FORM GEN. 160

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

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To: The City Council
The Mayor

From: Miguel A. Santana
City Administrative Officer

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Subject: PROPOSED PUBLIC-PRIVATE PARTNERSHIP FOR PARKING ASSETS OPTIONS (C.F. 09-0728; 09-0728-S1; 09-0600-S120)

SUMMARY

In November 2008, a working group consisting of staff from the City Administrative Officer (CAO) as Chair, Mayor's Office, Chief Legislative Analyst (CLA) and City Attorney was convened upon request of the Mayor to explore opportunities for a public-private partnership (P3) with respect to the City's parking assets. In July, the Controller's Office joined as an ex officio member following a discussion in Council (C.F. 09-0728-S2). In September 2009, the working group was instructed by the Mayor and Council to provide the final parking study, an analysis of the results and a discussion of options for consideration (C.F. 09-0600-S120). The working group has concluded the assessment phase of this project and herein presents these findings and recommendations for further action in support of a P3 concession and lease for ten parking structures within the City.

The CAO and CLA recommend proceeding with this P3 concession for the following reasons:

- Community interests – A soundly-constructed concession can accommodate community interests and business needs, maintain market-driven service levels, and provide sufficient mechanisms to ensure accountability and a successful partnership with the concessionaire. The Special Parking Revenue Fund (SPRF) and public ownership of garages severely limits the opportunities to leverage these assets for private use and economic development.

- Financial challenges – Declining revenues, increasing obligatory expenses and the economic crisis have created significant financial challenges. The Reserve Fund is being used to balance the City's budget, despite the adoption of aggressive cost-saving measures this fiscal year. A concession is a critical opportunity to help replenish the Reserve Fund and continue generating ongoing revenues to fund other priorities.

- Core functions – Regardless of its financial condition, the City should strive to focus its resources on the efficient and effective delivery of core services. Generating economic development is a core function of government, however operating garages is not. Parking is essential to the viability of the local economy and can be successfully managed and

leveraged by the private sector, as evidenced by their operation of parking facilities throughout the City, some of which directly compete with City facilities.

- Maximize asset utilization – The City's parking structures are underperforming assets. In the case of Hollywood and Highland, in 2008-09, revenues were insufficient to cover the cost of operations, maintenance and debt service by $989,000. A concession would transfer the risk of operations to the private sector and provide an opportunity to improve the utilization of these assets by removing many of the obstacles impeding the City's operation of the structures, such as procurement requirements.

Other Issues

- Labor – A successful transaction will require the cooperation of the City's labor partners to ensure interests are met, to the greatest extent possible, and a seamless transition is implemented.

- Rate setting authority – Adoption of a five year schedule, adjusted by the Consumer Price Index (CPI) thereafter, is recommended by the City's parking consultant. The City could retain the right to approve increases beyond this and engage the concessionaire in dialogue to maximize revenue growth.

- Based on the findings of the City's Independent Financial Advisor and parking consultant:

    - Asset value (City operates structures) – If the City continues to operate these structures, the financial value of these assets based on a present value calculation over 50 years is approximately $198 million. This assumes certain rate adjustments, revenue growth and operational improvements, such as investments in technology, which if not met, significantly decreases the value of these assets.

    - Asset value (Concession) – The value of a 50-year concession is approximately $200 to $300 million, less possessory interest tax. After defeasing debt for Hollywood and Highland and Cinerama Dome, the adjusted value is approximately $100 to $200 million. This does not include other revenue impacts, such as potentially increased Parking Occupancy Tax receipts. All of these figures are based on various assumptions discussed further in this report.

- Avoided debt costs – Avoided interest costs from defeasing debt on Hollywood and Highland and Cinerama Dome would be approximately $137 million. Average annual debt service is $5.4 million from the Special Parking Revenue Fund for Hollywood and Highland and $3.1 million in CRA funding for Cinerama Dome.

- Commit resources if no concession –The working group analyzed how garage operations are currently handled and concluded that the City has not dedicated the resources necessary to improve operations and maximize revenue-generation. If the Mayor and Council decide against pursuing this concession, then a commitment should be made to dedicate the necessary resources on an on-going basis to successfully compete in the parking business, including funds for maintenance and investments in technology. The

development and adoption of a long-term asset management plan, including a policy requiring the need for demand studies for future lots and structures, would be a critical component of this commitment.

