follow, the analysis demonstrates that the Revised Project would not involve substantial changes that would result in new significant environmental effects or a substantial increase in the severity of significant effects previously identified in the Certified EIR prepared for the Project. In addition, the analysis demonstrates that there will be no substantial changes with respect to the circumstances under which the project would be undertaken that would result in new significant environmental effects and no substantial increase in the severity of significant effects previously identified in the Certified EIR. Finally, the analysis demonstrates that new information of substantial importance meeting the criteria of Guidelines Section 15162(a)(3) would not occur. Thus, in accordance with the State CEQA Guidelines, preparation of a subsequent EIR to address the Revised Project would not be required.

PROPOSED CHANGES TO THE GRAND AVENUE PROJECT

Changes to Development on Parcels L and M-2

Approved Project

The Certified EIR for the Grand Avenue Project evaluated the potential environmental impacts of a project that would be developed in a series of phases. Initially, the Approved Project was to involve the development of Parcel Q concurrently with the development of the Civic Park. Improvements to Grand Avenue, from Second Street to Temple Street, would also be implemented during this phase. Parcels W-1/W-2, L and M-2 would be developed in later phases, along with the completion of the Grand Avenue streetscape program, from Fifth Street to Second Street, and from Temple Street to Cesar E. Chavez Avenue.

With respect to Parcels L and M-2, the Certified EIR for the Approved Project evaluated the potential environmental effects of replacing existing surface parking lots within Parcels L and M-2, located at the

southwest corner of the intersection of 2nd Street and Grand Avenue in the City of Los Angeles, with development consisting of up to 850 residential units and approximately 101,000 square feet of retail floor area. The Conceptual Plan for the Approved Project called for construction of up to three high-rise buildings containing the residential units, to be located along the southern and western edges of Parcels L and M-2. The Conceptual Plan also showed low-rise retail uses oriented to Grand Avenue along the northern and eastern edges of Parcels L and M-2 (see Figure 2 [Certified EIR Conceptual Development for Parcels L and M-2]). Under the Approved Project, the Conceptual Plan and land use mix for Parcels L and M-2 was the same under both the County Office Building Option and the Additional Residential Development Option.

The Conceptual Plan for development of Parcels L and M-2 under the Approved Project assumed a mix of high and low-rise development. The Certified EIR identified the following height envelopes for this development:

- Up to 30 percent of the site (i.e., Parcels L and M2) could be occupied by buildings of height up to 985 feet above mean sea level (approximately 600 feet above Grand Avenue);

- Up to 40 percent of the site could be occupied by buildings of height of up to 685 feet above mean sea level (approximately 300 feet above Grand Avenue); and

- Buildings with heights of up to 460 feet above mean sea level (approximately 75 feet above Grand Avenue) could be built anywhere on the site.

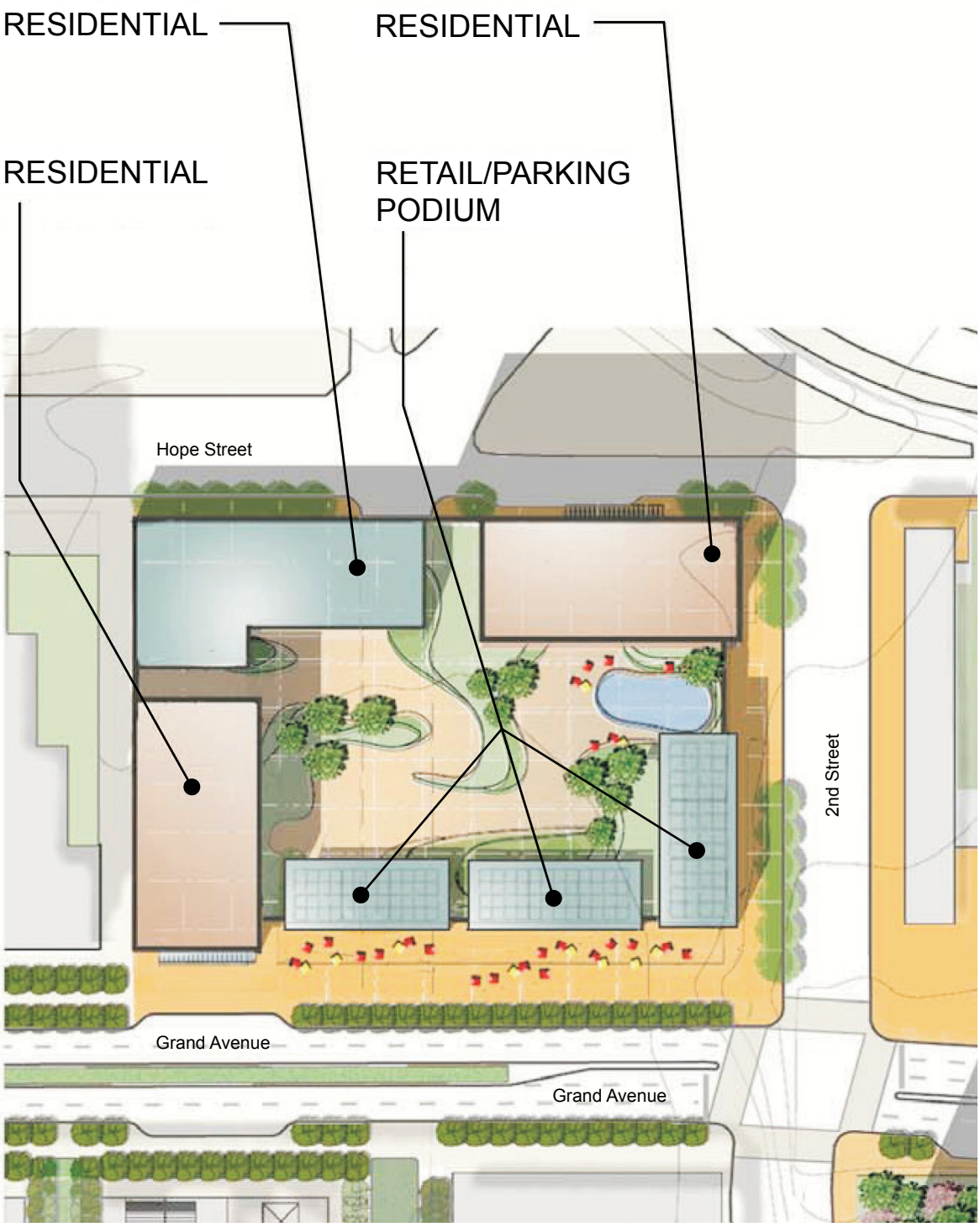
Revised Project

Revised Conceptual Plan

The Revised Project would revise the Conceptual Plan for Parcels L and M-2 to reflect a different mix of land uses and a different site configuration than was provided for in the Conceptual Plan for the Approved Project. The Revised Project would include a museum facility, along with residential and retail uses and associated parking facilities, on Parcels L and M-2. Inclusion of the museum facility would be offset by reductions in residential units and retail square footage compared to the Approved Project.

Figure 3 [Revised Project Conceptual Site Plan] shows the revised site configuration under the Revised Project. The revised plan would reduce the number of high-rise residential buildings from three to two, which are now referred to as Tower 1 and Tower 2, and would be located at the western edge of Parcel L and the southwest corner of Parcel M-2, respectively. A stand-alone low-rise retail area would be located adjacent to Tower 2. The museum building would be located adjacent to Tower 1, and would occupy the remainder of Parcel L. The museum and the retail area would be connected by a public plaza that would be pedestrian-accessible from Grand Avenue. Parking facilities for all uses would be located below the

PARCELS L+M-2



Source: Grand Avenue The Related Companies, 2005.

CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

Figure 2
Certified EIR Conceptual Development
for Parcels L and M-2

Source: Zimmer Gunsul Frasca Architects LLP., 03/16/2010.

CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

Figure 3
Revised Project Conceptual Site Plan

public plaza level. The Revised Project for Parcels L and M-2, including total buildout, is summarized in Table 1, Project Summary for Parcels L and M-2. With the inclusion of the 120,000 square foot (as calculated per applicable code) museum use, total residential units on Parcels L and M-2 would be reduced from 850 to 790, and retail use would be reduced from 101,000 square feet to 19,422 square feet under the Revised Project.

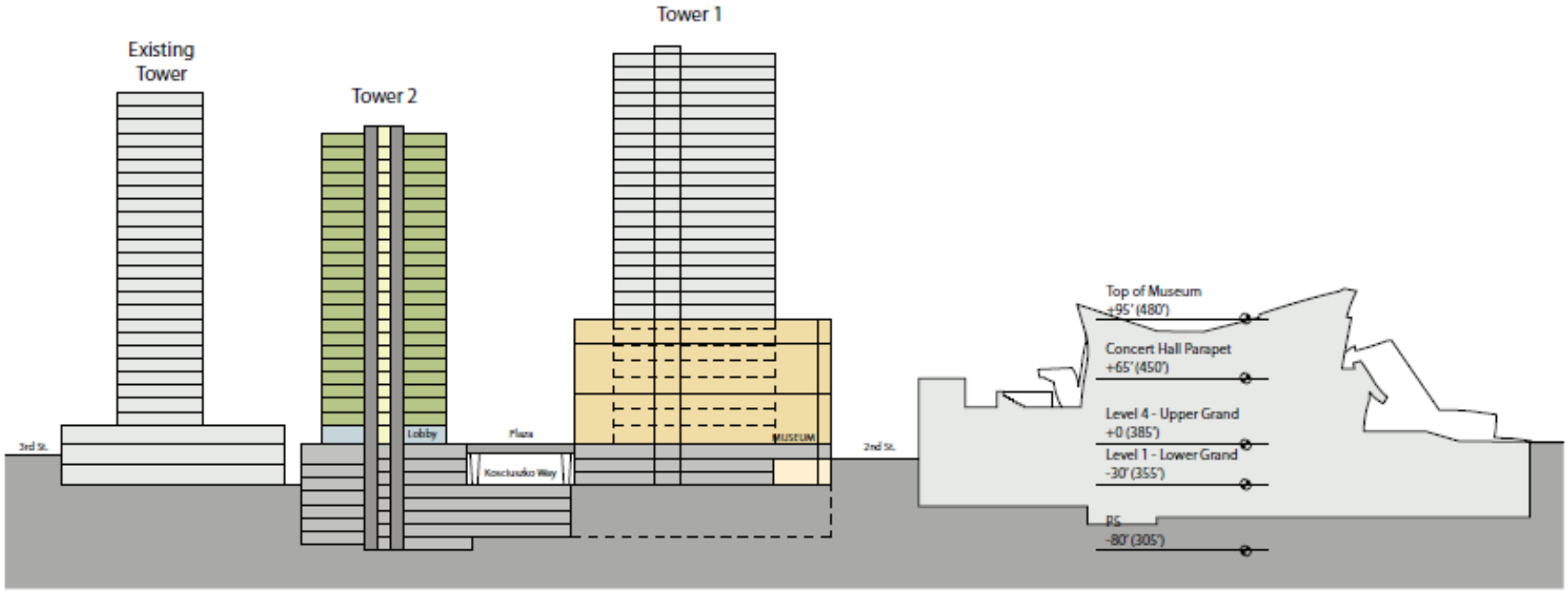
Table 1
Comparison of Approved Project and Revised Project on Parcels L and M-2

Use	Approved Project			Revised Project		
	Number	**Square Feet**	**Units**	**Number**	**Square Feet**	**Units**
Residential Towers	3	829,330	850	2	790,908	790
Retail	101,000 sq.ft.			19,422 sq.ft.		
Museum[1]	N/A			120,000 sq.ft		
Total Building Area	**930,330**		**850**	**930,330**		**790**
PARKING						
Museum	N/A			120[2]		
Residential/Retail Parking	1,570			1,246		
Total Parking Spaces	**1,570**			**1,366**		

[1] Could include related refreshment and retail uses of approximately 5,000 square feet.
[2] Parking for the museum use to be provided in accordance with Los Angeles Municipal Code Section 12.21.A.4.
Source: Zimmer Gunsul Frasca Architects LLP, 2010.

Between 2nd and 4th Streets, and adjacent to Parcels L and M-2, Grand Avenue runs at two levels, referred to as upper Grand Avenue and lower Grand Avenue. Upper Grand Avenue provides access to the office, retail and cultural uses located along the segment of Grand Avenue between 2nd and 4th Streets and represents the location of urban activity in this area. Lower Grand Avenue is located approximately 30 feet below upper Grand Avenue and provides access to loading docks and parking structures associated with these uses. The ground level of Parcels L and M-2 generally coincides with the elevation of lower Grand Avenue. After the development on Parcels L and M-2 is completed, the main entrances and pedestrian access to the uses on Parcels L and M-2 would be provided from upper Grand Avenue.

As shown in Figure 4 (Revised Project Cross Section), the museum building would be built to a maximum height of approximately 95 feet above upper Grand Avenue (480 feet above mean sea level). The height of the museum would not enlarge or reduce the allowable heights of remaining buildings on Parcels L and M-2 would be consistent with the height envelopes identified for the Approved Project.



SECTION A

LEGEND

- Museum
- Museum Support
- Retail
- Lobby
- Residential
- Residential Support
- Parking

NOTE:
Building heights for illustrative purposes only.

Source: Zimmer Gunsul Frasca Architects LLP., 06/22/2010.

Under the Revised Project, the inclusion of the museum use would not increase the overall floor area of development on Parcels L and M-2, when compared to the Approved Project. Under the zoning approvals granted by the City of Los Angeles for the Approved Project (and under the still existing zoning designation of R5), the proposed development of the museum on Parcels L and M-2 is a permitted use. Other than as described above, the Revised Project would not change any of the land uses and development parameters with respect to any other aspect of the Approved Project, including the Civic Park, Grand Avenue Streetscape Program and development of Parcels Q, W-1 and W-2.

Museum Use

Figure 3 (Revised Project Conceptual Site Plan) shows the location of the proposed museum use in relation to the remaining residential and retail uses. The proposed museum use would be located at the northeastern corner of Parcel L, in place of the low-rise retail uses identified in the Conceptual Plan for the Approved Project. The museum would include approximately 120,000 square feet of gallery, office and archive/storage space and would be located adjacent to Tower 1. The museum building would be built to a maximum height of 95 feet above upper Grand Avenue (480 feet above mean sea level). Figure 4 (Revised Project Cross Section) shows the proposed height of the museum building as compared to the adjacent Disney Hall.

The hours of operation for the museum would vary and would be set to optimize the availability of the museum to visitors. In general, the museum is expected to be open five days a week (closed Tuesdays and Wednesdays). The museum would open to the public at approximately 11 a.m. and, for purposes of analysis, could stay open until 9 p.m., although this would not be the case every day that the museum is open. The traffic study provided in this Addendum focuses on a conservative weekday worst case analysis of the museum closing at 5 p.m. This provides a higher estimate of peak hour trips as it assumed that all visitors and employees would be leaving the building during the peak hour of 5 p.m. to 6 p.m., compared to what would be a lower hourly volume if the museum were open till 9 p.m. (i.e., activity spread over more hours without concentration in peak hour). It is expected that the museum would be open to the public for a total of approximately 30 to 35 hours per week. Approximately 200,000 visitors are expected at the museum each year. Pedestrian access to the museum would be from the upper Grand Avenue plaza.

The museum anticipates holding approximately three exhibition openings per year. These will be held weekday evenings and/or on weekends, and will most likely range in size between 500 and 700 guests. The museum will also host smaller functions of approximately 50 to 100 guests at other times throughout the course of the year. These events will be infrequent and typically will be held during the evening hours or on weekends (i.e. outside the peak roadway traffic hours). The museum may also host visits by students from local schools, which would arrive at and depart from the museum in buses during non-peak hours. The museum is expected to have a full-time staff of 40 and up to 10 to 15 part-time employees on-site on a normal day.

The museum plans to have a museum store that would have frontage on and/or be easily accessed from upper Grand Avenue and that would be open to the public during the same hours as the museum. In addition, the museum might include an ancillary refreshment concession.

A parking garage would be provided beneath the museum building that would provide dedicated parking for museum visitors, along with parking spaces that would serve the residential units to be constructed in the future in Tower 1. If the museum building is completed before construction of Tower 1, the extra parking spaces in the parking structure would be made available for public use, until they are needed to serve the Tower 1 residential uses.

Construction of the museum parking structure could commence in late 2010, while construction of the museum building could commence in mid to late 2011.

Residential/Retail Uses

Under the Revised Project, the remaining uses in the Conceptual Plan for Parcels L and M-2 would be re-sited to accommodate the location of the museum building. The residential uses under the Revised Project would be located in two high rise towers, referred to as Tower 1 and Tower 2. A total of 790 residential units would be provided. Building heights for the residential towers would be consistent with the height envelopes of the Approved Project. The Revised Project would also include approximately 19,422 square feet of retail uses. These retail uses would primarily be located within a freestanding low-rise retail area located at the southeast corner of Parcel M, just to the east of Tower 2, although some retail could also be located at the ground floors of Towers 1 and 2. Primary access to the retail areas would be from the pedestrian plaza located at upper Grand Avenue.

A portion of the parking for Tower 1 residential uses would be located within the museum parking structure, as discussed above. The remainder of the parking supply for Tower 1 would be provided in a parking structure(s) located elsewhere on Parcels L/M-2. Parking for the Tower 2 residential and the remaining retail uses would be provided in a parking structure that would be located beneath Tower 2.

Construction

Construction activity under the Revised Project would be the same or less compared to the Approved Project. The Certified EIR evaluated a scenario for construction on Parcels L and M-2 that assumed that all of the proposed uses (850 residential units and 101,000 square feet of retail) would be constructed at one time over a three year period. Under the Revised Project, it is reasonably foreseeable that construction of the proposed museum use would occur in a separate sub-phase from the construction of the remainder of the residential and retail uses on Parcels L and M-2. Under this scenario, construction of the parking structure that would serve the museum use and some of the future residential use on Parcel L would occur during the first sub-phase in conjunction with the museum construction, and the remainder of

the residential and retail development and associated parking structures on Parcel M-2 and the remainder of Parcel L would be constructed together during a later sub-phase.

Under this scenario, if the sub-phases described above were to occur separately, the daily levels of hauling activity, construction equipment utilization and construction employment would be less for each separate sub-phase than was analyzed for Parcels L and M2 in the Certified EIR. This is because the activity needed to construct a 120,000 square foot museum and associated parking structure on less than half of the total area of Parcels L and M-2 is less than would be required to construct the three high-rise towers and three low-rise retail buildings under the Conceptual Plan for the Approved Project. Similarly, the activity associated with constructing the two high-rise residential towers and one low-rise retail area under the Revised Project would be no greater than would be required for the full buildout of Parcels L and M2 under the Conceptual Plan for the Approved Project. Moreover, if the two sub-phases were to overlap at all, the level of daily activity under the Revised Project would be also expected to be the same or less as under the Conceptual Plan for the Approved Project because the overall square footage and type (i.e., high-rise/low-rise) of development would be similar to the Approved Project and the level of activity associated with constructing this development is directly related to the size and type of development.

Since the level of daily construction activity under the Revised Project would not exceed that of the Approved Project as evaluated in the Certified EIR and the thresholds of significance for construction activity in the Certified EIR are based on daily construction activity levels, construction activity under the Revised Project would not create new significant impacts or result in increased severity of impacts previously identified in the Certified EIR, as detailed in the impact sections that follow.

Under the Revised Project, a haul route approval will be required. For the reasons discussed above, hauling activity under the Revised Project would be similar to or less than the Approved Project as analyzed in the Certified EIR. As would occur under the Approved Project, most construction truck traffic would be freeway-oriented and would use Highway 101 (the "Hollywood Freeway") and Interstate 110 (the "Harbor Freeway"), which are only two blocks from the Project Site. The likely routes to/from these freeways would be by Grand Avenue and Hope Street. The number of daily and hourly truck trips associated with the Revised Project would not exceed the levels of truck traffic that would occur under the Approved Project. The highest periods of truck activity would be in the initial six to eight months of construction for Parcels L and M-2, when haul trucks would carry excavated material from the Project Site. During those periods it is estimated there may be from 130 trucks a day to a peak of 300 trucks a day. These numbers of truck trips would be lower if museum construction occurs in a separate sub-phase from the construction of the remaining residential and retail uses on Parcels L and M2.

Changes to Development Implementation Schedule

The Approved Project included a Disposition and Development Agreement (DDA) and a Ground Lease which set forth a schedule for implementing the various phases and components of the Approved Project. Intervening events have necessitated the modification and extension of this schedule to allow for extended

time frames to complete these phases and project components. Table 2 shows the proposed changes in the implementation schedule for the Revised Project compared to the Approved Project. Although numerous milestones would be revised under the proposed changes, the revisions that are pertinent to the evaluation of the potential impacts of the Revised Project are:

- Changing the commencement of construction date from February 11, 2011 to February 15, 2013.
- Changing the construction period encompassing all phases from between February, 2011 and December, 2017 to between February, 2013 and May, 2023.
- Phasing of construction activities would not be changed and the same overlaps in construction phases and activities would occur as originally anticipated, except as described below for Parcels L and M2.
- Changing the completion date of full project buildout from 2017 to 2023.

Table 2
Timelines for Construction Start and Deliverables

	ORIGINAL DDA TIMELINE Phase I	Phase II	Phase III	PROPOSED TIMELINE Phase I Proposal	Phase II Proposal	Phase III Proposal
Effective Date	March 16, 2007	March 16, 2007	March 16, 2007	March 16, 2007		
Payment of Leasehold Acquisition Fee	Sept. 23, 2005	December 16, 2010 (45 months after Effective Date)	March 16, 2012 (60 months after Effective Date)	Sept. 23, 2005	May 15, 2016 (15 months prior to construction start)	August 15, 2017 (24 months prior to construction start)
Schematic Drawing Submission	April 15, 2007 (30 days after Effective Date)	September 16, 2010 (18 months prior to req'd start of construction)	September 16, 2012 (18 months prior to req'd start of construction)	April 13, 2007 (actual submission date)	February 15, 2016 (18 months prior to req'd start of construction)	February 15, 2018 (18 months prior to req'd start of construction)
Design Drawing Submission	August 13, 2007 (120 days after receipt of SD)	January 14, 2011 (120 days after receipt of SD)	January 14, 2013 (120 days after receipt of SD)	January 28, 2008 (actual submission date)	June 15, 2016 (120 days after receipt of SD)	June 15, 2018 (120 days after receipt of SD)
80% Construction Drawings Submission	February 11, 2008 (180 days after submittal of DD)	July 13, 2011 (180 days after submittal of DD)	July 13, 2013 (180 days after submittal of DD)	December 4, 2008 (actual submission date)	December 12, 2016 (180 days after submittal of DD)	December 12, 2018 (180 days after submittal of DD)
Final CD Submission	June 11, 2008 (120 days after submittal of 80%)	November 11, 2011 (120 days after submittal of 80%)	November 11, 2013 (120 days after submittal of 80%)	No specific date yet (30 days after the City's completion of plan check)	April 11, 2017 (120 days after submittal of 80%)	April 11, 2019 (120 days after submittal of 80%)
Commencement of Construction	October 1, 2007 (subsequently modified to February 11, 2011)	March 16, 2012 (within 15 months of paying leasehold acq. fee)	March 16, 2014 (within 24 months of paying leasehold acq. fee)	February 15, 2013 (proposed amendment to current extension)	August 15, 2017 (allows nine month gap between Phase I and II)	August 15, 2019 (within 24 months of paying leasehold acq. fee)
Completion of Construction	June 30, 2011 (no later than)	December 16, 2015 (45 months after start of construction)	December 16, 2017 (45 months after start of construction)	November 15, 2016 (45 months after start of construction)	May 15, 2021 (45 months after start of construction)	May 15, 2023 (45 months after start of construction)

Note: The original Schedule of Performance allowed for a nine month gap between completion of construction of Phase I and the start of Construction of Phase II. Construction of Phases II and III overlap by a year and nine months.

ANALYSIS OF ANY CHANGES IN CIRCUMSTANCES UNDER WHICH THE PROJECT WOULD BE UNDERTAKEN

Since the Project was approved, no new major development has occurred within one-quarter mile of the Project Site. In addition, land use patterns in the vicinity of the Project Site have remained the same and no major changes have occurred which would constitute changed circumstances for undertaking the Revised Project. Although the Civic Park component of the Approved Project is scheduled to begin construction in the near future, this activity would not affect the development of Parcels L and M-2 under the Revised Project. Notably, the immediately adjacent uses to the southern edge of the Project Site (the Grand Promenade Tower to the south) are the same as when the previous EIR was certified. The current circumstances in the immediate vicinity of the Project Site would not necessitate any changes to the conclusions presented in the Certified EIR.

ANALYSIS OF ANY NEW INFORMATION OF SUBSTANTIAL IMPORTANCE THAT WAS NOT KNOWN AT THE TIME THE PREVIOUS EIR WAS CERTIFIED AS COMPLETE

There is no new information associated with the Revised Project that would show that: (1) the Revised Project would have one or more significant effects not discussed in the Certified EIR; (2) significant effects previously examined will be substantially more severe than shown in the Certified EIR; (3) mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents declined to adopt the mitigation measure or alternative; or (4) mitigation measures or alternatives which are considerably different from those analyzed in the Certified EIR would substantially reduce one or more significant effects on the environment, but the project proponents declined to adopt the mitigation measure or alternative.

ENVIRONMENTAL ANALYSIS

The potential effects of the Revised Project with respect to each of the environmental issue areas addressed in the Certified EIR for the Approved Project are examined below to determine whether they would result in any new significant impacts or increase in the severity of previously-identified impacts, as presented in the Certified EIR.

Impacts Related to Proposed Changes in Development on Parcels L and M-2

Land Use

Land Use Compatibility

Certified EIR

The Certified EIR concluded that the Approved Project's land use impacts, for Parcels L and M-2, associated with size, intensity, density, and scale would be less than significant. The Approved Project's residential and commercial uses would support the existing uses in the area by providing land uses that would be interactive with existing surrounding uses. Since the Approved Project would be consistent with or complementary to existing uses and consistent with the existing and projected density and scale of the area, no significant impacts relative to land use compatibility between the Approved Project and surrounding uses would occur.

Revised Project

Under the Revised Project, the proposed project changes would only slightly change the pattern of uses along Hope Street and Grand Avenue from those that were in the Approved Project. Similar to the Approved Project, development along Grand Avenue would continue to include a street-front retail edge that would help define Grand Avenue as a primary urban avenue. Under the Revised Project, this retail area would be relocated along the southeastern edge of the site, to Parcel M-2, in order to make way for a public museum with a related museum store retail use and a possible refreshment use to be located along the northeastern edge of the site, on Parcel L. With the public plaza located between the retail and museum uses, the entire length of upper Grand Avenue along the street-front edges of Parcels L and M-2 would be enlivened with publicly-available offerings. Thus, the Revised Project would serve to define Grand Avenue as a primary urban avenue to an even greater extent than did the Approved Project. Similar to the Approved Project, the Revised Project would include a large open plaza accessible to Hope Street and Grand Avenue that would improve pedestrian linkages between the existing Bunker Hill development west of Hope Street and Grand Avenue. Similar to the Approved Project, under the Revised Project, the residential component would be located along Hope Street and would contribute to street activity during evenings and weekends. At buildout, the availability of services and entertainment in the weekend and evening hour, including services and restaurants contained within the Revised Project, would contribute to the experience of attending the Walt Disney Concert Hall, Music Center, and MOCA. Patrons of these may wish to stroll, visit the museum, or retail establishments before or after attending other cultural activities. No impacts would be associated with the Revised Project in this regard. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to land use compatibility.

Land Use Policy Consistency

Certified EIR

The Certified EIR concluded that the uses proposed for the Project Site, for Parcels L and M-2, would be substantially consistent with the applicable provisions of the Bunker Hill Redevelopment Plan and with the objectives of the Los Angeles General Plan Framework, the Central City Community Plan, the Downtown Strategic Plan, the Los Angeles Civic Center Shared Facilities and Enhancement Plan, and the Southern California Association of Governments (SCAG) Regional Comprehensive Plan and Guide (RCPG). Therefore, it was concluded under the Approved Project that impacts would be less than significant.

Revised Project

Under the Revised Project, the pattern of commercial uses along Grand Avenue would change with the inclusion of a museum, which would replace a portion of the retail uses that were included in the Approved Project. However, the museum would essentially establish a similar outcome as a retail use, by defining Grand Avenue as a primary urban avenue and increasing the availability of services and entertainment on the weekends for the Downtown area. Furthermore, the museum would hold an estimated three openings per year. The special openings would be held weekday evenings and/or on weekends, and would most likely range in size from 500-700 guests. The museum would also host smaller functions of approximately 50-100 guests at other times throughout the course of the year. These openings and smaller functions would attract additional residents and visitors to downtown Los Angeles, consistent with the policies contained in adopted land use plans for the area. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to land use plans and policies.

Consistency with Zoning Requirements

Certified EIR

The Certified EIR identified a requirement, under the Approved Project, for Parcels L and M-2, for a zone change and variances for the development of Parcels L and M-2. Neither Project Option under the Approved Project was in compliance with the current designations. As such, it was conservatively concluded for purposes of CEQA that there would be a significant impact relative to zoning and discretionary approvals would be required from the City of Los Angeles. The zone changes and variances were granted by the City of Los Angeles in conjunction with various entitlement actions that were undertaken for the Approved Project.

Revised Project

The museum use would constitute the only new use on Parcels L and M-2 under the Revised Project. The museum use is permitted under the C2 zone applicable to Parcels L and M-2 per the approvals of the Project granted in 2006 (as well as under the still-existing R-zoning designation for these parcels). Therefore, no additional zoning or land use entitlement actions are required from the City to permit the museum or other uses within the Project Site. Under the Revised Project, haul route approval from the Department of Building and Safety will be required, similar to the Approved Project. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to zoning requirements.

Traffic, Circulation, and Parking

Construction Traffic

Certified EIR

The Certified EIR examined potential traffic impacts during construction that would be associated with haul trips, worker trips, temporary lane closures, pedestrian access, reconstruction of the Civic Center Mall ramps, bus stop relocation and construction worker parking. The Certified EIR concluded that, because some of the up to 300 daily haul truck trips during construction could occur during the a.m. peak hour, a short-term significant impact would occur. The Certified EIR concluded that temporary lane closures up to 24 months in duration would cause significant traffic impacts during the time of such closures. The Certified EIR concluded that diversion of traffic caused by the temporary closure of the Civic Center Mall ramps could potentially create short-term traffic impacts. The Certified EIR concluded that the need for parking for up to 600 construction workers would cause potential impacts on parking supply in the area. The Certified EIR concluded that impacts associated with worker trips, pedestrian access, and bus stop relocation would be less than significant.

Revised Project

Construction activities under the Revised Project would be the same or less than identified under the Approved Project. The underground parking garages on Parcels L and M-2 would be constructed separately, with the museum being built first on Parcel L, including an underground parking structure containing parking for the museum use and additional parking to serve the remaining future residential development on Parcel L. The excess parking would be used for the residential units in Tower 1 on Parcel L once they are built. In the interim, before Tower 1 is built, the parking spaces within this structure would be available for public use. Underground parking structures serving future residential and retail development on Parcel M-2 and the remainder of Parcel L would be built in conjunction with that development. Under this scenario, impacts of excavation, garage construction and associated hauling activity would be lower than the Approved Project since the level of construction activity for each

individual parking structure would be lower than if both structures were built concurrently. Since the museum use could be constructed independently of the other uses on Parcels L and M-2, even though grading, excavation and garage construction would be the same as the Approved Project, building framing and finishing activities would be less than the Approved Project, which assumed that all of these buildings would be constructed concurrently.

Under this construction phasing scenario, the significant impacts associated with haul trips under the Revised Project would be lower than the Approved Project. The significant impacts associated with temporary lane closures would likely be less than the Approved Project because construction of the museum building and the other buildings would occur at different times. The Revised Project would not affect the closure of the Civic Center Mall ramps, and this significant short term traffic impact under the Approved Project would not change under the Revised Project. The parking demand associated with construction workers could be less under the Revised Project, as the peak number of construction workers on-site could be lower because construction of the museum building and the other buildings could occur at different times. The impacts of worker trips, pedestrian access and bus stop relocation, which would be less than significant under the Approved Project, would be the same or lower under the Revised Project. Mitigation measures B-1, B-2 and B-3, as set forth in the Certified EIR, require preparation and distribution of a Construction Traffic Control/Management Plan and provision of temporary construction worker parking. These mitigation measures would apply to the development associated with the Revised Project on Parcels L and M-2. As such, and for the reasons discussed at page 13 of this Addendum, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to construction traffic.

Operational Traffic, Access, and Parking

Certified EIR

The Certified EIR identified that the Approved Project, including development of Parcels L and M-2, would generate approximately 1,551 a.m. peak hour trips and 2,464 p.m. peak hour trips under the County Office Building Option. Under the Project with Additional Residential Development Option, the Approved Project would generate approximately 1,019 a.m. peak hour trips and 2,003 p.m. peak hour trips. Of these totals, proposed development on Parcels L and M-2 would contribute 263 a.m. peak hour trips and 494 p.m. peak hour trips. This total would be the same under both the County Office Building Option and the Project with Additional Residential Development Option. The Certified EIR examined potential impacts on 32 study intersections and concluded that, under the County Office Building Option, significant traffic impacts would occur at seven intersections in the a.m. peak hour and 17 intersections in the p.m. peak hour. Under the Additional Residential Development Option, significant impacts would occur at six intersections in the a.m. peak hour and 17 intersections in the p.m. peak hour. With the implementation of mitigation measures, one intersection in the a.m. peak hour and 13 intersections in the p.m. peak hour would be significantly and unavoidably impacted under the County Office Building

Option. No intersections in the a.m. peak hour and seven intersections in the p.m. peak hour would be significantly and unavoidably impacted under the Additional Residential Development Option.

The Certified EIR also examined potential impacts on the freeway system and at Congestion Monitoring Program (CMP) monitoring locations and concluded that, under the County Office Building Option, two significant impacts on the freeway system, one of which would occur at a CMP monitoring location (US-101 Hollywood Freeway north of Vignes Street), would occur. Under the Additional Residential Development Option, no significant freeway traffic impacts would occur. The Certified EIR concluded that no significant traffic or access impacts would occur at proposed driveway locations under the Approved Project.

The Certified EIR concluded that, under both the County Office Building Option and the Additional Residential Development Option, commercial and residential parking would be consistent with the requirements of the Los Angeles Municipal Code and that the Approved Project would not significantly impact off-site parking supply in the surrounding area. The Certified EIR noted that neither option would meet the requirements of the Deputy Advisory Agency Residential Policy (DAARP), which requires 2.5 parking spaces per dwelling unit and conservatively concluded that there would be a significant impact for purposes of CEQA as a result of this inconsistency.

Revised Project

A Supplemental Traffic Review to the Grand Avenue Project EIR Traffic Study was conducted by The Mobility Group to evaluate the effects of the proposed changes under the Revised Project (Appendix A to this EIR Addendum). This study has been approved by the City of Los Angeles Department of Transportation (LADOT). This evaluation addressed the traffic generating characteristics of the proposed development on Parcels L and M-2 under the Revised Project as compared to the Approved Project. The trip generation calculations are the primary input to the calculation of the intersection level of service and volume-to-capacity (V/C) ratio that are used in the significance threshold for determining significant traffic impacts.

The trip generating characteristics of the proposed museum use were assessed based on the characteristics of similar museums in the area and the anticipated operating characteristics of the proposed museum, as set forth in the Project Description section in this Addendum. Trip generation for the Revised Project as compared to the Approved Project, for development of Parcels L and M-2 and for the total project, is shown in Table 3.

Table 3
Revised Project – Trip Generation Comparison

	Total Trips		Inbound Trips		Outbound Trips	
Parcels L and M-2	Approved Project	Revised Project	Approved Project	Revised Project	Approved Project	Revised Project
AM Peak Hour (7-9 a.m.)	263	255	77	95	186	160
PM Peak Hour (4-7 p.m.)	494	422	279	201	215	242
Daily (Whole Day)	5,549	4,352	2,774	2,176	2,775	2,176
Total Project	Approved Project	Revised Project	Approved Project	Revised Project	Approved Project	Revised Project
AM Peak Hour (7-9 a.m.)	1,551	1,543	919	937	632	606
PM Peak Hour (4-7 p.m.)	2,464	2,413	1,120	1,042	1,344	1,371
Daily (Whole Day)	22,601	21,404	11,299	10,702	11,302	10,703

Source: The Mobility Group, 2010. Calculations and assumptions are contained in Appendix A to this EIR Addendum.

As shown in Table 3, the total number of trips for Parcels L and M-2 in each time period is lower for the Revised Project than for the Approved Project. In the a.m. peak hour, a total of 255 trips would be generated under the Revised Project, compared to 263 for the Approved Project. In the p.m. peak hour, a total of 422 trips would be generated by the Revised Project, compared to 494 for the Approved Project. Although there are some differences between the inbound and outbound traffic levels, the differences amount to a small number of trips and the in/out splits of trips would remain similar. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously identified impacts with respect to intersection, freeway or CMP impacts, based on reduced trip generation compared to the Approved Project. Accordingly, the Revised Project does not require any additional mitigation measures other than those measures already applicable to the Approved Project, and, it should be noted, some of these measures are not needed to mitigate the impacts of the museum component of the Revised Project.

With respect to special events, the museum anticipates holding approximately three exhibition openings per year. These will be held weekday evenings and/or on weekends, and will most likely range in size between 500 and 700 guests. The museum will also host smaller functions of approximately 50 to 100 guests at other times throughout the course of the year. These events will be infrequent and typically will be held during the evening or at weekends (i.e. outside the peak roadway traffic hours). Since background roadway traffic volumes would be much lower than during peak hours, significant traffic impacts would not be expected due to such events. The museum may also host visits by students from local schools, which would arrive at and depart from the museum in buses during non-peak hours.

If, for any occasional special event or circumstance, it becomes desirable to close traffic lanes or street segments on a temporary basis, then the museum would work with LADOT to prepare at the agency's

discretion an approved special traffic management and control plan on a temporary basis, as are currently prepared for other special events throughout the City as deemed necessary by LADOT. Given the traffic management and controls in such plans, the temporary and infrequent nature of such events, and the general acceptance of the public of some level of traffic congestion and vehicle delays in arriving at or departing from successful special events, no significant traffic impacts would be associated with these events.

With respect to parking, as these irregular special events would generally occur in the evening or at weekends, a substantial amount of parking in nearby Bunker Hill garages, and numerous surface lots, that are usually used by employees during the weekday daytime, would be available. Therefore, there would be no significant parking impacts caused by these events.

Mitigation Measure B-7 in the Certified EIR comprises restriping the westbound approach to the intersection and a slight widening of the west leg of the intersection. An analysis was conducted to determine if the museum component of the Revised Project alone would cause a significant traffic impact at this location and thereby require implementation of the mitigation measure. This analysis is contained within Appendix A of this EIR Addendum and shows that the museum component of the Revised Project alone would not cause a significant traffic impact at the intersection of Third Street & Hill Street. It was therefore concluded that the museum component of the Revised Project would not be required to implement this mitigation measure. Accordingly, Mitigation Measure B-7 would be revised if the Revised Project is approved to read as follows:

"After construction of the museum, but prior to issuance of the Certificate of Occupancy for the next phase of the Revised Project, the Developer, with regard to the five development parcels, shall re-stripe the westbound approach of the Third Street and Hill Street intersection from the existing configuration of one left turn lane, one through lane, and one shared through/right-turn lane to a future configuration of one left turn lane, two through lanes, and one exclusive right-turn lane. This improvement would require a slight widening of Third Street west of Hill Street before the entrance to the tunnel within the public right-of-way. The final lane configuration of this intersection shall be to the satisfaction of the City of Los Angeles Department of Transportation. In addition, any street widening and construction activities shall be coordinated with the City of Los Angeles, Department of Public Works, Bureau of Engineering."

Under the Revised Project, access/egress would be similar to that identified for Parcels L and M-2 under the Approved Project. The Revised Project would provide a full access driveway on Second Street, similar to the Approved Project. A full access driveway would also be provided on the south side of General Thaddeus Kosciusko Way (GTK Way), which would serve both of the residential towers on Parcels L and M-2. The only difference in access to that identified for the Approved Project is that the Second Street driveway would not be directly connected to the Parcel M-2 parking garage due to design constraints. Nevertheless, vehicular access/circulation would be very similar to that assumed for the Approved Project because of connections between the residential parking areas. Truck access would continue to be provided from Lower Grand Avenue for both parcels as identified for the Approved

Project. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to driveway locations.

The parking supply would be slightly lower for the Revised Project, once built, (1,366 spaces) than for the Approved Project (1,570 spaces). Of the total of 1,366 parking spaces, 120 would be dedicated to the museum use, 56 spaces for commercial uses and 1,190 spaces for residential uses. Parking supply for the museum use would meet the requirement of LAMC Section 12.21.A.4. Parking demand would be lower under the Revised Project because of lower levels of retail and residential development. For Parcels L and M-2, the Revised Project would provide approximately 524 more parking spaces than required by the Municipal Code. As previously stated, the Certified EIR concluded that there would be a significant parking impact for purposes of CEQA with respect to the parking supply for the residential units. However, the Approved Project was granted an exception from the DAARP in the course of the original project approvals, which reduced the parking requirement for the residential units. This exception would also apply to the Revised Project. The Revised Project would include parking supply for the residential units that would be consistent with the requirement established in the exception from the DAARP previously granted to the Approved Project. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to parking.