- Use of proceeds – Proceeds from the culmination of a P3 transaction should be considered one-time only funds, and treated as such for the purposes of budgeting. Proceeds should only be programmed for use on one-time expenditures or to improve the City's reserves.

The Council has previously authorized $630,000 for the assessment phase, most of which has been expended or encumbered. Contracts for the initial data compilation and assessment phases were structured to pay consultants for time and materials, rather than as a percentage of the proceeds of the transaction, to ensure the advisors' independence from the outcome of the deal. Should the Council choose to move forward and solicit proposals for this concession agreement, additional funds will be needed to proceed. However the exact nature and scope of the work required during the next phases of this transaction are difficult to estimate since they depend on a variety of factors that cannot be predicted, such as the number of interested bidders and the complexity of negotiations. The report recommends the appropriation of an additional $510,000 as an estimate of future expenses to be incurred in the near future while bidders are qualified and the concession agreement is drafted for bidder review:

Financial Advisor	$ 185,000
Parking Consultants	$ 40,000
Transaction Counsel	$ 260,000
Sell Side Advisor Expenses	$ 20,000
Contingency	$ 5,000
Total	$ 510,000

The working group will report on the expenditure of these funds, and need for additional funds, in a future report as necessary.

Adoption of the recommendations in this report is consistent with the City's Financial Policies in that funding in the amount of $3 million was included in the Unappropriated Balance of the 2009-10 Adopted Budget to evaluate and implement a potential public-private partnership with respect to the City's parking assets.

RECOMMENDATIONS

That the City Council, subject to approval of the Mayor:

1. Authorize the City Administrative Officer to issue a Request for Qualifications to qualify bidders for a proposed public-private partnership with respect to the City's parking structures;

2. Authorize the City Attorney to negotiate and execute an Agreement with Katten Muchin Rosenman, LLP, for a term of two years and amount not to exceed $200,000, for legal services needed to execute and implement the public-private partnership transaction;

3. Transfer appropriations of $510,000 from the Unappropriated Balance, Fund No. 100/58, Account No. 0250, Public-Private Partnership Parking, to the Capital Finance Administration Fund No. 100/53, General Administration Account No. 0170, for expenditures related to the engagement of outside counsel, Sell-Side Advisors, and Financial Advisor including subcontractors, needed to execute and implement the public-private partnership transaction; and

4. Authorize the City Administrative Officer to make technical adjustments as necessary to implement the intent of the Mayor and Council actions.

FISCAL IMPACT STATEMENT

The City Administrative Officer will report back with the results of the public-private partnership solicitation and include a fiscal impact statement based on any proposals resulting from this solicitation.

DEBT IMPACT STATEMENT

The City Administrative Officer will report back with the results of the public-private partnership solicitation and include a debt impact statement based on any proposals resulting from this solicitation.

FINDINGS

1. BACKGROUND

The impetus for this project stems from significant financial challenges facing the City resulting from declining revenues, increasing obligatory expenses and the economic crisis. The challenge of managing City operations under these circumstances has prompted an examination of what core services the City must provide, and how the City might provide non-core services differently. The City built these structures to catalyze local development and accommodate community needs. However, operating these facilities is not a core function of government on par with public health and safety. The private sector already operates parking facilities throughout the City, including facilities that directly compete with these City-owned structures. If the private sector can be tapped to operate the City-owned structures more effectively and efficiently, then the City could focus scarce public resources on core activities, and the public would have undiminished, and perhaps enhanced, parking service.