Aesthetics and Visual Resources

Visual Quality

Certified EIR

The proposed development of Parcels L and M-2 under the Approved Project would remove the existing surface parking lot and would contribute to the existing visual character of the area by raising the site to the Grand Avenue street level and would create a continuous interface with the sidewalk that is currently missing along the west side of Grand Avenue. Development of Parcels L and M-2 was envisioned to contribute to revitalizing the street space by adding a street-front retail edge that would help define Grand Avenue as an active urban avenue. The street front of Parcels L and M-2 would be integrated with the Grand Avenue streetscape and the street-front retail uses would provide an amenity that now only occurs minimally along Grand Avenue. The active street front would reinforce the street front plazas that would be incorporated into Parcel Q and would provide continuity along the sidewalk between the Walt Disney Concert Hall and Third Street. Hope, Second, and Third Streets adjoining Parcels L and M-2, would be designed with pedestrian friendly street edges that would be enhanced with entrances to residential buildings and streetscape amenities, including trees, landscaping, paving systems, benches, trash receptacles, street graphics, and lighting. Building height overlays in Parcels L and M-2, under the Conceptual Plan, would allow a cluster of two high-rise towers and low-rise buildings. The buildings up to 600 feet above upper Grand Avenue (985 feet above mean sea level) would be allowed to occupy 30

percent of the site; buildings up to 300 feet above upper Grand Avenue (685 feet above mean sea level) would be allowed to occupy 40 percent of the site; and buildings up to 75 feet above upper Grand Avenue (460 feet above mean sea level) would be allowed to occupy 100 percent of the site. The variation in building heights would reduce the overall mass of the development and would reduce the contrast of the development with the low-rise Walt Disney Concert Hall, located north of Second Street. Although proposed buildings in Parcel L would not be oriented toward the Walt Disney Concert Hall, Parcel L's buildings nearest the Walt Disney Concert Hall, under the Conceptual Plan, would be low-rise street-front shops. The use and scale of Parcel L's low-rise retail component would be compatible in scale and function with the adjoining low-rise Walt Disney Concert Hall, which also features a street-front theme shop on Grand Avenue.

The Certified EIR concluded that the Approved Project, for Parcels L and M-2, with the inclusion of mitigation measures, would be consistent with and would promote the Project's compatibility with the existing urban design character of the area, including during the construction timeframe. Furthermore, the Certified EIR concluded that the Approved Project would be consistent with the applicable urban design guidelines and regulations of the General Plan Framework, the Central City Community Plan, the Bunker Hill Redevelopment Plan, the existing Bunker Hill Design for Development, and the Downtown Strategic Plan. Therefore, impacts under the Approved Project were concluded to be less than significant with respect to visual quality/aesthetics and applicable plans and regulations.

Revised Project

Construction

Under the Revised Project, construction of the museum would relocate the remaining retail uses identified for the northeast corner of the Project Site of the Approved Project to the southeast corner of Parcels L and M-2. This retail use would still be oriented to Grand Avenue. Similar to the Approved Project, although construction activities would reduce the existing visual attributes of the Parcels L and M-2 during the construction phases, these parcels do not currently contain any aesthetic features that contribute to the existing visual character of the area. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to construction activities.

Operation

Under the Revised Project, the museum, with its related museum store use and its potential related refreshment use, would contribute to revitalizing the street space by adding a publicly-available venue to the northeastern street-front edge of the site which, together with the retail uses planned for the southeastern street-front edge and the public plaza in the middle, would help define Grand Avenue as an

active urban avenue. Similar to the Approved Project, the Revised Project would design Hope Street and Second Street with pedestrian friendly street edges that would be enhanced with entrances to residential buildings and streetscape amenities, including trees, landscaping, paving systems, benches, trash receptacles, street graphics, and lighting. Furthermore, under the Revised Project, building heights are planned with several high-rise towers and low-rise buildings, thus creating a reduction in overall mass of development and reducing the contrast of the Revised Project with the low-rise Walt Disney Concert Hall, located north of 2nd Street. Under the Revised Project, the proposed museum building could potentially extend to a height of 95 feet above upper Grand Avenue (480 feet above mean sea level), which would slightly exceed the height envelope evaluated in the Certified EIR (75 feet above upper Grand Avenue/460 feet above mean sea level). However, as shown in Figure 4 in the Project Description section of this EIR Addendum, this aspect of the Revised Project would not affect the visual prominence of Disney Hall, which is the visual landmark of the area. Disney Hall is 521 feet above mean sea level at its highest point and possesses sufficient building mass and unique design features that will enable it to retain its visual prominence even in the presence of another architecturally unique building such as the proposed museum building. The two residential towers under the Revised Project would be within the same height envelope of the Approved Project. Furthermore, the museum building would enhance the area as a cultural center by including an additional prominent cultural feature to the area and it would be separated from Disney Hall by 2nd Street and the Philharmonic office building located along the southern edge of the Disney Hall site on the north side of 2nd Street. As such, the site plan for the Revised Project would provide for some physical and visual separation between these two architecturally significant buildings, which would minimize the visual impact of the museum building on the Disney Hall. Height variations created by the building height overlay would also add interest and variation to the skyline in this area of downtown. The Revised Project would remove the existing surface parking lot and would contribute to the existing visual character of the area by raising the site to the Grand Avenue street level and would create a continuous interface with the sidewalk that is currently missing along the west side of Grand Avenue. The Revised Project would therefore not introduce elements that would be incompatible with the character, scale, height, massing, and architectural articulation of existing development. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to visual quality/aesthetics and applicable plans and regulations.

Since the Revised Project would comprise a variety of building heights and configurations, the Revised Project would contribute to the existing visual quality of the Los Angeles Downtown skyline and would be consistent with the variety of building heights and setbacks characterizing the existing skyline. The Revised Project would not substantially alter, degrade or eliminate the existing visual character of the area, including valued existing features, nor would the Revised Project contrast with the visual character of the surrounding area, the impact of the Revised Project relative to the Los Angeles Downtown valued skyline. As such, the Revised Project would not result in any new significant impacts or substantial

increase in the severity of previously-identified impacts in the Certified EIR with respect to the Los Angeles Downtown skyline.

Views

Certified EIR

The Certified EIR concluded that the Approved Project, for Parcels L and M-2, would obstruct views of the Walt Disney Concert Hall and distant vistas to the north including the San Gabriel Mountains, from the Grand Promenade Tower, a 28-story residential building located immediately south of Parcel M-2. This analysis was based on consideration of the following height limits that would apply as a development standard on Parcels L and M-2, as taken from the Certified EIR Project Description:

- Building heights of 985 feet above mean sea level (approximately 600 feet above Grand Avenue) would be allowed on 30 percent of the site (approximately 27,000 square feet);

- Building heights of 685 feet above mean sea level (approximately 300 feet above Grand Avenue) would be allowed on 40 percent of the site (approximately 36,000 square feet); and

- Building heights of 460 feet above mean sea level (approximately 75 feet above Grand Avenue) would be allowed on 100 percent of the site (approximately 90,000 square feet).

The Certified EIR concluded that the view blockage impact from the Grand Promenade Tower would be significant and unavoidable.

Revised Project

Under the Revised Project, the proposed project changes would include replacement of retail uses with a museum on the northeast corner of the Parcels L and M-2 site. Two residential towers and a lower scale retail building would also be included within Parcels L and M-2. The conceptual massing of the towers as shown in Figure 4 would fall within the height limits of the Approved Project. The height of the museum building would not exceed 95 feet above upper Grand Avenue (480 feet above mean sea level. Because the proposed museum building could extend to a slightly greater height than the Approved Project, impacts of the Revised Project could exceed the impacts identified in the Certified EIR. However, the additional 20 feet of height for the museum building would only affect the lower floors of the Grand Promenade Tower, which were already affected by the buildings included in the Approved Project. As such, the buildings to be constructed on Parcels L and M-2 under the Revised Project would block views for residents of the Grand Promenade Tower that have northerly views, which would be a significant and unavoidable impact that would be the same as would occur under the Approved Project. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to views.

Light and Glare

Certified EIR

The Certified EIR concluded, for the Approved Project, for Parcels L and M-2, that although ambient lighting would increase, the increased ambient light would not alter the character of the highly urbanized area or prevent the performance of any off-site activity, such as the safe operation of a motor vehicle. The Approved Project would generate potential glare associated with reflected sunlight from building surfaces. However, with the implementation of Mitigation Measures, potential light and glare impacts associated with special events lighting and reflected sunlight would be reduced to less than significant levels.

Revised Project

Construction-Lighting

Similar to the Approved Project, under the Revised Project although the construction site may be illuminated for safety and security purposes, nighttime construction limitations of the Los Angeles Municipal Code (LAMC) would preclude any significant light and glare impacts on residential or sensitive land uses due to the Revised Project construction activities. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to construction lighting.

Operation-Lighting

Under the Revised Project, impacts from light levels during operation under the Revised Project would be similar to the Approved Project. The same mitigation and regulatory measures set forth in the Certified EIR with respect to lighting impacts would apply to the Revised Project. These include design of new lighting sources to prevent light spillover onto adjacent private property (i.e., shielding of building lighting). The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to lighting during operation of the Revised Project.

Glare

Similar to the Approved Project, under the Revised Project, although the existing Grand Promenade Tower would largely block views of the south façade of future buildings in Parcels L and M-2, any shiny trim or awnings visible from northbound Grand Avenue would have the potential to reflect sunlight.

However, the museum building could include an extensive amount of glass coverage on the façade of the building. It is noted, however, that Grand Avenue also experiences a great deal of existing afternoon shading and all reasonable and appropriate measures would be taken to prevent significant light and glare impacts relative the glass façade. No sun reflection toward southbound streets is anticipated since, in order to receive sun reflection, the sun must be behind the viewer and reflect on a surface that is in front of the viewer. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to glare.

Shade/Shadow

Certified EIR

The Certified EIR concluded that the Approved Project, for Parcels L and M-2, would not shade any off-site sensitive uses in excess of the established significance thresholds and, therefore, would not cause any significant and unavoidable shade/shadow impacts.

Revised Project

Under the Revised Project, the proposed project changes would include replacement of retail uses with a museum on the northeast corner of the Project Site. Shadow impacts were analyzed in the Certified EIR at the maximum height envelope for the entire area of Parcels L and M-2, 600 feet above upper Grand Avenue (985 feet above mean sea level), with the exception of a small area at the southeast corner of Parcel M-2, which was analyzed at 75 feet above upper Grand Avenue (460 feet above mean sea level). Under the Revised Project, this area would be occupied by the retail uses fronting on Grand Avenue, which would be below this height. The remainder of the proposed buildings under the Revised Project would be within the height envelope evaluated in the Certified EIR with respect to shade/shadow and thus would not exceed the impacts of the Approved Project with respect to shade/shadow. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to shade/shadow.

Historic Resources

Certified EIR

The Certified EIR concluded that the Approved Project, for Parcels L and M-2, would not result in direct impacts to historic resources, as no historic resources were located within the Project Site. The Certified EIR concluded that although less than fifty years of age, the Walt Disney Concert Hall is an exceptional piece of architecture that was designed by a master architect. It is historically and architecturally significant on a number of levels: (1) in that it is directly associated with Frank Gehry, a Pritzker

Architecture Prize Laureate architect; (2) possesses high artistic values for its ability to so fully articulate a particular concept of design that it expresses an aesthetic ideal; (3) embodies distinctive characteristics of a type of architectural style and method of construction; and (4) is a cultural and social landmark as well as a visual icon within the downtown area of Los Angeles. Because of its historical and architectural importance, it appears to satisfy National Register Criteria A and C, as well as Criteria Consideration G: Properties That Have Achieved Significance within the Last Fifty Years. The building also appears eligible for listing in the California Register. Therefore, for the purposes of CEQA compliance, this property was considered a historical resource, pursuant to Section 15064.5(a) of the CEQA Guidelines, under the Certified EIR. The Certified EIR concluded that the Grand Avenue Project would have significant impacts related to specified historic resources in other areas as a result of development activity. The Certified EIR concluded that these impacts would be reduced to less than significant levels with the implementation of mitigation measures.

Revised Project

Similar to the Approved Project, under the Revised Project, no identified historic resources are located within the Project Site and thus no identified historic resources would be affected by the proposed project changes. Furthermore, the development proposed for Parcels L and M-2 would not physically, aesthetically, or visually impact the historic and cultural qualities of the Walt Disney Concert Hall that make it historically significant. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to historic resources.

Population, Housing, and Employment

Certified EIR

The Certified EIR concluded that the Approved Project, for Parcels L and M-2, would not exceed SCAG's adopted projections for the City of Los Angeles Subregion. The Approved Project would be consistent with adopted policies, including job/housing balance, as set forth in the Central City Community Plan, the City's General Plan Housing Element, the General Plan Framework, and SCAG's RCPG. Therefore, the Approved Project would not result in any significant environmental impacts to housing or population.

Revised Project

Construction

Similar to the Approved Project, under the Revised Project construction employees would not typically relocate closer to a construction site, as the length of time spent at a specific job site is limited. Additionally, the Project Site is currently utilized as a vehicle parking lot, providing a limited number of

jobs. These few jobs would be affected during construction activities, but the Revised Project operations would support on-going opportunities for parking lot employment, upon completion of construction. The Revised Project construction would not involve the relocation of any residences. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to housing and population related to construction workers.

Operation

Similar to the Approved Project, under the Revised Project, the new development would support population, housing, and employment increases within the following areas: the City of Los Angeles Subregion, the Central City Community Plan area, and the Project's Census Tract, Census Tract No. 207500. As shown in Table 4, the Revised Project is forecasted to have a residential population of 1,123 and 159 employees. This is a decrease in forecasted residential population and employees when compared to the Certified EIR (forecasted to have a residential population of 1,207 and 202 employees). The increases that would occur are compared to projected increases in population, housing, and employment during the 2006 through 2015 time frame in Table 5.

Table 4
Revised Project Population and Employment Projections

Type	Proposed	Factor	Total
CERTIFIED EIR			
Population			
Total Housing Units	850 units	1.42 persons/unit[a]	1,207[b]
		Total	**1,207**
Employment			
Retail	101,000 sq. ft.	500 sq. ft./employee[c]	202
		Total	**202**
REVISED PROJECT			
Population			
Total Housing Units	790 units	1.42 persons/unit[a]	1,123[b]
		Total	**1,123**
Employment			
Retail	19,422 sq. ft.	500 sq. ft./employee[c]	39
Museum	120,000 sq. ft.	1,000 sq. ft./employee[d]	120
		Total	**159**

[a] *Household size is based on the 2004 household size for the Revised Project's Census Tract.*
[b] *Assumes 100% occupancy.*
[c] *Based on data provided in the Institute of Transportation Engineers. Seventh Edition, 2003.*
[d] *Based on data provided in the Institute of Transportation Engineers. Seventh Edition, 2003.*

Table 5
Comparison of Revised Project to SCAG Projections

Geographic Zone	Growth		
	2006-2015[a]	Revised Project Increase	Percent of Expected Increase
Population			
Census Tract 207500	68	1,123	1,651.5%
Community Plan Area	403	1,123	278.7%
City of Los Angeles Subregion (SCAG)	176,692	1,123	0.64%
Households			
Census Tract 207500	272	790	290.4%
Community Plan Area	1,120	790	70.5%
City of Los Angeles Subregion (SCAG)	117,374	790	0.67%
Employment			
Census Tract 207500	1,117	159	14.3%
Community Plan Area	8,668	159	1.84%
City of Los Angeles Subregion (SCAG)	222,628	159	0.07%

[a] *Estimates/projections are taken from SCAG 2004 RTP data. 2006 estimates are based on an interpolation of the 2005 and 2010 projections. The projections for the Community Plan area are based on the Census Tract data in the RTP, but have been aggregated to the Community Plan area.*

The projected growth that is forecasted to occur in the City of Los Angeles Subregion between 2006 and 2015 is as follows: 176,692 persons, 117,374 households, and 222,628 employees. The additional population of 1,123 persons associated with the Revised Project would comprise 0.64% of the expected growth. The 790 households would represent 0.67% of the projected household growth; and the 159 employees would represent 0.08% of the projected employment growth. Thus, the contribution to growth associated with the Revised Project would be a small part of the expected growth and would not cause the expected growth to be exceeded. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to growth.

Furthermore, it may be noted that the population and housing growth would exceed SCAG advisory projections for population and housing within the Central City Community Plan area and the Revised Project's Census Tract. The population growth would be almost 2.8 times over what is projected within the Central City Community Plan area during the 2006 to 2015 time period, and the housing growth would be 0.7 times of that projected. Similar to the Approved Project, these increases over the local advisory projections indicate that the Revised Project would be increasing housing and population in the jobs/rich downtown area at a faster rate than SCAG anticipated; and therefore, improvements in the job/housing ratio at the local area can be achieved to a much greater level than anticipated. Further, the Revised Project's housing and population growth support the objectives of the Downtown Strategic Plan to enhance the importance of the downtown area as a residential center and government employee center. Thus, the Revised Project's growth would be considered a beneficial impact of the Revised Project. As

such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to growth.

Air Quality

Certified EIR

Construction

The Certified EIR concluded that under the Approved Project, with implementation of regulatory measures and mitigation measures, heavy-duty construction equipment emissions of Particulate Matter (PM_{10}), Volatile Organic Compounds (VOC), Nitrogen Oxides (NO_x) and Carbon Monoxide (CO) would exceed the South Coast Air Quality Management District (SCAQMD) daily emission thresholds after implementation of all feasible mitigation measures. Therefore, construction of the Approved Project would have a significant and unavoidable impact on regional air quality. This more conservative scenario reflected overlapping construction activities on Parcel Q and Parcels L and M-2.

With respect to construction on Parcels L and M-2 alone, the Certified EIR identified that under the Approved Project, with implementation of regulatory measures and mitigation measures, heavy-duty construction equipment emissions of PM_{10} and NO_x would exceed the SCAQMD daily emission thresholds after implementation of all feasible mitigation measures. Therefore, construction of the Approved Project on Parcels L and M-2 alone would have a significant and unavoidable impact on regional air quality.

With regard to localized emissions, construction activities would still exceed the SCAQMD daily emission threshold for PM_{10} and NO_2 after implementation of all feasible mitigation measures. Therefore, construction of the Approved Project would have a significant and unavoidable impact with respect to localized emission concentrations during construction.

Furthermore, under the Approved Project, no notable impacts related to Toxic Air Contaminant (TAC) emissions during construction were anticipated to occur and no substantial amounts of objectionable odor emissions during construction were anticipated. As such, potential impacts with respect to these emissions sources would be less than significant.

Operation

The Certified EIR concluded that under the full buildout of the Approved Project, including Parcels L and M-2, regional operational emissions would exceed the SCAQMD daily emission thresholds for regional CO, VOC, PM_{10}, and NO_X after implementation of all feasible mitigation measures. Therefore, operation of the Approved Project would have a significant and unavoidable impact on regional air quality. The Certified EIR identified that mobile and area source emissions associated with development of Parcels L and M-2 alone would be below SCAQMD thresholds.

No significant impacts related to local CO concentrations would occur for the Revised Project and development would be consistent with the air quality policies set forth in the SCAQMD's AQMP and the City of Los Angeles General Plan Air Quality Element, resulting in an impact that is less than significant.

Furthermore, the Certified EIR concluded that the Approved Project by compliance with industry standard odor control practices, SCAQMD Rule 402 (Nuisance), and SCAQMD Best Available Control Technology Guidelines, potential impacts that could result from any potential odor source would be less than significant.

Greenhouse Gas Emissions

The Certified EIR did not address greenhouse gas emissions associated with the Approved Project. Global climate change was not routinely analyzed prior to AB32, effective in 2007, and the CEQA Guidelines did not address greenhouse gases or global climate change at the time the EIR for the Approved Project was certified.

Revised Project

Construction

The Revised Project would have the same or lower average daily emissions during construction compared to the Approved Project. Because the underground parking garages serving Parcels L and M2 would be constructed in phases, with the underground parking structure on Parcel L being constructed at the time of museum construction and the underground parking structure on Parcel M2 being constructed in conjunction with the development of the remainder of the site, impacts of excavation, garage construction and associated hauling activity would be lower on Parcels L and M-2 under the Revised Project as compared to the Approved Project. Daily emissions of all criteria pollutants would be lower during this phase under the Revised Project. Although significant and unavoidable impacts with respect to PM_{10} and NO_x emissions could still occur under the Revised Project, the impacts of the Revised Project would not exceed the impacts of the Approved Project with respect to these emissions. Since the museum use could be constructed independently of the other uses on Parcels L and M-2, building framing and finishing activities could be less than the Approved Project, which assumed that all of these buildings would be constructed concurrently. These emission levels would also be less in the event that construction on Parcel Q were to overlap with either the museum construction or construction of the remaining uses on Parcels L and M-2. For the same reasons, localized emissions concentrations would be the same or lower than the Approved Project under the Revised Project and could be significant and unavoidable for PM_{10} and NO_2 after implementation of all feasible mitigation measures. Under the Revised Project, construction equipment would be utilized at the same or lower rates of use than under the Approved Project and impacts related to TAC emissions and objectionable odor emissions would be the same or lower than the Approved Project. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with

the Revised Project on Parcels L and M-2. As such, and also for the reasons discussed at page 13 of this Addendum, the Revised Project would not result in new significant impacts or increase in the severity of previously identified impacts with respect to construction air quality.

Operation

The Revised Project would have lower regional operational emissions compared to the Approved Project because daily traffic generation and vehicle miles travelled that would be associated with the Revised Project (21,404 daily trips, see Table 3 above) would be lower than the Approved Project (22,601 daily trips, Table 3). The reduction in trips would not be sufficient to reduce any of the daily emission levels below SCAQMD thresholds, so impacts would remain significant and unavoidable under the Revised Project. Similarly, regional operational emission levels associated with activity on Parcels L and M-2 alone would also be lower than the Approved Project, based on lower daily trip generation (4,352 daily trips under the Revised Project, 5,549 under the Approved Project). The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to emission levels.

In addition, local CO concentrations would be lower under the Revised Project due to reduced peak hour trip generation. The Revised Project would generate 255 trips in the a.m. peak hour and 422 trips in the p.m. peak hour on Parcels L and M-2 compared to 263 trips in the a.m. peak hour and 494 trips in the p.m. peak hour under the Approved Project. The Revised Project in total would generate 1,543 trips in the a.m. peak hour and 2,413 trips in the p.m. peak hour on Parcels L and M-2 compared to 1,551 trips in the a.m. peak hour and 2,464 trips in the p.m. peak hour under the Approved Project. These reductions in peak hour traffic under the Revised Project would cause localized CO concentrations at nearby intersections, already determined in the Certified EIR to be less than significant, to be reduced even further. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to these concentrations.

The Revised Project would introduce a new land use (museum) on Parcels L and M-2. However, this use would not introduce any new sources of odor generation on Parcels L and M-2. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to odor generation.

Greenhouse Gases and Climate Change

The following analysis has been prepared in accordance with the requirements set forth in Section 15164.4 and Appendix G of the CEQA Guidelines, which became effective on March 18, 2010.

Section 15064.4 of the revised CEQA Guidelines that became effective on March 18, 2010 states:

(b) A lead agency should consider the following factors, among others, when assessing the significance of greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

According to Appendix G of the *CEQA Guidelines*, as revised on March 18, 2010, a project could have a significant environmental impact if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

As such, the Revised Project would have a significant impact with respect to GHG emissions and global climate change if it would substantially conflict with applicable plans and policies that have been adopted for the purpose of reducing GHG emissions (which plans are identified at pages 44 to 49 of this Addendum).

Introduction

The Earth's natural warming process is known as the "greenhouse effect." This greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass allows solar radiation (sunlight) into the Earth's atmosphere, but prevents radiative heat from escaping, thus warming the Earth's atmosphere. Greenhouse gases (GHGs) keep the average surface temperature of the Earth close to a hospitable 60 degrees Fahrenheit. However, excessive concentrations of GHGs in the atmosphere can result in increased global mean temperatures, with associated adverse climatic and ecological consequences.

Scientists studying the particularly rapid rise in global temperatures have determined that human activity has resulted in increased emissions of GHGs, primarily from the burning of fossil fuels (during motorized transport, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.) and deforestation, as well as agricultural activity and the decomposition of solid waste.

Scientists refer to the global warming context of the past century as the "enhanced greenhouse effect" to distinguish it from the natural greenhouse effect. While the increase in temperature is known as "global warming," the resulting change in weather patterns is known as "global climate change." Global climate change is evidenced in changes to wind patterns, storms, precipitation, and air temperature.

GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). Carbon dioxide is the most abundant GHG. Other GHGs are less abundant, but have higher global warming potential than CO_2. Thus, emissions of other GHGs are frequently expressed in the equivalent mass of CO_2, denoted as CO_2e. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating, and cooking are the primary sources of GHG emissions. A general description of the GHGs discussed is provided in Table 6, Description of Identified Greenhouse Gases.

Table 6
Description of Identified Greenhouse Gases

Greenhouse Gas	General Description
Carbon Dioxide (CO_2)	An odorless, colorless GHG, which has both natural and anthropocentric sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic activity. Anthropogenic (human caused) sources of carbon dioxide are from burning coal, oil, natural gas, and wood.
Methane	A flammable gas and the main component of natural gas. When one molecule of methane is burned in the presence of oxygen, one molecule of carbon dioxide and two molecules of water are released. There are no ill health effects from methane. A natural source of methane is from the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.

Table 6
Description of Identified Greenhouse Gases

Greenhouse Gas	General Description
Nitrous Oxide (N_2O)	A colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, race cars, and as an aerosol spray propellant.
Hydrofluorocarbons (HFCs)	HFCs are synthetic man-made chemicals that are used as a substitute for chlorofluorocarbons (CFCs) for automobile air conditioners and refrigerants. CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. As CFCs destroy stratospheric ozone, their production was stopped as required by the Montreal Protocol in 1987.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and do not break down though the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above the earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.
Sulfur Hexafluoride (SF_6)	An inorganic, odorless, colorless, non-toxic, and nonflammable gas. SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.
Nitrogen Trifluoride (NF_3)	NF_3 is an inorganic, odorless, colorless, toxic, nonflammable gas. It has one of the highest GWP among GHGs (17,200) with an atmospheric lifetime of 740 years. NF_3 is emitted during manufacture of various electronics including televisions, photovoltaic solar panels, and microprocessors.

Sources: Association of Environmental Professionals, Alternative Approaches to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents, Final, June 29, 2007.
Intergovernmental Panel on Climate Change. 2007. "Climate Change 2007 - The Physical Basis, Contribution Working Group I to the Fourth Assessment Report of the IPCC" http://ipcc-wg1.ucar.edu/wg1/wg1-report.html.

Global Warming Potential

Global Warming Potentials (GWPs) are one type of simplified index based upon radiative (heat-absorbing) properties that can be used to estimate the potential future impacts of emissions of different gases upon the climate system in a relative sense. GWP is based on a number of factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of carbon dioxide, as well as the

decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of carbon dioxide. For example, methane has 21 times the global warming potential as does carbon dioxide. A summary of the atmospheric lifetime and GWP of selected gases is presented at Table 7, Atmospheric Lifetimes and Global Warming Potentials. As indicated, GWP ranges from 1 to 23,900 times the GWP of carbon dioxide in the atmosphere.

Table 7
Atmospheric Lifetimes and Global Warming Potentials

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50 – 200	1
Methane	12 (+/-3)	21
Nitrous Oxide	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetrafluoromethane (CF_4)	50,000	6,500
PFC: Hexafluoroethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900
Source: IPCC, 2006.		

Existing State-wide GHG Inventory

The California Energy Commission (CEC) published the *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004* in December 2006. This report indicates that California emitted between 425 and 468 million metric tons of greenhouse gases in 1990. As reported by the California Energy Commission, California contributes 1.4 percent of global and 6.2 percent of national GHG emissions.[2] Approximately 80 percent of greenhouse gases in California are CO_2 produced from fossil fuel combustion. Although California is the second largest contributor of GHG emissions in the U.S (after Texas), it has the second lowest per capita CO_2 emission rate in the nation (after the District of Columbia). Between 1990 and 2000, California's population grew by 4.1 million people; and during the 1990 to 2003 period, California's gross state product grew by 83 percent (in dollars, not adjusted for inflation). However, California's GHG emissions grew by only 12 percent between 1990 and 2003. The report concludes that California's ability to slow the rate of growth of GHG emissions is largely due to the success of its energy efficiency, renewable energy programs, and commitment to clean air and clean

[2] *California Energy Commission, Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004, CEC-600-2006-013, October 2006.*

energy. The State's programs and commitments lowered its GHG emissions rate of growth by more than half of what it would have been otherwise.

Projected Impacts of Climate Change in California

According to the 2006 California Climate Action Team (CAT) Report, temperature increases arising from increased GHG emissions potentially could result in a variety of impacts to the people, economy, and environment of California associated with a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. If emissions from GHGs are not reduced significantly, the warming increase could have the following consequences in California[3]:

- The Sierra snowpack could decline between 70 and 90 percent, threatening California's water supply;
- Attainment of air quality standards could be impeded by increasing emissions, accelerating chemical processes, and raising inversion temperatures during stagnation episodes;
- Erosion of California's coastlines could increase as well as sea water intrusion;
- Pest infestation and vulnerability to fires of the State's forests could increase; and
- Rising temperatures could increase power demand, especially in the summer season.

Policy Responses

In 2005, in recognition of California's vulnerability to the effects of climate change, Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which statewide emissions of GHG would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

In response to Executive Order S-3-05, the Secretary of Cal/EPA created the Climate Action Team (CAT), which, in March 2006, published the Climate Action Team Report to Governor Schwarzenegger

[3] *California Environmental Protection Agency, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006, p. 11.*

and the Legislature (the "2006 CAT Report"). The 2006 CAT Report identifies a recommended list of strategies that the State could pursue to reduce climate change GHG emissions. These are strategies that could be implemented by various State agencies to ensure that the Governor's targets are met and can be met with existing authority of the State agencies.

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill No. 32; California Health and Safety Code Division 25.5, Sections 38500, et seq., or AB 32), which requires the California Air Resources Board (ARB) to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020.

As a central requirement of AB 32, the ARB was assigned the task of developing a Scoping Plan that outlines the State's strategy to achieve the 2020 GHG emissions limit. This Scoping Plan, which was developed by the ARB in coordination with the CAT, was published in October 2008. The Scoping Plan proposed a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce the State's dependence on oil, diversify the State's energy sources, save energy, create new jobs, and enhance public health. An important component of the plan is a cap-and-trade program covering 85 percent of the State's emissions. Additional key recommendations of the Scoping Plan include strategies to enhance and expand proven cost-saving energy efficiency programs; implementation of California's clean cars standards; increases in the amount of clean and renewable energy used to power the State; and implementation of a low-carbon fuel standard that will make the fuels used in the State cleaner. Furthermore, the Scoping Plan also proposes full deployment of the California Solar Initiative, high-speed rail, water-related energy efficiency measures, and a range of regulations to reduce emissions from trucks and from ships docked in California ports. The Proposed Scoping Plan was approved by the ARB on December 11, 2008. The measures in the Scoping Plan would be developed over the next two years and be in place by 2012.

California-Specific Adaptation Strategies

Because climate change is already affecting California and current emissions will continue to drive climate change in the coming decades, the necessity of adaptation to the impacts of climate change is recognized by the State of California. The 2009 California Climate Adaptation Strategy Discussion Draft (the Strategy) begins what will be an ongoing process of adaptation, as directed by Governor Schwarzenegger's Executive Order S-13-08. The goals of the strategy are to analyze risks and vulnerabilities and identify strategies to reduce the risks. Once the strategies are identified and prioritized, government resources will be identified. Finally, the strategy includes identifying research needs and educating the public.

Climate change risks are evaluated using two distinct approaches: (1) projecting the amount of climate change that may occur using computer-based global climate models and (2) assessing the natural or human system's ability to cope with and adapt to change by examining past experience with climate

variability and extrapolating this to understand how the systems may respond to the additional impact of climate change. The major anticipated climate changes expected in the State of California include increases in temperature, decreases in precipitation, particularly as snowfall, and increases in sea level, as discussed above. These gradual changes will also lead to an increasing number of extreme events, such as heat waves, wildfires, droughts, and floods. This would impact public health, ocean and coast resources, water supply, agriculture, biodiversity, and the transportation and energy infrastructures.

Key preliminary adaptation recommendations included in the Strategy are as follows:

- Appointment of a Climate Adaptation Advisory Panel;
- Improved water management in anticipation of reduced water supplies, including a 20 percent reduction in per capita water use by 2020;
- Consideration of project alternatives that avoid significant new development in areas that cannot be adequately protected from flooding due to climate change;
- Preparation of agency-specific adaptation plans, guidance or criteria by September 2010;
- Consideration of climate change impacts for all significant State projects;
- Assessment of climate change impacts on emergency preparedness;
- Identification of key habitats and development of plans to minimize adverse effects from climate change;
- Development of guidance by the California Department of Public Health by September 2010 for use by local health departments to assess adaptation strategies;
- Amendment of Plans to assess climate change impacts and develop local risk reduction strategies by communities with General Plans and Local Coastal Plans; and
- Inclusion of climate change impact information into fire program planning by State fire fighting agencies.

City of Los Angeles Green Building Ordinance

In April, 2008, the City of Los Angeles adopted a Green Building Ordinance designed to reduce the use of natural resources, create healthier living environments and minimize the negative impacts of development on local, regional and global ecosystems. The requirements of the Green Building Ordinance apply to all projects for which building permits are issued after November 1, 2008. However, the Ordinance exempted projects for which an application for City entitlements was deemed complete

before November, 2008. The application for the necessary City entitlements for the original Grand Avenue Project, which was approved in 2006, was deemed complete before that date. Although additional approvals/entitlements are needed for the revised project from the JPA, CRA and County, no additional entitlements are needed from the City. If the JPA, CRA and County approve the revised project, only building permits are need from the City and building permits are not entitlements within the meaning of the Ordinance. As such, the Green Building Ordinance would not apply to the Revised Project.

Changes to CEQA Guidelines

Additionally, in August 2007, the Legislature adopted Senate Bill 97 (SB 97), which required the California Office of Planning and Research (OPR) to prepare and transmit new CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the Natural Resources Agency by July 1, 2009. On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the state CEQA Guidelines for greenhouse gas emissions, as required by Senate Bill 97. These proposed CEQA Guideline amendments provided guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in draft CEQA documents. On December 31, 2009, the Natural Resources Agency transmitted the Adopted Amendments and the entire rulemaking file to the Office of Administrative Law (OAL). On February 16, 2010, OAL approved the Adopted Amendments and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Adopted Amendments became effective on March 18, 2010.

In the CEQA Guideline Amendments, a threshold of significance for greenhouse gas emissions was not specified, nor does it prescribe assessment methodologies or specific mitigation measures. Instead, the amendments encourage lead agencies to consider many factors in performing a CEQA analysis and relies on the lead agencies in making their own significance threshold determinations based upon substantial evidence. The CEQA Amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. As discussed above, the threshold of significance utilized in this analysis is as follows:

> The Revised Project would have a significant impact with respect to GHG emissions and global climate change if it would substantially conflict with applicable plans and policies that have been adopted for the purpose of reducing GHG emissions (which plans are identified at pages 44 to 49 of this Addendum).

Project GHG Emissions

In terms of generating an inventory of the Revised Project's GHG emissions, the California Climate Action Registry (CCAR) has prepared a protocol (CCAR Protocol) for calculating and reporting GHG emissions from a number of general and industry-specific activities. However, there is no clear guidance defining the extent to which direct and indirect emissions resulting from a project need be included under

CEQA. For example, composting of yard waste and decomposing solid waste at landfills result in the emission of GHGs. From a global perspective, whether produced locally or throughout the world, the manufacture and transport of construction materials result in the emission of GHGs, and the loss of forest to produce wood products reduces the Earth's ability to sequester carbon emissions. However, the CEQA Guidelines Amendments do not require calculation or analysis of these "lifecycle" emissions and this analysis is therefore not included herein. It is, however, reasonable to consider the GHG emissions resulting from the incremental increase in usage of on-road mobile vehicles, electricity, natural gas, and water upon implementation of the Revised Project as project-related.

During the operational phase of the development that would be permitted under the proposed project changes, the consumption of fossil fuels is necessary to generate electricity, provide heating and hot water for the on-site land uses, and convey, transport, and treat water. Fuel is also consumed by on-road mobile vehicles associated with the proposed project. The consumption of these fossil fuels creates GHG emissions. Additionally, on-site solid waste generation would result in GHG emissions from landfill operations. In calculating the GHG emissions estimated to result from the proposed project changes, the future fuel consumption rates, water use, and solid waste generation rates for the proposed project changes by these sources were estimated based on the proposed land uses and in the analysis in contained in the Utilities section of this Addendum below. The GHG emission factors from the CCAR Protocol for natural gas and electricity were then applied to the respective consumption rates, to calculate annual GHG emissions in metric tons. GHG emissions from water consumption were determined by evaluating the water-related energy use relationship identified in the CEC's *California's Water-Energy Relationship* document. The solid waste emission rate was obtained from the EPA's Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks. The on-road mobile vehicle miles per day and vehicle fleet mix with the proposed project changes were estimated using the URBEMIS 2007 computer model and sources of assumed miles per gallon were based upon the National Highway Traffic Safety Administration Summary of Fuel Economy Performance and the U.S. Department of Energy Transportation Energy Book. The GHG emission factors from the CCAR Protocol for motor vehicles were applied to calculate annual GHG emissions in metric tons. The calculations and assumptions utilized in the analysis provided in this Addendum are contained in Appendix B.

As discussed above, not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified in CO_2 equivalents (CO_2e). The GHG mass emissions for the proposed project were calculated by converting pollutant specific emissions to CO_2e emissions by applying the applicable global warming potential (GWP) values shown in Table 7 above.

Based on the methodology described above, operational GHG emissions have been calculated in metric tons per year as shown in Table 8, Predicted Revised Project Greenhouse Gas Emissions. These emissions reflect the projected emissions under the Revised Project development on Parcels L and M-2.

Table 8
Predicted Greenhouse Gas Emissions Associated with Revised Project on Parcels L and M-2

Emissions Source	CO_2e Emissions in Metric Tons per Year
Construction – All construction activity on Parcels L and M-2	3,021.73
Revised Project Operation	
Natural Gas Consumption	2,327.09
Electricity Consumption	2,089.36
Water Consumption	240.99
Solid Waste Generation	610.12
Motor Vehicles	9,111,37
Total Emissions	14,378.93
Source: Christopher A. Joseph & Associates, 2010.	

For the qualitative GHG emissions analysis for the Revised Project, the 2006 CAT Report and the ARB's AB 32 Scoping Plan have recommended a list of strategies and measures that the State could pursue to reduce climate change greenhouse gas emissions. Thus, in the absence of regulatory guidance, this document addresses the potential impacts associated with GHG emissions resulting from implementation of the Revised Project by evaluating qualitatively whether the Revised Project development on Parcels L and M-2 would be consistent with the emission reduction strategies identified by the CAT Report and the ARB AB 32 Scoping Plan.

Project GHG Emissions Impact Analysis

As discussed above, the increase in greenhouse gas emissions associated with the proposed project changes has been quantified in accordance with accepted methodologies in accordance with Guidelines Section 15064.4(b)(1). However, neither the State, the South Coast Air Quality Management District (SCAQMD), nor the City of Los Angeles has officially adopted a quantitative significance threshold for GHG emissions that can be used to determine whether a project "may have a significant impact on the environment" in accordance with Guidelines Appendix G. The emission by any individual project of GHGs into the atmosphere typically is too small to cause an adverse environmental effect by itself. Rather, the potential impact is attributable to the increased accumulation of GHGs in the atmosphere that results in global climate change. The resultant consequences of that climate change can cause adverse environmental effects. Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, it is not possible to establish direct relationships and predict the specific impact, to global climate change from one project's or even a set of cumulative projects' relatively small incremental increase in emissions. However, AB 32 represents the statewide plan for reducing California's GHG emissions to 1990 levels by 2020. In addition, the AB 32 Scoping Plan contains the main strategies California will use to reduce the GHGs that cause climate change. The scoping plan has a

range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 cost of implementation fee regulation to fund the program. These measures have been introduced through four workshops held between November 30, 2007 and April 17, 2008. A draft scoping plan was released for public review and comment on June 26, 2008 followed by more workshops in July and August, 2008. The proposed scoping plan was released on October 15, 2008 and approved by the California Air Resources Board at the Board hearing on December 12, 2008[4]. As such, the AB 32 Scoping Plan would represent a statewide plan for the reduction or mitigation of greenhouse gas emissions that was adopted by the relevant public agency through a public review process in accordance with Guidelines Section 15064.4(b)(3), and would constitute a plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases in accordance with Guidelines Appendix G.

Accordingly, taking all of the factors set forth in Guidelines Section 15064.4(b) into account, the Revised Project will be deemed to cause a significant impact with respect to GHG emission if the Revised Project would be inconsistent with the ARB AB 32 Scoping Plan and other applicable guidance documents issued in furtherance of AB 32 to date, including the 2006 CAT Report, and the Attorney General's publication, *CEQA: Addressing Global Warming Impacts at the Local Agency Level*.

Revised Project Compliance with ARB's AB 32 Scoping Plan Recommended Measures

The consistency of the Revised Project development on Parcels L and M-2 with the strategies from the ARB's AB 32 Scoping Plan measures is evaluated in Table 9, Revised Project Consistency with ARB Scoping Plan Recommended Greenhouse Gas Emission Reduction Measures. As shown, the Revised Project would be consistent with the recommended measures of the ARB AB 32 Scoping Plan to reduce greenhouse gas emissions in California. Therefore, GHG emissions associated with the development on Parcels L and M-2 that would be permitted under the Revised Project would not significantly contribute to cumulative adverse GHG emissions impact, and the impact of the Revised Project with respect to GHG emissions and climate change would be less than significant.

[4] *California Air Resources Board at http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm.*

Table 9
Revised Project Consistency with ARB AB 32 Scoping Plan Recommended Greenhouse Gas Emission Reduction Measures

Measure	Project Consistency
California Air Resources Board	
California Cap-and-Trade Program Linked to Western Climate Initiative Partner Jurisdictions Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap–and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not applicable.** While this measure is not specifically applicable to the Revised Project, the Revised Project would not preclude the implementation of this measure by the ARB.
California Light-Duty Vehicle Greenhouse Gas Standards Implement adopted Pavley standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	**Not Applicable.** The Revised Project does not influence or impact regulatory decision-making on light-duty vehicle standards.
Energy Efficiency Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).	**Consistent.** The Revised Project would be required to be constructed in compliance with the standards of Title 24 that are in effect at the time of development. With intent of the Revised Project to achieve certification at the LEED-certified level, the Revised Project could exceed Title 24 standards. In addition, under State law, appliances that are purchased for the Revised Project – both pre- and post-development – would be consistent with energy efficiency standards that are in effect at the time of manufacture.
Renewables Portfolio Standard Achieve 33 percent renewable energy mix statewide. Low Carbon Fuel Standard Develop and adopt the Low Carbon Fuel Standard.	**Not applicable.** While this measure is not applicable, the Revised Project would not preclude the implementation of this measure by municipal utility providers. **Not Applicable.** The Revised Project has no influence or impact on regulatory decision-making regarding low carbon fuel standards.

Table 9
Revised Project Consistency with ARB AB 32 Scoping Plan Recommended Greenhouse Gas Emission Reduction Measures

Measure	Project Consistency
Regional Transportation-Related Greenhouse Gas Targets Develop regional greenhouse gas emissions reduction targets for passenger vehicles.	**Not Applicable.** The Revised Project has no influence or impact on regulatory decision-making regarding GHG emissions targets.
Vehicle Efficiency Measures Implement light-duty vehicle efficiency measures.	**Not Applicable.** The Revised Project has no influence or impact on regulatory decision-making regarding vehicle efficiency standards.
Goods Movement Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	**Not applicable.** The Revised Project has no influence or impact on regulatory decision-making regarding the improvement in goods movement activities.
Million Solar Roofs Program Install 3,000 MW of solar-electric capacity under California's existing solar programs.	**Consistent** Although solar roofs are not specifically proposed as part of the Revised Project, the design of the new residential buildings would not preclude the installation and use of solar equipment in the future if they become cost effective from a purchase and maintenance standpoint of the property owners.
Medium/Heavy-Duty Vehicles Adopt medium and heavy-duty vehicle efficiency measures.	**Not Applicable.** The Revised Project has no influence or impact on regulatory decision-making regarding medium/heavy-duty vehicle efficiency standards.
Industrial Emissions Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.	**Not applicable.** The Revised Project is not an industrial facility and would not involve the operation of industrial processes.
High Speed Rail Support implementation of a high speed rail system.	**Not applicable.** While this measure is not applicable, the Revised Project would not preclude the implementation of this measure by the State.

Table 9
Revised Project Consistency with ARB AB 32 Scoping Plan Recommended Greenhouse Gas Emission Reduction Measures

Measure	Project Consistency
Green Building Strategy Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Consistent.** As the Revised Project would seek certification at the LEED-Certified level, water saving features and energy efficient features would be incorporated into the Project's design.
High Global Warming Potential Gases Adopt measures to reduce high global warming potential gases.	**Consistent.** As the Revised Project would seek certification at the LEED-certified level, water saving features and energy efficient features would be incorporated into the project's design. The Revised Project would also not preclude the implementation of this measure by the ARB.
Recycling and Waste Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	**Consistent.** The Revised Project would be subject to the requirements of AB 939. In addition, the Project Site is located within the City of Los Angeles, which surpassed the State-mandated 50 percent diversion rate for the year 2000 and achieved a 58.8 percent diversion rate. In 2001 and 2002, the City achieved a diversion rate of 63 and 62 percent, respectively. Furthermore, in 1999, the Mayor directed City departments to develop strategies to achieve the citywide recycling goal of 70 percent by 2015. The Revised Project would also be subject to all applicable State and City requirements for solid waste reduction as they change in the future. Finally, the Revised Project would be subject to the mitigation measures included in the Certified EIR that require the Revised Project to include recycling of construction materials and recycling facilities in the Project.
Sustainable Forests Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	**Not applicable.** The Revised Project is not located within or near a forest.
Water Continue efficiency programs and use cleaner energy sources to move and treat water.	**Consistent.** As the Revised Project would seek certification at the LEED-certified level, water saving features and energy efficient features would be incorporated into the Project's design.

Table 9
Revised Project Consistency with ARB AB 32 Scoping Plan Recommended Greenhouse Gas Emission Reduction Measures

Measure	Project Consistency
Agriculture In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	**Not applicable.** The Revised Project would not include any elements of agriculture.
Sources: Air Resources Board, Climate Change Proposed Scoping Plan, October 2008 and Christopher A. Joseph & Associates, January 2010.	

Compliance with 2006 CAT Report Strategies and the Attorney General's Guidance on Addressing Global Warming Impacts at the Project Level

The consistency of the Revised Project with the strategies from the 2006 CAT Report is evaluated in Table 10, Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies. As shown, the Revised Project would be consistent with all feasible and applicable strategies of the 2006 CAT Report.

Table 10
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
California Air Resources Board	
Vehicle Climate Change Standards AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB I September 2004.	**Consistent.** The vehicles that travel to and from the Project Site on public roadways would be in compliance with ARB vehicle standards that are in effect at the time of vehicle purchase.
Diesel Anti-Idling In July 2004, the ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	**Consistent.** The Revised Project, which involves a development consisting of residential, commercial and museum uses, would not involve substantial diesel truck idling operations. The museum would include a loading dock, however, trucks are not expected to idle at this facility. If they do, they are limited to 5 minutes in accordance with SCAQMD Rules.

Table 10
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Hydrofluorocarbon Reduction 1) Ban retail sale of HFC in small cans. 2) Require that only low GWP refrigerants be used in new vehicular systems. 3) Adopt specifications for new commercial refrigeration. 4) Add refrigerant leak-tightness to the pass criteria for vehicular inspection and maintenance programs. 5) Enforce federal ban on releasing HFCs.	**Consistent.** This strategy applies to consumer products that may be used by the new residents associated with the Revised Project. All applicable products would be required to comply with the regulations that are in effect at the time of manufacture.
Transportation Refrigeration Units, Off-Road Electrification, Port Electrification (ship to shore) Require all new transportation refrigeration units (TRU) to be equipped with electric standby. Require cold storage facilities to install electric infrastructure to support electric standby TRUs.	**Not applicable.** The Revised Project would not involve the use of transportation refrigeration units.
Manure Management Improved management practices, manure handling practices, and lagoon/liquid waste control options.	**Not applicable.** The Revised Project would not involve any manure handling.
Semi Conductor Industry Targets Emission reduction rules for semiconductor operations.	**Not applicable.** The Revised Project would not involve any semiconductor operations.
Alternative Fuels: Biodiesel Blends ARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	**Not Applicable.** The Revised Project has no influence or impact on ARB decision-making regarding fuel blend regulations.
Alternative Fuels: Ethanol Increased use of E-85 fuel.	**Not Applicable.** The Revised Project does not impact the availability of fuel blends.
Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy duty vehicles and an education program for the heavy duty vehicle sector.	**Consistent.** The heavy-duty vehicles (e.g., refuse and delivery trucks) that travel to and from the Project Site on public roadways would be subject to all applicable ARB efficiency standards that are in effect at the time of vehicle manufacture.
Reduced Venting and Leaks on Oil and Gas Systems Improved management practices in the production, processing, transport, and distribution of oil and natural gas.	**Not applicable.** The Revised Project does not involve any production, processing, transport, or distribution of oil and natural gas.

Table 10
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Hydrogen Highway The California Hydrogen Highway Network (CA H2 Net) is a State initiative to promote the use of hydrogen as a means of diversifying the sources of transportation energy.	**Not applicable.** The Revised Project would not be responsible for promoting the use of hydrogen for transportation energy. However, residents and patrons of the Revised Project could use this fuel once it becomes commercially available.
Achieve 50% Statewide Recycling Goal Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48% has been achieved on a statewide basis. Therefore, a 2% additional reduction is needed.	**Consistent.** The Revised Project would be subject to the requirements set forth in AB 939, which requires each city or county to divert 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting. The Revised Project would be subject to the mitigation measures included in the Certified EIR that require the Revised Project to include recycling of construction materials and recycling facilities in the Project.
Landfill Methane Capture Install direct gas use or electricity projects at landfills to capture and use emitted methane.	**Not applicable.** The Revised Project does not involve landfill operations.
Zero Waste – High Recycling Efforts to exceed the 50 percent goal would allow for additional reductions in climate change emissions.	**Consistent.** The Revised Project would be subject to the requirements of AB 939. In addition, the Project Site is located within the City of Los Angeles, which surpassed the State-mandated 50 percent diversion rate for the year 2000 and achieved a 58.8 percent diversion rate. In 2001 and 2002, the City achieved a diversion rate of 63 and 62 percent, respectively. Furthermore, in 1999, the Mayor directed City departments to develop strategies to achieve the citywide recycling goal of 70 percent by 2015. The Revised Project would also be subject to all applicable State and City requirements for solid waste reduction as they change in the future. Finally, the Revised Project would be subject to the mitigation measures included in the Certified EIR that require the Revised Project to include recycling of construction materials and recycling facilities in the Project.

Table 10
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Department of Forestry	
Forest Management Increasing the growth of individual forest trees, the overall age of trees prior to harvest, or dedicating land to older aged trees.	**Not applicable.** The Revised Project is not located within or near a forest.
Forest Conservation Provide incentives to maintain an undeveloped forest landscape.	**Not applicable.** The Revised Project is not located within or near a forest.
Fuels Management/Biomass Reduce the risk of wildland fire through fuel reduction and biomass development.	**Not applicable.** The Revised Project is not located within or near a forest or an area of open space in which fuel accumulation is an issue.
Urban Forestry A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	**Not Applicable.** The Revised Project has no influence or impact on State decision-making regarding urban forestry programs.
Afforestation/Reforestation Reforestation projects focus on restoring native tree cover on lands that were previously forested and are now covered with other vegetative types.	**Not applicable.** The Revised Project is not located within or near a forest.
Department of Water Resources	
Water Use Efficiency Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.	**Consistent.** The Project applicant will seek certification at the LEED-certified level. As such, the provision of water saving features and energy efficient features would be included in the Revised Project. In addition, mitigation measures contained in the Certified EIR would require the Revised Project to include water conservation features and operational water use restrictions in accordance with laws and regulations in effect at the time of development.
Energy Commission (CEC)	
Building Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	**Consistent.** The Revised Project would be required to be constructed in compliance with the standards of Title 24 that are in effect at the time of development. As the Revised Project will seek certification at the LEED-certified level, the Revised Project would exceed Title 24 standards.

Table 10
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	**Not Applicable.** The Revised Project does not influence or impact regulatory decision-making on energy efficiency standards.
Fuel-Efficient Replacement Tires & Inflation Programs State legislation established a statewide program to encourage the production and use of more efficient tires.	**Not Applicable.** The Revised Project has no influence or impact on regulatory decision-making on tire production or efficiency standards.
Cement Manufacturing Cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry.	**Not applicable.** The Revised Project does not involve cement manufacturing.
Municipal Utility Energy Efficiency Programs/Demand Response Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	**Not applicable**. While this strategy is not applicable, the Revised Project would not preclude the implementation of this strategy by municipal utility providers.
Municipal Utility Renewable Portfolio Standard California's Renewable Portfolio Standard (RPS), established in 2002, requires that all load serving entities achieve a goal of 20 percent of retail electricity sales from renewable energy sources by 2017, within certain cost constraints.	**Not applicable**. While this strategy is not applicable, the Revised Project would not preclude the implementation of this strategy by municipal utility providers.
Municipal Utility Combined Heat and Power Cost effective reduction from fossil fuel consumption in the commercial and industrial sector through the application of on-site power production to meet both heat and electricity loads.	**Not applicable**. While this strategy is not applicable, the Revised Project would not preclude the implementation of this strategy by municipal utility providers.
Municipal Utility Electricity Sector Carbon Policy State agencies to address ways to transition investor-owned utilities away from carbon-intensive electricity sources.	**Not applicable.** While this strategy is not applicable, the Revised Project would not preclude the implementation of this strategy by municipal utility providers.

Table 10
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Alternative Fuels: Non-Petroleum Fuels Increasing the use of non-petroleum fuels in California's transportation sector, as recommended as recommended in the CEC's 2003 and 2005 Integrated Energy Policy Reports.	**Not Applicable.** The Revised Project does not influence or impact regulatory decision-making regarding the composition or availability of non-petroleum fuels, nor consumer choice regarding use of non-petroleum fuels in the transportation sector.
Business, Transportation and Housing	
Measures to Improve Transportation Energy Efficiency Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools and information that advance cleaner transportation and reduce climate change emissions.	**Not applicable.** While this strategy is not applicable, the Revised Project would not preclude the implementation of this strategy by State or local agencies.
Smart Land Use and Intelligent Transportation Systems (ITS) Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity and a quality environment. Smart land use, demand management, ITS, and value pricing are critical elements in this plan for improving mobility and transportation efficiency. Specific strategies include: promoting jobs/housing proximity and transit-oriented development; encouraging high density residential/commercial development along transit/rail corridor; valuing and congestion pricing; implementing intelligent transportation systems, traveler information/traffic control, incident management; accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.	**Consistent.** The Project Site is located within proximity to several public transportation services, including transit services provided by the Metropolitan Transportation Authority (MTA), the City of Los Angeles Department of Transportation (LADOT) Dash service, and the Metro Rail system. MTA provides both local and commuter bus lines through the downtown area. The Metro Red Line Civic Center station is approximately one-half mile from parcels L and M-2. Several public and private shuttle services also operate in this area, providing access to downtown locations and rail transit stations. In addition, the Revised Project is situated within easy walking distance to existing retail, restaurant, and other commercial businesses located along the Grand Avenue corridor. Furthermore, the commercial component of the Revised Project would also serve the surrounding residential uses in the neighborhood, which in turn would reduce vehicular travel by the surrounding residences. The location of the museum facility in proximity to other cultural facilities such as MOCA will encourage visitors to access multiple locations with a single trip or to use transit.

Table 10
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Department of Food and Agriculture	
Conservation Tillage/Cover Crops Conservation tillage and cover crops practices are used to improve soil tilt and water use efficiency, and to reduce tillage requirements, labor, fuel, and fertilizer requirements.	**Not applicable.** The Revised Project would not include any elements of agriculture.
Enteric Fermentation Cattle emit methane from digestion processes. Changes in diet could result in a reduction in emissions.	**Not applicable.** The Revised Project would not include any elements of agriculture.
State and Consumer Services Agency	
Green Buildings Initiative Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels. The Executive Order and related action plan spell out specific actions state agencies are to take with state-owned and –leased buildings. The order and plan also discuss various strategies and incentives to encourage private building owners and operators to achieve the 20 percent target.	**Consistent.** As discussed previously, the Revised Project would be required to be constructed in compliance with the standards of Title 24 that are in effect at the time of development. In addition, as the Revised Project will seek certification at the LEED certified level, the Revised Project could exceed Title 24 standards.
Public Utilities Commission (PUC)	
Accelerated Renewable Portfolio Standard The Governor has set a goal of achieving 33 percent renewable in the State's resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33 percent goal.	**Not applicable**. While this strategy is not applicable, the Revised Project would not preclude the implementation of this strategy by municipal utility providers.
California Solar Initiative The solar initiative includes installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses, increased use of solar thermal systems to offset the increasing demand for natural gas, use of advanced metering in solar applications, and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	**Consistent** Although solar roofs are not proposed as part of the Revised Project, the design of the new residential buildings would not preclude the installation and use of solar equipment in the future if they become cost effective from a purchase and maintenance standpoint of the property owners.
Investor-Owned Utility Programs These strategies include energy efficiency programs, combined heat and power initiative, and electricity sector carbon policy for investor owned utilities.	**Not applicable.** While this strategy is not applicable, the Revised Project would not preclude the implementation of this strategy by investor owned utility providers.
Sources: Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature, 2006 and Christopher A. Joseph & Associates, January 2010.	

The Office of the Attorney General (AG's Office) released an updated memo in January 2010[5] that provides a list of various measures that may reduce the GHGs associated with a project. As discussed above, the proposed project incorporates a number of the listed measures that would reduce GHG emissions from the proposed project, including:

Energy Efficiency

- Install energy efficient lighting

Water Conservation and Efficiency

- Create water-efficient landscapes
- Install water-efficient fixtures and appliances

Solid Waste Measures

- Reuse and recycle construction waste
- Integrate reuse and recycling into project

Land Use Measures

- Incorporate public transit into the project's design
- Create open space and parks.
- Include pedestrian and bicycle facilities within the proposed project.

Transportation and Motor Vehicles

- Require amenities for non-motorized transportation, such as secure and convenient bicycle parking.
- Enforce and follow limits idling time for commercial vehicles, including delivery and construction vehicles.

These measures are largely duplicative of the components of the ARB AB 32 Scoping Plan and 2006 CAT Report and consistency with these measures is documented in Tables 9 and 10.

Because the Revised Project would be consistent with the provisions of the AB 32 Scoping Plan, 2006 CAT Report and AG's Office Guidance, impacts of the Revised Project with respect to GHGs and climate change would not conflict with the adopted state strategies for achieving reductions in GHG emissions to meet the requirements of AB 32 and would therefore be less than significant. No mitigation measures are required.

---

[5] *California Attorney General. The California Environmental Quality Act Addressing Global Warming Impacts at the Project Level, January 2010.*

Noise

Certified EIR

Construction

The Certified EIR concluded that under the Approved Project, with implementation of mitigation measures, noise reduction measures would achieve a minimum 5-dBA reduction along areas of sensitive receptors where the line-of-sight to ground level construction activity that occurs on the Project Site is broken. Noise level reductions attributable to mitigation measures and Approved Project design features (e.g., use of noise mufflers and on-site storage of construction equipment) would reduce the noise level impact associated with construction activities to the extent practicable. Nevertheless, Project construction activities would intermittently increase the daytime noise levels at nearby sensitive land uses during construction activities by more than the 5-dBA significance threshold. As such, noise impacts during construction were concluded to be significant and unavoidable.

Operation

The Certified EIR concluded that under the Approved Project, development would not result in any significant noise impacts to off-site receptors during long-term operations. With implementation of mitigation measures on-site residents would not be exposed to inappropriately high noise levels from off-site activity (i.e., vehicle traffic on adjacent roadways). As such, noise impacts during operation would be less than significant.

Revised Project

Construction

Under the Revised Project, noise impacts associated with the operation of construction equipment would be the same as the Approved Project. The same construction equipment and techniques would be utilized for construction activity on Parcels L and M-2 and the same sensitive receptors are located in the vicinity of Parcels L and M-2 as were considered in the analysis in the Certified EIR. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. Impacts related to construction noise would be significant and unavoidable under the Revised Project. As such, and for the reasons discussed at page 13 of this Addendum, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to construction noise.

Operation

Under the Revised Project, noise levels would be less than under the Approved Project because of reduced traffic generation, however, the reduction in noise levels would likely not be noticeable. Traffic noise levels would be similar to the less than significant levels identified in the Certified EIR. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to operational noise.

Hazards and Hazardous Materials

Certified EIR

Construction

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, there were no potential Recognized Environmental Conditions (RECs) at the Project Site. Furthermore, under the Certified EIR the Approved Project construction would not expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, and impacts would be less than significant.

Operation

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, impacts associated with the potential discovery of hazardous and non-hazardous materials on the Project Site would be reduced to a less than significant level with compliance of regulatory measures.

Revised Project

Construction

Similar to the Approved Project, under the Revised Project, for Parcels L and M-2, there are no potential RECs at the Project Site. In addition, Parcels L and M-2 are located outside of the City of Los Angeles Engineering Department "Methane Zone." As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to encountering hazardous materials or potentially hazardous materials during construction.

Demolition, excavation, and construction of the Project Site would involve the use of potentially hazardous materials, including vehicle fuels, paints, cleaning materials, and caustic construction compounds. As such, under the Revised Project, construction activities would occur in accordance with standard construction practices and manufacturer guidelines, as required by Occupational Safety and Health Administration (OSHA) and Cal/OSHA. With the implementation of applicable federal and state

guidelines and statutes, and Los Angeles City Fire Department (LAFD) requirements for the handling of common hazardous materials, construction activities would not create a significant hazard to the public or environment through the disturbance, removal, storage or disposal of hazardous construction materials. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project construction would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to use of hazardous materials during construction.

Operation

Similar to the Approved Project, under the Revised Project, including possible use of formaldehyde and certain solvents connected to day-to-day operation of the museum, the transport, use, and storage of hazardous materials would be managed in accordance with applicable federal, state, and local regulations, and therefore, these materials would not be expected to pose significant risks to the public or the environment. With the implementation of existing Cal-EPA and LAFD regulations, the Revised Project would not significantly expose people to hazardous substances and chemicals. Furthermore, impacts associated with the potential discovery of hazardous and non-hazardous materials on the Project Site would be reduced to a less than significant level with compliance of regulatory measures. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to use of hazardous materials during operation.

Public Services-Fire

Certified EIR

Construction

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, during its construction would comply with OSHA and Fire and Building Codes regarding site safety. Since the Approved Project would comply with existing codes, any additional demand on fire services would not exceed the current capabilities of the LAFD. Given the generally acceptable levels of service (LOS) at intersections in the vicinity of the Project Site during peak and off-peak hours, impacts on area surface streets would be minimal. Thus, LAFD emergency response times would not be significantly impacted by construction traffic. Therefore, the Certified EIR concludes that construction impacts would be less than significant.

Operation

The adequacy of fire protection for a given area is based on required fire flow, response distance from existing fire stations, and the LAFD's judgment for needs in the area. In general, the required fire flow is closely related to land use. The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, after compliance with all fire safety regulations, the incorporation of Project Design Features and the implementation of mitigation measures, would be reduced to a less than significant level with respect to fire services impacts.

Revised Project

Construction

The Revised Project would include similar land uses and construction activity on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, under the Revised Project, during its construction would comply with OSHA and Fire and Building Codes regarding site safety. Since the Revised Project would comply with existing codes, any additional demand on fire services would not exceed the current capabilities of the LAFD. Similar to the Approved Project, given the generally acceptable LOS at intersections in the vicinity of the Project Site during peak and off-peak hours, impacts on area surface streets would be minimal. Thus, LAFD emergency response times would not be significantly impacted by construction traffic and construction impacts would be less than significant. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to fire protection services during construction.

Operation

The Revised Project would include similar land uses and building types on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, the Revised Project would comply with all applicable State and local codes and ordinances, and the guidelines found in the Fire Protection and Fire Prevention Plan Element, as well as the Safety Element, both of which are elements of the General Plan of the City of Los Angeles. The uses at the Project Site would generate approximately 159 new employees and a permanent population of approximately 1,123 residents under the Revised Project; a decrease from approximately 202 new employees and approximately 1,207 residents as estimated under the Approved Project. Response distance and times to the Project Site are anticipated to remain unchanged as a result of the Revised Project and are not affected by the size of the on-site population. Similar to the Approved Project, fire flow requirements of 12,000 gallons per minute from eight fire hydrants flowing simultaneously and a minimum residual water pressure of 20 pounds per square inch for the Project Site would be required under the Revised Project. Notwithstanding, similar to the Approved

Project, Project Design Features and Mitigation Measures would need to be implemented to reduce potential impacts. Furthermore, based on the analysis presented in Section IV.N, Water, of the Certified EIR, the Los Angeles Department of Water and Power (LADWP) has indicated that sufficient fire flow currently exists to serve the Project Site. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to fire flow.

Public Services-Police

Certified EIR

Construction

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, due to the temporary and limited nature of the closures along roadways and the wide selection of alternative routes to and through the Project Site, street and/or lane closures would not be expected to significantly affect emergency access or emergency response times. As such, the Los Angeles Police Department (LAPD) emergency response times would not be significantly impacted by construction traffic associated with the Approved Project. Therefore, the Certified EIR concludes that impacts would be less than significant.

Operation

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, with the implementation of the recommended mitigation measures, impacts to police protection services or response times would be less than significant.

Revised Project

Construction

The Revised Project would include similar land uses and construction activity on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, the Revised Project construction may result in temporary lane closures in the immediate area. However, public detour routes would be established, where required, to divert traffic from the affected street segments. Due to the temporary and limited nature of the closures along roadways and the wide selection of alternative routes to the Project Site, street and/or lane closures would not be expected to significantly affect emergency access or emergency response times. Given the proximity of regional freeways and the generally acceptable LOS at intersections in the vicinity of the Project Site during off-peak hours, impacts on area surface streets would be minimal. Although minor traffic delays may result, particularly on freeway ramps, these impacts would be temporary in nature and therefore not significant. As such, LAPD

emergency response times would not be significantly impacted by construction traffic associated with the Revised Project. With coordination between the Revised Project's construction managers and the LAPD, the potential impact of construction on emergency access and response times would be reduced to a less than significant level. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to police services during construction.

Operation

The Revised Project would include similar land uses and building types on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, the Revised Project, for Parcels L and M-2, with an estimated average household size of 1.42 persons, would generate approximately 1,123 new residents. Using Police Service Population Conversion Factors for commercial uses, the commercial component is estimated to generate an equivalent daily on-site population of 418.[6] For the purpose of analyzing potential impacts related to police services, the total population for the Revised Project, inclusive of residential and commercial components, is 1,541. With the development, crimes associated with the proposed uses are anticipated to occur, placing an increased demand on police protection services. Therefore, the population growth attributed to the Revised Project would reduce the existing police officer per resident ratio. Assuming that the Revised Project's population would generate a demand for police protection services in accordance with available statistical data for the Central LAPD Area, there would be approximately 237 additional crimes per year. Thus, the average number of crimes committed annually in the LAPD Central Area would increase from roughly 6,744 to 6,981. With the same number of officers as under existing conditions the ratio of crimes to be handled by each officer would increase from approximately 20 for each officer to 20.7 for each officer, an increase of 0.7 for each officer. This level of increased demand when viewed in the context as occurring over the entire year is concluded to not constitute a substantial exceedance of LAPD's capacity and, thus, a less than significant impact on the demand for LAPD services would occur. Moreover, the museum component of the Revised Project would provide a substantial on-site physical security and security personnel presence that would offset the need for additional LAPD services. The mitigation measures set forth in the Certified

---

[6] *The Los Angeles Police Department measures service ratios on the basis of residential populations. At a Citywide scale this practice recognizes that citizens act as both residents and employees, and are thereby accounted for in the more inclusive residential category. However, to provide a more conservative analysis and account for the Revised Project's localized commercial activities, the analysis of impacts on police services includes the Revised Project's commercial population, and treats that population as though they were residents and thus, contributors to the LAPD per resident ratios. The population conversion factors for the commercial activities are taken from the City of Los Angeles CEQA Thresholds Guide, May 14, 1998. The factor is 3 persons per 1,000 sq. ft. of retail space. No factor was listed for museum uses. Therefore, the retail factor of 3 persons per 1,000 sq. ft. of museum space was used to generate the equivalent residential population represented by visitors and employees for the museum use.*

EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to police services during operation.

Public Services-Schools

Certified EIR

Construction

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, as the Project Site is located south of the freeway interchange, construction traffic would not exit nearby or in front of a school. Due to the location of the identified schools in relationship to the Project Site, haul routes would not interfere with school bus or pedestrian routes during Approved Project construction. The Certified EIR concluded that impacts would be less than significant.

Operation

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, as the Project applicant is required to pay school facility development fees and impacts to schools would be less than significant.

Revised Project

Construction

The Revised Project would include similar land uses and construction activity on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, under the Revised Project, pedestrian and bus routes would not be significantly impacted by construction-related traffic at Gratts Elementary School and Belmont Senior High School. Furthermore, haul routes would not interfere with school bus or pedestrian routes. Since constructed-related traffic would not interfere with school bus routes, school bus access and on-time performance would not be impeded. Due to the Revised Project's location relative to the locations of the identified schools, construction staging and construction vehicle parking would not occur on or near school property. Safety and security would be maintained throughout construction of the Revised Project, as construction activities would adhere to all applicable standard construction standards including the California Vehicle Code. Therefore, impacts to schools during construction would be less than significant. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to schools during construction.

Operation

The Revised Project would include similar land uses and building types on Parcels L and M-2 as would occur under the Approved Project. As shown on Table 11 (Estimated Student Generation for the Revised Project), the uses at the Project Site would generate approximately 213 new students (104 elementary students, 56 middle school students, and 53 high school students) under the Revised Project, a decrease from the approximately 227 new students (110 elementary students, 60 middle school students, and 57 high school students) as under the Approved Project. Similar to the Approved Project, while the addition of approximately 213 students would result in overcapacity at the schools serving the Project Site, payment of school fees established by the City of Los Angeles Unified School District (LAUSD) would fully mitigate the potential impacts under the Revised Project.

The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to schools during operation.

Table 11
Estimated Student Generation for the Approved Project

Use Type	Amount of Development	School Type	Student Generation Factor	Total Students Generated[a]
CERTIFIED EIR				
Residential Uses				
Multi-Family Residential	850 du	Elementary School (K-6)	0.1266	108
		Middle School (7-8)	0.0692	59
		High School (9-12)	0.0659	56
			Residential Subtotal	***223***
Commercial				
Retail	101,000 sq. ft.	Elementary School (K-6)	0.0000238	2.4
		Middle School (7-8)	0.0000123	1.2
		High School (9-12)	0.0000123	1.2
			Commercial Subtotal	***4***
			Total Elementary School	***110***
			Total Middle School	***60***
			Total High School	***57***
			Total Net New Students Generated	**227**
REVISED PROJECT				
Residential Uses				
Multi-Family Residential	790 du	Elementary School (K-6)	0.1266	100
		Middle School (7-8)	0.0692	55
		High School (9-12)	0.0659	52
			Residential Subtotal	***207***
Commercial				
Museum[b]	120,000 sq. ft.	Elementary School (K-6)	0.0000238	3
		Middle School (7-8)	0.0000123	1

Table 11
Estimated Student Generation for the Approved Project

Use Type	Amount of Development	School Type	Student Generation Factor	Total Students Generated[a]
		High School (9-12)	0.0000123	1
Retail	19,422 sq. ft.	Elementary School (K-6)	0.0000238	0.5
		Middle School (7-8)	0.0000123	0.2
		High School (9-12)	0.0000123	0.2
			Commercial Subtotal	***6***
			Total Elementary School	***104***
			Total Middle School	***56***
			Total High School	***53***
			Total Net New Students Generated	**213**

[a.] *The number of students has been rounded to the nearest whole number.*

[b.] *LAUSD does not identify a student generation factor for museum uses. The generation factor for commercial has been utilized. However, the resulting student generation levels are expected to reflect a conservative approximation of student generation from the 40 full time and 10 to 15 part time staff expected to be associated with the museum.*

Source: Los Angeles Unified School District, School Facilities Fee Plan, February 25, 2008.

Source (table): Christopher A. Joseph & Associates, April 2010.

Public Services-Parks and Recreation

Certified EIR

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, potential significant impacts to park and recreational facilities associated with the Approved Project would be reduced to a level that is less than significant through compliance with regulatory measures established for the purposes of expanding parklands commensurate with new development. This occurs through Approved Project compliance with the requirements set forth in LAMC Section 12.21 and LAMC Section 17.12. Thus, the Approved Project would meet the demand for parks addressed through those provisions. Therefore, the Certified EIR concluded that potential impacts to park and recreational facilities attributable to the Approved Project's operation would be less than significant.

Revised Project

The Revised Project would include similar land uses and building types on Parcels L and M-2 as would occur under the Approved Project. The uses at the Project Site would generate approximately 159 new employees and a permanent population of approximately 1,123 residents under the Revised Project. Since employee populations are not anticipated to frequent parks and recreational services near their place of employment in a manner that would create a demand and since the Revised Project involves a decrease in the amount of multi-family residential dwelling units when compared to the Approved Project (a reduction of 60 units), the demand for parks and recreation services that would result from the Revised

Project would be less than the Approved Project. Similar to the Approved Project, the residential units contained in the Revised Project, under the Quimby Act, would be required to do one of the following: (1) dedicate additional parkland beyond any credited park/recreation space, such that the Revised Project would provide a total of 3 acres per 1,000 Project residents; (2) pay in-lieu fees for any land dedication requirement shortfall; (3) provide a combination of the above; or (4) otherwise comply with the requirements of the Quimby Act. Compliance with Quimby requirements would off-set the park impacts of the Revised Project and avoid a significant impact. Furthermore, the Revised Project's open space would be designed to comply with the open space requirements set forth in Section 12.21 of the LAMC. Compliance with these open space requirements would be determined during review and approval of the final map by the City's Planning and/or Building and Safety Department. Therefore, impacts of the Revised Project would be less than significant. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to parks.

Public Services-Libraries

Certified EIR

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, no significant impacts relative to Los Angeles Public Library (LAPL) facilities and services would occur as a result of the Approved Project.

Revised Project

The Revised Project would include similar land uses and building types on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, the Revised Project would generate an estimated residential population of 1,123 within the LAPL service area. Since employee populations are not anticipated to frequent libraries near their place of employment in a manner that would create a demand and since the Revised Project involves a decrease in the amount of multi-family residential dwelling units when compared to the Approved Project (a reduction of 60 units), the decreased demand for library services that would result from the Revised Project would be less than the Approved Project. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to libraries.

Utilities-Water Supply

Certified EIR

Construction

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, demolition and construction activities would require minimal water. Water usage for such purposes would, however, be intermittent throughout construction and temporary in nature, and demand is not anticipated to have any adverse impact on the available water supply or the existing water distribution system. Therefore, the Certified EIR concluded that no significant impacts to water supply were anticipated to occur during construction of the Approved Project.

Operation

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, the total estimated water demand for the Approved Project at build out is not expected to exceed available supplies during normal, single dry and multiple dry water years during a 20-year horizon, nor is it anticipated to exceed the available capacity within the distribution infrastructure that would serve the Project Site. Other than connections from the Project Site to the water mains and the installation of new water lines along 2nd Street, the construction of a new or upgraded distribution and conveyance infrastructure would not be required. With incorporation of mitigation measures, the Certified EIR concludes that impacts to water supply associated with implementation of the Approved Project would be less than significant.

Revised Project

Construction

The Revised Project would include similar land uses and construction activity on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, the Revised Project construction activities would require minimal water and demand is not anticipated to have any adverse impact on the available water supply or the existing water distribution system. Therefore, no significant impact to water supply is anticipated to occur during construction of the Revised Project. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to water supply during construction.

Operation

The Revised Project would include similar land uses and building types on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, the Revised Project would result in a

long-term water demand. Specifically, domestic water would be required for residential units, retail uses, the museum, and landscaping. The operation of uses for the Revised Project is estimated to have an average potable water demand of 203,786 gallons per day (gpd) at build out. Table 12 presents a breakdown of proposed land uses and their corresponding estimated water demands. As shown, the average daily water demand is generated in large part by the residential uses. When compared to the Certified EIR total water demand of 223,694 gpd, the Revised Project would have a 19,908 gpd decrease in water demand.

Table 12

Estimated Water Demand

Use Type	Amount of Development	Units	Daily Average Consumption Rate (GPD)[a]	Total (GPD)
CERTIFIED EIR				
Residential	850	Units	252/unit/day	214,200
Retail	101,000	Square Feet	94/1,000 sq.ft./day	9,494
			Total	**223,694**
REVISED PROJECT				
Residential	790	Units	252/unit/day	199,080
Retail	19,422	Square Feet	94/1,000 sq.ft./day	1,826
Museum	120,000	Square Feet	24/1,000 sq.ft./day	2,880
			Total	**203,786**

[a] *Water consumption calculations are based on wastewater generation rates provided by the City of Los Angeles Bureau of Engineering. Rates are increased 26% for residential uses and 18% for commercial uses per LADWP. Consumption rates for commercial uses are expressed in terms of gpd per 1,000 square feet of floor area.*

It should be noted that the LADWP approved a Water Supply Assessment, dated April 13, 2006, for the Certified EIR that stated that LADWP would be able to meet the water demands of the proposed Project and of existing and other future uses over the 20-year horizon described in SB 610 and SB 221, during single year and multiple dry years. Therefore, as the Revised Project would consume less water than the development described under the Certified EIR the total estimated water demand for the Revised Project at build out would not exceed available supplies, nor would the estimated water demand for the Revised Project exceed the available capacity within the distribution infrastructure that would serve the Project site.

Compliance with state laws with regard to water conservation, including relevant provisions of Title 20 and Title 24 of the California Government Code, would result in a reduction of water consumption estimates at build out, and in turn, a reduction of the demand on City supplies. Therefore, the total estimated water demand for the Revised Project at build out would not exceed available supplies, nor would the estimated water demand for the Revised Project exceed the available capacity within the distribution infrastructure that would serve the Project Site. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the

development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to water supply.

Furthermore, based on LAFD fire flow requirements as well as pressure flow reports from the LADWP, no upgrades to the existing water system serving Parcel M-2 would be required. However, while the water lines serving Parcel L yields above the required 12,000 gpm for hydrant flow, 2nd Street would require fire coverage. As such, the installation of new water lines could be required along 2nd Street, from Hope Street to Lower Grand Avenue to serve Parcel L, as development occurs. New firewater meters would be provided with the new water connections to the existing LADWP water mains. Additional fire hydrants beyond those currently existing would also be necessary to satisfy fire suppression requirements. Laterals for fire hydrants or sprinkler service would be installed per LAFD specifications. Given the above, impacts associated with fire flow would be the same under the Revised Project as under the Approved Project. Mitigation Measure J.1-1 in the Certified EIR requires that new water lines meeting the requirements of the City of Los Angeles Department of Public Works be installed. . A study has been prepared that has determined that the museum component of the Revised Project would be adequately served by existing water lines and no upgrades are required (see Appendix C). Any additional water lines needed to serve the remaining development on Parcels L and M-2 under the Revised Project will be installed per the applicable requirements of the Department of Public Works at the time of that development. Accordingly, Mitigation Measure J.1-1 will be revised if the Revised Project is approved to provide as follows:

"After construction of the museum, but prior to the occupancy of the buildings within Parcels L and W-1/W-2, Related shall install new water lines along Second Street, from Olive Street to Hill Street, to serve Parcels W-1 and W-2, and from Hope Street to Lower Grand Avenue to serve Parcel L. The City's Department of Public Works shall review and approve all plans related to these new water lines. The Developer shall be responsible for the implementation of these improvements."

The remaining mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to water supply.

Utilities-Wastewater

Certified EIR

Construction

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, during construction of the Approved Project, construction personnel and construction of the Approved Project would generate

a negligible amount of wastewater. It is anticipated that portable toilets would be provided and maintained by a private, contracted vendor during the construction phase of the Approved Project, and that the vendor would dispose of waste off-site. Therefore, the Certified EIR concluded that no significant impacts to wastewater service were anticipated to occur during the construction phases of the Approved Project.

Operation

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, with the implementation of the recommended mitigation measures discussed above, any local deficiencies in sewer lines would be identified and remedied and wastewater generation rates would be reduced. As such, the Certified EIR concluded that less than significant impacts on wastewater conveyances or the capacity of the Hyperion Treatment Plant would occur.

Revised EIR

Construction

The Revised Project would include similar land uses and construction activity on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, the Revised Project, during construction would produce a negligible amount of wastewater would be generated by construction personnel. It is anticipated that portable toilets would be provided and maintained by a private, contracted vendor during the construction phase of the Project, and that the vendor would dispose of waste off-site. Therefore, wastewater generation from construction activities is not anticipated to cause a measurable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained. Additionally, construction is not anticipated to generate wastewater flows that would substantially or incrementally exceed the future scheduled capacity of the Hyperion Treatment Plant (HTP). The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to wastewater during the construction phase.

Construction involving connections to the sewer mains adjacent to the Project Site could involve trenching, backfilling, and repaving of the affected roadways. Such construction could result in temporary street lane and sidewalk closures in the immediate area of the Project Site. Public detour routes would be established, as necessary, to divert traffic and pedestrians from the affected street segments. These detours would be temporary and limited in nature. Nonetheless, construction associated with modifications to the wastewater conveyance system would be considered a secondary impact, as it may obstruct vehicle and pedestrian access to the Project Site. The analysis of traffic impacts of the Approved Project during construction includes a mitigation measure for preparation of a Construction Traffic Control/Management Plan as a mitigation measure. This mitigation measure would be applicable

to the Revised Project. With incorporation of this mitigation measure, short-term impacts on traffic and pedestrian access would be less than significant. Since the only impact related to sewer construction would be the traffic impact, construction impacts associated with the local wastewater conveyance and treatment system would be less than significant. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to wastewater systems during construction.

Operation

The Revised Project would include similar land uses and building types on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, the Revised Project would result in a long-term sewer service demand for operational uses. Sewer service demand would originate predominantly from commercial uses, including the retail uses and museum, as well as from residential uses. Table 13 presents a breakdown of the proposed land uses of the Revised Project and their corresponding estimated sewer flow calculations. As shown, based on the proposed land use mix, the Revised Project at build out would generate a total of approximately 161,954 gpd of wastewater.