2. TEAM

The composition of the team engaged to assist with this project has changed since adoption of the initial staff report by the Mayor and City Council on April 28, 2009 and May 5, 2009, respectively (C.F. 09-0728). Originally, J.P. Morgan Chase & Co. (JP Morgan) was selected to serve as the lead Sell-Side Advisor, with Loop Capital Markets LLC (Loop) and Samuel A. Ramirez & Company, Inc. (Ramirez) to serve as co-Sell-Side Advisors. Due to legal uncertainties related to potential conflicts of interest under Government Code Section 1090, the City has to date been unable to execute an agreement with JP Morgan. The City executed agreements with Loop and Ramirez, but on October 28, 2009, Ramirez notified the City of its election to terminate the contract as of November 28, 2009. Ramirez also expressed concerns about the uncertainties of Government Code Section 1090. Loop is now acting as the City's sole Sell-Side Advisor.

The City Attorney, with input from the CAO, CLA and Mayor's Office, completed a competitive process to identify legal counsel to assist the City with this transaction. Ten firms responded and were interviewed by the City panel, leading to the selection of the top four firms. DLA Piper was selected, however they were ultimately unable to clear the City Attorney's conflicts screening. Katten Muchin Rosenman, LLP was subsequently selected based on their relevant experience and competitive pricing proposal. The City Attorney requests authority to negotiate and execute an Agreement with Katten Muchin Rosenman, LLP to serve as outside counsel for this project. The proposed term is for two years with a not-to-exceed amount of $200,000. Funding from the Unappropriated Balance set aside for the P3 project is available for this contract.

The working group, with the assistance of a financial advisor, Scott Balice Strategies (SBS), and its parking consultant, Desman Associates (Desman), has worked with the Community Redevelopment Agency (CRA), General Services Department (GSD), Recreation and Parks Department (RAP) and the Department of Transportation (DOT) to collect and analyze the data and findings presented herein.

3. ASSETS

Since the adoption of the initial staff report, the working group has received additional instructions from Council regarding the direction of this project. Specifically, the initial staff report proposed the evaluation of a P3 for particular garages and the meter system. Desman was engaged and began a study of both garages and meters. In June 2009, the Budget and Finance Committee instructed the working group to focus on City garages exclusively (C.F 09-0600-S120). Accordingly, the parking study and this report include preliminary information about the meter system; however this report primarily focuses on the following structures:

	Location	CD	Spaces	Debt*
Broxton	Westwood	5	366	
Cherokee	Hollywood	13	386	
Cinerama Dome (CRA)	Hollywood	13	1,717	$35.5M
Dickens	Sherman Oaks	5	198	
Friar St	Van Nuys	6	237	
Hollywood & Highland	Hollywood	13	3,006	$59.9M
Larchmont	Hancock Park	4	167	
Pershing Square (RAP)	Downtown	9	1,590	
Robertson	West LA	5	334	
Ventura Blvd	Studio City	2	397	
	TOTAL SPACES:		8,398	$95.4M

*Debt net of debt service reserves. Debt must be defeased as part of transaction. The Special Parking Revenue Fund includes Mangrove debt, which net of debt service reserves, totals $25M. See discussion under 'Transaction Structure.'

Cinerama Dome (also referred to as Arclight)

The parking structures to be included in the proposed concession and lease include the Cinerama Dome garage, owned by the CRA, and Pershing Square, owned by the City but managed as a revenue-generating asset for RAP. Should the City choose to proceed with this transaction, the working group will address these ownership complexities of this facility in detail over the next 30 days for the purposes of incorporating this asset into the transaction.

Cinerama Dome losses have narrowed in the last few years, and only recently began generating revenues sufficient to cover operations, maintenance and debt service. The working group believes that packaging this structure with a larger pool of strategically-located assets will maximize investor interest and generate a value premium that CRA could not achieve through a single asset sale or lease. The working group also believes that it can structure a concession which protects CRA's programmatic objectives, including parking support for the proposed Academy Museum of Motion Pictures Arts and Sciences, slated for the property immediately south of the garage.

Pershing Square

RAP states that Pershing Square generates approximately $2 million annually that is used to support RAP programs, including $500,000 transferred annually to the General Fund in

support of various Citywide programs. The City Attorney has concluded that RAP is entitled to the "net proceeds" ascribed to this asset through a concession, where "net proceeds" are gross revenues less expenditures for operation and maintenance. To determine RAP's proper share of the rent derived from a lease for all 10 of the parking structures, RAP and the City must estimate and agree upon the amount of the rent attributable to Pershing Square. The City Attorney has advised that various factors are relevant to this rent allocation, including, but not limited to, the historical revenue and expense numbers for all of the structures. In general, the working group believes that a private operator will generate more value from the Pershing Square garage, and this additional value should be available to support RAP operations within the funding requirements of the City Charter.