Table 13

Estimated Wastewater Generation

Use Type	Amount of Development	Units	Daily Average Generation Rate (GPD)[a]	Total (GPD)
CERTIFIED EIR				
Residential	850	Units	200/unit/day	170,000
Retail	101,000	Square Feet	80/1,000 sq.ft./day	8,080
				178,080
REVISED PROJECT				
Residential	790	Units	200/unit/day	158,000
Retail	19,422	Square Feet	80/1,000 sq.ft./day	1,554
Museum	120,000	Square Feet	20/1,000 sq.ft./day	2,400
			Total	**161,954**

[a] *Wastewater generation calculations are based on generation rates provided by the City of Los Angeles Bureau of Engineering. Generation rates for commercial uses are expressed in terms of gpd per 1,000 square feet of floor area.*

When compared to the Certified EIR total wastewater generated of 178,080 gpd, the Revised Project would have a 16,126 gpd decrease in wastewater generated.

Parcel L is anticipated to connect to the eight-inch sewer main in Grand Avenue. Parcel M-2 is anticipated to connect to the 15-inch sewer main in Grand Avenue. Similar to the Approved Project, sufficient remaining capacity is available on all respective lines. Therefore, the demand for sewer

services would be adequately met by existing infrastructure. Through compliance with City permitting processes, a sewer availability study would be prepared, as necessary, to confirm that there is sufficient remaining capacity in the local sewer lines that would service the Project Site. In addition, to ensure that wastewater service demand is met, regulatory measures, similar to the Approved Project, would be implemented.

Similar to the Approved Project, under the Revised Project, the applicant would be required to pay the Sewerage Facilities Charge for the Revised Project. In addition, all projects served by the HTP are subject to the Sewer Allocation Ordinance, which limits additional discharge according to a pre-established percentage rate. By complying with the provisions of the Sewer Allocation Ordinance, this wastewater generation would not substantially or incrementally exceed the future scheduled capacity of the HTP. In addition, the Revised Project would not cause a measurable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or would cause a sewer's capacity to become constrained. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to wastewater systems during operations.

Utilities-Solid Waste

Certified EIR

Construction

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, there is no anticipated shortfall in disposal capacity for inert waste. With implementation of the City's mandatory Construction and Demolition Debris Recycling Program, a minimum of 50 percent of the Project-generated construction waste would be diverted, and thus, not be disposed of at landfill facilities; and the construction debris from the Approved Project would comprise an extremely small percentage of the remaining inert landfill capacity. Therefore, impacts of the Approved Project on solid waste due to construction activities would be less than significant.

Operation

The Certified EIR concluded that under the Approved Project, for Parcels L and M-2, potential solid waste impacts would be less than significant. Waste generated by the Approved Project would not exacerbate the existing shortfall of landfill capacity to the point of altering the projected timeline for landfills within the region to reach capacity. Nonetheless, mitigation measures have been proposed to identify compliance with plans, programs and policies for recycling, waste reduction and waste diversion.

Furthermore, impacts relative to adopted solid waste diversion programs and policies would be less than significant.

Revised Project

Construction

The Revised Project would include similar land uses and construction activity on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, under the Revised Project, construction debris would consist primarily of asphalt paving. The installation of water and sewer lines would generate related construction debris. However, as the Project Site is essentially undeveloped, no structures of any note would be demolished during Revised Project construction. Solid waste associated with construction activities would be disposed of at an unclassified landfill accepting inert waste.

The calculations of construction debris are based on an average of 4.02 pounds of construction debris per square foot of commercial construction and 4.38 pounds of construction debris per square foot of residential construction.[7] Construction of the approximately 139,422 square feet of commercial development under the Revised Project would generate approximately 254 tons of construction debris. It is estimated that the 790 multifamily residential units would comprise approximately 790,908 square feet, which has been used to assess the amount of solid waste that would be generated by construction of this portion of the Revised Project. Thus, construction of the residential component of the Revised Project would generate approximately 1,571 tons of construction debris.

With implementation the City's mandatory Construction and Demolition Debris Recycling Program, a minimum of 50 percent of the Revised Project-generated construction waste would be diverted, and thus, not be disposed of at landfill facilities. With the implementation of the City's Construction and Demolition Debris Recycling Program, the total amount of construction debris disposed of at a landfill would be on the order of 913 tons. The total remaining permitted inert waste capacity in Los Angeles County is estimated to be approximately 69.94 million tons. Based on the average 2003 disposal rate of 1.2 million tons per year, this capacity would be exhausted in approximately 60 years (i.e., around 2065). Based on this data, it is concluded that there is no anticipated shortfall in disposal capacity for inert waste; and impacts of the Revised Project on solid waste due to construction activities would be less than significant. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to solid waste disposal during construction.

---

[7] *U.S. EPA, Report No. 530R98010, Characterization of Building-Related Construction and Demolition Debris in the United States, June 1998, page A-1.*

Operation

The Revised Project would include similar land uses and building types on Parcels L and M-2 as would occur under the Approved Project. Similar to the Approved Project, under the Revised Project, operations would generate municipal solid waste from the variety of residential and commercial uses anticipated on the Project Site. The estimated amount of solid waste that these uses would generate is based on solid waste disposal rates that are set forth in the CIWMB Solid Waste Characterization Database. The estimated amount of solid waste that would be disposed of during operations of the Revised Project is presented in Table 14. Residential waste disposal rates reflect the amount (tons) of solid waste disposal generated per dwelling unit on an annual basis. The statewide waste disposal rate for multi-family residential units is 0.46 tons per unit per year. As 790 units would be constructed, approximately 363 tons of solid waste, that requires disposal at a landfill accepting municipal waste, would be generated yearly by the residential portion of the Revised Project. Waste disposal rates for the business types anticipated to occur at the Project Site are calculated according to the amount (tons) of waste that an employee generates on an annual basis that is anticipated to be disposed of at a landfill that accepts municipal waste. Based on the amount and types of proposed development, the commercial component would require the disposal of 48 tons of solid waste per year. Thus, the total of all operations would require the disposal of approximately 411 tons of solid waste per year. When compared to the Certified EIR total solid waste generated of 452 tons of solid waste per year, the Revised Project would reduce the solid waste generated by 41 tons per year.

Table 14
Estimated Solid Waste Generation

Use Type	Amount of Development	Employees	Disposal Rate (tons/employee/year)[a]	Total (tons/year)
CERTIFIED EIR				
Residential				
Residential	850 units	N/A	0.46	391
			Subtotal	***391***
Commercial				
Retail	101,000 sq. ft.	202	0.30	61
			Subtotal	***61***
			Total	**452**
REVISED PROJECT				
Residential				
Residential	790 units	N/A	0.46	363
			Subtotal	***363***
Commercial				
Retail	19,422 sq. ft.	39	0.30	12
Museum	120,000 sq. ft.	120	0.30	36
			Subtotal	***48***
			Total	**411**

[a] *Disposal Waste rate calculations are based on CIWMB published units.*

The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would apply to the development associated with the Revised Project on Parcels L and M-2. As such, the Revised Project would not result in new significant impacts or substantial increase in the severity of previously-identified impacts with respect to solid waste disposal during operations.

Appendix D to this Addendum identifies the complete list of CEQA mitigation measures that are applicable to the Grand Avenue Project and specifies the measures that are applicable to the museum component of the Revised Project. A revised version of the Mitigation Monitoring and Reporting Program (MMRP) will be provided to the decision makers for concurrent consideration with the Addendum.

Impacts Related to Proposed Changes to Development Implementation Schedule

The proposed changes to the development implementation schedule for the Revised Project would not change the impacts of the Approved Project related to land use compatibility, land use policy consistency, consistency with zoning requirements, aesthetics and visual resources, historic resources, operational air quality, operational noise, hazardous materials, public services and utilities. Changes to the development schedule would not affect the land uses, building heights, building locations or the characteristics of other improvements included within the Approved Project upon which these impacts are based. The same impacts would occur as under the Approved Project, only at a different time. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of these impacts previously identified in the Certified EIR with respect to the development implementation schedule.

With respect to construction air quality and noise, the proposed changes to the development implementation schedule for the Grand Avenue Project would not change the impacts that would occur under the Approved Project. Although time frames for construction would be extended, the development schedule provides for the scheduling of the components and phases of the Project relative to one another in a similar manner as would occur under the Approved Project. The same construction activities would be expected to overlap under the Revised Project as was expected under the Approved Project. Under this aspect of the Revised Project, it is not expected that additional overlaps resulting in higher levels of construction emissions or construction noise, upon which these impacts are based, would occur. As such, daily construction emissions and noise levels of the Revised Project, upon which the determination of significance for construction air quality and noise are based, would be the same as or lower than the Approved Project. Moreover, potential changes in construction scheduling that reduce the overlap of construction activities (such as the phasing of the construction of the museum component on Parcels L and M-2) would result in lower daily emissions levels and, potentially, lower noise levels, under the Revised Project and would reduce impacts compared to the Approved Project. The proposed changes to the development implementation schedule included in the Revised Project would therefore not result in any new significant impacts or substantial increase in the severity of previously identified impacts with respect to construction air quality and noise.

The proposed changes to the development implementation schedule for the Grand Avenue Project would not change the impacts of the Grand Avenue Project related to construction traffic. Although time frames for construction would be extended, the development schedule provides for the scheduling of the components and phases of the Project relative to one another in a similar manner as the Approved Project. The same construction activities would be expected to overlap under the Revised Project as was expected under the Approved Project. Under this aspect of the Revised Project, it is not expected that additional overlaps resulting in higher levels of construction traffic, upon which these impacts are based, would occur. Moreover, potential changes in construction scheduling that reduce the overlap of construction activities, such as the phasing of the construction of the museum component on Parcels L and M-2 would reduce impacts compared to the Approved Project. The mitigation measures set forth in the Certified EIR with respect to development activity within the five development parcels would continue to apply to the development associated with these parcels under the proposed changes in the development implementation schedule. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to the development implementation schedule.

The proposed changes to the development implementation schedule for the Grand Avenue Project would not change the impacts of the Grand Avenue Project related to operational traffic, access and parking. Impacts related to access and parking are connected to the land uses and design of the buildings located within the Project, which would be less than significant for Parcels L and M-2 as discussed above, and would not change for the remainder of the Grand Avenue Project under this aspect of the Revised Project. The extension of time frames for development of the Project would extend the impacts of the traffic associated with the Grand Avenue project beyond the time horizon for the Approved Project that was examined in the Certified EIR. However, the analysis in the Certified EIR included traffic contributed by 93 specific related projects and a conservatively high 1% per year ambient growth factor. This conservative (high or worst case) assumption was based on LADOT experience in observing traffic volumes over the years.

In recent years however, due to the economic recession, it is LADOT's experience that traffic volumes have generally not been increasing in the City. In some cases traffic volumes have decreased in the peak periods in the last few years. This lack of traffic growth or decrease in traffic volumes has been a result not only of very little, if any, new development occurring in recent years but also of in reductions in the workforce due to the poor economy. For example, for six intersections studied in Downtown Los Angeles[8] just east of STAPLES Center, traffic volumes in the P.M. peak hour decreased on average by 16% between 2004 and 2008 (with decreases for individual intersections ranging between 7% and 33%).

[8] *The Glass Tower Condominium Project Traffic Study, The Mobility Group, 2005, and Revised Study 2008. Intersections located on Figueroa Street, Olympic Boulevard, Grand Avenue and Olive Street.*

Moreover, as a result of recent economic conditions, many of the related projects previously identified have not been built and it is likely that many of these will never be built. A review of the related projects list from the Certified EIR indicates that, based upon information provided by CRA/LA (Appendix E) only approximately 50% of the previously identified projects have in fact been built since 2006. The combination of these factors suggests that background traffic levels in 2023, to which the traffic from the Grand Avenue Project would be added in order to assess impacts, would likely be the same or lower than was analyzed for 2015 in the Certified EIR. Since the traffic generation characteristics of the Project would not change as a result of this components of the Revised Project, the resulting intersection LOS and V/C results for the Revised Project, including the proposed changes to the development schedule, would be the same or less than the under the Approved Project. As such, the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to the development implementation schedule.

With respect to population and housing projections, except for the changes associated with the modified development on Parcels L and M2, the proposed changes to the development implementation schedule for the Grand Avenue Project would not change the projected increases in population, housing and employment that would be associated with the Grand Avenue Project. This aspect of the Revised Project would not affect the growth projections included within the Approved Project upon which these impacts are based. However, the time horizon in which this growth would occur would be modified as a result of the proposed changes to the development implementation schedule. Table 15 shows the projected increase in population, households and employment of the Revised Project including the changes on Parcels L and M-2 as compared to SCAG projections for the nearest horizon year. As shown in Table 15, the Revised Project would represent less of an increase than the Approved Project when compared to the SCAG projections for 2025.

Table 16 shows the percentage of SCAG projections from the Certified EIR that would have been represented by the growth in population, households and employment under the previous development schedule. Comparison of Table 15 and Table 16 shows that, in all cases, the population, household and employment growth that would occur under proposed changes in the development schedule would represent a smaller percentage of the projected growth than would have occurred under the Approved Project. As such, the proposed changes in the development schedule included in the Revised Project would not result in any new significant impacts or substantial increase in the severity of previously-identified impacts in the Certified EIR with respect to population, household or employment growth projections.

Table 15
Comparison of Revised Project with Changes in Development Schedule to SCAG Projections

Geographic Zone	Growth				
				Percent of Expected Increase	
	2005-2025[a]	Approved Project Increase[b]	Revised Project Increase	Approved Project	Revised Project
Population					
Census Tract 207500	529	3,777	3,693	714.0%	698.1%
Community Plan Area	3,649	3,777	3,693	103.5%	101.2%
City of Los Angeles Subregion (SCAG)	322,340	3,777	3,693	1.2%	1.1%
Households					
Census Tract 207500	624	2,660	2,601	426.3%	416.8%
Community Plan Area	2,855	2,660	2,601	93.2%	91.1%
City of Los Angeles Subregion (SCAG)	226,919	2,660	2,601	1.2%	1.1%
Employment					
Census Tract 207500	1,800	1,206	1,163	67.0%	64.6%
Community Plan Area	12,307	1,206	1,163	9.8%	9.4%
City of Los Angeles Subregion (SCAG)	160,380	1,206	1,163	0.8%	0.7%

[a] *SCAG 2008 Growth Projection, City Projections, http://www.scag.ca.gov.*
[b] *Project With Additional Residential Development Option*
[c] *Adjustment for Revised Project on Parcels L and M2*

Table 16
Comparison of Approved Project to SCAG Projections (from Certified EIR)

Geographic Zone	Growth		
	2006-2015[a]	Approved Project Increase[b]	Percent of Expected Increase
Population			
Census Tract 207500	68	3,777	5,554.4%
Community Plan Area	403	3,777	937.2%
City of Los Angeles Subregion (SCAG)	176,692	3,777	2.1%
Households			
Census Tract 207500	272	2,660	977.4%
Community Plan Area	1,120	2,660	237.5%
City of Los Angeles Subregion (SCAG)	117,374	2,660	2.3%

Table 16
Comparison of Approved Project to SCAG Projections (from Certified EIR)

Employment			
Census Tract 207500	1,117	1,206	108.0%
Community Plan Area	8,668	1,206	13.9%
City of Los Angeles Subregion (SCAG)	222,628	1,206	0.5%

[a] *Estimates/projections are taken from SCAG 2004 RTP data. 2006 estimates are based on an interpolation of the 2005 and 2010 projections. The projections for the Community Plan area are based on the Census Tract data in the RTP, but have been aggregated to the Community Plan area.*
[b] *Project with Additional Residential Development Option*

ANALYSIS OF VIEW IMPACT OF ALTERNATE DESIGN ALTERNATIVE

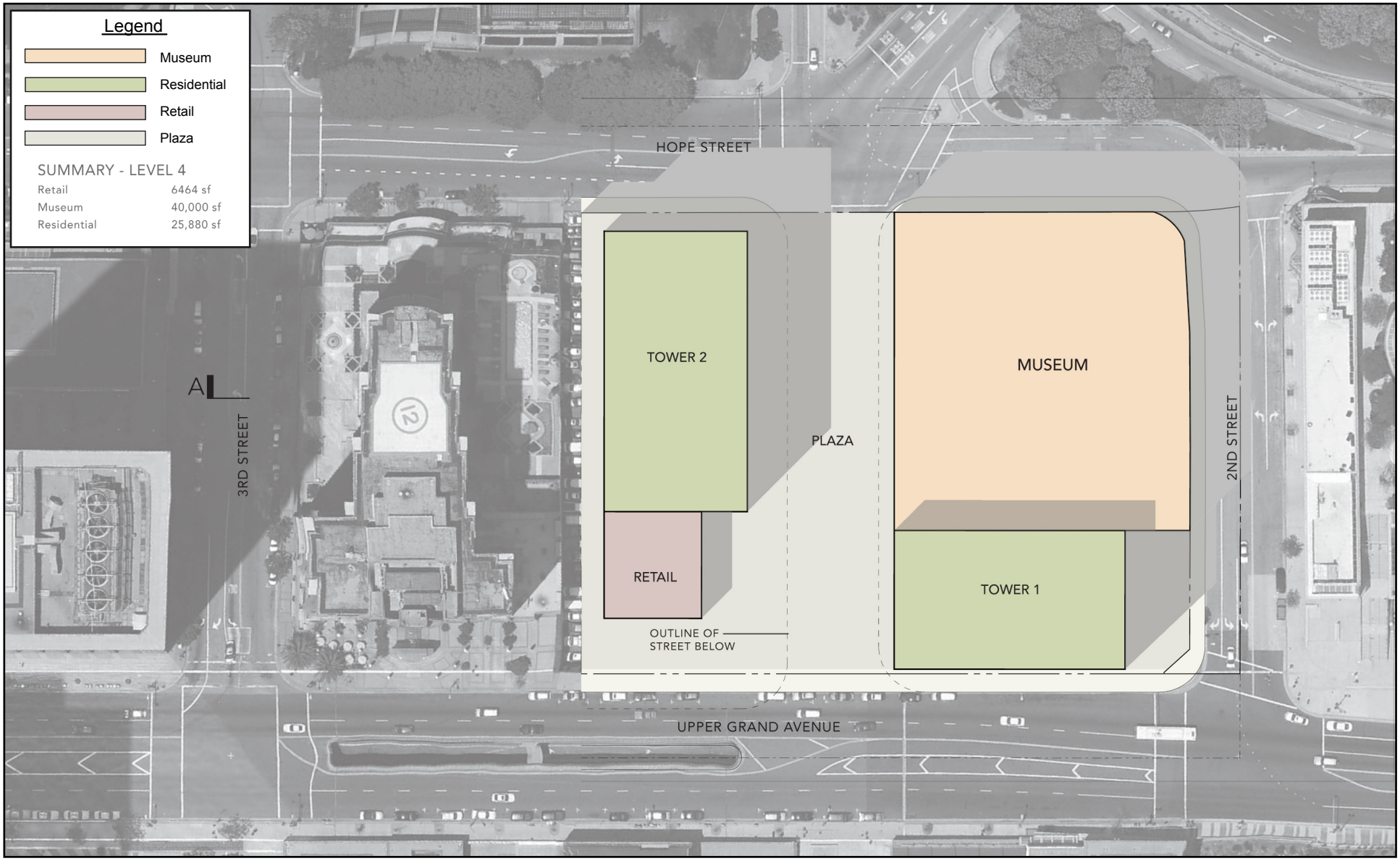
In addition to consideration of the County Building Option and Additional Residential Development Option, the Certified EIR considered five alternatives to the Project that had the potential to reduce or avoid the significant impacts of the Project, namely, the no project alternative, reduced density alternative, alternate site design and alternate land use plan alternatives. One of the Alternatives (Alternative 4: Alternate Design Alternative) evaluated an alternate site plan for Parcels L and M-2 that reversed the location of two of the residential towers on Parcels L and M-2 compared to the Project's Conceptual Plan. The Certified EIR concluded that Alternative 4 would reduce the Project's significant view impact for residents of the adjacent Grand Promenade Tower building that have northerly views. The site plan for Alternative 4 was incorporated into the version of the Project approved by the lead agency. The Revised Project would locate the two residential towers on Parcels L and M-2 at approximately the same locations as provided in the Conceptual Plan for the version of the Project analyzed in the Certified EIR. Therefore, the Revised Project would not cause a significant impact not previously analyzed in the Certified EIR. However, to determine whether this impact under the Revised Project could be reduced, alternative site plans were evaluated that considered a different site configuration for Parcels L and M-2 than is being proposed under the Revised Project.

In considering options for the configuration of Parcels L and M-2 under the Revised Project, three alternate locations for the museum use were considered. As proposed, the museum would be located at the northeast corner of Parcels L and M-2. The potential alternate locations for the museum building would be at the southeast, southwest and northwest corners of the site. If the museum is at the southeast or southwest corners of the site the ground level of the portion of the site located south of GTK Way would be narrower than the footprint for the proposed museum use. Such a footprint would be contrary to the objectives of the Revised Project since it would cause construction inefficiencies and operational inefficiencies (galleries on multiple floors and increased security for additional floors).

It would be technically feasible, however, to locate the museum at the northwest corner of Parcels L and M-2. Therefore, an alternate site plan alternative that would reverse the locations of the museum building and Tower 1 was considered (Alternative Site Configuration). While it would be possible under this scenario to also reverse the locations of Tower 2 and the retail use, it would be infeasible from an operational standpoint to locate the retail uses anywhere other than on Grand Avenue. The site configuration for this alternative is shown in Figure 5. The purpose of this analysis is only to determine whether this Alternative Site Configuration would have the same potential to reduce the significant view impact for residents of the adjacent Grand Promenade Tower building that have northerly views. With respect to all of the other issues evaluated in this Addendum, this Alternate Site Configuration for the Revised Project would have the same parameters and therefore the same impacts as the Revised Project, as discussed in the preceding sections.

The Alternate Site Configuration for the Revised Project would not have the potential to reduce the significant view blockage impacts of the Revised Project on the residents of the Grand Promenade Towers that have northerly views. These views would continue to be blocked by Tower 2, which would occupy the only feasible location within Parcels L and M-2 under the alternative. In addition, the museum building alone, which would extend to 95 feet above upper Grand Avenue (480 feet above mean sea level) would block northerly views from the lower occupied levels of the Grand Promenade Tower. As such, the Alternate Site Configuration for the Revised Project Alternative would not substantially reduce the view impacts of the Revised Project.

Based on the analysis above, there is no feasible alternative to the Revised Project that is available which would substantially reduce the significant visual effect of the Project.



Source: Zimmer Gunsul Frasca Architects LLP., 03/16/2010.

CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

Figure 5
Alternate Site Configuration

CONCLUSION

Based on the previous analysis, which compared the potential impacts of the Revised Project, with the potential impacts of the Approved Project as discussed in the Certified EIR and is summarized below in Table 17, it is concluded that the Revised Project would not require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects (State CEQA Guidelines Section 15162(a)(1)). In addition, no substantial changes have occurred with respect to the circumstances under which the Revised Project would be undertaken which would require major revisions of the Certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects (State CEQA Guidelines Section 15162(a)(2)). Finally, no new information of substantial importance has been presented which would show that the Revised Project would have one or more significant effects not discussed in the Certified EIR, that significant effects previously examined will be substantially more severe than shown in the Certified EIR, that mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents declined to adopt the mitigation measure or alternative, or that mitigation measures or alternatives which are considerably different from those analyzed in the Certified EIR would substantially reduce one or more significant effects on the environment, but the project proponents declined to adopt the mitigation measure or alternative (State CEQA Guidelines Section 15162(a)(3)). Therefore none of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of a subsequent EIR have occurred. Substantial evidence supporting the conclusions presented above is provided in the preceding sections of this addendum (State CEQA Guidelines Section 15164(e)).

Table 17
Summary of Revised Project Compared to the Approved Project

Impact Category	Impacts of Approved Project	Impacts of Revised Project
Land Use – Land Use Compatibility	Less Than Significant	Same
Land Use – Policy Consistency	Less Than Significant	Same
Land Use – Zoning Requirements	Significant and Unavoidable	Lesser
Traffic, Circulation, and Parking	Significant and Unavoidable	Lesser
Aesthetics and Visual Resources – Visual Quality (Construction)	Less Than Significant	Same
Aesthetics and Visual Resources – Visual Quality (Operation)	Less Than Significant	Same
Aesthetics and Visual Resources – Light (Construction)	Less Than Significant with Mitigation	Same
Aesthetics and Visual Resources – Light (Operation)	Less Than Significant with Mitigation	Same
Aesthetics and Visual Resources – Glare	Less Than Significant	Same
Aesthetics and Visual Resources – Shade/Shadow	Less Than Significant	Same
Historic Resources	Less Than Significant	Same
Population, Housing, and Employment (Construction)	Less Than Significant	Same
Population, Housing, and Employment (Operation)	Less Than Significant	Same
Air Quality – Construction	Significant and Unavoidable	Same or Lesser
Air Quality – Operational	Significant and Unavoidable	Lesser
Air Quality – Localized CO Concentrations	Less Than Significant	Lesser
Air Quality – Odors	Less Than Significant	Same
Air Quality – GHG	N/A	Less Than Significant
Noise – Construction	Significant and Unavoidable	Same
Noise – Operation	Less Than Significant with Mitigation	Lesser
Hazards and Hazardous Materials (Construction)	Less Than Significant with Mitigation	Same
Hazards and Hazardous Materials (Operation)	Less Than Significant with Mitigation	Same
Public Services-Fire (Construction)	Less Than Significant	Same
Public Services-Fire (Operation)	Less Than Significant with Mitigation	Same
Public Services-Police (Construction)	Less Than Significant	Same
Public Services-Police (Operation)	Less Than Significant	Same
Public Services-School (Construction)	Less Than Significant	Same
Public Services-School (Operation)	Less Than Significant	Same
Public Services-Parks and Recreation	Less Than Significant	Same
Public Services-Libraries	Less Than Significant	Same
Utilities-Water Supply (Construction)	Less Than Significant	Same
Utilities-Water Supply (Operation)	Less Than Significant with Mitigation	Same
Utilities-Wastewater (Construction)	Less Than Significant	Same
Utilities-Wastewater (Operation)	Less Than Significant	Same
Utilities-Solid Waste (Construction)	Less Than Significant	Same
Utilities-Solid Waste (Operation)	Less Than Significant	Same

Source: Christopher A Joseph & Associates, 2010

Appendix A
TRAFFIC STUDY
LADOT LETTER
SUPPLEMENTAL MEMOS TO LADOT

Revised Grand Avenue Project

Supplemental Traffic Review to Grand Avenue Project EIR Traffic Study

The Mobility Group

April 23, 2010

Introduction

The Grand Avenue Project EIR was completed in 2006, and the project was approved by the City in 2007. The Project covers four blocks adjacent to the Walt Disney Concert Hall on Bunker Hill in downtown Los Angeles, as shown in Figure 1. There has been no construction activity or entitlement changes since the EIR was certified and the Project was approved.

This memorandum addresses a proposal for a change of uses on Parcel L/M-2 of the Grand Avenue Project. Parcel L is bounded by Grand Avenue, Second Street, Hope Street, and General Thaddeus Kosciuszko Way (GTK Way). Parcel M-2 is bounded by Grand Avenue, GTK Way, Hope Street, and an adjacent property. This change would add a museum use, and would reduce the amount of commercial uses on the site, as well as slightly reduce the number of residential units planned.

The memorandum provides an evaluation of potential changes to trip generation, parking, and traffic impacts, due to the proposed land use changes. It concludes that the total number of trips generated by the Revised Grand Avenue Project would be less than with the original project, and therefore that no additional significant traffic impacts would occur. It also concludes that the proposed project changes would provide adequate on-site parking.

Project Description Changes

The proposed changes in land use affect only Parcels L/M-2. The remaining parcels in the Grand Avenue Project remain unchanged. The proposed land use changes are summarized in Table 1. The proposed Revised Project site plan is shown in Figure 2.

A museum use (up to 120,000 gsf) would be added on Parcel L. The size of the museum could be less than 120,000 gsf, but the 120,000 gsf number was used for this analysis. The commercial uses on Parcels L/M-2 would be reduced from 101,000 gsf to 19,422 gsf. The number of residential units on Parcels L/M-2 would be reduced from 850 dwelling units to

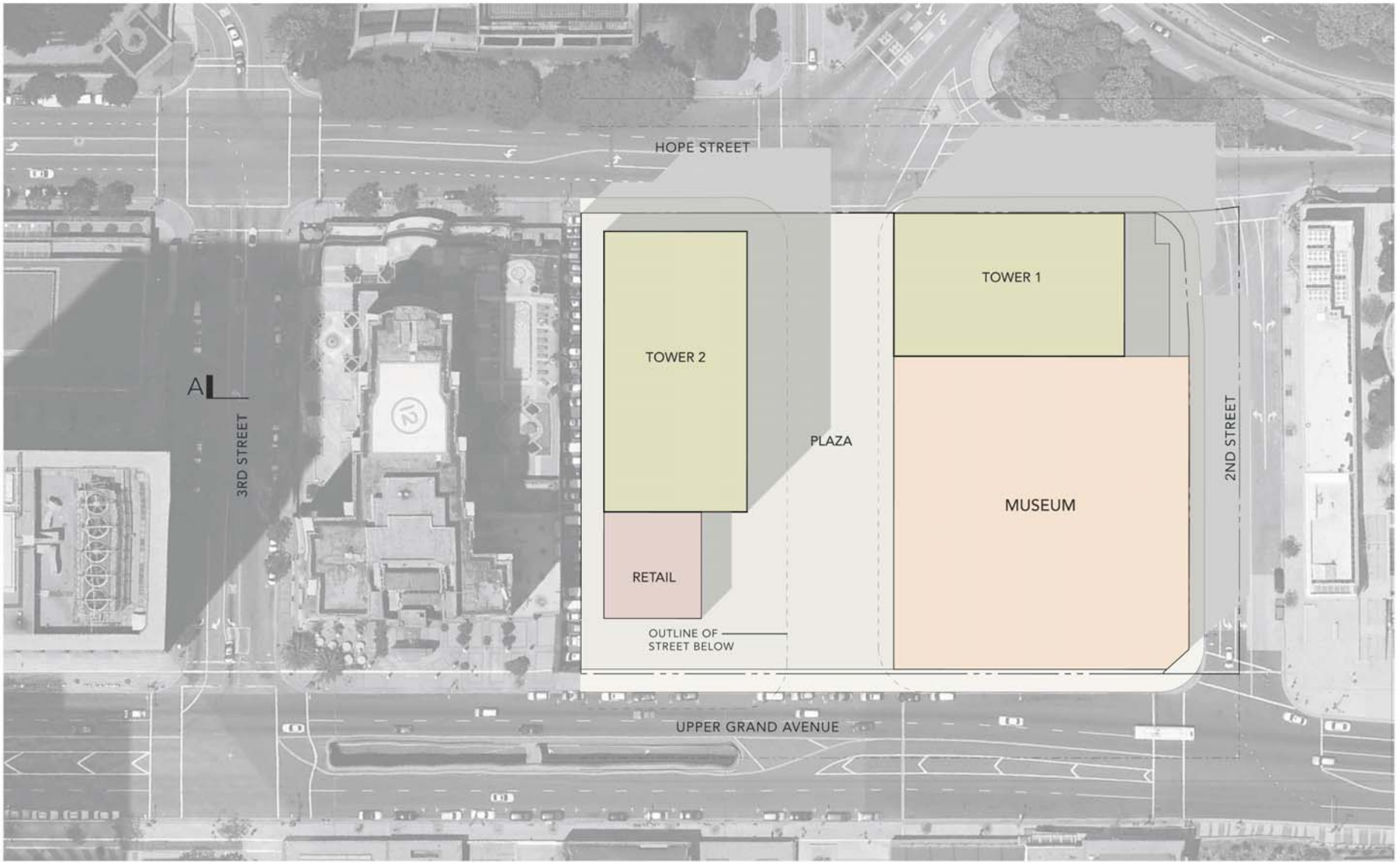
Source: Figure 4-5, Grand Avenue EIR Traffic Study

4/19/10

Figure 1
Grand Avenue Project – Approved Conceptual Parcel Development Plan

Revised Grand Avenue Project – Parcel L/M-2

The **Mobility** Group
Transportation Strategies & Solutions



Source: ZGF 3-16-10

4/19/10

Figure 2
Revised Project Parcel L/M-2 Site Plan

Table 1 Project Description – Land Use 4-20-10
Totals for Parcels L/M-2

Use	EIR	Proposed Project
Museum	0 gsf	120,000 gsf
Commercial Total	101,000 gsf	19,422 gsf [1]
Retail	86,000 gsf (73,100) lsf [2]	16,115 gsf (13,698 lsf) [2]
Restaurant	15,000 gsf	3,307 gsf [3]
Total Non-Residential	101,000 gsf	139,422 gsf
Residential Total	850 DU's	790 DU's
Condos	680 DU's	632 DU's
Apts	170 DU's	158 DU's
	829,330 gsf	790,908 gsf
Total CSF	930,330 gsf	930,330 gsf

Notes

1. Commercial space not included in museum site.
2. Leasable sq. ft. (lsf) assumed at 85% of gross sq. ft. (gsf) for EIR.
3. Commercial split between retail and restaurant assumed same proportion as EIR.

790 units. The reductions in other uses are to balance out the addition of the museum space so that the overall development square footage on Parcels L/M-2 remains at 930,330 gsf.

Project Trip Generation

The trip generation analysis for the Revised Project was based on the analysis and trip rates in the EIR. The trip generation analysis therefore focused on the weekday A.M. peak hour and P.M. peak hour. However, there was no museum in the EIR Project Description. In coordination and agreement with LADOT the trip rates used for the museum were those used for the BCAM (Broad Contemporary Art Museum) Building in the LACMA Enhancement Study (add reference detail), as described further later in this section of the memorandum.

The proposed Broad museum at Grand Avenue is projected to have the following general operating characteristics. The museum would be open three weekdays (closed Tuesdays and Wednesdays) and at weekends. Typical weekday operating hours would be 11am to 5pm (6pm on Thursday). The museum has a goal of approximately 200,000 annual visitors, with on average about 735 visitors a weekday. It is expected there could be up to 40 full time employees and up to 15 part-time employees.

Prior to using the trip rates for the BCAM building, a cross check analysis was completed of likely trip generation for the Broad Museum at Grand Avenue. This is shown in Appendix A, and demonstrates that it is appropriate to use the BCAM trip rates for the P.M. peak hour.

However for the A.M. peak hour the trip rates were adjusted to reflect the fact that the museum will not open to visitors until 11am, so there will be no visitor trips in the A.M. peak hour. Use of the BCAM rates would have resulted in inappropriately high trips for this time period. Based on the analysis on Appendix A it was determined that the visitor trips are likely to be on the order of 70% of total trips in the P.M. peak hour. So to determine A.M. peak hour trips, 30% of the P.M. peak hour rate was used and the directionality of the trips reversed.

It should be noted that this approach provides a conservative worst case trip analysis because it is probable that a higher proportion of trips to/from the museum will be by transit or walk in the downtown location than in the Mid-Wilshire area, but no adjustments to the trip rate were made to reflect this likelihood.

Table 2 provides a summary comparison of trip generation for Parcels L/M-2 and for the entire Grand Avenue Project both from the EIR and for the Revised Project. The detailed trip generation calculations for each condition, in the format used in the EIR, are shown in Appendix B.

As shown in Table 2, the total number of trips for Parcel L/M-2 in each time period is lower for the Revised Project than for the Grand Avenue Project in the EIR. In the A.M. peak hour, a total of 255 trips would be generated compared to 263 for the EIR Project. In the P.M. peak

Table 2. Revised Grand Avenue Project - Trip Generation Comparison 4/20/2010

	Total Trips		Inbound Trips		Outbound Trips	
	EIR	Revised Project	EIR	Revised Project	EIR	Revised Project
Parcel L / M-2						
AM Peak Hour	263	255	77	95	186	160
PM Peak Hour	494	442	279	201	215	242
Daily	5,549	4,352	2,774	2,176	2,775	2,176
Total Project						
AM Peak Hour	1,551	1,543	919	937	632	606
PM Peak Hour	2,464	2,413	1,120	1,042	1,344	1,371
Daily	22,601	21,404	11,299	10,702	11,302	10,703

hour, a total of 443 trips would be generated by the Revised Project compared to 494 trips for the EIR Project. Daily trips for the Revised Project would total 4,352 trips compared to 5,549 trips for the EIR Project.

In certain cases (the inbound trips for the A.M peak hour, and the outbound trips for the P.M peak hour) the trips are slightly higher for the Revised Project than for the Original Project, but this is more than balanced out by lower trips in the opposite direction. The differences amount to a small number of trips and the in/out splits of trips remain very similar.

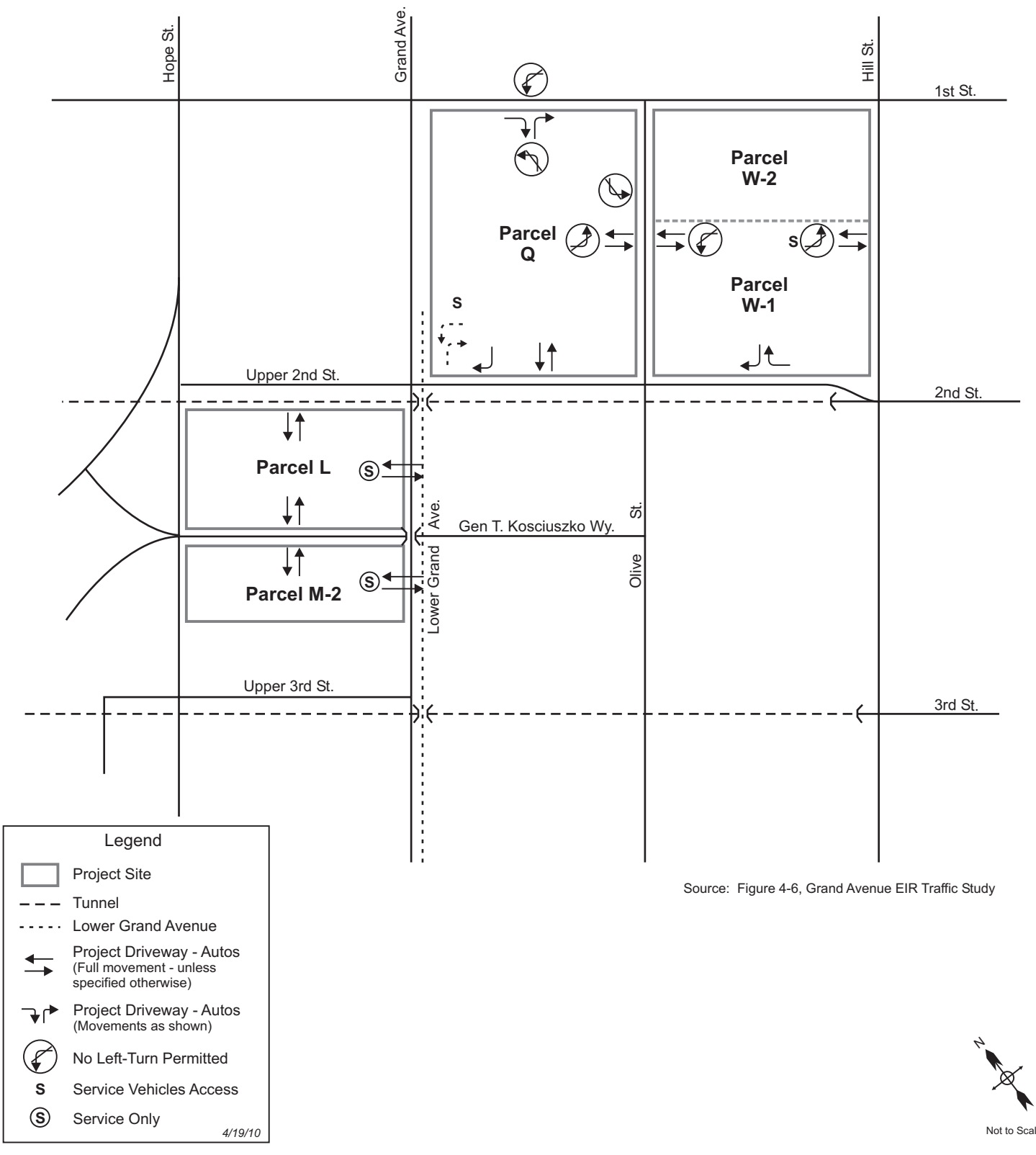
As also shown in Table 2, the total trips for the overall Project will be correspondingly lower for the Revised Project than for the Original Project. In the A.M. peak hour, a total of 1,543 trips would be generated compared to 1,551 for the EIR Project. In the P.M. peak hour, a total of 2,413 trips would be generated by the Revised Project compared to 2,464 trips for the EIR Project. Daily trips for the Revised Project would total 21,404 trips compared to 22,601 trips for the EIR Project. The inbound/outbound split would be 61% to 39% in the A.M. peak hour for the Revised Project compared to 59% to 41% for the EIR Project. The inbound/outbound split would be 43% to 57% in the P.M. peak hour for the Revised Project compared to 45% to 55% for the EIR Project.

It is therefore concluded that because the total number of trips for both Parcel L/M-2 and the overall project would be lower for the Revised Project than for the EIR Project, and because the ratio of inbound to outbound trips would remain very similar, that no additional significant traffic impacts would be expected with the Revised Project. This conclusion is supported by a review of the access provisions for the Revised and EIR Project, as described in the next section.

Project Access

Access/egress will be very similar to that identified for Parcel L/M-2 in the EIR (shown in Figure 3). The EIR Traffic Study assumed full access driveways on 2nd Street to Parcel L and full access driveways on both the north and south side of GTK Way to Parcel L and Parcel M-2. It also assumed truck access from Lower Grand Avenue.