New Parking Structures

The development of several new parking structures has been initiated (funding approved) or are currently being conceptualized (funding pending). Construction has commenced on a new structure on Judge Aiso Street (Aiso Structure) in Downtown Los Angeles, approximately one block from City Hall and the new Police Administration Building, to provide 323 public parking spaces and 21 spaces for the Los Angeles Police Department. The City expects to begin construction of a new 457-space structure on Vine Street approximately three blocks from the Cinerama Dome Structure south of Hollywood Boulevard (Vine Structure). The City is also in the process of executing an agreement with a developer for a senior affordable housing project including replacement public parking of 39 spaces at surface lot number 689 on Pico Boulevard in the Crestview community (Pico-Robertson Structure).

Funding options for the acquisition of land and development of a new parking structure as part of the Bringing Back Broadway initiative (Broadway Structure) are also being explored. Development of this project in partnership with the private sector is under consideration at this time.

Since DOT does not wish to continue to operate City-owned structures in light of competing priorities and diminishing resources, and these structures are intended to provide public parking, the working group proposes to explore including these new and proposed structures within the scope of the concession. As the new structures have no existing operating history, it is difficult to know how bidders will value these new structures, though it seems highly unlikely that bidders will value these structures at the City's cost (approximately $96 million for all three). The working group proposes to evaluate this in discussions with qualified bidders and our advisors for a future report to the Mayor and Council.

4. PARKING STUDY

Desman has completed a parking study of the assets proposed for this P3 transaction. The details of this engagement and the scope of its study were previously addressed in CAO reports dated May 18, 2009 (C.F. 09-0728-S1) and August 6, 2009 (C.F. 09-0600-S120). The attached parking study is comprised of several segments, with key findings identified in the main document, *Financial Analysis and Condition Appraisal of the Los Angeles Public Parking System* (Analysis), and supporting information provided in the subsequent segments. This

study is intended to help policy makers identify options and risks, and also help potential bidders obtain financing.

Parking Structure Models

This report addresses general regional economic factors, an overview of the parking industry in the U.S., a discussion about revenue collection technologies, parking occupancy surveys, and a discussion of modeling assumptions such as growth in parking demand, elasticity and expense projections. These assumptions have been incorporated into a 50-year comparative review based on two models:

- Current Operating Structure – garages continue to be operated by the City, with a modified staffing plan based on the implementation of new technology; and
- Private Operator – garages are operated by a private operator via a concession and lease.

A third model based on optimizing current operations to a level consistent with the private sector was investigated by Desman. If instructed to do so by Council, GSD is willing to implement the equipment and staffing optimized plans at garages it manages for DOT in the manner proposed by Desman, with some modification. However, DOT determined that it could not commit to specific *results* through optimization. Competing demands for scarce parking funds, Charter and Administrative Code requirements regarding procurement, the Civil Service process, and the escalating costs of City pensions and benefits are factors that handicap the public sector's ability to achieve the efficiencies of the private sector. Similarly, RAP has seen the operating costs for Pershing Square rise in recent years, diminishing the support available for other parks programs. RAP would prefer a dedicated revenue stream that is less vulnerable to these operating cost escalations (see Attachment 2-A for a copy of report).

Parking Meter System

This report also addresses preliminary parking meter system information. The Council authorized funds to assess various parking strategies. After its initial authorization, the Budget and Finance Committee clarified Council's intent, seeking to focus the parking study on parking structures and omit further study of parking meters. The working group amended its instructions to Desman. As a result, Desman's final report includes a market survey of the City's parking meters, which is the work performed prior to new instructions, as well as some preliminary findings.

The metered off-street and on-street parking system includes 39,692 metered spaces distributed in 13 of the 15 Council Districts, including both single- and multi-space meter technologies. Desman states that a one percent sample of the on-street meters provides statistically sufficient data to project the performance of the entire meter system. Thus, a sample of 380 on-street meters provides enough data to be 95 percent confident in the results.