The Revised Project would have very similar access, as shown in Figure 4. It also would have a full access driveway on Second Street. This would serve the museum parking. The Tower 1 Residential Building access (depending on that building's ultimate design) could be served either via the 2nd Street driveway or via a driveway on GTK Way as described below. A full access driveway would also be provided on the south side of GTK Way which would serve both residential towers (Tower 1 and Tower 2). As assumed in the EIR, the subterranean levels of the parking garage would connect between the two residential towers under GTK Way, so residents entering/exiting parking for Tower 1 would also be able to do so via the driveway on GTK Way. The only difference in access to that identified in the EIR is that the Second Street driveway would not be directly connected to the Parcel M2 garage (due to



Source: Figure 4-6, Grand Avenue EIR Traffic Study

Figure 3
Grand Avenue Project Site Access and Proposed Access Locations

Revised Grand Avenue Project – Parcel L/M-2

The **Mobility** Group
Transportation Strategies & Solutions

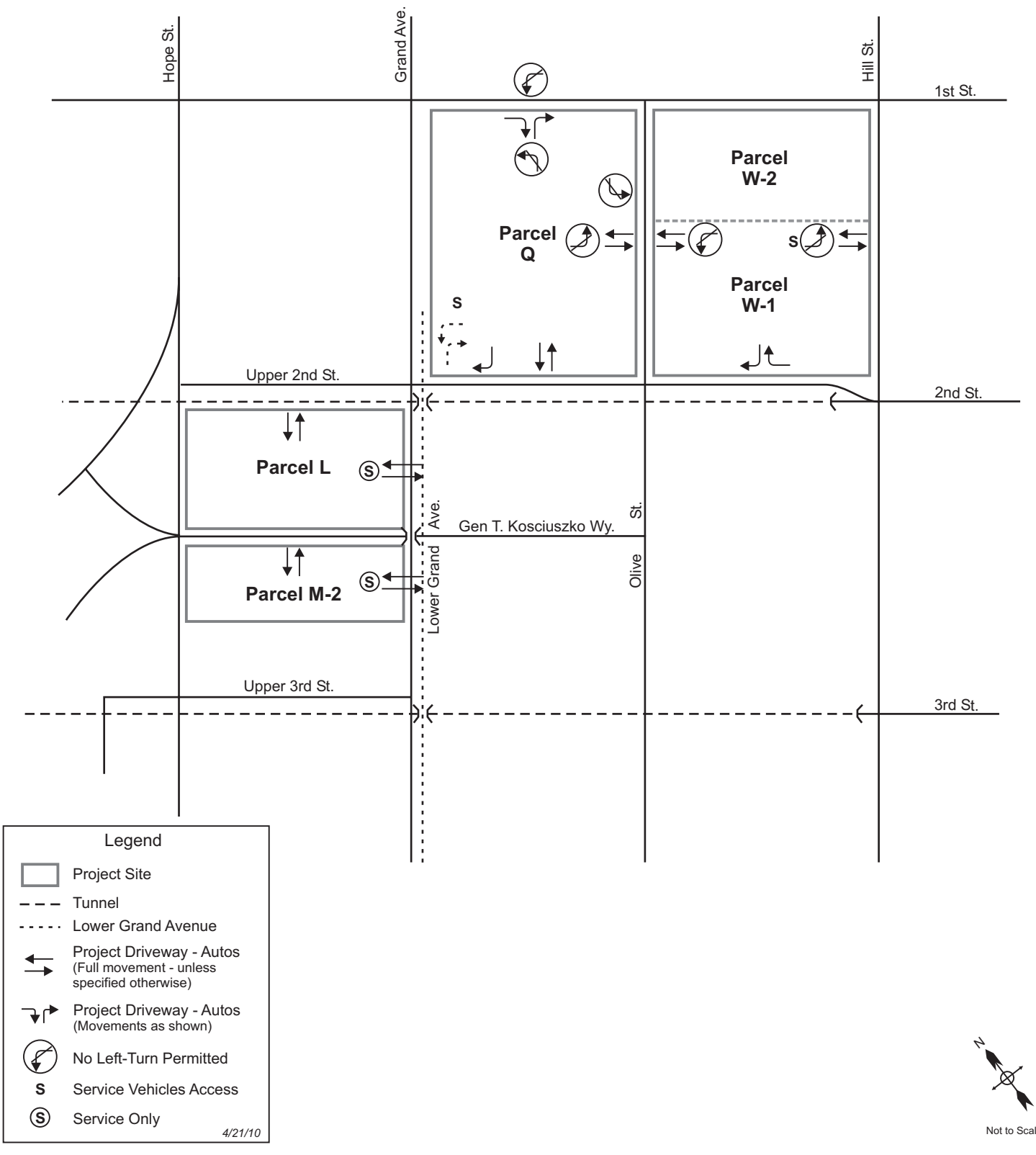


Figure 4
Revised Project Site Access and Proposed Access Locations

Revised Grand Avenue Project – Parcel L/M-2

The **Mobility** Group
Transportation Strategies & Solutions

design constraints). Nevertheless, vehicular access/circulation would be very similar to that assumed for the EIR because of the connections between the residential parking. Truck access would continue to be provided from Lower Grand Avenue for both parcels as identified in the EIR.

Project Parking Supply

The proposed parking supply is summarized in Table 3. The Grand Avenue Project proposed a parking supply of 1,570 spaces on Parcel L/M-2, of which 1,280 would be for residential uses and 290 for commercial uses.

The Revised Project proposes a parking supply of 1,366 spaces, of which 120 spaces would be for the museum, 56 spaces would be for commercial uses, and 1,190 spaces would be for residential uses.

The parking supply would be slightly lower for the Revised Project (1,366 spaces) than for the EIR Project (1,570 spaces) because there would be less commercial uses and slightly less residential units.

The Revised Project would not change the parking supply on any of the other parcels in the overall Project.

The EIR Project would provide sufficient parking to meet city code requirements. This would also be the case for the Revised Project, as discussed in the next section.

Parking Code Requirements

Parking requirements per the Los Angeles Municipal Code (LAMC) for the Grand Avenue Project were identified in the EIR. The Project is located in downtown Los Angeles, in an area for which a number of code exceptions apply and that reflect the higher density of downtown, the proximity to other land uses and higher walking levels, and the proximity to extensive transit service. LAMC 12.21 A.4 (p).(1) provides for an exception for the Central Area for lower residential and hotel parking requirements. LAMC 12.21 A.4. (i) 2/3 provides for an exception for the Downtown Business District, for lower parking requirements for business, commercial, industrial buildings, philanthropic institutions, and governmental office buildings, and for auditoriums. The Project is located within both these areas. The LAMC parking requirements for the land uses in the Project are shown in Appendix C (Table 7.2 of the EIR). The LAMC requirements for the museum in the Revised Project would be 1 space per 1,000 sq. ft.

Table 3. Revised Grand Avenue Project - Parking Supply Comparison 4/22/2010

	EIR Parking Spaces	Revised Project Parking Spaces
Parcel L / M-2		
Museum	0	120
Commercial Total	290	56
Residential Total	1,280	1,190
Total	1,570	1,366
Total Project		
Museum	N/A	120
Commercial Total	1,930	1,696
Residential Total	3,105	3,015
Total	5,035	4,831

Table 4. Revised Grand Avenue Project - Parking Requirement Comparison 4/22/2010

	EIR			Revised Project		
	Parking Required	Parking Provided	Difference Overall	Parking Required	Parking Provided	Difference Overall
Parcel L / M-2						
Museum				120	120	0
Commercial Total	101	290	189	19	56	37
Residential Total	926	1,280	354	860	1,190	330
Total	1,027	1,570	543	999	1,366	367
Total Project						
Museum				120	120	0
Commercial Total	1,285	1,930	645	1,203	1,696	493
Residential Total	2,246	3,105	859	2,180	3,015	835
Total	3,531	5,035	1,504	3,503	4,831	1,328

Code Requirements by Use, and Proposed Supply – Parcel L/M-2

Table 4 summarizes the code parking requirements and proposed parking supply for the Revised Project and for the EIR Project. Code calculation details are shown in Appendix C. For the Revised Project Parcel L/M-2, the City Code would require a total of 19 commercial parking spaces. The Revised Project proposes to provide 56 commercial spaces, which would be 37 more than the code requirement.

For the Revised Project Parcel L/M-2, the City Code would require the museum use to provide 120 parking spaces. The Revised Project proposes to provide 120 spaces which would be exactly meet the code requirement. (If the museum were to be less than 120,000 gsf then correspondingly less parking would be provided, but still sufficient to meet code requirements).

For the Revised Project Parcel L/M-2, the City Code would require 860 residential parking spaces to be provided. The Revised Project proposes to provide 1,190 residential spaces, which would be 330 more than the code requirement.

For Parcel L/M-2 as a whole, the City Code would require 999 spaces. The Revised Project would provide 1,366 spaces which would be 367 more than the code requirement.

The Grand Avenue Project received an exception from the Deputy Advisory Agency Residential Policy (DAARP) for condominium parking, due to its location downtown near transit and within walking distance of many destinations, and due to the Project's residential parking supply exceeding the code requirement. An evaluation of residential parking supply against the DAARP is therefore no longer necessary.

Code Requirements by Use, and Proposed Supply – Overall Project

The Revised Project would not make any changes to parking requirements or proposed supply in any other block of the project.

Table 4 also shows the code requirement and proposed supply for the overall project (all blocks/parcels), for both the Revised Project and the EIR Project. Overall, the Revised Project would be required to provide 2,180 residential parking spaces and would provide 3,015 spaces, which would be 385 more than the code requirement. It would be required to provide 1,203 commercial parking spaces and would provide 1,696 spaces which would be 493 spaces more than the code requirement. The Revised Project would be required to provide 3,503 total parking spaces and would provide 4,831 total spaces which would be 1,328 more than the code requirement.

Because the Revised Project parking supply would considerably exceed the code requirements, it is concluded that the Revised Project is consistent with the Municipal Code requirements, and that there would be no significant parking impacts.

APPENDIX A.
APPROXIMATE ESTIMATION OF MUSEUM P.M. PEAK HOUR TRIPS

(For Validation of Use of BCAM Rates)

Appendix A.
Approximate Estimation Of Museum P.M. Peak Hour Trips
(For Validation of Use of BCAM Rates)

Approximately 735 visitors per weekday.
Museum open 6 hours per day (11am to 5pm) – average of 123 visitors per hour.
Assume average stay of one hour.

In P.M. peak hour assume 123 visitors leave the museum (none enter).
Assume 15% walk or use transit.
123 x 0.85 = 105 vehicle trips. (Conservative because assumes 1 person/vehicle).

Up to 40 full time employees.
Up to 15 part-time employees (assume half on any given day).
Assume 90% of 55 employees at work at end of typical weekday, and 70% drive.
(40 + 8 = 48) x 0.9 x 0.7 = 30 vehicle trips.

Total visitor and employees vehicle trips = 105 + 30 = 135.

Assume 10% other trips = 13.
Assume +5% inbound trips in PM peak hour = (135 + 13) / 0.95 = 156 vehicle trips.

Trip rate = 156 / 120,000 gsf = 1.30 vehicle trips per 1,000 sq. ft.

Compares to 1.38 trips per 1,000 sq. ft. used in BCAM Study.

Confirms that BCAM trip rate is appropriate, and conservatively high.

Notes:

1. Visitor trips are 105 / 156 = 67% of total trips.
2. Museum not open to visitors in A.M. peak hour, so visitor trips can be discounted.

APPENDIX B.
TRIP GENERATION CALCULATIONS

TRIP GENERATION FOR REVISED PROJECT

Table A-1 **A.M Peak Hour Trip Generation - Project with County Office Building Optior With Revised Project (Parcel L / M-2)**

4/19/2010

Land Use	Quantity	Units	Trip Rates	Foot - note	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel Q															
Condominiums	400	D.U	0.36	1,2	145	5%	15%	5%		110	76%	19%	21	81%	89
	534,562	S.F													
Apartments	100	D.U	0.30	1,3	30	5%	20%	25%		17	56%	25%	4	75%	13
	98,375	S.F													
Subtotal Residential	500	D.U			175					127	73%	20%	25	80%	102
	632,937	S.F													
Hotel	275	Rooms	0.52	1,4	143	5%	10%	20%		97	68%	61%	59	39%	38
	315,000	S.F													
Office	0	S.F	0.00	1,5	0							88%		12%	
Market	53,000	S.F	3.89	1,6	206	15%	10%	5%	40%	88	43%	61%	54	39%	34
Retail	97,750	S.F	1.58	1,7	154	15%	20%	5%	30%	67	43%	61%	41	39%	26
Restaurant	42,000	S.F	0.81	1,8,9	34	15%	30%	5%	10%	16	47%	52%	8	48%	8
Event Facility	250	Seats	0.00	1,10	0	5%	5%	5%	10%	0			0		0
	24,000	S.F													
Health Club	50,000	S.F	1.21	1,11	61	20%	35%	5%	20%	21	34%	42%	9	58%	12
Subtotal Commercial	266,750	S.F			455					192	42%	58%	112	42%	80
Total Parcel Q	1,214,687	S.F			773					416	54%	47%	196	53%	220
Parcel W-1 / W-2															
Condominiums	568	D.U	0.34	1,2	193	5%	15%	5%		147	76%	19%	28	81%	119
	553,005	S.F													
Apartments	142	D.U	0.30	1,3	43	5%	20%	25%		24	56%	25%	6	75%	18
	139,728	S.F													
Subtotal Residential	710	D.U			236					171	73%	20%	34	80%	137
	692,733	S.F													
Hotel	0	Rooms	0.00	1,4	0					0		61%	0	39%	0
	0	S.F													
Office	681,000	S.F	1.69	1,5	1,153	0%	5%	40%	0%	657	57%	89%	585	11%	72
Retail	54,400	S.F	2.00	1,7	109	15%	20%	5%	40%	40	37%	61%	25	39%	15
Restaurant	10,000	S.F	0.81	1,8,9	8	15%	30%	5%	10%	4	49%	52%	2	48%	2
Event Facility	0	Seats	0.00	1,10	0					0			0		0
	0	S.F													
Health Club	0	S.F	1.21	1,11	0					0		42%	0	58%	0
Subtotal Commercial	745,400	S.F			1,270					701	55%	87%	612	13%	89
Total Parcel W-1 / W-2	1,438,133	S.F			1,506					872	58%	74%	646	26%	226

Table A-1 **A.M Peak Hour Trip Generation - Project with County Office Building Optior With Revised Project (Parcel L / M-2)**

4/19/2010

Land Use	Quantity	Units	Trip Rates	Foot - note	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel L / M-2															
Condominiums	632	D.U	0.34	1,2	212	5%	15%	5%		161	76%	19%	31	81%	131
	632,726	S.F													
Apartments	158	D.U	0.30	1,3	47	5%	20%	25%		27	56%	25%	7	75%	20
	158,182	S.F													
Subtotal Residential	790	D.U			260					188	72%	20%	38	80%	151
	790,908	S.F													
Hotel	0	Rooms	0.00	1,4	0					0		61%	0	39%	0
	0	S.F													
Office	0	S.F	0.00	1,5	0					0		88%	0	12%	0
Retail	16,115	S.F	3.25	1,7	52	15%	20%	5%	50%	16	31%	61%	10	39%	6
Restaurant	3,307	S.F	0.81	1,8,9	3	15%	30%	5%	10%	1	47%	52%	1	48%	1
Museum	120,000	S.F	0.41	1,11	49	0%	0%	0%	0%	49	100%	95%	47	5%	2
Health Club	0	S.F	4.05	1,10	0					0		51%	0	49%	0
Subtotal Commercial	139,422	S.F			104					67	64%	86%	58	14%	9
Total Parcel L / M-2	930,330	S.F			364					255	70%	37%	95	63%	160
Total All Parcels	3,583,150	S.F			2,643					1,543	58%	61%	937	39%	606

1. ITE Rates and Equations from Trip Generation, 7th Edition, Institute of Transportation Engineers, Washington, DC, 2003, except otherwise noted.
2. ITE 232 trip generation equation (T=0.29(X)+28.26) for High-Rise Condominium / Townhouse was used.
3. ITE 222 trip rate for High-Rise Apartments was used.
4. ITE 310 trip generation equation (LN(T) = 1.24*LN(X) - 2.00) for Hotel was used.
5. ITE 715 trip generation equation (T = 1.66*(X) + 22.94) for Single Tenant Office Building was used.
6. ITE 850 trip generation equation (LN(T) = 1.70*LN(X) - 1.42) for Supermarket was used.
7. ITE 820 trip generation equation (LN(T) = 0.60*LN(X) + 2.29) for Shopping Center was used.
8. ITE 931 trip rate for Quality Restaurant was used.
9. Directional distribution for the AM peak hour is not available. Directional distribution of 52 % entering and 48 % existing was assumed based on ITE 932 for High-Turnover Sit Down Restaurant.
10. ITE 444 trip rate for Movie Theater with Matinee was used.
11. Trip rate from LACMA Enhancement Study, adjusted for local details of Revised Project.

Table A-2 **P.M Peak Hour Trip Generation - Project with County Office Building Optior**
With Revised Project (Parcel L / M-2)

4/19/2010

Land Use	Quantity	Units	Trip Rates	Foot - notes	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel Q															
Condominiums	400	D.U	0.38	1,2	151	5%	15%	5%		115	76%	62%	71	38%	44
	534,562	S.F													
Apartments	100	D.U	0.35	1,3	35	5%	20%	25%		20	56%	61%	12	39%	8
	98,375	S.F													
Subtotal Residential	500	D.U			186					135	72%	62%	83	39%	52
	632,937	S.F													
Hotel	275	Rooms	0.59	1,4	162	5%	10%	20%		110	68%	53%	58	47%	52
	315,000	S.F													
Office	0	S.F	0.00	1,5	0							17%		83%	
Market	53,000	S.F	10.66	1,6	565	15%	10%	5%	40%	241	43%	51%	123	49%	118
Retail	97,750	S.F	6.31	1,7	617	15%	20%	5%	30%	267	43%	48%	128	52%	139
Restaurant	42,000	S.F	7.49	1,8	315	15%	30%	5%	10%	148	47%	67%	99	33%	49
Event Facility	250	Seats	0.07	1,9	18	5%	5%	5%	10%	14	77%	75%	11	25%	3
	24,000	S.F													
Health Club	50,000	S.F	4.05	1,10	203	20%	35%	5%	20%	69	34%	51%	36	49%	33
Subtotal Commercial	266,750	S.F			1,718					739	43%	54%	397	46%	342
Total Parcel Q	1,214,687	S.F			2,066					984	48%	55%	538	45%	446
Parcel W-1 / W-2															
Condominiums	568	D.U	0.37	1,2	209	5%	15%	5%		158	76%	62%	98	38%	60
	553,005	S.F													
Apartments	142	D.U	0.35	1,3	50	5%	20%	25%		28	56%	61%	17	39%	11
	139,728	S.F													
Subtotal Residential	710	D.U			259					186	72%	62%	115	38%	71
	692,733	S.F													
Hotel	0	Rooms	0.59	1,4	0					0		53%	0	47%	0
	0	S.F													
Office	681,000	S.F	1.57	1,5	1,070	0%	5%	40%	0%	610	57%	15%	91	85%	519
Retail	54,400	S.F	7.70	1,7	419	15%	20%	5%	40%	155	37%	48%	74	52%	81
Restaurant	10,000	S.F	7.49	1,8	75	15%	30%	5%	10%	35	47%	67%	23	33%	12
Event Facility	0	Seats	0.07	1,9	0					0		75%	0	25%	0
	0	S.F													
Health Club	0	S.F	4.05	1,10	0					0		51%	0	49%	0
Subtotal Commercial	745,400	S.F			1,564					800	51%	23%	188	76%	612
Total Parcel W-1 / W-2	1,438,133	S.F			1,823					986	54%	31%	303	69%	683

Table A-2 **P.M Peak Hour Trip Generation - Project with County Office Building Optior**
With Revised Project (Parcel L / M-2)

4/19/2010

Land Use	Quantity	Units	Trip Rates	Foot - notes	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel L / M-2															
Condominiums	632	D.U	0.36	1,2	230	5%	15%	5%		175	76%	62%	109	38%	67
	632,726	S.F													
Apartments	158	D.U	0.35	1,3	55	5%	20%	25%		32	58%	61%	20	39%	12
	158,182	S.F													
Subtotal Residential	790	D.U			286					207	72%	62%	128	38%	79
	790,908	S.F													
Hotel	0	Rooms	0.59	1,4	0					0		53%	0	47%	0
	0	S.F													
Office	0	S.F	0.00	1,5	0					0		17%	0	83%	0
Retail	16,115	S.F	11.65	1,7	188	15%	20%	5%	50%	58	31%	48%	28	52%	30
Restaurant	3,307	S.F	7.49	1,8	25	15%	30%	5%	10%	12	47%	67%	8	33%	4
Museum	120,000	S.F	1.38	1,11	166	0%	0%	0%	0%	166	100%	22%	37	78%	129
Health Club	0	S.F	4.05	1,10	0					0		51%	0	49%	0
Subtotal Commercial	139,422	S.F			378					235	62%	31%	73	69%	163
Total Parcel L / M-2	930,330	S.F			664					442	67%	45%	201	55%	242
Total All Parcels	3,583,150	S.F			4,553					2,413	53%	43%	1,042	57%	1,371

1. ITE Rates and Equations from Trip Generation, 7th Edition, Institute of Transportation Engineers, Washington, DC, 2003, except otherwise noted.
2. ITE 232 trip generation equation (T=0.34(X)+15.47) for High-Rise Condominium / Townhouse was used.
3. ITE 222 trip rate for High-Rise Apartments was used.
4. ITE 310 trip rate for Hotel was used.
5. ITE 715 trip generation equation (T=1.52(X)+ 34.88) for Single Tenant Office Building was used.
6. ITE 850 trip generation equation (Ln(T) = 0.79*LN(X) + 3.20) for Supermarket was used.
7. ITE 820 trip generation equation (LN(T) = 0.66*LN(X) + 3.40) for Shopping Center was used.
8. ITE 931 trip rate for Quality Restaurant was used.
9. ITE 444 trip rate for Movie Theater with Matinee was used.
10. ITE 492 trip rate for Health / Fitness Club was used.
11. Trip rate from LACMA Enhancement Study.

Table A-3 **Daily Trip Generation - Project with County Office Building Option**
With Revised Project (Parcel L / M-2)

4/19/2010

Land Use	Quantity	Units	Trip Rates	Foot - note	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel Q															
Condominiums	400	D.U	4.33	1,2	1,732	5%	15%	5%		1,316	76%	50%	658	50%	658
	534,562	S.F													
Apartments	100	D.U	4.20	1,3	420	5%	20%	25%		236	56%	50%	118	50%	118
	98,375	S.F													
Subtotal Residential	500	D.U			2,152					1,552	72%	50%	776	50%	776
	632,937	S.F													
Hotel	275	Rooms	7.59	1,4	2,088	5%	10%	20%		1,420	68%	50%	710	50%	710
	315,000	S.F													
Office	0	S.F	0.00	1,5	0							50%		50%	
Market	53,000	S.F	93.21	1,6	4,940	15%	10%	5%	40%	2,112	43%	50%	1,056	50%	1,056
Retail	97,750	S.F	68.45	1,7	6,691	15%	20%	5%	30%	2,892	43%	50%	1,446	50%	1,446
Restaurant	42,000	S.F	89.95	1,8	3,778	15%	30%	5%	10%	1,777	47%	50%	889	50%	889
Event Facility	250	Seats	1.76	1,9	440	5%	5%	5%	10%	339	77%	50%	169	50%	169
	24,000	S.F													
Health Club	50,000	S.F	32.93	1,10	1,647	20%	35%	5%	20%	563	34%	50%	282	50%	282
Subtotal Commercial	266,750	S.F			17,496					7,683	44%	50%	3,841	50%	3,842
Total Parcel Q	1,214,687	S.F			21,736					10,655	49%	50%	5,327	50%	5,328
Parcel W-1 / W-2															
Condominiums	568	D.U	4.16	1,2	2,365	5%	15%	5%		1,797	76%	50%	898	50%	899
	553,005	S.F													
Apartments	142	D.U	4.20	1,3	596	5%	20%	25%		335	56%	50%	168	50%	167
	139,728	S.F													
Subtotal Residential	710	D.U			2,961					2,132	72%	50%	1,066	50%	1,066
	692,733	S.F													
Hotel	0	Rooms	0.00	1,4	0					0		50%	0	50%	0
	0	S.F													
Office	681,000	S.F	5.53	1,5	3,767	0%	5%	40%	0%	2,148	57%	50%	1,074	50%	1,074
Retail	54,400	S.F	84.04	1,7	4,572	15%	20%	5%	40%	1,694	37%	50%	847	50%	847
Restaurant	10,000	S.F	89.95	1,8	900	15%	30%	5%	10%	423	47%	50%	211	50%	212
Event Facility	0	Seats	1.76	1,9	0					0		50%	0	50%	0
	0	S.F													
Health Club	0	S.F	32.93	1,10	0					0		50%	0	50%	0
Subtotal Commercial	745,400	S.F			9,239					4,265	46%	50%	2,132	50%	2,133
Total Parcel W-1 / W-2	1,438,133	S.F			12,200					6,397	52%	50%	3,198	50%	3,199

Table A-3 **Daily Trip Generation - Project with County Office Building Option With Revised Project (Parcel L / M-2)**

4/19/2010

Land Use	Quantity	Units	Trip Rates	Foot - note	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel L / M-2															
Condominiums	632	D.U	4.12	1,2	2,606	5%	15%	5%		1,981	76%	50%	990	50%	990
	632,726	S.F													
Apartments	158	D.U	4.20	1,3	664	5%	20%	25%		373	56%	50%	187	50%	187
	158,182	S.F													
Subtotal Residential	790	D.U			3,270					2,355	72%	50%	1,177	50%	1,177
	790,908	S.F													
Hotel	0	Rooms	0.00	1,4	0					0		50%	0	50%	0
	0	S.F													
Office	0	S.F	0.00	1,5	0					0		50%	0	50%	0
Retail	16,115	S.F	128.65	1,7	2,073	15%	20%	5%	50%	640	31%	50%	320	50%	321
Restaurant	3,307	S.F	89.95	1,8	297	15%	30%	5%	10%	140	47%	50%	70	50%	70
Museum	120,000	S.F	10.14	1,11	1,217	0%	0%	0%	0%	1,217	100%	50%	609	50%	608
Health Club	0	S.F	4.05	1,10	0					0		51%	0	49%	0
Subtotal Commercial	139,422	S.F			3,587					1,997	56%	50%	999	50%	999
Total Parcel L / M-2	930,330	S.F			6,857					4,352	63%	50%	2,176	50%	2,176
Total All Parcels	3,583,150	S.F			40,793					21,404	52%	50%	10,702	50%	10,703

1. ITE Rates and Equations from Trip Generation, 7th Edition, Institute of Transportation Engineers, Washington, DC, 2003, except otherwise noted.
2. ITE 232 daily trip generation equation (T= 3.77(X)+223.66) for High-Rise Condominium / Townhouse was used.
3. ITE 222 daily trip rate for High-Rise Apartments was used.
4. ITE 310 daily trip generation equation (T = 8.95*(X) - 373.16) for Hotel was used.
5. ITE 715 trip generation equation (LN(T) = 0.60*LN(X) + 4.32) for Single Tenant Office Building was used.
6. ITE 850 daily trip generation equation (T = 66.95*(X) +1391.56) for Supermarket was used.
7. ITE 820 daily trip generation equation (LN(T) = 0.65*LN(X) + 5.83) for Shopping Center was used.
8. ITE 931 daily trip rate for Quality Restaurant was used.
9. ITE 444 daily trip rate for Movie Theater with Matinee is not available. Daily trip rate was estimated based on the ratio of ITE 443 weekday p.m peak hour of adjacent traffic to ITE 444 weekday p.m peak hour of adjacent traffic.
10. ITE 492 daily trip rate for Health / Fitness Club was used.
11. Trip rate from LACMA Enhancement Study.

TRIP GENERATION FOR EIR PROJECT

Table A-1 **A.M Peak Hour Trip Generation - Project with County Office Building Optior From Grand Avenue Project EIR** 4/21/2006

Land Use	Quantity	Units	Trip Rates	Foot - note	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel Q															
Condominiums	400	D.U	0.36	1,2	145	5%	15%	5%		110	76%	19%	21	81%	89
	534,562	S.F													
Apartments	100	D.U	0.30	1,3	30	5%	20%	25%		17	56%	25%	4	75%	13
	98,375	S.F													
Subtotal Residential	500	D.U			175					127	73%	20%	25	80%	102
	632,937	S.F													
Hotel	275	Rooms	0.52	1,4	143	5%	10%	20%		97	68%	61%	59	39%	38
	315,000	S.F													
Office	0	S.F	0.00	1,5	0							88%		12%	
Market	53,000	S.F	3.89	1,6	206	15%	10%	5%	40%	88	43%	61%	54	39%	34
Retail	97,750	S.F	1.58	1,7	154	15%	20%	5%	30%	67	43%	61%	41	39%	26
Restaurant	42,000	S.F	0.81	1,8,9	34	15%	30%	5%	10%	16	47%	52%	8	48%	8
Event Facility	250	Seats	0.00	1,10	0	5%	5%	5%	10%	0			0		0
	24,000	S.F													
Health Club	50,000	S.F	1.21	1,11	61	20%	35%	5%	20%	21	34%	42%	9	58%	12
Subtotal Commercial	266,750	S.F			455					192	42%	58%	112	42%	80
Total Parcel Q	1,214,687	S.F			773					416	54%	47%	196	53%	220
Parcel W-1 / W-2															
Condominiums	568	D.U	0.34	1,2	193	5%	15%	5%		147	76%	19%	28	81%	119
	553,005	S.F													
Apartments	142	D.U	0.30	1,3	43	5%	20%	25%		24	56%	25%	6	75%	18
	139,728	S.F													
Subtotal Residential	710	D.U			236					171	73%	20%	34	80%	137
	692,733	S.F													
Hotel	0	Rooms	0.00	1,4	0					0		61%	0	39%	0
	0	S.F													
Office	681,000	S.F	1.69	1,5	1,153	0%	5%	40%	0%	657	57%	89%	585	11%	72
Retail	54,400	S.F	2.00	1,7	109	15%	20%	5%	40%	40	37%	61%	25	39%	15
Restaurant	10,000	S.F	0.81	1,8,9	8	15%	30%	5%	10%	4	49%	52%	2	48%	2
Event Facility	0	Seats	0.00	1,10	0					0			0		0
	0	S.F													
Health Club	0	S.F	1.21	1,11	0					0		42%	0	58%	0
Subtotal Commercial	745,400	S.F			1,270					701	55%	87%	612	13%	89
Total Parcel W-1 / W-2	1,438,133	S.F			1,506					872	58%	74%	646	26%	226

Table A-1 **A.M Peak Hour Trip Generation - Project with County Office Building Optior From Grand Avenue Project EIR**

4/21/2006

Land Use	Quantity	Units	Trip Rates	Foot - note	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel L / M-2															
Condominiums	680	D.U	0.33	1,2	226	5%	15%	5%		172	76%	19%	33	81%	139
	662,050	S.F													
Apartments	170	D.U	0.30	1,3	51	5%	20%	25%		29	56%	25%	7	75%	22
	167,280	S.F													
Subtotal Residential	850	D.U			277					201	73%	20%	40	80%	161
	829,330	S.F													
Hotel	0	Rooms	0.00	1,4	0					0		61%	0	39%	0
	0	S.F													
Office	0	S.F	0.00	1,5	0					0		88%	0	12%	0
Retail	73,100	S.F	1.77	1,7	130	15%	20%	5%	30%	56	43%	61%	34	39%	22
Restaurant	15,000	S.F	0.81	1,8,9	12	15%	30%	5%	10%	6	47%	52%	3	48%	3
Event Facility	0	Seats	0.00	1,10	0					0			0		0
	0	S.F													
Health Club	0	S.F	1.21	1,11	0					0		42%	0	58%	0
Subtotal Commercial	88,100	S.F			142					62	44%	60%	37	40%	25
Total Parcel L / M-2	917,430	S.F			419					263	63%	29%	77	71%	186
Total All Parcels	3,570,250	S.F			2,698					1,551	57%	59%	919	41%	632

1. ITE Rates and Equations from Trip Generation, 7th Edition, Institute of Transportation Engineers, Washington, DC, 2003, except otherwise noted.
2. ITE 232 trip generation equation (T=0.29(X)+28.26) for High-Rise Condominium / Townhouse was used.
3. ITE 222 trip rate for High-Rise Apartments was used.
4. ITE 310 trip generation equation (LN(T) = 1.24*LN(X) - 2.00) for Hotel was used.
5. ITE 715 trip generation equation (T = 1.66*(X) + 22.94) for Single Tenant Office Building was used.
6. ITE 850 trip generation equation (LN(T) = 1.70*LN(X) - 1.42) for Supermarket was used.
7. ITE 820 trip generation equation (LN(T) = 0.60*LN(X) + 2.29) for Shopping Center was used.
8. ITE 931 trip rate for Quality Restaurant was used.
9. Directional distribution for the AM peak hour is not available. Directional distribution of 52 % entering and 48 % existing was assumed based on ITE 932 for High-Turnover Sit Down Restaurant.
10. ITE 444 trip rate for Movie Theater with Matinee was used.
11. ITE 492 trip rate for Health / Fitness Club was used.

Table A-2 **P.M Peak Hour Trip Generation - Project with County Office Building Option From Grand Avenue Project EIR**

4/21/2006

Land Use	Quantity	Units	Trip Rates	Foot - notes	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel Q															
Condominiums	400	D.U	0.38	1,2	151	5%	15%	5%		115	76%	62%	71	38%	44
	534,562	S.F													
Apartments	100	D.U	0.35	1,3	35	5%	20%	25%		20	56%	61%	12	39%	8
	98,375	S.F													
Subtotal Residential	500	D.U			186					135	72%	62%	83	39%	52
	632,937	S.F													
Hotel	275	Rooms	0.59	1,4	162	5%	10%	20%		110	68%	53%	58	47%	52
	315,000	S.F													
Office	0	S.F	0.00	1,5	0							17%		83%	
Market	53,000	S.F	10.66	1,6	565	15%	10%	5%	40%	241	43%	51%	123	49%	118
Retail	97,750	S.F	6.31	1,7	617	15%	20%	5%	30%	267	43%	48%	128	52%	139
Restaurant	42,000	S.F	7.49	1,8	315	15%	30%	5%	10%	148	47%	67%	99	33%	49
Event Facility	250	Seats	0.07	1,9	18	5%	5%	5%	10%	14	77%	75%	11	25%	3
	24,000	S.F													
Health Club	50,000	S.F	4.05	1,10	203	20%	35%	5%	20%	69	34%	51%	36	49%	33
Subtotal Commercial	266,750	S.F			1,718					739	43%	54%	397	46%	342
Total Parcel Q	1,214,687	S.F			2,066					984	48%	55%	538	45%	446
Parcel W-1 / W-2															
Condominiums	568	D.U	0.37	1,2	209	5%	15%	5%		158	76%	62%	98	38%	60
	553,005	S.F													
Apartments	142	D.U	0.35	1,3	50	5%	20%	25%		28	56%	61%	17	39%	11
	139,728	S.F													
Subtotal Residential	710	D.U			259					186	72%	62%	115	38%	71
	692,733	S.F													
Hotel	0	Rooms	0.59	1,4	0					0		53%	0	47%	0
	0	S.F													
Office	681,000	S.F	1.57	1,5	1,070	0%	5%	40%	0%	610	57%	15%	91	85%	519
Retail	54,400	S.F	7.70	1,7	419	15%	20%	5%	40%	155	37%	48%	74	52%	81
Restaurant	10,000	S.F	7.49	1,8	75	15%	30%	5%	10%	35	47%	67%	23	33%	12
Event Facility	0	Seats	0.07	1,9	0					0		75%	0	25%	0
	0	S.F													
Health Club	0	S.F	4.05	1,10	0					0		51%	0	49%	0
Subtotal Commercial	745,400	S.F			1,564					800	51%	23%	188	76%	612
Total Parcel W-1 / W-2	1,438,133	S.F			1,823					986	54%	31%	303	69%	683

Table A-2 **P.M Peak Hour Trip Generation - Project with County Office Building Option From Grand Avenue Project EIR** 4/21/2006

Land Use	Quantity	Units	Trip Rates	Foot - notes	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel L / M-2															
Condominiums	680	D.U	0.36	1,2	247	5%	15%	5%		187	76%	62%	116	38%	71
	662,050	S.F													
Apartments	170	D.U	0.35	1,3	60	5%	20%	25%		34	57%	61%	21	39%	13
	167,280	S.F													
Subtotal Residential	850	D.U			307					221	72%	62%	137	38%	84
	829,330	S.F													
Hotel	0	Rooms	0.59	1,4	0					0		53%	0	47%	0
	0	S.F													
Office	0	S.F	0.00	1,5	0					0		17%	0	83%	0
Retail	73,100	S.F	6.96	1,7	509	15%	20%	5%	30%	220	43%	48%	106	52%	114
Restaurant	15,000	S.F	7.49	1,8	112	15%	30%	5%	10%	53	47%	67%	36	33%	17
Event Facility	0	Seats	0.07	1,9	0					0		75%	0	25%	0
	0	S.F													
Health Club	0	S.F	4.05	1,10	0					0		51%	0	49%	0
Subtotal Commercial	88,100	S.F			621					273	44%	52%	142	48%	131
Total Parcel L / M-2	917,430	S.F			928					494	53%	56%	279	44%	215
Total All Parcels	3,570,250	S.F			4,817					2,464	51%	45%	1,120	55%	1,344

1. ITE Rates and Equations from Trip Generation, 7th Edition, Institute of Transportation Engineers, Washington, DC, 2003, except otherwise noted.
2. ITE 232 trip generation equation (T=0.34(X)+15.47) for High-Rise Condominium / Townhouse was used.
3. ITE 222 trip rate for High-Rise Apartments was used.
4. ITE 310 trip rate for Hotel was used.
5. ITE 715 trip generation equation (T=1.52(X)+ 34.88) for Single Tenant Office Building was used.
6. ITE 850 trip generation equation (Ln(T) = 0.79*LN(X) + 3.20) for Supermarket was used.
7. ITE 820 trip generation equation (LN(T) = 0.66*LN(X) + 3.40) for Shopping Center was used.
8. ITE 931 trip rate for Quality Restaurant was used.
9. ITE 444 trip rate for Movie Theater with Matinee was used.
10. ITE 492 trip rate for Health / Fitness Club was used.

Table A-3 **Daily Trip Generation - Project with County Office Building Option From Grand Avenue Project EIR**

4/24/2006

Land Use	Quantity	Units	Trip Rates	Foot - note	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel Q															
Condominiums	400	D.U	4.33	1,2	1,732	5%	15%	5%		1,316	76%	50%	658	50%	658
	534,562	S.F													
Apartments	100	D.U	4.20	1,3	420	5%	20%	25%		236	56%	50%	118	50%	118
	98,375	S.F													
Subtotal Residential	500	D.U			2,152					1,552	72%	50%	776	50%	776
	632,937	S.F													
Hotel	275	Rooms	7.59	1,4	2,088	5%	10%	20%		1,420	68%	50%	710	50%	710
	315,000	S.F													
Office	0	S.F	0.00	1,5	0							50%		50%	
Market	53,000	S.F	93.21	1,6	4,940	15%	10%	5%	40%	2,112	43%	50%	1,056	50%	1,056
Retail	97,750	S.F	68.45	1,7	6,691	15%	20%	5%	30%	2,892	43%	50%	1,446	50%	1,446
Restaurant	42,000	S.F	89.95	1,8	3,778	15%	30%	5%	10%	1,777	47%	50%	889	50%	889
Event Facility	250	Seats	1.76	1,9	440	5%	5%	5%	10%	339	77%	50%	169	50%	169
	24,000	S.F													
Health Club	50,000	S.F	32.93	1,10	1,647	20%	35%	5%	20%	563	34%	50%	282	50%	282
Subtotal Commercial	266,750	S.F			17,496					7,683	44%	50%	3,841	50%	3,842
Total Parcel Q	1,214,687	S.F			21,736					10,655	49%	50%	5,327	50%	5,328
Parcel W-1 / W-2															
Condominiums	568	D.U	4.16	1,2	2,365	5%	15%	5%		1,797	76%	50%	898	50%	899
	553,005	S.F													
Apartments	142	D.U	4.20	1,3	596	5%	20%	25%		335	56%	50%	168	50%	167
	139,728	S.F													
Subtotal Residential	710	D.U			2,961					2,132	72%	50%	1,066	50%	1,066
	692,733	S.F													
Hotel	0	Rooms	0.00	1,4	0					0		50%	0	50%	0
	0	S.F													
Office	681,000	S.F	5.53	1,5	3,767	0%	5%	40%	0%	2,148	57%	50%	1,074	50%	1,074
Retail	54,400	S.F	84.04	1,7	4,572	15%	20%	5%	40%	1,694	37%	50%	847	50%	847
Restaurant	10,000	S.F	89.95	1,8	900	15%	30%	5%	10%	423	47%	50%	211	50%	212
Event Facility	0	Seats	1.76	1,9	0					0		50%	0	50%	0
	0	S.F													
Health Club	0	S.F	32.93	1,10	0					0		50%	0	50%	0
Subtotal Commercial	745,400	S.F			9,239					4,265	46%	50%	2,132	50%	2,133
Total Parcel W-1 / W-2	1,438,133	S.F			12,200					6,397	52%	50%	3,198	50%	3,199

Table A-3 **Daily Trip Generation - Project with County Office Building Option From Grand Avenue Project EIR**

4/24/2006

Land Use	Quantity	Units	Trip Rates	Foot - note	Base Vehicle Trips	% Project Internal	% Walk-In / Walk-Out	% Transit, R/S, & Taxi	% Pass-By	Net Vehicle Trips	Net as % Base	Inbound		Outbound	
												%	Trips	%	Trips
Parcel L / M-2															
Condominiums	680	D.U	4.10	1,2	2,787	5%	15%	5%		2,118	76%	50%	1,059	50%	1,059
	662,050	S.F													
Apartments	170	D.U	4.20	1,3	714	5%	20%	25%		402	56%	50%	201	50%	201
	167,280	S.F													
Subtotal Residential	850	D.U			3,501					2,520	72%	50%	1,260	50%	1,260
	829,330	S.F													
Hotel	0	Rooms	0.00	1,4	0					0		50%	0	50%	0
	0	S.F													
Office	0	S.F	0.00	1,5	0					0		50%	0	50%	0
Retail	73,100	S.F	75.78	1,7	5,540	15%	20%	5%	30%	2,395	43%	50%	1,197	50%	1,198
Restaurant	15,000	S.F	89.95	1,8	1,349	15%	30%	5%	10%	634	47%	50%	317	50%	317
Event Facility	0	Seats	1.76	1,9	0					0			0		0
	0	S.F													
Health Club	0	S.F	32.93	1,10	0					0		50%	0	50%	0
Subtotal Commercial	88,100	S.F			6,889					3,029	44%	50%	1,514	50%	1,515
Total Parcel L / M-2	917,430	S.F			10,390					5,549	53%	50%	2,774	50%	2,775
Total All Parcels	3,570,250	S.F			44,326					22,601	51%	50%	11,299	50%	11,302

1. ITE Rates and Equations from Trip Generation, 7th Edition, Institute of Transportation Engineers, Washington, DC, 2003, except otherwise noted.
2. ITE 232 daily trip generation equation (T= 3.77(X)+223.66) for High-Rise Condominium / Townhouse was used.
3. ITE 222 daily trip rate for High-Rise Apartments was used.
4. ITE 310 daily trip generation equation (T = 8.95*(X) - 373.16) for Hotel was used.
5. ITE 715 trip generation equation (LN(T) = 0.60*LN(X) + 4.32) for Single Tenant Office Building was used.
6. ITE 850 daily trip generation equation (T = 66.95*(X) +1391.56) for Supermarket was used.
7. ITE 820 daily trip generation equation (LN(T) = 0.65*LN(X) + 5.83) for Shopping Center was used.
8. ITE 931 daily trip rate for Quality Restaurant was used.
9. ITE 444 daily trip rate for Movie Theater with Matinee is not available. Daily trip rate was estimated based on the ratio of ITE 443 weekday p.m peak hour of adjacent traffic to ITE 444 weekday p.m peak hour of adjacent traffic.
10. ITE 492 daily trip rate for Health / Fitness Club was used.

APPENDIX C.
LAMC PARKING REQUIREMENTS

Appendix C
LAMC Parking Requirements by Land Use

Table 7-2 From Grand Avenue Project EIR Traffic Study
(Museum Use Added)

Land Use	Parking Requirement	Note
Residential 1- Bed	1 space per D.U	1
2 -Bed	1.25 space per D.U	1
3- Bed	1.25 spaces per D.U	1
Affordable Residential	1 space per D.U	6
Hotel – Rooms	1 space per two guest rooms for first 20 rooms; plus 1 space per guest room in excess of 20 but not exceeding 40; plus 1 space per each six guest rooms over 40.	2
Hotel – Meeting Space	10 spaces per 1,000 s.f	3
Retail	1 space / 1,000 s.f.	4
Restaurant	1 space / 1,000 s.f.	4
Health Club	1 space / 1,000 s.f.	4
Event Facility	1 space per 10 seats	5
Office	1 space / 1,000 s.f.	4
Museum	1 space / 1,000 s.f.	4, 7

Notes. 1. LAMC 12.21 A.4 (p) (1). Exception for Central City Area.
2. LAMC 12.21.A.4 (p) (2). Exception for Central City Area.
3. LAMC 12.21.A.4 (i).(1). Exception for Downtown Business District.
4. LAMC 12.21.A.4.(i).(3). Exception for Downtown Business District.
5. LAMC 12.21.A.4.(i).(1). Exception for Downtown Business District.
6. LAMC 12.22,A.25.(d).(2) Exception for Restricted Affordable Units.
7. LAMC 12.21.A.4.(i).(2) Exception for Downtown Business District.

PARKING REQUIREMENTS FOR REVISED PROJECT

Table B-2 **City Code Parking Requirement (All Uses)** 4/19/2010
Project with County Office Building Option
Revised Project 4-19-10

Land Use	City Code Requirement	Footnotes	Parcel Q			Parcel W-1/W-2			Parcel L/M-2			Total Project		
			Quantity	Units	Spaces Required	Quantity	Units	Spaces Required	Quantity	Units	Spaces Required	Quantity	Units	Spaces Required
Hotel - Rooms	See Note 1	1	275	Rooms	54	0	Rooms	0	0	Rooms	0	275	Rooms	54
Meeting Space	10 spaces / 1,000 s.f	2	9,000	S.F	90	0	S.F	0	0	S.F	0	9,000	S.F	90
Subtotal Hotel					144			0			0			144
Retail	1 space / 1,000 s.f	3	168,000	S.F	168	64,000	S.F	64	16,115	S.F	16	248,115	S.F	248
Restaurant	1 space / 1,000 s.f	3,7	42,000	S.F	42	10,000	S.F	10	3,307	S.F	3	55,307	S.F	55
Health Club	1 space / 1,000 s.f	3	50,000	S.F	50	0	S.F	0	0	S.F	0	50,000	S.F	50
Event Facility	1 space / 10 seats	4	250	Seats	25	0	Seats	0	0	Seats	0	250	Seats	25
Museum	1 space / 1,000 s.f	3,8	0	S.F	0	0	S.F	0	120,000	S.F	120	120,000	S.F	120
Subtotal Commercial					285			74			139			498
Office	1 space / 1,000 s.f	3	0	S.F	0	681,000	S.F	681	0	S.F	0	681,000	S.F	681
Condominiums 1 - Bed	1 space / D.U	5	220	D.U	220	312	D.U	312	348	D.U	348	880	D.U	880
2 - Bed	1.25 spaces / D.U	5	155	D.U	194	222	D.U	278	246	D.U	307	623	D.U	778
3 - Bed	1.25 spaces / D.U	5	25	D.U	31	34	D.U	43	38	D.U	47	97	D.U	121
Subtotal Condominiums			400	D.U	445	568	D.U	633	632	D.U	702	1,600	D.U	1,779
Apartments 1 - Bed	1 space / D.U	6	70	D.U	70	107	D.U	107	119	D.U	119	296	D.U	296
2 - Bed	1 space / D.U	6	0	D.U	0	35	D.U	35	39	D.U	39	74	D.U	74
3 - Bed	1 space / D.U	6	30	D.U	30	0	D.U	0	0	D.U	0	30	D.U	30
Subtotal Apartments			100	D.U	100	142	D.U	142	158	D.U	158	400	D.U	400
Subtotal Residential			500	D.U	545	710	D.U	775	790	D.U	860	2,000	D.U	2,179
Grand Total					974			1,530			999			3,502

Footnotes:

1. One space for each two individual guest room for first 20 rooms + one additional parking space for each four guest rooms in excess of 20 but not exceeding 40 + one additional parking space for each six guest rooms in excess of 40. (LAMC 12.21 A.4.(p).(2) Exception for Central City Area).
2. LAMC 12.21 A.4.(i).(1) Exception - Downtown Business District.
3. LAMC 12.21 A.4.(i).(3) Exception - Downtown Business District.
4. LAMC 12.21 A.4.(i).(1) Exception - Downtown Business District.
5. LAMC 12.21 A.4. (p).(1) Exception for Central City Area.
6. LAMC 12.22 A.25. (d).(2) Affordable Housing Production Incentives.
7. Includes 10,000 sq. ft. restaurant space in Civic Park.
8. LAMC 12.21 A.4.(i).(2) Exception - Downtown Business District.

PARKING REQUIREMENTS FOR EIR PROJECT

Table B-2 **City Code Parking Requirement (All Uses)**
Project with County Office Building Option

5/19/2006
Revised

Land Use	City Code Requirement	Footnotes	Parcel Q			Parcel W-1/W-2			Parcel L/M-2			Total Project		
			Quantity	Units	Spaces Required	Quantity	Units	Spaces Required	Quantity	Units	Spaces Required	Quantity	Units	Spaces Required
Hotel - Rooms	See Note 1	1	275	Rooms	54	0	Rooms	0	0	Rooms	0	275	Rooms	54
Meeting Space	10 spaces / 1,000 s.f	2	9,000	S.F	90	0	S.F	0	0	S.F	0	9,000	S.F	90
Subtotal Hotel					144			0			0			144
Retail	1 space / 1,000 s.f	3	168,000	S.F	168	64,000	S.F	64	86,000	S.F	86	318,000	S.F	318
Restaurant	1 space / 1,000 s.f	3,7	42,000	S.F	42	10,000	S.F	10	15,000	S.F	15	67,000	S.F	67
Health Club	1 space / 1,000 s.f	3	50,000	S.F	50	0	S.F	0	0	S.F	0	50,000	S.F	50
Event Facility	1 space / 10 seats	4	250	Seats	25	0	Seats	0	0	Seats	0	250	Seats	25
Subtotal Commercial					285			74			101			460
Office	1 space / 1,000 s.f	3	0	S.F	0	681,000	S.F	681	0	S.F	0	681,000	S.F	681
Condominiums 1 - Bed	1 space / D.U	5	220	D.U	220	312	D.U	312	374	D.U	374	906	D.U	906
2 - Bed	1.25 spaces / D.U	5	155	D.U	194	222	D.U	278	265	D.U	331	642	D.U	803
3 - Bed	1.25 spaces / D.U	5	25	D.U	31	34	D.U	43	41	D.U	51	100	D.U	125
Subtotal Condominiums			400	D.U	445	568	D.U	633	680	D.U	756	1,648	D.U	1,834
Apartments 1 - Bed	1 space / D.U	6	70	D.U	70	107	D.U	107	128	D.U	128	305	D.U	305
2 - Bed	1 space / D.U	6	0	D.U	0	35	D.U	35	42	D.U	42	77	D.U	77
3 - Bed	1 space / D.U	6	30	D.U	30	0	D.U	0	0	D.U	0	30	D.U	30
Subtotal Apartments			100	D.U	100	142	D.U	142	170	D.U	170	412	D.U	412
Subtotal Residential			500	D.U	545	710	D.U	775	850	D.U	926	2,060	D.U	2,246
Grand Total					974			1,530			1,027			3,531

Footnotes:

1. One space for each two individual guest room for first 20 rooms + one additional parking space for each four guest rooms in excess of 20 but not exceeding 40 + one additional parking space for each six guest rooms in excess of 40. (LAMC 12.21 A.4.(p).(2) Exception for Central City Area).
2. LAMC 12.21 A.4.(i).(1) Exception - Downtown Business District.
3. LAMC 12.21 A.4.(i).(3) Exception - Downtown Business District.
4. LAMC 12.21 A.4.(i).(1) Exception - Downtown Business District.
5. LAMC 12.21 A.4. (p).(1) Exception for Central City Area.
6. LAMC 12.22 A.25. (d).(2) Affordable Housing Production Incentives.
7. Includes 10,000 sq. ft. restaurant space in Civic Park.

CITY OF LOS ANGELES
CALIFORNIA

RITA L. ROBINSON
GENERAL MANAGER

ANTONIO R. VILLARAIGOSA
MAYOR

DEPARTMENT OF
TRANSPORTATION

100 S. Main Street, 10th Floor
LOS ANGELES, CA 90012
213- 972-8470
FAX (213) 972-8410

http://www.lacity.org/ladot/

1st St & Grand Av
DOT Case No. CEN 06-3022

May 19, 2010

Martha Welborne
Los Angeles Grand Avenue Authority
Grand Avenue Committee, Inc.
c/o ZGF Architects LLP
515 S. Flower Street, Suite 3700
Los Angeles, CA 90071

GRAND AVENUE PROJECT SUPPLEMENTAL TRAFFIC ANALYSIS (DEIR SCH NO. 2005 091041)

Dear Ms. Welborne,

The Department of Transportation (DOT) has reviewed the supplemental traffic analysis, dated April 23, 2010, prepared by the Mobility Group, for a proposed land use revision to the Grand Avenue Project, which was approved by the City in 2007. The proposed change would only affect parcels L/M-2 of the project - the remaining parcels would remain unchanged. DOT concurs with the findings of the analysis that the revised land uses (discussed below) for this project will not result in any new significant traffic impacts on the surrounding community. Since the overall trips expected to be generated by the revised project is less than the number of trips analyzed in the traffic analysis for the project's approved EIR, the revised project is not expected to result in any new significant traffic impacts that have not already been identified in the project's EIR. All of the recommended requirements identified in DOT's letter (attached), dated September 8, 2006, shall remain in effect.

DISCUSSION AND FINDINGS

1. Project Description

   The revised Grand Avenue Project would add space for museum uses and would reduce the commercial and residential uses in Parcels L/M-2. The revised site plan for this parcel is illustrated in Attachment 1. The revised project would add up to 120,000 gross square feet (GSF) for the museum within Parcel L. For Parcels L/M-2, the project would reduce the commercial uses from 101,000 GSF to 19,422 GSF and would reduce the number of residential dwelling units from 850 units to 790 units. Overall, the development square footage on Parcels L/M-2 remain unchanged at 903,330 gsf. The proposed land use changes for Parcels L/M-2 are summarized in the table below:

LAND USE (PARCELS L/M-2)	APPROVED PROJECT	REVISED PROJECT
Museum	0 gsf	120,000 gsf
Retail Restaurant *Commercial Total*	86,000 gsf 15,000 gsf *101,000 gsf*	16,115 gsf 3,307 gsf *19,422 gsf*
Condos Apartments *Residential Total*	680 DU's 170 DU's *850 DU's*	632 DU's 158 DU's *790 DU's*
TOTAL	**930,330 gsf**	**930,330 gsf**

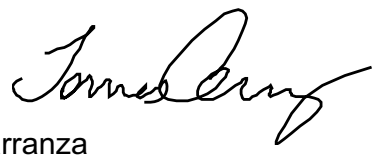
The original approved parking supply for Parcels L/M-2 was 1,570 spaces, of which 1,280 would be for residential uses and 290 for commercial uses. The revised project proposes a parking supply of 1,366 spaces, of which 120 spaces would be for the museum, 56 spaces for commercial uses, and the remaining 1,190 spaces for residential uses. The revised project would not change the parking supply on any of the other parcels for project.

2. Trip Generation

The revised project for Parcels L/M-2 was estimated to generate approximately 4,352 net daily trips, 255 net trips in the a.m. peak hour and 442 net trips in the p.m. peak hour. The original approved Grand Avenue Project for Parcels L/M-2 was estimated to generate approximately 5,549 net daily trips, 263 net trips in the a.m. peak hour and 494 net trips in the p.m. peak hour for Parcels L/M-2. Attachment 2 summarizes the comparison of trip generation for Parcels L/M-2 and for the entire Grand Avenue Project for both the original project and for the revised project. As shown in this attachment, the total number of trips for Parcels L/M-2 in each time period is lower for the revised project than for the original approved Grand Avenue Project.

If you have any questions, please call me at (213) 972-8476 or Chris Hy at (213) 972-8479.

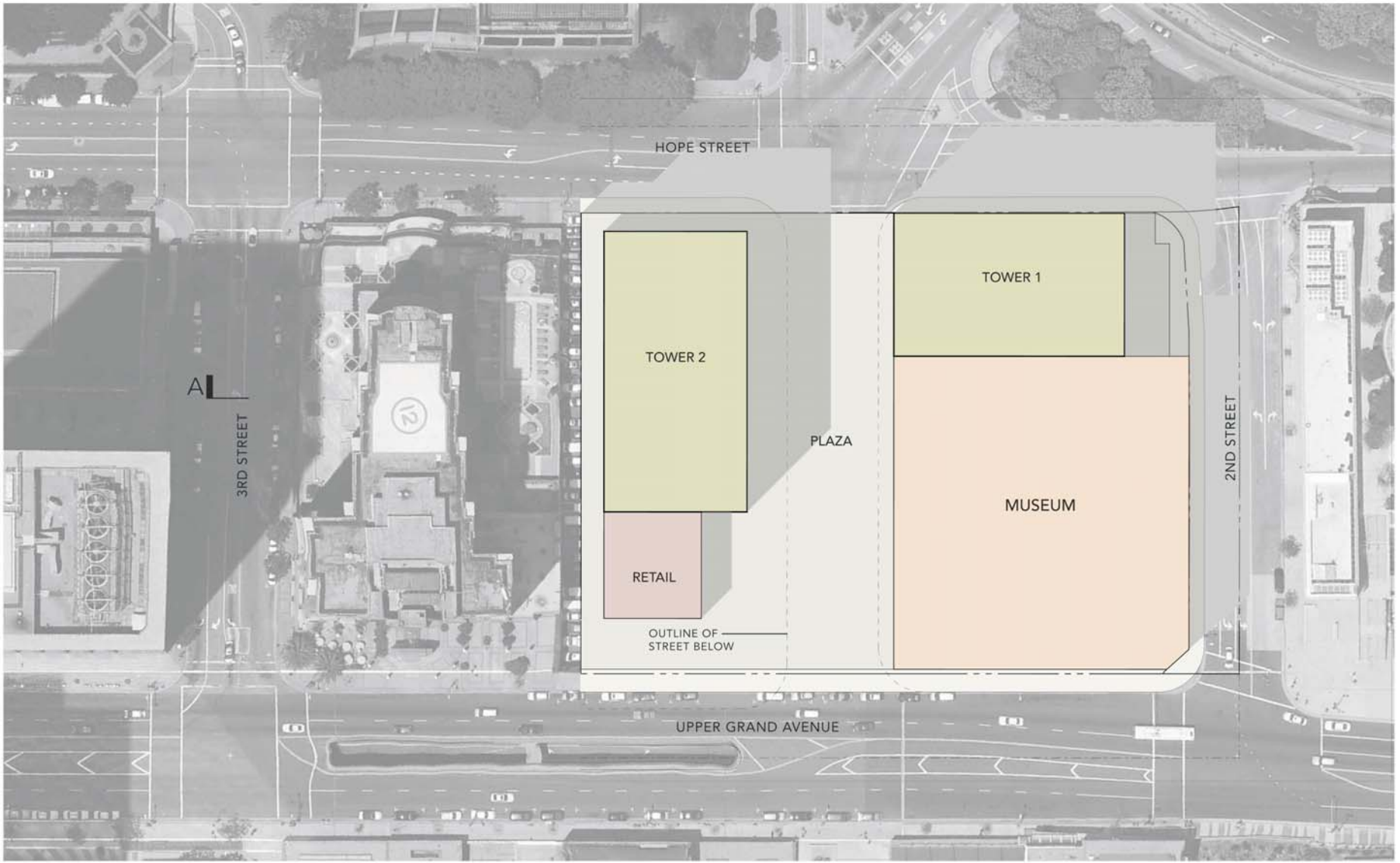
Sincerely,



Tomas Carranza
Senior Transportation Engineer

Attachments *CEN06-3022_Grand_Avenue_rev study_Broad Museum.wpd*

c: Greg Fischer, Council District No. 9
Taimour Tanavoli, Citywide Planning Coordination Section, DOT
Carl Mills, Central District, BOE
Hadar Plafkin, City Planning
Pauline Lewicki, CRA
Mike Bates, The Mobility Group



Source: ZGF 3-16-10

4/19/10

Figure 2
Revised Project Parcel L/M-2 Site Plan

ATTACHMENT 2

Table 2. Revised Grand Avenue Project - Trip Generation Comparison 4/20/2010

	Total Trips		Inbound Trips		Outbound Trips	
	EIR	Revised Project	EIR	Revised Project	EIR	Revised Project
Parcel L / M-2						
AM Peak Hour	263	255	77	95	186	160
PM Peak Hour	494	442	279	201	215	242
Daily	5,549	4,352	2,774	2,176	2,775	2,176
Total Project						
AM Peak Hour	1,551	1,543	919	937	632	606
PM Peak Hour	2,464	2,413	1,120	1,042	1,344	1,371
Daily	22,601	21,404	11,299	10,702	11,302	10,703

CITY OF LOS ANGELES
CALIFORNIA

Gloria J. Jeff
GENERAL MANAGER

DEPARTMENT OF TRANSPORTATION
100 S. Main Street, 10th Floor
LOS ANGELES, CA 90012
213-972-8470
FAX 213-972-8410

ANTONIO VILLARAIGOSA
MAYOR

1st St & Grand Av
DOT Case No. CEN 06-3022

September 8, 2006

Martha Welborne
Los Angeles Grand Avenue Authority
Grand Avenue Committee, Inc.
445 South Figueroa Street, Suite 3400
Los Angeles, CA 90071

TRAFFIC IMPACT ASSESSMENT FOR THE PROPOSED GRAND AVENUE PROJECT (DEIR SCH NO. 2005 091041)

The Department of Transportation (DOT) has completed its traffic assessment of the proposed Grand Avenue Project generally located along Grand Avenue between Cesar Chavez Avenue and 5th Street in downtown Los Angeles. The project consists of the following two development options:

Option 1 (County Office Building)
- 2,060 residential units (1,648 condominiums & 412 apartments)
- 275 room hotel
- 449,000 square-feet of retail space
- 681,000 square-feet of office space for a County Office Building

Option 2 (Additional Residential)
- 2,660 residential units (2,128 condominiums & 532 apartments)
- 275 room hotel
- 449,000 square-feet of retail space

The retail component for both options would include restaurants, a health club, an event facility, and a supermarket. Included in both land use options, the project would also provide pedestrian enhancements and streetscape improvements along the Grand Avenue right-of-way between Cesar Chavez Avenue and 5th Street, and a new 16-acre park within the Civic Mall that connects the Los Angeles City Hall to Grand Avenue. The streetscape program for Grand Avenue would include wider sidewalks, where feasible, improved street lighting and signage, pedestrian amenities including benches and bus shelters, and new street trees. The streetscape proposal would not impact the existing roadway configuration or available on-street parking. The project is expected to be completed by year 2015.

The project is expected to result in adverse impacts to the area's transportation system. A discussion of the traffic impacts and of the mitigation measures needed to offset these impacts follows.

DISCUSSION AND FINDINGS

The traffic study, dated May 30, 2006, for the Grand Avenue Project was prepared by the Mobility Group with input and subsequent revisions by DOT.

A. Study Area

The project site consists of five parcels located in the Bunker Hill Urban Renewal Project area, the Grand Avenue right-of-way between Cesar Chavez Avenue and 5th Street, and the Los Angeles Civic Mall between Grand Avenue and Spring Street. The project study area is generally bounded by the US-101 Freeway to the north, Spring Street to the east, 6th Street to the south, and Figueroa Street to the west. Within this study area, 32 intersections were identified for detailed analysis.

The proposed development for both options is concentrated along the east side of Grand Avenue between 1st Street and 2nd Street, along the east side of Olive Street between 1st Street and 2nd Street, and at the southwest corner of Grand Avenue and Second Street. Specifically, the land uses are planned as follows:

Location	Option 1 Land Use Proposal	Option 2 Land Use Proposal
East side of Grand Avenue between 1st Street and 2nd Street	400 Condominiums 100 Apartments 284,000 sq. ft. Retail 275 Hotel rooms	400 Condominiums 100 Apartments 284,000 sq. ft. Retail 275 Hotel rooms
East side of Olive Street between 1st Street and 2nd Street	568 Condominiums 142 Apartments 64,000 sq. ft. Retail 681,000 sq. ft. County Office	1,048 Condominiums 262 Apartments 64,000 sq. ft. Retail
Southwest corner of Grand Avenue and Second Street	680 Condominiums 170 Apartments 101,000 sq. ft. Retail	680 Condominiums 170 Apartments 101,000 sq. ft. Retail

B. Trip Generation

After taking into account the trip credits allowed for the existing uses that will be replaced by the proposed project, Option 1 is estimated to generate approximately

1,551 trips in the a.m. peak hour and 2,464 trips in the p.m. peak hour (see **Attachment A**). Given similar trip credits, Option 2 is estimated to generate approximately 1,019 trips in the a.m. peak hour and 2,003 trips in the p.m. peak hour (see **Attachment B**). These trip generation estimates also include discounts given for walk trips, pass-by trips, transit trips and internal trips. Given the mixed-use nature of the project and the comprehensive transit system afforded to employees, visitors, and residents of downtown Los Angeles, allowing trip credits for this project is acceptable to DOT.

C. Traffic Impacts

In order to evaluate the effects and significant impacts of the project traffic on the roadway network, the significance of the traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to DOT's established threshold standards to assess the project-related traffic impacts. **Attachment C** identifies DOT's criteria for determining significant traffic impacts. DOT has determined that, of the 32 total intersections studied, the project would result in significant traffic impacts at 18 intersections for both options. The following intersections will be significantly impacted by both project land use options:

1. Figueroa Street and 3rd Street
2. Hope Street/US-101 Ramps and Temple Street
3. Hope Street and 1st Street
4. Hope Street and 2nd Place/General Thaddeus Kosciuszko Way
5. Grand Avenue and US-101 Ramps/I-110 Ramps
6. Grand Avenue and Temple Street
7. Grand Avenue and 1st Street
8. Grand Avenue Upper 2nd Street
9. Olive Street and 1st Street
10. Olive Street and 4th Street
11. Olive Street and 5th Street
12. Hill Street and Temple Street
13. Hill Street and 1st Street
14. Hill Street and 2nd Street
15. Hill Street and 3rd Street
16. Hill Street and 4th Street
17. Broadway and Temple Street
18. Broadway and 1st Street

Attachment D summarizes the morning and afternoon peak hour levels-of-service (LOS) calculated for all 32 study intersections for the different scenarios and indicates the extent of the project-related traffic impacts for Option 1. Similarly, **Attachment E** summarizes the LOS results for project Option 2.

While suitable mitigation measures are recommended to address the significant traffic impacts of both project options, not all of the significantly impacted intersections will be fully mitigated. Under Option 1, the project will fully mitigate 6 of the significant impacts, but 12 of 18 intersections are partially mitigated and remain significantly impacted. Under Option 2, the project will fully mitigate 11 significant impacts, but 7 out of 18 intersections are partially mitigated and remain significantly impacted. More specific information on the recommended traffic mitigation measures is provided below under "Project Requirements."

D. Parking and Access

The proposed project would provide 5,035 parking spaces for the Option 1 land use proposal. Should Option 2 be the preferred alternative, then the proposal is to provide 5,255 parking spaces. All proposed parking would be provided in podium (street-level) and subterranean parking structures.

A new site access plan for the County Mall parking garage is proposed as part of the project design. In order to accommodate the streetscape enhancements proposed for Grand Avenue, a reconfiguration of the access ramps from Grand Avenue to the parking garage is proposed. The garage currently provides access to and from Grand Street and to and from Hill Street. The access on Grand Avenue will be revised to allow for only right-turns into and out of the parking structure driveway. This would affect morning commuters that would normally turn left from southbound Grand Avenue into the parking garage driveway. Instead, now all southbound commuters would have to enter by turning right from the Hill Street driveway. The traffic study took into account any redirected traffic associated with this reconfiguration of the parking garage access plan.

PROJECT REQUIREMENTS

The two project alternatives would result in significant traffic impacts at 18 of the 32 study intersections. It should be noted that DOT and the project traffic consultant evaluated several physical traffic mitigation improvement options at these intersections to fully mitigate the impacts; however, with the exception of one location at Hill Street and 3rd Street, no feasible mitigations were identified due to the constraints of the existing physical conditions. In some cases, street widening is not an option due to right-of-way constraints. Also, in other cases, it is not practical nor desirable to widen the street at the expense of reduced sidewalk widths. Moreover, with high pedestrian flows in downtown Los Angeles and with the City's goal of providing a pedestrian friendly and walkable environment in this area, street widening opportunities were not available. Because of these constraints and conflicts, the required mitigations will not fully mitigate all project traffic impacts.

The following project requirements will be applicable to both Options 1 and 2:

E. Traffic Signal Enhancements

The applicant shall construct or contribute a proportionate share of the Downtown Adaptive Traffic Control System (ATCS) sub-system and fund a proportionate share of the ATCS software integration costs. Please see **Attachment F** for more specific details on this project requirement.

Implementing this traffic signal enhancement would fully mitigate five of the 18 impacted study intersections for Option 1. For the remaining 13 intersections, while partially mitigated, the signal enhancement would not reduce the impact to a level of insignificance. The intersections that would be partially mitigated after implementation of the Downtown ATCS improvements are:

1. Hope Street/US-101 Ramps and Temple Avenue
2. Hope Street and 1st Street
3. Hope Street and 2nd Place/General Thaddeus Kosciuszko Way
4. Grand Avenue and US-101 Ramps/I-110 Ramps
5. Grand Avenue and Temple Street
6. Grand Avenue and 1st Street
7. Olive Street and 1st Street
8. Olive Street and 4th Street
9. Olive Street and 5th Street
10. Hill Street and 2nd Street
11. Hill Street and 4th Street
12. Hill Street and 3rd Street[1]
13. Broadway and 1st Street

For Option 2, implementing the Downtown ATCS improvement would fully mitigate eleven of the 18 impacted study intersections. For the remaining seven intersections, the signal enhancement would not reduce the impact to a level of insignificance. The intersections that would be partially mitigated after implementation of the Downtown ATCS improvements are:

1. Hope Street and 1st Street
2. Hope Street and 2nd Place/General Thaddeus Kosciuszko Way
3. Grand Avenue and US-101 Ramps/I-110 Ramps
4. Olive Street and 1st Street
5. Olive Street and 4th Street
6. Hill Street and 2nd Street
7. Broadway and 1st Street

---

[1] This intersection will be fully mitigated with the improvement discussed in Requirement B.

F. Hill Street and 3rd Street

In addition to installing ATCS at this location, it is proposed to restripe the westbound 3rd Street approach at Hill Street to include one left-turn only lane, two through lanes, and one right-turn only lane. To accomplish the restriping the south side of 3rd Street west of Hill Street must be widened by a variable 0 to 3-feet for approximately 60 feet within the existing right-of-way. This improvement measure was proposed without the widening in the draft version of the traffic study and was not accepted by DOT. However, DOT now finds that the improvement measure with the widening modification to be acceptable and along with ATCS to fully mitigate the impact to a level of insignificance.

G. Construction Impacts

A construction work site traffic control plan should be submitted to DOT for review and approval prior to the start of any construction work. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. It is recommended that all construction related traffic be restricted to off-peak hours.

H. Highway Dedication And Street Widening Requirements

1st Street is classified as a Major Highway Class II which requires a 45-foot half-width roadway on a 57-foot half-width right-of-way to accommodate for installation of dual left turn lanes.

Grand Avenue is also classified as a Modified Major Highway Class II.

Hope Street and Olive Street are classified as Secondary Highways which require a 35-foot half-width roadway on a 45-foot half-width right-of-way. .

General Thaddeus Kosciuszko Way is classified as a Local Street which requires a 20-foot half-width roadway on a 30-foot half- width right-of-way.

DOT's highway dedication and widening requirements are outlined under the "Project frontage Street Improvements", however, the developer must check with the Department of Public Works, BOE Land Development Group to determine the ultimate highway dedication, street widening and sidewalk requirements.

I. Project Frontage Street Improvements

Grand Avenue: East side of Grand Avenue shall be widened by 8 feet starting from a point approximately 50 feet north of the new Upper 2nd Street to a point approximately 350 feet north of new Upper 2nd Street to provide for a pick-up/drop-off area along the project frontage. This widening would allow for curbside

passenger loading and unloading, and would also provide for 12-foot wide sidewalk/parkway beyond the new curb alignment.

1st Street: To provide for standard lane widths and accommodate for dual-left-turn lanes for westbound to southbound vehicular traffic at 1st Street/Grand Avenue, LADOT recommends a 7-foot dedication and a 5-foot widening and construction of a 12-foot wide sidewalk along the project frontage to provide a 45-foot half-width roadway on a 57-foot half-width right-of-way. Presently, 1st street is improved to a 40-foot half-width roadway on a 50-foot half-width right-of-way.

J. Improvement and Mitigation Measures Implementation

Unless otherwise specified, the proposed mitigation measures shall be implemented through the BOE B-Permit process. Construction of the improvements to the satisfaction of DOT and BOE must be completed before issuance of any certificate of occupancy. Should any improvement not receive its required approval, the City may substitute an alternative measure of an equivalent or superior effectiveness. Prior to setting the bond amount, BOE shall require that the developer's engineer or contractor contact DOT's B-Permit Coordinator, at (213) 928-9640, to arrange a pre-design meeting to finalize the proposed design needed for the project.

K. Parking Analysis

As noted previously, the traffic study indicated that the project will provide more than 5,000 parking spaces for both land use development options. The developer should check with the Department of Building and Safety on the number of Code required parking spaces needed for the project.

L. Special Events

It is anticipated that, throughout the year, there may be special events associated with the project that could temporarily adversely impact traffic flow throughout the downtown area. The event organizer should coordinate the preparation of a traffic management plan for each event with DOT. The organizer of each event will be responsible for all fees incurred in providing traffic control for that event.

M. Transportation Demand Management (for Option 1 only)

Given the extensive amount of transit services provided for downtown area employees, there is already an inherent incentive for the employees of the project's office component in development Option 1 to search for alternative commute options other than driving alone. The high cost of parking in downtown Los Angeles provides another incentive. There is an opportunity to develop an effective trip reduction program that encourages carpooling, vanpooling, and transit usage.

Reducing the project's trip generation is a viable traffic mitigation option. Therefore, DOT supports the proposal to apply Transportation Demand Management (TDM) measures to the office portion of land use development Option 1.

A TDM program should include the provision of an on-site transportation coordinator, information on transit services, support for carpools and vanpools, priority parking for carpoolers and vanpoolers, and incentives to utilize transit and ridesharing. The traffic study indicated that the significant traffic impact at 1st Street and Hill Street would be mitigated in the p.m. peak hour by reducing project trips through a TDM program in combination with the ATCS improvement.

A preliminary TDM plan, subject to DOT approval, is required prior to the issuance of the first building permit for the office component of project Option 1. A final TDM plan, subject to DOT approval, is required prior to the issuance of the first temporary or final occupancy permit for the office component of the project. The TDM plan shall set the trip reduction milestones needed to fully or partially mitigate any project impacts and shall propose a trip monitoring program that would ensure effective participation and compliance with the TDM goals.

N. Driveway Access

The review of this study does not constitute approval of the driveway access and circulation scheme. Those require separate review and approval and should be coordinated as soon as possible with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 4th Floor, Station 3, (213) 482-7024) to avoid delays in the building permit approval process. DOT has worked closely with the developer in determining access and circulation, and has conceptually approved the proposed driveway and circulation plans for the project. All driveways should be Case 2 driveways per BOE standards. All driveways allowing two-way operations should be 30-feet wide, and all one-way driveways should be 18-feet wide.

If you have any questions, please call me at (213) 972-8485 or Wes Pringle of my staff at (213) 972-8482.

Sincerely,

Mike Bagheri
Transportation Engineer

Attachments

CEN06-3022_Grand_Avenue_ProjectFinal.wpd

c: Greg Fischer, Council District No. 9
Martha Stehpenson, Central District, DOT
Verej Janoyan, ATSAC, DOT
Tim Conger, Design Division, DOT
Taimour Tanavoli, Citywide Planning Coordination Section, DOT
Carl Mills, Central District, BOE
Hadar Plafkin, City Planning
Pauline Lewicki, CRA
John S. Edmisten, LA County
The Mobility Group

Table 4-4 **Summary of Project Trip Generation - Project with County Office Building Option** 4/21/2006

A. By Parcel

Project Component	Quantity	Units	A.M Peak Hour			P.M Peak Hour		
			In	Out	Total	In	Out	Total
Parcel Q								
Condominiums	400	D.U	21	89	110	71	44	115
Apartments	100	D.U	4	13	17	12	8	20
Subtotal Residential			25	102	127	83	52	135
Hotel	275	Rooms	59	38	97	58	52	110
Supermarket	53,000	S.F	54	34	88	123	118	241
Retail	97,750	S.F	41	26	67	128	139	267
Restaurant	42,000	S.F	8	8	16	99	49	148
Event Facility	250	Seats	0	0	0	11	3	14
Health Club	50,000	S.F	9	12	21	36	33	69
Subtotal Commercial			112	80	192	397	342	739
Subtotal			196	220	416	538	446	984
Parcel W-1 / W-2								
Condominiums	568	D.U	28	119	147	98	60	158
Apartments	142	D.U	6	18	24	17	11	28
Subtotal Residential			34	137	171	115	70	186
Office	681,000	S.F	585	72	657	91	519	610
Retail	54,400	S.F	25	15	40	74	81	155
Restaurant	10,000	S.F	2	2	4	23	12	35
Subtotal Commercial			612	89	701	188	612	800
Subtotal			646	226	872	303	683	986
Parcel L / M-2								
Condominiums	680	D.U	33	139	172	116	71	187
Apartments	170	D.U	7	22	29	21	13	34
Subtotal Residential			40	161	201	137	84	221
Retail	73,100	S.F	34	22	56	106	114	220
Restaurant	15,000	S.F	3	3	6	36	17	53
Subtotal Commercial			37	25	62	142	131	273
Subtotal			77	186	263	279	215	494
Total All Parcels			919	632	1,551	1,120	1,344	2,464

Attachment A

Table 4-5 **Summary of Project Trip Generation** 4/21/2006
Project with Additional Residential Development Option

A. By Parcel

Project Component	Quantity	Units	A.M Peak Hour			P.M Peak Hour		
			In	Out	Total	In	Out	Total
Parcel Q								
Condominiums	400	D.U	21	89	110	71	44	115
Apartments	100	D.U	4	13	17	12	8	20
Subtotal Residential			25	102	127	83	52	135
Hotel	275	Rooms	59	38	97	58	52	110
Supermarket	53,000	S.F	54	34	88	123	118	241
Retail	97,750	S.F	41	26	67	128	139	267
Restaurant	42,000	S.F	8	8	16	99	49	148
Event Facility	250	Seats	0	0	0	11	3	14
Health Club	50,000	S.F	9	12	21	36	33	69
Subtotal Commercial			112	80	192	397	342	739
Subtotal			196	220	416	538	446	984
Parcel W-1 / W-2								
Condominiums	1,048	D.U	48	204	252	175	108	283
Apartments	262	D.U	11	33	44	32	20	52
Subtotal Residential			59	237	296	207	128	335
Office	0	S.F	0	0	0	0	0	0
Retail	54,400	S.F	25	15	40	74	81	155
Restaurant	10,000	S.F	2	2	4	23	12	35
Subtotal Commercial			27	17	44	97	93	190
Subtotal			86	254	340	304	221	525
Parcel L / M-2								
Condominiums	680	D.U	33	139	172	116	71	187
Apartments	170	D.U	7	22	29	21	13	34
Subtotal Residential			40	161	201	137	84	221
Retail	73,100	S.F	34	22	56	106	114	220
Restaurant	15,000	S.F	3	3	6	36	17	53
Subtotal Commercial			37	25	62	142	131	273
Subtotal			77	186	263	279	215	494
Total All Parcels			359	660	1,019	1,121	882	2,003

Attachment B

LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTION[1]

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	GOOD. Occasionally, drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	POOR. Represents the most vehicles that intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	Greater than 1.000	FAILURE. Backups from nearby intersections or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

SIGNIFICANT TRANSPORTATION IMPACT CRITERIA

1. A transportation impact on an intersection shall be deemed "significant" in accordance with the following table except as otherwise specified in a TSP, ICO or CMP:

SIGNIFICANT TRANSPORTATION IMPACT

Level of Service	Final V/C Ratio	Project-Related Increase In V/C
C	> 0.701 - 0.800	equal to or greater than 0.040
D	> 0.801 - 0.900	equal to or greater than 0.020
E, F	> 0.901	equal to or greater than 0.010

[1]Source: Transportation Research Board, Interim Materials on Highway Capacity, Transportation Research Circular No. 212, January 1980.