One on-street meter area was surveyed in each of the 13 Council Districts containing parking meters. In addition to geographic distribution, the surveys were also selected based on meter performance. The specific street selected in each of the 13 areas surveyed was based on a

site visit to find an area of meters that met the following criteria: good visibility, 8 to 10 meters in close proximity and high activity/turnover. Each sample area survey was conducted in June 2009, during the hours of operation specific to that location.

Desman conducted a variety of on-street meter surveys to assess the utilization of meters, the efficiency of enforcement, the amount of piggybacking occurring (overpayment at a meter allowing the next car to park at no cost), and uptime of the parking meters. The results of the surveys provide key data in modeling the revenue enhancements from utilizing Pay-and-Display meters verses Pay-by-Space and single-space meters, as well as geometric (number of cars per block) encumbrances on revenue growth. Based on its preliminary analyses, Desman makes the following assessments of the City's parking meter system:

- 15 percent of the City's meters were not operating, but 72 percent of these failed meters were occupied.
- The City has a pay station pilot program consisting of Pay-by-Space technology. DOT reported a 15 percent to 20 percent increase in revenue where this system has been installed.
- Alternative Pay-and-Display technology, which requires the user to put a printed ticket on a car's dashboard, has been demonstrated to increase revenues by approximately 30 percent.
- Only 10 percent of meter violations over 15 minutes resulted in tickets, compared to a national average of approximately 18 percent.
- A reduction in piggybacking would result in a 4 to 11 percent increase in revenue depending on the region.
- The elimination of broken meters would result in a 10 percent revenue increase for all on-street and off-street single space meters.
- Improved enforcement and the implementation of a parking meter system that offers multiple payment options would equate to a three percent growth in revenue for the entire system as parkers will be more likely to pay for their entire parking occupancy if the possibility of receiving a ticket is greater and increased options facilitate payment.
- The improved space geometry associated with implementing an on-street Pay-and-Display meter system could contribute an additional 9 percent revenue growth for all on-street meters (see Attachment 2-a, Sections 6 and 9, for analyses of parking meter system and Attachment for 2-c for the meter market surveys).

5. SURVEY FINDINGS ON STRUCTURES

Desman conducted field surveys of the 10 identified parking structures and 58 metered lots managed by DOT. The surveys conducted in June 2009 included occupancy counts to determine utilization in the morning, afternoon and evening, on weekends and during the week. Desman also reviewed the surrounding land uses, competing parking facilities, parking rates at City and competing facilities, and future revenue potential.

Based on the Desman surveys, the garages are underutilized. Peak occupancy is the most useful measure of use when comparing structures. Average occupancy does not account for turnover or structures with various hours of operations. Desman found that peak occupancy rates at the structures range from 12 percent at Dickens to 92 percent at Broxton. Demand at

Broxton may be higher because the City offers two hours of free parking. Peak occupancy rates for the two largest garages were 61 percent at Hollywood and Highland and 78 percent at Cinerama Dome. The garages had the highest aggregate occupancy level during the weekend evening period at 46 percent, which coincided with the highest occupancy for the two largest garages. The garages had the lowest aggregate occupancy level during the weekend morning period at 22 percent (*Analysis*, Table 17).

Parking Rates

Parking rates at most of the structures have been adjusted over the past ten years, with the exception of Dickens. The hours of operation also vary greatly across the structures. Rates for the first hour range from free at Broxton to $7.72 at Pershing Square. Rates for maximum time range from $4.40 at Friar to $15.40 at Pershing Square. Rates for monthly parking range from $38.50 at Dickens and Broxton to $280 for non-residential at Pershing Square. This demonstrates that parking rates are dependent on the demand drivers and competitive profile of each structure within its market (*Analysis,* Table 19).

Several of the parking structures have validation programs, including Ventura, Broxton, Larchmont, Hollywood & Highland and Cinerama Dome. The most generous validation program exists at Broxton, where drivers can park at no cost for two hours. In some cases merchants compensate the City for these validations, otherwise the City absorbs the costs of validations.