Table 5-1 **Intersection Level Of Service - Future With Project Conditions - Project with County Office Building Option** 4/21/2006

No.	Intersection	A.M Peak						P.M Peak					
		Future Without Project Condtions		Future With Project Conditions		Change in V/C	Significant Impact	Future Without Project Condtions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
1	Figueroa St. / 3rd St.	0.827	D	0.837	D	0.010	No	0.965	E	0.985	E	0.020	Yes
2	Figueroa St. / 5th St.	0.487	A	0.492	A	0.005	No	0.781	C	0.795	C	0.014	No
3	Figueroa St. / 6th St.	0.626	B	0.632	B	0.006	No	0.650	B	0.658	B	0.008	No
4	I-110 Off Ramp / Temple St.	0.398	A	0.400	A	0.002	No	0.409	A	0.413	A	0.004	No
5	Hope St. / Temple St. / US-101 Ramps	0.902	E	0.921	E	0.019	Yes	0.971	E	1.015	F	0.044	Yes
6	Hope St. / 1st St.	0.925	E	0.935	E	0.010	Yes	0.733	C	0.830	D	0.097	Yes
7	Hope St. / GTK Way / 2nd Place	0.420	A	0.452	A	0.032	No	0.776	C	0.845	D	0.069	Yes
8	Flower St. / 3rd St.	0.671	B	0.678	B	0.007	No	0.546	A	0.569	A	0.023	No
9	Flower St. / 5th St.	0.439	A	0.448	A	0.009	No	0.517	A	0.535	A	0.018	No
10	Flower St. / 6th St.	0.528	A	0.540	A	0.012	No	0.498	A	0.515	A	0.017	No
11	Grand Ave. / US-101 Ramps / I-110 Ramps	0.693	B	0.724	C	0.031	No	0.994	E	1.100	F	0.106	Yes
12	Grand Ave. / Temple St.	0.930	E	0.929	E	-0.001	No	0.844	D	0.896	D	0.052	Yes
13	Grand Ave. / 1st St.	0.791	C	0.818	D	0.027	Yes	0.850	D	0.918	E	0.068	Yes
14	Grand Ave. / Upper 2nd St.	0.537	A	0.670	B	0.133	No	0.504	A	0.708	C	0.204	Yes
15	Grand Ave. / 5th St.	0.487	A	0.502	A	0.015	No	0.565	A	0.597	A	0.032	No
16	Olive St. / 1st St.	0.531	A	0.609	B	0.078	No	0.627	B	0.801	D	0.174	Yes
17	Olive St. / 2nd St.	0.283	A	0.359	A	0.076	No	0.406	A	0.583	A	0.177	No
18	Olive St. / 4th St.	0.437	A	0.548	A	0.111	No	0.653	B	0.740	C	0.087	Yes
19	Olive St. / 5th St.	0.623	B	0.654	B	0.031	No	0.812	D	0.858	D	0.046	Yes
20	Olive St. / 6th St.	0.402	A	0.424	A	0.022	No	0.486	A	0.513	A	0.027	No
21	Hill St. / Temple St.	0.762	C	0.815	D	0.053	Yes	0.933	E	0.941	E	0.008	No
22	Hill St. / 1st St.	0.744	C	0.766	C	0.022	No	0.911	E	0.947	E	0.036	Yes
23	Hill St. / 2nd St.	0.765	C	0.793	C	0.028	No	0.679	B	0.845	D	0.166	Yes
24	Hill St. / 3rd St.	0.968	E	0.996	E	0.028	Yes	1.018	F	1.103	F	0.085	Yes
25	Hill St. / 4th St.	0.518	A	0.542	A	0.024	No	0.760	C	0.851	D	0.091	Yes
26	Hill St. / 6th St.	0.457	A	0.466	A	0.009	No	0.586	A	0.609	B	0.023	No
27	Broadway / Temple St.	0.858	D	0.895	D	0.037	Yes	0.834	D	0.866	D	0.032	Yes
28	Broadway / 1st St.	0.824	D	0.915	E	0.091	Yes	0.841	D	0.939	E	0.098	Yes
29	Broadway / 2nd St.	0.613	B	0.616	B	0.003	No	0.748	C	0.768	C	0.020	No
30	Broadway / 4th St.	0.474	A	0.489	A	0.015	No	0.646	B	0.678	B	0.032	No
31	Spring St. / 1st St.	0.592	A	0.609	B	0.017	No	0.582	A	0.622	B	0.040	No
32	Spring St. / 2nd St.	0.609	B	0.612	B	0.003	No	0.509	A	0.517	A	0.008	No

Attachment D

Table 6-1 **Intersection Level Of Service - Future With Project Conditions - Project with Additional Residential Development Option** 4/21/2006

No.	Intersection	A.M Peak						P.M Peak						
		Future Without Project Condtions		Future With Project Conditions		Change in V/C	Significant Impact	Future Without Project Condtions		Future With Project Conditions		Change in V/C	Significant Impact	
		V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS			
1	Figueroa St. / 3rd St.	0.827	D	0.838	D	0.011	No	0.965	E	0.980	E	0.015	Yes	1
2	Figueroa St. / 5th St.	0.487	A	0.493	A	0.006	No	0.781	C	0.790	C	0.009	No	
3	Figueroa St. / 6th St.	0.626	B	0.629	B	0.003	No	0.650	B	0.658	B	0.008	No	
4	I-110 Off Ramp / Temple St.	0.398	A	0.400	A	0.002	No	0.409	A	0.412	A	0.003	No	
5	Hope St. / Temple St. / US-101 Ramps	0.902	E	0.921	E	0.019	Yes	0.971	E	0.999	E	0.028	Yes	2
6	Hope St. / 1st St.	0.925	E	0.935	E	0.010	Yes	0.733	C	0.832	D	0.099	Yes	3
7	Hope St. / GTK Way / 2nd Place	0.420	A	0.452	A	0.032	No	0.776	C	0.845	D	0.069	Yes	4
8	Flower St. / 3rd St.	0.671	B	0.678	B	0.007	No	0.546	A	0.564	A	0.018	No	
9	Flower St. / 5th St.	0.439	A	0.449	A	0.010	No	0.517	A	0.529	A	0.012	No	
10	Flower St. / 6th St.	0.528	A	0.535	A	0.007	No	0.498	A	0.513	A	0.015	No	
11	Grand Ave. / US-101 Ramps / I-110 Ramps	0.693	B	0.722	C	0.029	No	0.994	E	1.068	F	0.074	Yes	5
12	Grand Ave. / Temple St.	0.930	E	0.925	E	-0.005	No	0.844	D	0.877	D	0.033	Yes	6
13	Grand Ave. / 1st St.	0.791	C	0.817	D	0.026	Yes	0.850	D	0.890	D	0.040	Yes	7
14	Grand Ave. / Upper 2nd St.	0.537	A	0.680	B	0.143	No	0.504	A	0.714	C	0.210	Yes	8
15	Grand Ave. / 5th St.	0.487	A	0.503	A	0.016	No	0.565	A	0.588	A	0.023	No	
16	Olive St. / 1st St.	0.531	A	0.600	A	0.069	No	0.627	B	0.753	C	0.126	Yes	9
17	Olive St. / 2nd St.	0.283	A	0.386	A	0.103	No	0.406	A	0.599	A	0.193	No	
18	Olive St. / 4th St.	0.437	A	0.491	A	0.054	No	0.653	B	0.743	C	0.090	Yes	10
19	Olive St. / 5th St.	0.623	B	0.661	B	0.038	No	0.812	D	0.851	D	0.039	Yes	11
20	Olive St. / 6th St.	0.402	A	0.412	A	0.010	No	0.486	A	0.513	A	0.027	No	
21	Hill St. / Temple St.	0.762	C	0.811	D	0.049	Yes	0.933	E	0.938	E	0.005	No	12
22	Hill St. / 1st St.	0.744	C	0.760	C	0.016	No	0.911	E	0.941	E	0.030	Yes	13
23	Hill St. / 2nd St.	0.765	C	0.792	C	0.027	No	0.679	B	0.803	D	0.124	Yes	14
24	Hill St. / 3rd St.	0.968	E	0.986	E	0.018	Yes	1.018	F	1.050	F	0.032	Yes	15
25	Hill St. / 4th St.	0.518	A	0.543	A	0.025	No	0.760	C	0.802	D	0.042	Yes	16
26	Hill St. / 6th St.	0.457	A	0.467	A	0.010	No	0.586	A	0.603	B	0.017	No	
27	Broadway / Temple St.	0.858	D	0.867	D	0.009	No	0.834	D	0.866	D	0.032	Yes	17
28	Broadway / 1st St.	0.824	D	0.863	D	0.039	Yes	0.841	D	0.918	E	0.077	Yes	18
29	Broadway / 2nd St.	0.613	B	0.617	B	0.004	No	0.748	C	0.767	C	0.019	No	
30	Broadway / 4th St.	0.474	A	0.490	A	0.016	No	0.648	B	0.667	B	0.021	No	
31	Spring St. / 1st St.	0.592	A	0.610	B	0.018	No	0.582	A	0.611	B	0.029	No	
32	Spring St. / 2nd St.	0.609	B	0.612	B	0.003	No	0.509	A	0.518	A	0.009	No	

Attachment E

ATTACHMENT F

The proposal to construct a proportionate share of the Downtown ATCS System and fund a proportionate share of the ATCS software integration cost to mitigate the impact at the intersections below is acceptable to DOT.

1. Figueroa Street and 3rd Street
2. Hope Street/US-101 Ramps and Temple Street
3. Hope Street and 1st Street
4. Hope Street and 2nd Place/General Thaddeus Kosciuszko Way
5. Grand Avenue and US-101 Ramps/I-110 Ramps
6. Grand Avenue and Temple Street
7. Grand Avenue and 1st Street
8. Grand Avenue Upper 2nd Street
9. Olive Street and 1st Street
10. Olive Street and 4th Street
11. Olive Street and 5th Street
12. Hill Street and Temple Street
13. Hill Street and 1st Street
14. Hill Street and 2nd Street
15. Hill Street and 3rd Street
16. Hill Street and 4th Street
17. Broadway and Temple Street
18. Broadway and 1st Street

The applicable proportionate share of the subsystem, identified as Downtown, to mitigate the intersections listed above has been defined loosely as the area bounded by Cesar Chavez Avenue to the north, 6th Street to the south, Figueroa Street to the west and Broadway to the east. To implement this project mitigation measure, the following steps are required:

A. Prior to the issuance of any building permits, the applicant shall guarantee the implementation of the proportionate share of the Downtown ATCS subsystem by posting a B-Permit Bond to the satisfaction of the Department of Public Works, Bureau of Engineering and LADOT to implement the improvements listed below; and shall make a cash deposit of $15,000 to LADOT for the ATCS subsystem software integration cost.

B. The following locations require an upgrade of the existing 170 traffic signal controller to a **Model 2070 traffic signal controller**:

1. North Spring Street between Cesar Chavez Avenue and Arcadia Street
2. Hill Street and Temple Street
3. Hope Street, Harbor Freeway Ramps, and Hollywood Freeway Ramps
4. Temple Street and Figueroa Street
5. Temple Street and Beaudry Avenue
6. Spring Street between Temple Street and 1st Street
7. Hill Street between 1st Street and Temple Street

8. Hope Street between 1st Street and Temple Street
9. 1st Street and Hill Street
10. 2nd Street and Spring Street
11. 2nd Street and Hill Street
12. 2nd Street and Beaudry Avenue
13. 2nd Street and (Upper) Hope Street
14. 2nd Place and Flower Street
15. General Thaddeus Kosciuszko Way and (Lower) Grand Avenue
16. 3rd Street and Spring Street
17. 3rd Street and Hill Street
18. 3rd Street and Flower Street
19. 3rd Street and Figueroa Street
20. 3rd Street and Beaudry Avenue
21. Beaudry Avenue and Harbor Freeway S/B Off-Ramp (S/O 2nd Street)
22. 3rd Street and Hope Street
23. Hope Street between 3rd Street and 4th Street Ramps
24. Spring Street between 3rd Street and 4th Street
25. Hill Street between 3rd Street and 4th Street
26. 4th Street and Spring Street
27. 4th Street and Hill Street
28. 4th Street and (Lower) Grand Avenue
29. 4th Street and Hope Street
30. 4th Street and Flower Street
31. 4th Street and Beaudry Avenue
32. Spring Street between 4th Street and 5th Street
33. Hill Street between 4th Street and 5th Street
34. Spring Street between 5th Street and 6th Street
35. Hill Street between 5th Street and 6th Street

C. At the following locations the installation of **CCTV Cameras** are being requested:

1. 1st Street and Beaudry Avenue
2. 1st Street and Grand Avenue
3. 2nd Street and Spring Street
4. 3rd Street and Figueroa Street
5. 4th Street and Broadway
6. 5th Street and Figueroa Street
7. 5th Street and Grand Avenue (on US Bank Tower Building)
8. 6th Street and Flower Street

Please note the CCTV installation will include all necessary communication systems for video images to be displayed at the ATSAC Center.

D. At the following locations the installation of **ATSAC/ATCS System Detectors** are being requested:

2nd Street and Broadway
2 W/B System Detectors
2 N/B System Detectors

2 E/B System Detectors
2 S/B System Detectors

2nd Street and Olive Street
2 W/B System Detectors
2 S/B System Detectors
2 N/B System Detectors

General Thaddeus Kosciuszko Way and Olive Street
2 E/B System Detectors
2 N/B System Detectors
2 S/B System Detectors

3rd Street and Hope Street
2 W/B System Detectors
2 N/B System Detectors
2 S/B System Detectors

3rd Street and Grand Avenue
2 E/B System Detectors
2 N/B System Detectors
2 S/B System Detectors

4th Street and Flower Street
2 E/B System Detectors
3 S/B System Detectors

4th Street and Hope Street
2 N/B System Detectors
2 S/B System Detectors
3 E/B System Detectors

4th Street and Figueroa Street
7 N/B System Detectors

Beaudry Avenue and the Harbor Fwy S/B Off-Ramp (S/O 2nd Street)
2 N/B System Detectors
2 S/B System Detectors
1 W/B System Detectors

E. At the following locations the installation of **Protected-Permissive Left-Turn Phasing** is being requested:

1st Street and Grand Avenue
N/B Left-Turn
S/B Left-Turn

Beaudry Avenue and Sunset Boulevard
N/B Left-Turn

Cesar Chavez Avenue, Figueroa Street, and Sunset Boulevard
N/B Left-Turn

F. At the following location the modification of **Roadway Geometric Striping** is being requested:

Beaudry Avenue between Sunset Boulevard and Temple Street
Re-striping with the installation of a N/B Left-Turn lane

TOTAL INSTALLATIONS:
35 Model 2070 Traffic Signal Controllers
58 System Detectors
8 CCTV Cameras
4 (directions) Protected-Permissive Left-Turn Phasing
2 arterial requiring geometric re-striping

G. Prior to the issuance of any certificate of occupancy permits, the applicant shall, through the City's B-Permit process, construct, and connect all necessary ATSAC/ATCS equipment, ATCS equipment, ATCS detector loops, and CCTV equipment required for the proportionate share of the Downtown subsystem. Prior to commencing the B-Permit design work, the applicant should contact the LADOT Signal Design Section at (213) 928-9640 for detailed design instructions

The **Mobility** Group
Transportation Strategies & Solutions

Memorandum

To: Tomas Caranza, LADOT

From: Michael Bates

Subject: Grand Avenue Project Addendum – Parcel L/M-2
Review of Applicability of Grand Avenue Project Mitigation Measures to the Museum Project

Date: July 2, 2010

This memorandum summarizes our review of the applicability of the mitigation measures in the Grand Avenue Project FEIR, November 2006 to the individual proposed museum project on Parcel L/M-2. That EIR identified a number of transportation mitigation measures for the overall Grand Avenue Project. It had no formal phasing program for mitigation, and other than assigning the principal mitigation (Mitigation B.5 – Enhancement of ATCS System) to the main project block (1st, Olive, 2nd, Grand) did not assign specific measures to specific parcels. The intent was to determine which mitigation measures, if any, would be appropriate to apply to each parcel as they developed.

This memorandum is a review of the Grand Avenue Project mitigation program and our summary of which measures we consider to be appropriate for the proposed Museum Project on Parcel L/M-2.

A. Traffic & Parking Mitigation Measures in DEIR, and FEIR

Construction Measures

Measure B-1. Prepare Construction Traffic Control/Management Plan

Does apply. To extent required for construction of museum.

Measure B-2. Distribute Construction Traffic Control/Management Plan

Does apply.

18301 Von Karman
Suite 580
Irvine, CA 92612
Phone: 949-474-1591
Fax: 949-474-1599

Measure B-3. Provide Off-Street Parking for Construction Workers

Does apply.

Operations Measures

Measure B-4. Prepare Transportation Demand Management Plan for County Office Building

Does not apply. Project is not County Office Building.

Measure B-5: Participation in Areawide ATCS Program

Does not apply. "First phase of development" refers to the "Gehry" block and substantial portion of the overall development. Museum Project is not first phase in that context and is a much smaller project.

The Grand Avenue EIR and Conditions of Approval identified a number of mitigation measures for the overall Grand Avenue Project. The principal mitigation measure (FEIR, Measure B-5) was a proportionate share contribution to Downtown Adaptive Traffic Control System (ATSC), if not otherwise implemented. This measure comprises the provision of new signal controllers, CCTV cameras, vehicle detection devices, and signal improvements at specified intersections in the North Downtown Area. Because the ATCS improvements are only effective when implemented areawide, it was agreed that these improvements would all be implemented at one time. It was further agreed that the Grand Avenue Project Phase I development (Parcel Q – the block bounded by Grand Avenue, 1st Street, Olive Street, and 2nd Street) would be responsible for this mitigation measure as this block was expected to be the first block to be developed and would generate 40% of the overall trips from the Proposed Project,. It was recognized that implementation of this mitigation measure by Parcel Q would also provide mitigation for all three Project phases, not just for Phase I.

The Museum Project is much smaller than the development proposed for Parcel Q (which comprises two residential towers, a hotel, and retail/commercial uses). The much smaller Museum Project does not therefore by itself warrant the implementation of the major mitigation measure for the overall Grand Avenue Project. It is also impractical for any project to implement only part of the ATSC system as the system is only effective when implemented in its entirety. Further, the Museum Project would generate only 7% of the total trips generated by the overall Grand Avenue Project in the P.M. peak hour. It is

18301 Von Karman
Suite 580
Irvine, CA 92612
Phone: 949-474-1591
Fax: 949-474-1599

therefore concluded that the Museum Project should not be required to implement Mitigation Measure B-5.

Measure B-6. Measures to Reduce Project's Traffic and Circulation Impacts

Does apply. Specifics to be determined with LADOT. See menu of possible items below.

1st Bullet. *Provide Enhanced Walking Connections*

Applies to the sidewalks adjacent to the museum site. Measures can be part of site design anyway. Suggest wider crosswalks not necessary for this project alone.

2nd Bullet. *Provide Enhanced Bus Stop(s)*

Applies to Project site. Suggest enhanced bus stop on Grand Avenue. City has program for enhanced stops with independent advertising contractor who pays for bus shelter in return for advertising revenue. Suggest Museum Project offers to coordinate on location and type of shelter.

3rd Bullet. *Provide Transit Information Kiosk(s)*

Given the public nature of the museum, a transit kiosk would be appropriate in the Museum Plaza. This could take various forms. Could agree to provide transit information at the Museum information desk. Could install a transit service map/details on signpost/markers that Museum Project might install for other purposes on the Museum Plaza.

4th Bullet. *Participate in Share Car Program*

Does not apply to Project site. Intended for larger development parcels and residential uses.

5th Bullet. *Provide Vehicular Directional Signage*

Measure states each parcel is responsible for directional signage. Museum would benefit from directional signage. However, signage

18301 Von Karman
Suite 580
Irvine, CA 92612
Phone: 949-474-1591
Fax: 949-474-1599

program needs to be coordinated for entire development project and is premature to implement for one project.

Mitigation Measure B-7. Improvement at Intersection of Third Street & Hill Street.

Does not apply. Museum Project does not cause significant impact at Hill & 3rd intersection.

This mitigation measures comprises restriping the westbound approach to the intersection and a slight widening of the west leg of the intersection. An analysis was conducted to determine if the Museum Project alone would cause a significant traffic impact at this location and thereby require implementation of the mitigation measure.

This analysis is summarized in Table 1, which shows that the Museum Project alone would not cause a significant traffic impact at the intersection of Third Street & Hill Street. It was therefore concluded that he Museum Project should not be required to implement this mitigation measure.

B. Traffic Requirements in LADOT Letter of September 8, 2006 (Overall Project)

See section on Project Requirements, page 4 of Letter.

E. Traffic Signal Enhancements

Does not apply. Same as DEIR/FEIR Mitigation B-5. See above.

F. Hill Street & 3rd Street

Does not apply.
Same as FEIR Mitigation B-7. See above.

G. Construction Impacts

Does apply. Same as DEIR/FEIR Mitigation B-1.

18301 Von Karman
Suite 580
Irvine, CA 92612
Phone: 949-474-1591
Fax: 949-474-1599

H. Highway Dedication and Street Widening Requirements

Does apply if relevant. Check with BOE.

I. Project Frontage Street Improvements

Does not apply. Provisions do not apply to Parcel L/M-2.

J. Improvement and Mitigation Measures Implementation

Does apply – to extent any physical improvements carried out in public right-of-way.

K. Parking Analysis

Does apply.

L. Special Events

Does not apply. Special Events refers to Civic Park component of overall Project.

M. Transportation Demand Management Plan (Option 1 Only)

Does not apply. Applies only to County Office building component.
Same as FEIR Mitigation Measure B-4. See above.

N. Driveway Access

Does apply. Driveway designs need to be coordinated with LADOT.

18301 Von Karman
Suite 580
Irvine, CA 92612
Phone: 949-474-1591
Fax: 949-474-1599

Table 1. Comparison of Hill St. / 3rd St. Intersection

No.	Intersection	A.M Peak						P.M Peak					
		Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
Grand Ave Project EIR, 2006													
24	Hill St. / 3rd St.	0.968	E	0.996	E	0.028	Yes	1.018	F	1.103	F	0.085	Yes
Museum Project Only, 2010													
24	Hill St. / 3rd St.	0.968	E	0.969	E	0.001	No	1.018	F	1.024	F	0.006	No

The **Mobility** Group
Transportation Strategies & Solutions

Memorandum

To: Tomas Caranza, LADOT

From: Michael Bates

Subject: Grand Avenue Project Addendum – Parcel L/M-2

Date: July 2, 2010

This memorandum documents two additional issues since our submittal and LADOT's approval of the Supplemental Traffic Review submitted by The Mobility Group for the Grand Avenue Project EIR. You and I have discussed these issues and it is our understanding that LADOT is in concurrence with the conclusions noted below.

1. Museum Operating Hours

At the time of preparing our Supplemental Traffic Review, the operating hours were stated as 11am to 5pm. At this time the applicant is uncertain as to the exact operating hours but anticipates that for some days they could be open anytime between the hours of 11am and 9pm. We believe that our analysis as submitted remains valid and can be considered a conservative worst case analysis. This is because we analyzed a shorter opening period, which would concentrate the overall number of visitor and employee trips into fewer hours such that our estimate of peak hour activity is higher than would occur if the operating hours were longer and ran from 11am to 9pm. So for longer operating hours on a given day, the volume of P.M. peak hour trips would remain within the envelope originally analyzed.

2. Potential Special Events

Since our preparing the Supplemental Traffic Review the museum has identified that they may hold certain infrequent events. The museum anticipates holding approximately three exhibit openings per year. These will be held weekday evenings and/or on weekends, and will most likely range in size between 500 and 700 guests. The museum will also host

18301 Von Karman
Suite 580
Irvine, CA 92612
Phone: 949-474-1591
Fax: 949-474-1599

smaller functions of approximately 50 to 100 guests at other times throughout the course of the year. These events will be infrequent and typically will be held during the evening or at weekends, i.e. outside the peak roadway traffic hours. Since background roadway traffic volumes would be much lower than during peak hours, significant traffic impacts would not be expected due to such events. The Museum may also host visits by students from local schools, which would arrive at and depart from the Museum in buses during non-peak hours.

If, for any occasional special event or circumstance, it was desired to close traffic lanes or street segments on a temporary basis, then the Museum would need to work with LADOT to prepare at the agency's discretion an approved special traffic management and control plan on a temporary basis, as are currently prepared for special events in the City as deemed necessary by LADOT. Given the traffic management and controls in such plans, the temporary and infrequent nature of such events, and the general acceptance of the public of some level of traffic congestion and vehicle delays in arriving at or departing from successful special events, there should be no significant traffic impacts.

With respect to parking, as these irregular special events would generally occur in the evening or at weekends. A substantial amount of parking in nearby Bunker Hill garages, and numerous surface lots, that are usually used by employees during the weekday daytime, would be available. Therefore there would be no significant parking impacts caused by these events.

18301 Von Karman
Suite 580
Irvine, CA 92612
Phone: 949-474-1591
Fax: 949-474-1599

Appendix B
GHG EMISSIONS CALCULATIONS

EMISSIONS OF GREENHOUSE GAS EMISSIONS FROM NATURAL GAS CONSUMPTION

Project Name: Grand Avenue Addendum
Analysis Year: 2015
Analysis Scenario: Proposed Project - Parcels L and M-2

NATURAL GAS DEMAND

Land Use	Units	Consumption Rate (cubic feet/ unit/month)	Natural Gas Demand (cubic feet/ month)
Single Residential Units:		6,665.0	-
Multi-Family Residential Units:	790	4,011.5	3,169,085.0
Industrial (parcels):		241,611.0	-
Hotel/Motel (square feet):		4.8	-
Retail/Shopping (square feet):	19,422	2.9	56,323.8
Office (square feet):		2.0	-
Museum (square feet)	120000	2.9	348,000.0
		Total Natural Gas Demand:	3,573,408.8

Heating Value of Natural Gas (Btu/cubic foot):	1,020.0
Monthly BTU:	3,644,876,976.0
Monthly Million Btu (MMBtu):	3,644.9

GREENHOUSE GAS EMISSIONS

Emissions	Emission Factors (kg/MMBtu)	Emissions (metric tons/year)	CO_2 Equivalency Factors	CO_2 Equivalent Emissions (tons per year)
Carbon Dioxide	53.06	2,320.77	1	2,320.77
Methane	0.00500	0.219	23	5.03
Nitrous Oxide	0.00010	0.004	296	1.29
	Total Emissions:	2,320.99		2,327.09

Source of natural gas consumption rates: South Coast Air Quality Management District *CEQA Air Quality Handbook,* April 1993.
Source of greenhouse gas emission factors: *California Climate Action Registry General Reporting Protocol*, v.3.1 January 2009.

EMISSIONS OF GREENHOUSE GAS EMISSIONS FROM ELECTRICITY GENERATION

Project Name: Grand Avenue Addendum
Analysis Year: 2015
Analysis Scenario: Proposed Project - Parcels L and M-2

ELECTRICITY DEMAND

Land Use	Units	Useage Rate (KWh/ unit/year)	Electricity Demand (KWh/ year)
Residential Units	790	5626.5	4,444,935.0
Food Store (square feet):		53.3	-
Restaurant (square feet):		47.45	-
Hospital (square feet):		21.7	-
Retail (square feet):	19422	13.55	263,168.1
College/University (square feet):		11.55	-
High School (square feet):		10.5	-
Elementary School (square feet):		5.9	-
Office (square feet):		12.95	-
Hotel/Motel (square feet):		9.95	-
Warehouse (square feet):		4.35	-
Museum (square feet):	120000	13.55	1,626,000.0
		Total Electricity Demand:	6,334,103.1

Total Megawatt Hours (MWh) per Year: 6,334.1

GREENHOUSE GAS EMISSIONS

Emissions	Emission Factors (lbs/MWh)	Emissions (metric tons)	CO_2 Equivalency Factors	CO_2 Equivalent Emissions (tons per year)
Carbon Dioxide	724.12	2,080.47	1	2,080.47
Methane	0.030	0.087	23	2.00
Nitrous Oxide	0.008	0.023	296	6.89
	Total Emissions:	2,080.58		2,089.36

Source of usage rates: South Coast Air Quality Management District *CEQA Air Quality Handbook*, April 1993.
Source of greenhouse gas emission factors: *California Climate Action Registry General Reporting Protocol v 3.1,* January 2009.

EMISSIONS OF GREENHOUSE GAS EMISSIONS FROM MOTOR VEHICLES

Project Name: Grand Avenue Addendum
Analysis Year: 2015
Analysis Scenario: Proposed Project - Parcels L and M-2

Vehicle Miles Per Day: 65,273.97
Days of Operation Per Year: 365

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel	Assumed mpg
Light Auto	53.20%	0.20%	99.60%	0.20%	29.8
Light Truck <3,750 lbs	6.70%	1.50%	97.00%	1.50%	22.0
Light Truck 3,751-5,750	23.00%	0.00%	100.00%	0.00%	22.0
Medium Truck 5,751-8,500	10.20%	1.00%	99.00%	0.00%	17.6
Light Heavy 8,501-10,000	1.50%	0.00%	80.00%	20.00%	14.3
Light Heavy 10,001-14,000	0.50%	0.00%	60.00%	40.00%	10.5
Med-Heavy 14,001-33,000	0.90%	0.00%	22.20%	77.80%	8.0
Heavy-Heavy 33,001-60,000	0.50%	0.00%	0.00%	100.00%	5.7
Line Haul >60,000 lbs	0.10%	0.00%	0.00%	100.00%	5.7
Urban Bus	0.10%	0.00%	0.00%	100.00%	5.7
Motorcycle	2.40%	50.00%	50.00%	0.00%	27.5
School Bus	0.10%	0.00%	0.00%	100.00%	14.3
Motor Home	0.80%	0.00%	87.50%	12.50%	8.0

Mobile Source Emision Factors

	Carbon Dioxide (kg/gallon)		Methane (g/mile)		Nitrous Oxide (g/mile)	
Vehicle Type	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Light Auto	8.81	10.15	0.0147	0.0005	0.0079	0.0010
Light Truck <3,750 lbs	8.81	10.15	0.0157	0.0010	0.0101	0.0015
Light Truck 3,751-5,750	8.81	10.15	0.0157	0.0010	0.0101	0.0015
Medium Truck 5,751-8,500	8.81	10.15	0.0326	0.0051	0.0177	0.0051
Light Heavy 8,501-10,000	8.81	10.15	0.0326	0.0051	0.0177	0.0051
Light Heavy 10,001-14,000	8.81	10.15	0.0326	0.0051	0.0177	0.0051
Med-Heavy 14,001-33,000	8.81	10.15	0.0326	0.0051	0.0177	0.0051
Heavy-Heavy 33,001-60,000	8.81	10.15	0.0326	0.0051	0.0177	0.0051
Line Haul >60,000 lbs	8.81	10.15	0.0326	0.0051	0.0177	0.0051
Urban Bus	8.81	10.15	0.0326	0.0051	0.0177	0.0051
Motorcycle	8.81	10.15	0.0900	0.0000	0.0100	0.0000
School Bus	8.81	10.15	0.0326	0.0051	0.0177	0.0051
Motor Home	8.81	10.15	0.0326	0.0051	0.0177	0.0051

Greenhouse Gas Emissions (metric tons per year)

	Carbon Dioxide		Methane		Nitrous Oxide	
Vehicle Type	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Light Auto	3,739.68	8.63	0.0062	0.0000	0.0034	0.0000
Light Truck <3,750 lbs	629.65	11.05	0.0011	0.0000	0.0007	0.0000
Light Truck 3,751-5,750	2,194.39	-	0.0039	-	0.0025	-
Medium Truck 5,751-8,500	1,216.46	-	0.0045	-	0.0024	-
Light Heavy 8,501-10,000	176.14	50.73	0.0007	0.0000	0.0004	0.0000
Light Heavy 10,001-14,000	59.97	46.06	0.0002	0.0000	0.0001	0.0000
Med-Heavy 14,001-33,000	52.42	211.66	0.0002	0.0001	0.0001	0.0001
Heavy-Heavy 33,001-60,000	-	212.13	-	0.0001	-	0.0001
Line Haul >60,000 lbs	-	42.43	-	0.0000	-	0.0000
Urban Bus	-	42.43	-	0.0000	-	0.0000
Motorcycle	183.18	-	0.0019	-	0.0002	-
School Bus	-	16.91	-	0.0000	-	0.0000
Motor Home	183.66	30.23	0.0007	0.0000	0.0004	0.0000
Total Emissions by Fuel Type:	8,435.55	672.25	0.0194	0.0003	0.0102	0.0003
Total Emissions by Pollutant:	9107.80		0.02		0.01	
CO_2 Equivalency Factors	1.00		23.00		296.00	
CO_2 Equivalent Emissions:	9107.80		0.45		3.11	
Total Emissions (CO_2e):	9,111.37					

Source of vehicle miles per day and vehicle fleet mix: URBEMIS 2007 model results for this analysis.
Sources of assumed mpg: National Highway Traffic Safety Administration Summary of Fuel Economy Performance (for passenger vehicles and light trucks for model years 2000-2008) (November 25, 2008); U.S. Department of Energy Transportation Energy Book:Edition 27 (2008)
Source of greenhouse gas emission factors: *California Climate Action Registry General Reporting Protocol*, v.3.1. January 2009.

EMISSIONS OF GREENHOUSE GAS EMISSIONS FROM WATER USE

Project Name: Grand Avenue Addendum
Analysis Year: 2015
Analysis Scenario: Proposed Project - Parcels L and M-2

Gallons/month 4793820

Water Use Intensities (kwh/MG) 12700

Total Megawatt Hours (MWh) per Y 730.578168

GREENHOUSE GAS EMISSIONS

Emissions	Emission Factors (lbs/MWh)	Emissions (metric tons)	CO_2 Equivalency Factors	CO_2 Equivalent Emissions tons per year)
Carbon Dioxide	724.12	239.96	1	239.96
Methane	0.030	0.01	23	0.23
Nitrous Oxide	0.008	0.00	296	0.79
	Total Emissions:	239.98		240.99

Source of Water Use Intensity: California Energy Commission. Water-Energy Relationship 2005.
Source of greenhouse gas emission factors: *California Climate Action Registry General Reporting Protocol, v.3.1* January 2009.
Source of Water Usage: Addendum Table 14 Daily Consumption 159,794 gallons x 30 day

EMISSIONS OF GREENHOUSE GAS EMISSIONS FROM SOLID WASTE GENERAT

Project Name: Grand Avenue Addendum
Analysis Year: 2015
Analysis Scenario: Proposed Project - Parcels L and M-2

WASTE

Land Use	Units	Waste Generation Rate (tons/employee [resident]/year)	Expected Waste Flow (tons/ year)
Residential	790	0.460	363.4
Retail (1,000 sq. ft.)	19.422	0.300	5.8266
Museum (1,000 sq. ft.)	120	0.300	36
		Total	405.2266

Metric Tons/year 367.540526

GREENHOUSE GAS EMISSIONS

Emissions	Emission Factors netric tons/to	Emissions (metric tons/year)	CO_2 Equivalency Factors	CO_2 Equivalent Emissions tons per year
Carbon Dioxide	1.66	610.1172735	1	610.12
Methane	0.00000	0	21	-
Nitrous Oxide	0.00000	0	310	-
	Total Emissions:			610.12

Source of greenhouse gas emission factor: The net methane generation and avoided CO2 from energy recovery from mixed municipal solid waste landfilling is based on the EPA's Solid Waste Management and Greenhouse Gases: A life-Cycle Assessment of Emissions and Sinks, Exhibit 6-6.

Source of solid waste generation obtained from CIWMB.

5/13/2010 4:24:20 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: F:\MSWord 2010 Projects\Grand Avenue Addendum\AQ Data\URBEMIS Run\Grand Avenue Addendum - Construction Emissions.urb924

Project Name: Grand Avenue Addendum - Construction Emissions

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	CO2
2011 TOTALS (tons/year unmitigated)	3,021.73
2012 TOTALS (tons/year unmitigated)	1,422.52
2013 TOTALS (tons/year unmitigated)	1,240.84

5/13/2010 4:24:20 PM

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	CO2
2011	3,021.73
Demolition 01/03/2011-04/29/2011	1,771.83
Fugitive Dust	0.00
Demo Off Road Diesel	687.47
Demo On Road Diesel	1,040.77
Demo Worker Trips	43.59
Building 05/02/2011-02/24/2012	50.05
Building Off Road Diesel	0.00
Building Vendor Trips	50.05
Building Worker Trips	0.00
Mass Grading 05/02/2011-02/24/2012	1,199.85
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	818.13
Mass Grading On Road Diesel	300.14
Mass Grading Worker Trips	81.58

5/13/2010 4:24:20 PM

2012	1,422.52
Building 05/02/2011-02/24/2012	11.44
Building Off Road Diesel	0.00
Building Vendor Trips	11.44
Building Worker Trips	0.00
Mass Grading 05/02/2011-02/24/2012	274.25
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	187.00
Mass Grading On Road Diesel	68.60
Mass Grading Worker Trips	18.64
Building 03/07/2012-02/22/2013	112.98
Building Off Road Diesel	0.00
Building Vendor Trips	112.98
Building Worker Trips	0.00
Mass Grading 03/07/2012-02/22/2013	1,023.85
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	883.70
Mass Grading On Road Diesel	47.05
Mass Grading Worker Trips	93.10
2013	1,240.84

5/13/2010 4:24:20 PM

Building 03/07/2012-02/22/2013	20.59
Building Off Road Diesel	0.00
Building Vendor Trips	20.59
Building Worker Trips	0.00
Mass Grading 03/07/2012-02/22/2013	186.59
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	161.05
Mass Grading On Road Diesel	8.58
Mass Grading Worker Trips	16.96
Asphalt 03/04/2013-12/27/2013	810.12
Paving Off-Gas	0.00
Paving Off Road Diesel	740.73
Paving On Road Diesel	2.58
Paving Worker Trips	66.80
Building 03/04/2013-12/27/2013	189.38
Building Off Road Diesel	0.00
Building Vendor Trips	41.61
Building Worker Trips	147.76
Mass Grading 03/04/2013-12/27/2013	34.17
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	0.00
Mass Grading On Road Diesel	34.17
Mass Grading Worker Trips	0.00

Phase Assumptions

Phase: Demolition 1/3/2011 - 4/29/2011 - Demo/Grading

Building Volume Total (cubic feet): 0

Building Volume Daily (cubic feet): 472729.2

On Road Truck Travel (VMT): 5777.8

Off-Road Equipment:

2 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day

1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

3 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

3 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

4 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

3 Pumps (53 hp) operating at a 0.74 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 8 hours per day

2 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

6 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 4 hours per day

7 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 5/2/2011 - 2/24/2012 - Parking Garage Construction

Total Acres Disturbed: 0

Maximum Daily Acreage Disturbed: 0

Fugitive Dust Level of Detail: Default

0 lbs per acre-day

On Road Truck Travel (VMT): 809.3

Off-Road Equipment:

3 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

2 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

3 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day

5 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

3 Pumps (53 hp) operating at a 0.74 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 8 hours per day

1 Skid Steer Loaders (44 hp) operating at a 0.55 load factor for 8 hours per day

4 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

4 Water Trucks (189 hp) operating at a 0.5 load factor for 4 hours per day

Phase: Mass Grading 3/7/2012 - 2/22/2013 - Vertical Construction

Total Acres Disturbed: 0

Maximum Daily Acreage Disturbed: 0

Fugitive Dust Level of Detail: Default

0 lbs per acre-day

On Road Truck Travel (VMT): 103.75

Off-Road Equipment:

2 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

4 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

3 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

5 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day

5 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

2 Pumps (53 hp) operating at a 0.74 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 8 hours per day

1 Skid Steer Loaders (44 hp) operating at a 0.55 load factor for 8 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 4 hours per day

Phase: Mass Grading 3/4/2013 - 12/27/2013 - Finishing Haul Trucks

Total Acres Disturbed: 0

Maximum Daily Acreage Disturbed: 0

5/13/2010 4:24:20 PM

Fugitive Dust Level of Detail: Default

0 lbs per acre-day

On Road Truck Travel (VMT): 75

Off-Road Equipment:

Phase: Paving 3/4/2013 - 12/27/2013 - Finishing

Acres to be Paved: 2

Off-Road Equipment:

2 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

2 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

3 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day

5 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 4 hours per day

Phase: Building Construction 5/2/2011 - 2/24/2012 - Parking Garage Construction Delivery Trucks

Off-Road Equipment:

Phase: Building Construction 3/7/2012 - 2/22/2013 - Vertical Construction Delivery Trucks

Off-Road Equipment:

Phase: Building Construction 3/4/2013 - 12/27/2013 - Finishing Delivery Trucks

Off-Road Equipment:

Appendix C
WATER LINE REPORT

50 YEARS kpff Consulting Engineers

July 1, 2010

Ms. Deborah Kanter
Broad Foundation
11900 Wilshire Blvd., 7th Floor
Los Angeles, CA 90024

Re: Broad Parking Facility and Museum, 2nd and Grand, Los Angeles
KPFF Job #109422

Dear Deborah:

As indicated by the attached Fire Service Pressure Flow Report obtained from Los Angeles Department of Water and Power, the 12-inch main in Lower Grand Avenue has adequate flow and pressure to serve the parking structure and museum project proposed for Parcel L. Water supply for the project will be from the 12" main in Lower Grand Avenue.

A new water line along 2nd Street will not be required to serve the project. No domestic water service connections, fire service connections, or new hydrants are proposed or required on 2nd Street.

Please feel free to contact me with questions or comments.

Sincerely,

Richard Davis, P.E.
Principal

Cc: Robert Pinkerton

6080 Center Drive Suite 700 Los Angeles, CA 90045 (310) 665-2800 Fax (310) 665-9075
Seattle Tacoma Portland Eugene Sacramento San Francisco Los Angeles Pasadena Irvine San Diego Phoenix St. Louis New York

City of Los Angeles

Los Angeles Department of Water and Power - Water System

LOS ANGELES DEPARTMENT OF WATER & POWER

SAR NUMBER **23809**

Fire Service Pressure Flow Report

SERVICE NUMBER **600973**

For: **620 W 2ND ST** Approved Date: **5-17-2010**

Proposed Service **8 INCH** off of the

12 inch main in **LOWER GRAND AV** on the **WEST** side approximately

60 feet **NORTH** of **NORTH** of **GENERAL THADDEUS K(** The System maximum pressure is

123 psi based on street curb elevation of **358** feet above sea level at this location.

The distance from the DWP street main to the property line is **39** feet

System maximum pressure should be used only for determining class of piping and fittings.

Residual Flow/Pressure Table for water system street main at this location

Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)
0	93				
815	92				
1185	91				
1470	90				
1720	89				
1940	88				
2140	87				
2325	86				
2500	85				

These values are subject to change due to changes in system facilities or demands.

Meter Assembly Capacities

Domestic Meters	
1 inch =	56 gpm
1-1/2 inch =	96 gpm
2 inch =	160 gpm
3 inch =	220 gpm
4 inch =	400 gpm
6 inch =	700 gpm
8 inch =	1500 gpm
10 inch =	2500 gpm

Fire Service	
2 inch =	250 gpm
4 inch =	600 gpm
6 inch =	1400 gpm
8 inch =	2500 gpm
10 inch =	5000 gpm

FM Services	
8 inch =	2500 gpm
10 inch =	5000 gpm

Notes: OK FOR COMBO.

This information will be sent to the Department of Building and Safety for plan checking.

This SAR is valid for one year from 05-17-10. Please call DWP for recalculation or for reissue if no system changes have occurred.

For additional information contact the Water Distribution Services Section **CENTRAL (213) 367-1216**

GENEVIEVE FERNANDEZ	GENEVIEVE FERNANDEZ	132-210
Prepared by	**Approved by**	**Water Service Map**

Appendix D
MITIGATION MEASURES APPLICABLE TO MUSEUM COMPONENT OF REVISED PROJECT

Mitigation Measures Applicable to Museum Component of Revised Project

EIR Section	MM #	Applicability	
Land Use	A-1	NA	Applies to Civic Park Only: Pre Construction Bird Surveys
Traffic			
Construction	B-1	Applies	Construction Traffic Control/Management Plan
Construction	B-2	Applies	Provide CTC/MP to City/County
Construction	B-3	Applies	Temporary parking for Construction Workers
Operation	B-4	NA	Applies to County Office Building Only: Develop TDM Plan
Operation	B-5	NA	Applies to Phase 1 Parcel Q Only: Area-Wide ATCS
Operation	B-6	Applies	Menu for LADOT: Walking conn, enhanced bus stops, transit info kiosks, Flex-car, signage
Operation	B-7	NA	Applies to Phase 1 Parcel Q only: 3rd/Hill Intersection Improvements
Aesthetics			
Construction	C-1	Applies	Daily visual inspection for unauthorized materials
Construction	Reg C-1	Applies	Tree Replacement Plan
Construction	PDF C-1	NA	Applies to Civc Park Only: Coord with Park Improvements
Construction	PDF C-2	Applies	Coord sidewalk construction with development
Operation	C-2	Applies	Design Plan for glare
Operation	C-3	Applies	Architectural lighting plan
Operation	Reg C-3	Applies	Lighting Plan
Operation	Reg C-4	Applies	Mech Equip Plan
Operation	Reg C-5	Applies	Underground Utility Plan
Operation	Reg C-6	Applies	Trash Collection area Plan
Operation	PDF C-3	Applies	Ground level building fixture plan
Historic			
D-1 through D-12		NA	Applies to Civic Center buildings/Civic Park only: Impacts to historic buildings
Pop/Housing	None		
Air Quality			
Construction	F-1	Applies	SCAQMD Rule 403 Fugitive Dust Plan

Construction	F-2	Applies	Coatings & Solvents
Construction	F-3	Applies	SCAQMD Rule 402 Nuisance Odor Plan
Construction	F-4	Applies	Truck wheel washing
Construction	F-5	Applies	Haul truck covering
Construction	F-6	Applies	Construction equipment tuning
Construction	F-7	Applies	Construction equipment maintenance
Construction	F-8	Applies	Electric powered equipment
Construction	F-9	Applies	10 minute idling limit
Construction	F-10	Applies	Alternative clean fuels
Operation	F-11	Applies	Off-peak deliveries
Operation	F-12	Applies	Transit information
Operation	F-13	Applies	Bicycle racks
Operation	F-14	Applies	Automatic lighting shutoffs
Operation	PDF F-1	Applies	Bus stop pedestrian access plan
Operation	PDF F-2	Applies	Pedestrian acccess plan
Operation	Reg F-1	Applies	Point source permits from SCAQMD
Operation	PDF F-3	Applies	TAC/odor limitation
Operation	Reg F-2	Applies	Title 24 compliance required
Operation	Reg F-3	Applies	SCAQMD compliance for building matls, coatings, solvents
Noise			
Construction	G-1	Applies	Construction hours
Construction	G-2	NA	Applies to Civc Park Only: Heavy equipment within 100 feet of County Courthouse
Construction	G-3	Applies	Plywood noise barrier
Construction	G-4	Applies	Pile drivers reduced 10 dBA
Construction	G-5	Applies	Construction staging areas
Construction	G-6	Applies	Route pedestrians 50 feet when hydraulic excavators in use
Construction	G-7	Applies	Construction relations officer
Construction	G-8	NA	Applies to residential development only: Double pane windows for residential units
Hazardous Materials			
Construction	Reg H-1	Applies	Decommission Groundwater Monitoring Wells
Construction	Reg H-2	Applies	Hydrogen Sulfide/Methane Testing
Construction	Reg H-3	Applies	Contamination testing

Construction	Reg H-4	NA	Applies to Streetscape Improvements only: Hazardous Conditions for Street Scape Improvements
Construction	Reg H-5	NA	Only applies if building demolition involved: Asbestos survey
Construction	Reg H-6	NA	Only applies if building demolition involved: Lead Based Paint Survey
Fire			
Construction	Reg I.1-1	NA	Only applies if building demolition involved: Fire access during demolition
Construction	Reg I.1-2	Applies	Access to Adjacent Underground Parking Structures
Construction	Reg I.1-3	Applies	Access to Adjacent Buildings
Construction	Reg I.1-4	Applies	Interference with Adjacent Building Evacuation Plans
Construction	Reg I.1-5	Applies	Fire Hydrants During Construction
Construction	Reg I.1-6	Applies	Compliance with Fire Codes
Operations	Reg I.1-7	Applies	Maintenance of Fire Access
Operations	Reg I.1-8	Applies	Fire Plan Check
Operations	Reg I.1-9	NA	Applies only to Civic Park: County Fire Plan Check for Civic Park
Operations	Reg I.1-10	Applies	Operational Fire hydrants prior to construction
Operations	Reg I.1-11	Applies	Fire lanes and turning areas
Operations	Reg I.1-12	Applies	Fire Flow and Hydrant Plan
Operations	Reg I.1-13	Applies	Emergency access during Construction
Operations	Reg I.1-14	Applies	Fire lanes 20 feet and clear to sky
Operations	Reg I.1-15	Applies	Fire lane cul de sacs
Operations	Reg I.1-16	Applies	No development greater than 150 feet from street, access or fire lane
Operations	Reg I.1-17	Applies	28 foot fire lanes
Operations	Reg I.1-18	NA	Only applies to residential development: Residential Access
Operations	Reg I.1-19	NA	Only applies to residential development: Residential Entrances and Exits
Operations	Reg I.1-20	Applies	Minimum Outside Radius
Operations	Reg I.1-21	Applies	No development greater than 150 feet from street, access or fire lane
Operations	Reg I.1-22	Applies	Overhead clearance 14 feet
Operations	Reg I.1-23	Applies	Additional vehicular access for buildings over 28 feet in height
Operations	Reg I.1-24	Applies	Bearing pressure 8,600 lbs per sf
Operations	Reg I.1-25	Applies	Private Streets and Fire Lanes
Operations	Reg I.1-26	Applies	Electric gates
Operations	Reg I.1-27	Applies	No part of building more than 300 feet from fire hydrant
Operations	Reg I.1-28	Applies	Rescue window access
Operations	Reg I.1-29	Applies	Red curbs and no parking signs for fire lanes

Operations	Reg I.1-30	NA	Applies only to Civic Park: Large events at Civic Park
Construction	PDF I.1-1	Applies	Automatic fire sprinklers

Police

Construction	Reg I.2-1	Applies	Unobstructed LAPD acess during construction
Construction	Reg I.2-2	Applies	Construction site security
Construction	Reg I.2-3	Applies	Plot plans review by LAPD
Construction	Reg I.2-4	NA	Applies only to Civic Park: Plot plan review for Civic Park
Operations	Reg I.2-5	Applies	Submit as-built plans to LAPD Central Area
Operations	Reg I.2-6	Applies	Alarms/locked gates on commercial doorways
Operations	Reg I.2-7	Applies	Security landscaping
Operations	Reg I.2-8	Applies	Lighting consultation with LAPD
Construction	Reg I.2-9	Applies	Pedestrian safety plan
Operations	Reg I.2-10	Applies	Security Plan for operations
Operations	Reg I.2-11	Applies	Emergency Procedures Plan

Schools

Construction	Reg I.3-1	Applies	School fees

Parks

Construction	Reg I.4-1	NA	Applies only to residential development: Parkland and/or park fees

Library

None

Water

Operation	J.1-1	NA	Not required per site study: New water lines as needed
Construction	Reg J.1-1	Applies	DIG-ALERT
Construction	Reg J.1-2	Applies	Potholing of existing water and gas mains to verify depth of cover
Construction	Reg J.1-3	Applies	Pay appropriate fees
Construction	Reg J.1-4	Applies	Fire flow test
Operations	Reg J.1-5	Applies	Phase I of City Emergency Water Conserv plan
Operations	Reg J.1-6	NA	Applies to Civic Park only: LA County water conservation policies for Civic Park
Operations	Reg J.1-7	Applies	Comply with Mandatory water use restrictions

Operations	Reg J.1-8	Applies	Automatic irrigation systems
Wastewater			
Construction	Reg J.2-1	Applies	Comply with sewer connection limitations
Construction	Reg J.2-2	Applies	Low flow fixtures
Solid Waste			
Construction	Reg J.3-1	Applies	Comply with Ordinance 171,687 (Recycling)
Construction	Reg J.3-2	Applies	Recycling bins plan
Construction	Reg J.3-3	Applies	Mechanized collection of recyclables
Operations	Reg J.3-4	Applies	Maintain recycling facilities
Construction	Reg J.3-5	Applies	Construction and demolition debris recycling plan
Conditions of Approval			
Construction	1	Applies	Coordinate with Music Center
Construction	2	NA	Applies to Civic Park Only: Coordinate with Superior Court
Construction	3	Applies	Coordinate with Colburn School
Construction	4	Applies	Standard construction shift 7am-3:30pm
Construction	5	Applies	Transit passes for construction workers

Key
Reg - Regulatory
PDF - Project Design Feature
NA - Not Applicable

Appendix E
RELATED PROJECTS STATUS

Downtown Completed Projects (since 2006)

Source: Dave Neubecker/CRA
7/6/2010

Project Name	Type	Land Use	Developer/Owner	Add-ress #	D	Address Street	Proj. Comp	Condo Market (units)	Rental Market (units)	Rental Afford. (units)	Total Housing (units)	Leasable Space (sf)	Tourist Hotel Rooms	Stories	Total Floor Area
12th Street Fashion Plaza	New	Commercial	MAXXAM Enterprises	761	E	12th	2006	0	0	0	**0**	42,000		4	
777 E. 12th	New	Commercial	MAXXAM Enterprises	777	E	12th	2006	0	0	0	**0**	46,414		4	60,000
The Savoy	New	Residential	Trammell Crow/Intracorp LA	100	S	Alameda	2006	303	0	0	**303**	0		5	
Elleven (South-Phase 1)	New	Mixed-Use	The South Group	1111	S	Grand	2006	180	0	0	**180**	5,245		13	281,000
751 E. Pico	New	Commercial		751	E	Pico	2006	0	0	0	**0**	TBD		2	
788 Alameda	New	Industrial	Meruelo Maddux Properties	788	S	Alameda	2006	0	0	0	**0**	34,064			
Little Radio	Reuse	Ent/Cultural		1218	S	Long Beach	2006	0	0	0	**0**	???			
SB Grand (Barry Lofts/Milliron's Department Store)	ARO	Residential	Barry Shy	312	W	5th	2006	280	0	0	**280**	0		12	
Santa Fe Lofts (Kerckoff Bldg & Annex)	ARO	Mixed-Use	Kor Group	121	E	6th	2006	0	132	0	**132**	22,460		8/11	
Library Court (University Club Bldg)	ARO	Mixed-Use	Greystone Group	630	W	6th	2006	91	0	0	**91**	10,000		6	
Textile Bldg (Santee-Phase III)	ARO	Mixed-Use	MJW Investments	315	E	8th	2006	64	0	0	**64**	12,000		12	
Sky @ 801 Grand	ARO	Mixed-Use	CIM Group/Lee Group	801	S	Grand	2006	132	0	0	**132**	205,000		22	
Reserve	ARO	Residential	Maz Gilardian	409	W	Olympic	2006	0	78	0	**78**	0		7	
Market Lofts (South Village-Bldg B)	New	Mixed-Use	CIM Group/Lee Group	645	W	9th	2007	267	0	0	**267**	54,910		7	352,000
JOIA Center	New	Commercial		1020	S	Crocker	2007	0	0	0	**0**	17,051		4	
Teramachi Senior Housing	New	Mixed-Use	Thomas Wong	255	S	San Pedro	2007	127	0	0	**127**	6,600		6	280,878
1126 Santee	New	Commercial		1126	S	Santee	2007	0	0	0	**0**	???		3	
Main Street Lofts (Main Mercantile Bldg)	ARO	Residential	Oxford Street Properties	620	S	Main	2007	0	40	0	**40**	0		6	
Douglas Building	ARO	Mixed-Use	Downtown Properties	257	S	Spring	2007	50	0	0	**50**	20,000		5	
Barker Block Lofts (1st phase)	ARO	Mixed-Use	Kor Group	510	S	Hewitt	2007	63	0	0	**63**	TBD			
Loft 726	ARO	Residential	Western Imperial 2000	726	S	Santa Fe	2007	0	22	0	**22**	0		4	
Pico Fashion City (JOIA Center 2?)	New	Commercial		710	E	Pico	2008	0	0	0	**0**	23,606		4	23,606
The Plaza (1200 Wall)	New	Commercial	A. and H. Property	1200	S	Wall	2008	0	0	0	**0**	43,055		5	43,055
Orsini II	New	Mixed-Use	G.H. Palmer Associates	550	N	Figueroa	2008	0	566	0	**566**	27,000		5	
Brockman Building	ARO	Mixed-Use	West Millenium Homes	530	W	7th	2008	80	0	0	**80**	TBD		12	
LAPD Main St. Parking Facility	New	Institutional	City of L.A./LAPD	244	S	Main	2009	0	0	0	**0**	0			
LAPD MTD Facility (Motor Transport Div.)	New	Institutional	City of L.A./LAPD	260	S	Main	2009	0	0	0	**0**	0			28,000
Industrial Street Art Studios	Conv	Commercial	Linear City	1820	E	Industrial	2009	0	0	0	**0**	???		2	40,000
LAFD Fire Station #4	New	Institutional	City of L.A./LAFD	500	E	Temple	2009	0	0	0	**0**	0		2	40,000
EOC-POC-FDC (Emergency/Police/Fire)	New	Institutional	City of L.A.	600	E	Temple	2009	0	0	0	**0**	0		2	82,000
Optima Lofts	ARO	Residential		652	S	Mateo	2009	0	21	0	**21**	0			
Security Building Lofts	ARO	Mixed-Use	Simpson Housing Solutions	510	S	Spring	Oct-05	0	122	31	**153**	10,278		12	
Met Lofts	New	Mixed-Use	Forest City	1050	S	Flower	Nov-05	0	211	53	**264**	11,500		8	
Towne Plaza (1001-15 S. Towne)	New	Commercial	Kimsa Holdings	1001	S	Towne	May-06	0	0	0	**0**	85,000		4	
525 S. Los Angeles	New	Commercial	Jade Enterprises	525	S	Los Angeles	Jun-06	0	0	0	**0**	6,436		2	
800-10 Los Angeles St.	New	Commercial		810	S	Los Angeles	Jun-06	0	0	0	**0**	15,548		2	
Pico Regency Plaza	New	Commercial	KI Group	738	E	Pico	Jul-06	0	0	0	**0**	47,945		2	90,000
Rainbow Apartments	New	Residential	Skid Row Housing Trust	645	S	San Pedro	Sep-06	0	0	89	**89**	0			
Rainbow Apartments	New	Residential	Skid Row Housing Trust	643	S	San Pedro	Sep-06	0	2	87	**89**	0			
1477 Naud (new industrial bldg)	New	Industrial	Storm Properties/Western Brass	1477	N	Naud	Oct-06	0	0	0	**0**				
Maple Union Plaza	New	Commercial	KI Group/Bridge Capital	936	S	Maple	Nov-06	0	0	0	**0**	100,000		4	
Olympic Wall Center	New	Commercial		945	S	Wall	Nov-06	0	0	0	**0**	15,798			
California Endowment	New	Institutional	California Endowment	1000	N	Alameda	Nov-06	0	0	0	**0**				201,140
Hikari (Second and Central)	New	Mixed-Use	Related Cos.	375	E	2nd	Jan-07	0	102	26	**128**	36,000		6	122,924
Solstice Medicine Company HQ bldg	New	Industrial	Storm Properties/Western Brass	215	W	Ann	Jan-07	0	0	0	**0**				
Hikari (Second and Central)	New	Mixed-Use	Related Cos.	375	E	2nd	Jan-07	0	102	26	**128**	36,000		6	122,924
Mozaic (Axis @ Union Station)	New	Residential	Lincoln Property	880	N	Alameda	Feb-07	0	272	0	**272**	0		5	
Packard Lofts	ARO	Mixed-Use	Venice Investments	1000	S	Hope	Mar-07	0	116	0	**116**	25,000		6	
Biscuit Company Lofts	ARO	Mixed-Use	Linear City	1850	E	Industrial	Mar-07	105	0	0	**105**	3,000		7	
Eastern Columbia parking structure	New	Parking	Kor Group	843	S	Broadway	Apr-07	0	0	0	**0**	???		4	76,689
Eastern Columbia Building	ARO	Mixed-Use	Kor Group	849	S	Broadway	Apr-07	147	0	0	**147**	TBD		15	270,000

Downtown Completed Projects (since 2006)

Source: Dave Neubecker/CRA
7/6/2010

Project Name	Type	Land Use	Developer/Owner	Add-ress #	D	Address Street	Proj. Comp	Condo Market (units)	Rental Market (units)	Rental Afford. (units)	Total Housing (units)	Leasable Space (sf)	Tourist Hotel Rooms	Stories	Total Floor Area
636 Maple Parking	New	Parking	MJW Investments	636	S	Maple	May-07	0	0	0	**0**	0		6	
Milano Lofts (Edwards-Wildey Bldg/National Bldg/G	ARO	Residential	Izek Shornof/Heisman Group	609	S	Grand	May-07	0	99	0	**99**	0		13	
Luma (South-Phase 2)	New	Mixed-Use	The South Group	1100	S	Hope	Jun-07	236	0	0	**236**	6,155		19	
Colburn School - Phase II	New	Institutional	Colburn School	201	S	Olive	Aug-07	0	65	0	**65**	0		12	229,000
Pan American Lofts (Irvine Byrne Bldg)	ARO	Mixed-Use	Urban Pacific Builders	249	S	Broadway	Aug-07	40	0	0	**40**	6,100		5	115,000
SB Lofts (Merchants Bank/Barry Lofts II/Valuta Bldg)	ARO	Mixed-Use	Barry Shy	548	S	Spring	Sep-07	0	184	0	**184**	TBD		13	
Cathedral High School expansion	Addit	Institutional	Catholic Archdiocese of L.A.	1253	N	Bishops Road	Oct-07	0	0	0	**0**				47,462
Homeboy Industries	New	Commercial	Homeboy Industries	130	W	Bruno	Oct-07	0	0	0	**0**	20,000			
Coulter-Mandell Lofts	ARO	Mixed-Use	George Peykar	500	W	7th	Oct-07	0	55	0	**55**	28,000		4	128,000
Victor Clothing Lofts (Hosfield Building)	ARO	Residential	Neighborhood Efforts	242	S	Broadway	Oct-07	0	1	37	**38**	0		5	
Downtown Independent Theater (Linda Lea)	Rehab	Ent/Cultural	Cinema Properties Group	251	S	Main	Dec-07	0	0	0	**0**	7,682		2	
Mura	New	Residential	Pulte Homes	629	E	Traction	Dec-07	190	0	0	**190**	0		5	235,000
SB Manhattan (Los Angeles Trust & Savings Bank)	ARO	Mixed-Use	Barry Shy	215	W	6th	Dec-07	198	0	0	**198**	20,000		13	
Million Dollar Theater	Rehab	Ent/Cultural	Robert Voskanian (T)/Yellin Co. (O)	307	S	Broadway	Feb-08	0	0	0	**0**	TBD			
Yale Terrace	New	Residential	ADI / CRA	716	N	Yale	Feb-08	0	0	55	**55**	0		4	
Yale Terrace	New	Residential	ADI / CRA	716	N	Yale	Feb-08	0	0	55	**55**	0		4	
Title Guarantee Building	ARO	Mixed-Use	Daniel Swartz/Quadrangle	411	W	5th	Feb-08	0	74	0	**74**	1,680		12	100,000
Santee Village (Santee-Phase II)	ARO	Residential	MJW Investments	738	S	Los Angeles	Feb-08	216	0	0	**216**	23,500		8/11/12	
Towne Wholesale Mart	New	Commercial	T. Kim Associates	1016	S	Towne	Mar-08	0	0	0	**0**	44,393		4	
Artisan on 2nd	New	Residential	Trammel Crow Residential	601	E	2nd	Mar-08	0	118	0	**118**	0		4	
The Judson (Judson C. Rives/Broadway Central Bld	ARO	Mixed-Use	Flatiron/David Gray/Phillip Miller	424	S	Broadway	Mar-08	0	60	0	**60**	TBD		10	
801-21 S. Maple	New	Commercial	Force Santee	801	S	Maple	Apr-08	0	0	0	**0**	???		2	
The Union (Union Bank & Trust)	ARO	Mixed-Use	MerueloMaddux Properties	760	S	Hill	May-08	0	92	0	**92**	11,273		12	131,981
Chapman Building	ARO	Mixed-Use	Fred Afari/Heritage Group	756	S	Broadway	May-08	168	0	0	**168**	TBD		13	
614 E. 12th	New	Commercial	City Market of L.A.	614	E	12th	Jun-08	0	0	0	**0**	9,123		1	
747 E. 12th	New	Commercial	MPT Family Partners	747	E	12th	Jun-08	0	0	0	**0**	16,735		1	
Forever 21 (750 E. 14th)	New	Commercial	Forever 21/Don Chang	750	E	14th	Jun-08	0	0	0	**0**	38,800		4	
915 Mateo creative flex space	Conv	Office	Seth Polen/Brent Held/Greg Celeya	915	S	Mateo	Jun-08	0	0	0	**0**			3	55,350
Barker Block Lofts (2nd & 3rd phases)	ARO	Mixed-Use	Kor Group	530	S	Hewitt	Jul-08	179	0	0	**179**	TBD			
717 Olympic (The Hanover)	New	Mixed-Use	The Hanover Company	717	W	Olympic	Jul-08	0	151	0	**151**	7,499		27	301,406
Crocker Fashion Plaza-Phase II	New	Commercial	MAXXAM Enterprises	1030	S	Crocker	Aug-08	0	0	0	**0**	???		5	
City of LA Medical Services Division (MSD)	New	Institutional	City of L.A.	520	E	Temple	Aug-08	0	0	0	**0**	0		3	30,000
SB Spring (Hellman Commercial Trust & Savings Ba	ARO	Mixed-Use	Barry Shy	650	S	Spring	Aug-08	196	0	0	**196**	???		12	
Stanford Wholesale Mart-Phase 1	New	Commercial	Action Invest. Group/Falcon Investmen	807	E	12th	Aug-08	0	0	0	**0**	78,485		4	200,000
Inner-City Arts expansion	New	Institutional	Inner City Arts	720	S	Kohler	Sep-08	0	0	0	**0**	0			
Evo (South-Phase 3)	New	Mixed-Use	The South Group	1155	S	Grand	Oct-08	311	0	0	**311**	7,294		24	
NCT Lofts (National City Tower Bank Bldg)	ARO	Mixed-Use	National City Towers	810	S	Spring	Oct-08	0	93	0	**93**	TBD		13	135,000
L.A. Fashion Mart	New	Commercial	Jade Enterprises (Force-14th)	800	E	12th	Nov-08	0	0	0	**0**	116,808		4	116,114
L.A. Live Retail/Ent./Office (LASED4)	New	Commercial	AEG	800	W	Olympic	Nov-08	0	0	0	**0**	716,000		5/5/4	716,000
L.A. Live Parking (LASED3)	New	Parking	AEG	1005	W	Chick Hearn	Nov-08	0	0	0	**0**	0			
Roosevelt LA Lofts	ARO	Mixed-Use	Milbank	727	W	7th	Nov-08	223	0	0	**223**	???		16	
Abbey Apartments	New	Residential	Skid Row Housing Trust	625	S	San Pedro	Dec-08	0	2	113	**115**	0			
SB Main (Board of Trade Bldg)	ARO	Mixed-Use	Barry Shy	111	W	7th	Dec-08	220	0	0	**220**	6,528		12	
L.A. Fashion Center (LA Face)	New	Commercial	LA Properties Investment	1458	S	San Pedro	Jan-09	0	0	0	**0**	309,000		5	309,000
Rowan Building	ARO	Mixed-Use	Downtown Properties	460	S	Spring	Jan-09	206	0	0	**206**	10,372		13	280,000
118-22 E. 16th	New	Commercial		118	E	16th	Feb-09	0	0	0	**0**	2,983		1	
Buyers Mart (727-35 E. 12th)	New	Commercial	CNL Group	735	E	12th	Mar-09	0	0	0	**0**	36,546		4	35,269
1903-09 S. Santa Fe	New	Industrial		1903	S	Santa Fe	Mar-09	0	0	0	**0**	6,441		2	6,441
Great Republic Lofts (Great Republic Life Ins. Bld	ARO	Mixed-Use	Abington Properties/Convermat	756	S	Spring	Mar-09	72	0	0	**72**	4,315		13	
LAPD Metro Detention Center	New	Institutional	City of L.A./LAPD	180	N	Los Angeles	Apr-09	0	0	0	**0**	0		2	179,000
Abbey Apartments	New	Residential	Skid Row Housing Trust	625	S	San Pedro	Apr-09	0	2	113	**115**	0			

Downtown Completed Projects (since 2006)

Source: Dave Neubecker/CRA
7/6/2010

Project Name	Type	Land Use	Developer/Owner	Add-ress #	D	Address Street	Proj. Comp	Condo Market (units)	Rental Market (units)	Rental Afford. (units)	Total Housing (units)	Leasable Space (sf)	Tourist Hotel Rooms	Stories	Total Floor Area
Broadway Exchange	ARO	Residential	Zuri Barnes/Gabriel Frig	219	W	7th	May-09	68	0	0	**68**	8,515		12	
Sakura Crossing (San Pedro Apts; Block 8-Lot 3/C	New	Mixed-Use	Related Cos.	235	S	San Pedro	Jun-09	0	184	46	**230**	7,000		5	219,123
James M. Wood Apartments	New	Residential	SRO Housing Corp.	506	S	San Julian	Jun-09	0	1	52	**53**	0		5	41,000
Sakura Crossing (San Pedro Apts; Block 8-Lot 3/C	New	Mixed-Use	Related Cos.	235	S	San Pedro	Jun-09	0	184	46	**230**	TBD		5	219,123
James M. Wood Apartments	New	Residential	SRO Housing Corp.	506	S	San Julian	Jun-09	0	1	52	**53**	0		5	41,000
830 Flower/831 Hope (South Village-Bldg A & E)	Reuse	Mixed-Use	CIM	830	S	Flower	Sep-09	0	0	0	**0**	19,256		7/6	
Concerto/900 S. Fig-Lot 1	New	Mixed-Use	Astani Enterprises	901	S	Flower	Sep-09	77	0	0	**77**	27,000		28/7	850,000
High School for Visual & Performing Arts	New	Institutional	LAUSD	450	N	Grand	Sep-09	0	0	0	**0**	0			238,000
831 S. Hope (South Village-Bldg E)	New	Parking	CIM Group	831	S	Hope	Sep-09	0	0	0	**0**	3,000		6	
New Carver Apartments	New	Residential	Skid Row Housing Trust	1624	S	Hope	Sep-09	0	2	95	**97**	0		6	
New Carver Apartments	New	Residential	Skid Row Housing Trust	1624	S	Hope	Sep-09	0	2	95	**97**	0		6	
777 E. 10th	New	Commercial		777	E	10th	Oct-09	0	0	0	**0**	???		4	
L.A. Live Cinema (LASED2)	New	Commercial	AEG	1000	W	Olympic	Oct-09	0	0	0	**0**	140,000			
LAPD PHF (Police HQ Facility)	New	Institutional	City of L.A./LAPD	100	W	1st	Nov-09	0	0	0	**0**	600		10	500,000
Emil Brown Lofts	ARO	Mixed-Use	South Park Group/David Gray	308	E	9th	Nov-09	0	38	0	**38**	TBD		5	73,000
New Mark Wholesale Mart	New	Commercial	New Mark Development	723	E	10th	Jan-10	0	0	0	**0**	67,251		4	128,237
L.A. Live Convention Hotel/Condos (LASED4)	New	Mixed-Use	AEG/Macfarlane Partners	900	W	Olympic	Feb-10	224	0	0	**224**	TBD	1,001	54	1,478,335
Charles Cobb Apartments	New	Residential	Skid Row Housing Trust	521	S	San Pedro	Feb-10	0	0	74	**74**	n/a		5	
Charles Cobb Apartments	New	Residential	Skid Row Housing Trust	521	S	San Pedro	Feb-10	0	2	74	**76**	n/a		5	
The Watermarke/705 W. 9th (South Village-Bld	New	Mixed-Use	Watermarke Properties	705	W	9th	Mar-10	0	214	0	**214**	6,800		35	300,000
655 Hope (Metro Center)	ARO	Mixed-Use	Seck Group	655	S	Hope	Mar-10	82	0	0	**82**	8,275		17	
SB Tower	ARO	Mixed-Use	Barry Shy	600	S	Spring	Apr-10	0	270	0	**270**	TBD		19	
El Dorado Lofts (Stowell Hotel)	ARO	Mixed-Use	Downtown Properties	416	S	Spring	Jun-10	65	0	0	**65**	12,000		12	

Downtown Completed Projects (since 2006)

Source: Dave Neubecker/CRA
7/6/2010

Notes	Parking Spaces	Net Lot Size (sf)	CRA Proj Area	Sub-Area	Site Addresses	APN	APN	APN
Type III bldg; 14 retail units			ct	FaD	751-61 E. 12th; 1154-98 S. Crocker	5132010043	5132010044	5132010045
Type III bldg; retail/mfging/offices			ct	FaD	1151-71 S. Towne; 775-79 E. 12th	5132010036		
			n/a	AD				
$65M; ground fl commercial			ct	SP	1101-17 S. Grand; 402-08 W. 11th	5139021023		
New commercial?			ct	FaD				
Small tenant produce warehouse distribution center			n/a	DI				
warehouse; live music venue; internet radio; electric car sales			ci	DI				
Former Rite-Aid space converted to parking?			ct	HC	501 S. Broadway	5149033010		
103 AOR + 29 AIR/1993 in Kerckhoff Annex; JLWQ condos in 2007	45	35,153	ct	HC	554-60 S. Main; 101-31 E. 6th	5148020007		
University Club bldg			cbd	FiD				
			ct	FaD	315-19 E. 8th	5145003014		
fmr Chase Plaza; live-work on flrs 12-22; 200K sf office; 5K sf commercial			cbd	SP				
Fed Reserve bldg; restaurant+bar on ground fl			ct	SP				
	127		cbd	SP	613-55 W. 9th; 830-52 S. Flower; 837-45 S. Hope	5144020904		
ground fl retail; offices above; JOIA?	34		ct	FaD	1020-28 S. Crocker			
			lt	LT				
retail; 18 stores & courtyard, 22,500 sf building			ct	FaD		5145022004		
$8M conversion; historic 1905 bldg			ct	HC		5148021001		
			ct	HC				
			ci	AD				
			ci	DI	720-26 S. Santa Fe			
retail bldg		16,458	ct	FaD		5132019005		
retail	91	23,346	ct	FaD		5145026035		
ground fl retail			ch	CH		5407003017		
12-story historic bldg		18,009	ct	FiD	700-24 S. Grand; 520-30 W. 7th			
3 levels below grade; future gym at street level			ct	HC	240-44 S. Main	5161026017		
repair shop, car wash, fuel island		28,000	ct	HC				
Mill Street Lofts project cancelled in 2008			ci	DI		5164021002		
			n/a	CC	500-22 E. Temple			
			n/a	CC	600-26 E. Temple; 217 N. Vignes			
			n/a	DI				
12 fl historic bldg; 20% afford.; ground fl retail			ct	HC		5149036004		
DDA 80/20 tax-exempt bonds			ct	SP	1030 S. Flower	5138013060		
retail/office; 43,701 sf building			ct	FaD	1001-15 S. Towne; 764-68 E. 10th			
wholesale on ground fl; office on 2nd fl			ct	FaD	525-29 S. Los Angeles	5148019015	5148019016	
Fashion plaza			ct	FaD				
732-44 Pico; 10' into public ROW			ct	FaD	732-44 E. Pico; 739-51 E. 14th			
SRO			ct	FaD				
	14		ct	CCE	643-45 S. San Pedro	5148025008		
			n/a	NI				
122 retail spaces			ct	FaD				
new retail center			ct	FaD	943-45 S. Wall; 411-15 Olympic	5145017016		
8K sf event hall & 11K sf outdoor dining; 300 seats & 539 capacity			n/a	NI				
Ground fl retail; apts above			lt	LT		5161017015	5161017037	
Office & distribution			n/a	NI	1447 N. Naud; 213 W. Ann			
Ground fl retail; apts above			lt	LT		5161017015		
			n/a		888 N. Alameda			
$50M conversion	192		ct	SP	1000-24 S. Hope			
		97,929	ci	DI	673 S. Mateo	5164021003		
ground fl retail		19,602	ct	HC	843-45 S. Broadway	5144017038		
Ground fl retail; possible 14' wide ped.arcade			ct	HC				

Downtown Completed Projects (since 2006)

Source: Dave Neubecker/CRA
7/6/2010

Notes	Parking Spaces	Net Lot Size (sf)	CRA Proj Area	Sub-Area	Site Addresses	APN	APN	APN
built above Metro bus staging area	420	195,000	ct	FaD				
name change from Delano to Milano			cbd	FiD		5144005022		
$80M, ground fl commercial			ct	SP		5139021024		
65 dorm units for 150 students			bh	BH		5149010947		
40 live/work + 3 retail condos	32	13,194	ct	HC		5149009002		
$25M conversion of office bldg			ct	HC		5149036005	5149036017	
new gymnasium			ch	CH	510 Cottage Home	5414019007		
Headquarters & bakery; café			ch	CH		5409008016		
55 live-work units; ground fl retail			ct	FiD	500-18 W. 7th; 705-11 S. Olive	5144012055		
38 live/work units			ct	HC		5149008009		
250-seat theater; formerly Linda Lea & ImaginAsian		6,070	ct	HC		5149006003		
formerly Alexan Savoy phase III			n/a	AD				
198 live/work units; 11 commercial condos			ct	HC		5149024005	5149035001	
2,000+ seats; $1M rehab in 2008			ct	HC				
			ch	CH				
			ch	CH				
Nat'l Register of Historic Places; 12-story bldg		10,293	ct	FiD				
738 LA (48/8 fls/Eckardt); 746 LA (95/12 flrs/Cornell); 743 Santee (73/10 fls/Santee)		37,200	ct	FaD	738-46 S. Los Angeles; 743 S. Santee	5145003013		
retail/wholesale; 45 commercial condos		45,781	ct	FaD	1010-16 S. Towne	5132009017		
formerly Alexan Savoy phase II			n/a	AD		5163002009	5163002018	5163002019
10-story historic bldg; ground fl retail; live/work	60		ct	HC		5149024009		
			ct	FaD	300-12 E. 8th; 314-16 E. 8th; 806-18 S. Santee; 827-29 S. M	5145012024		
$17M conversion; ground fl & bsmt retail		14,017	ct	HC	319-29 W. 8th; 742-60 S. Hill	5144014024		
20 commercial units; 13-story historic bldg			ct	HC				
retail; 10/2006 permit			ct	FaD		5145026014		
New mini-shopping center; 1 story + mezzanine + rooftop parking			ct	FaD				
		25,615	ct	FaD	744-54 E. 14th	5132020036		
38 studio spaces for creative businesses	50	23,087	ci	DI		5166018002		
			ci	AD				
LASED5	228	21,640	ct	SP	944-56 S. Figueroa; 713-19 W. Olympic	5138002026		
retail + 21,000sf office; Phase I is conversion (1160 Crocker)			ct	FaD	1030-1160 S. Crocker			
MSD on ground fl; parking above for EOC & FS#4			n/a	CC	204-12 N. Vignes; 703 E. Banning			
196 JLWQ condo units; 2 bldgs converted into 1 project?		20,210	ct	HC	111 W. 7th	5144001014		
$64M; retail on ground & 2nd floors; office on 3rd		43,080	ct	FaD	1120-34 S. Towne; 1115-27 S. Stanford; 807-13 E. 12th	5132009013		
4 new art school bldgs (Bldg B, D, E, G)			ci	DI		5146005029		
$160M; mid-block walkway	425		ct	SP	401-05 W. 12th	5139021018		
93 JLWQ units; 17 commercial condo units		10,294	ct	HC	802-10 S. Spring; 803-11 S. Main	5144016044		
117 commercial condo units (mostly retail; some office); $80M	233	45,566	ct	FaD		5132012044	5132012045	5132012046
theater; TV studios; museum; commercial; office; plaza			ct	SP	800-900 W. Olympic; 1011 S. Figueroa; 701-77 W. Chick H	5138007082	5138007083	5138007087
Airspace for future Conv. Center expansion	3,500		ct	SP	1000 W. Olympic; 1015 S. Georgia; 1005 W. Chick Hearn	5138007080	5138007081	5138007085
Metro Red Line portal; 6 ground fl spaces; 4 stories added	320	16,119	cbd	FiD	727-35 W. 7th; 648-52 S. Flower	5144006018		
SRO			ct	FaD	618 S. San Julian			
Condos or apartments?			ct	HC		5144001011		
216 commercial condos	747		ct	FaD	1458 S. San Pedro	5132027029	5132027***	
19 retail condos; historic 13 fl bldg			ct	HC		5149023019		
1-story retail & parking garage; permit Jun07	?		ct	FaD	118-22 E. 16th	5133014012		
39 commercial condo units	72	15,836	ct	FaD	727-35 E. 12th	5132011004	5132011035	
warehouse/office			ci	DI	1903-09 S. Santa Fe	5167011005		
Priced mid-$300s to $500s			ct	HC	101 W. 8th; 758 S. Spring			
$80M; 2 above-grade levels + mezzanine; basement			cbd	CC		5161013904		
SRO			ct	CCE	618 S. San Julian	5148025017		

Downtown Completed Projects (since 2006)

Source: Dave Neubecker/CRA
7/6/2010

Notes	Parking Spaces	Net Lot Size (sf)	CRA Proj Area	Sub-Area	Site Addresses	APN	APN	APN
68 live/work; 1 retail condo; 12 fl historic bldg	0		ct	HC	660 S. Broadway			
#s included in G8way/Block 8 (200 E. 2nd); condos?	298		lt	LT		5161024017		
SRO		10,260	ct	CCE	506-14 S. San Julian	5148012005		
#s included in G8way/Block 8 (200 E. 2nd); condos?	298		lt	LT		5161024007		
SRO		10,260	ct	CCE	506-14 S. San Julian	5148012005		
830 Flower: new 7-story + 1-subt; 831 Hope: convert 6-story + 1-subt office	602		cbd	SP		5144020038		
			ct	SP	901 S. Flower; 700 W. 9th	5138002001	5138002018	
1,728-student campus; 4 academies			n/a	CC				
	352		cbd	SP				
Demo permit issued 11/07		16,105	ct	SP	325-29 W. 17th; 1624 S. Hope	5134014012	5134014019	
Demo permit issued 11/07		16,105	ct	SP	325-29 W. 17th; 1624 S. Hope	5134014012	5134014019	
2 levels of underground parking			ct	FaD	956-60 S. Crocker; 953 S. Towne	5132002028	5132002032	
14-screen Regal Cinema; 3,800 seats; 800-seat main theater			ct	SP	1000 W. Olympic; 1015 S. Georgia; 1005 W. Chick Hearn	5138007080	5138007081	5138007085
café; gr.fl.retail			cbd	CC		5149001913		
converts 5-story ind. warehouse; ground fl retail			ct	FaD		5145016022		
Wholesale/retail; 4 levels & rooftop parking & 1 basement level		28,414	ct	FaD	723-47 E. 10th; 969 S. Crocker	5132001041		
Hotel rooms=878 J.W. Marriott & 123 Ritz-Carlton			ct	SP	975K sf hotel/ballroom; 503K sf residential			
74 + 2 mgr units			ct	FaD				
74 + 2 mgr units			ct	CCE		5148012009		
condos; Meruelo developed, sold for $110M after bankrupcy	372		cbd	SP	845 S. Flower; 705-17 W. 9th	5144021023		
JLWQ; 14 commercial condos	85	11,684	cbd	FiD	651-655 S. Hope; 701-13 W. 7th	5144006019		
$58M project	208		ct	HC		5144001020		
65 live/work; 7 retail condos; historic bldg			ct	HC		5149023009		

Downtown Completed Projects (since 2006)

Source: Dave Neubecker/CRA
7/6/2010

APN	APN	APN	APN

Downtown Completed Projects (since 2006)

Source: Dave Neubecker/CRA
7/6/2010

APN	APN	APN	APN
5163002028	and more		
5132012047	5132012048		
5138007088	5138007089	5138007090	5138007103
5138007086	5138007093	5138007094	5138007101

Downtown Completed Projects (since 2006)

Source: Dave Neubecker/CRA
7/6/2010

APN	APN	APN	APN
5138007086	5138007093	5138007094	5138007101