Parking Operations

All of the structures are currently operated by attendants. Pursuant to several Memoranda of Understanding (MOU) between DOT and GSD, GSD operates the structures at Broxton, Dickens, Friar, Larchmont, Robertson and Ventura. Pursuant to a MOU between RAP and GSD, GSD also operates Pershing Square. Cherokee is currently operated by Parking Concepts, Inc., pursuant to a contract with DOT. H&H is currently operated by New South Parking pursuant to a contract with DOT. Cinerama Dome is currently operated by Parking Concepts, Inc., pursuant to a contract with CRA. Cinerama Dome, Cherokee and Pershing Square are open 24/7. The working group envisions the development of a detailed implementation plan, including a transition period between the existing operator and the new concession operator, if Council approves a concession. The details of an implementation plan would be addressed in a subsequent report.

6. FINANCIAL MODELS ON STRUCTURES

Desman developed financial models by which to project revenues and expenditures for the Current Operating Structure and Private Operator scenarios. Based on a survey of rates at competing facilities (*Analysis*, Table 36), Desman has proposed specific rate structures through 2014 presented in *Analysis*, Table 35. Thereafter, the Desman models assume rates will increase at the rate of inflation. Expenditure projections for the Current Operating Structure model are derived from historical data provided by the City, assumed implementation of the prevailing "pay-on-foot" technology (in which exit turnstiles are automated, rather than staffed), industry information and projected inflation statistics. Expenditure projections for the Private

Operator model are based on Desman's professional knowledge of expenses, such as staffing and technology, which are typically incurred by private operators. A summary of revenues and expenditures is provided in Attachment 1.

Revenues

Each structure has unique characteristics that impact revenues. Growth in parking demand considers several factors, such as types of parking patrons (transient/monthly/event), existing capacity and potential land use changes. Information on market area employment growth and published statistics on workers who drive to work were used to forecast the growth of monthly parkers. Information on population growth and pending or planned developments within the market areas were used to forecast growth in transient parkers. Pershing Square, Hollywood & Highland and Cinerama Dome were the only structures expected to be impacted by new development in their areas.

Revenues are quantified by the price elasticity of demand, which is a measure of the sensitivity of demand relative to changes in rates. Rate increases, quality of parking and availability of alternate parking options impact the price elasticity of demand. Revenue projections are summarized in Attachment 1.

Desman finds that the private sector will drive higher revenues, primarily through more aggressive marketing and more timely reaction to market opportunities. The working group has found that the City does not appear to market these garages to a level comparable with the private sector. The working group believes it is unlikely that the City could achieve the same level of revenues as the private sector, motivated by profit and unencumbered with conflicting City priorities for scarce resources.

Desman concluded that the validation program at Broxton is unique for City structures and has a significant negative impact on revenues. Desman estimated that reducing the validation program from two hours free to one hour would increase revenues at Broxton by approximately 64 percent or $602,000 in the first year (*Analysis*, Table 34). The Base Case in the SBS valuation model assumes elimination of the Broxton validation program to match pricing policies of other City parking structures.

Expenditures

Annual operating expenditures include direct and indirect payroll costs, maintenance and utilities. Expenditure projections are summarized in Attachment 1. Both models assume adoption and installation of Parking Access and Revenue Control systems (PARCS), sometimes also called "pay-on-foot" because the system requires the parking patron to use a central kiosk to pay parking charges. This system is already in place at the Cinerama Dome structure but not yet in place in other Structures. Implementation of this system facilitates a 44 percent reduction in overall staffing levels, detailed below.

Lot	Current Annual Work Hours	Projected Annual Work Hours (Both Models)	% Change over Current
Friar	4,942	2,196	-55.6%
Dickens	7,635	2,196	-71.2%
Broxton	12,447	8,606	-30.9%
Ventura	8,209	2,196	-73.2%
Robertson	11,794	8,372	-29.0%
Larchmont	5,328	5,328	0.0%
Pershing Sq.	32,155	17,472	-45.7%
Total:	82,509	46,366	-43.8%

The Current Operating Structure model estimates the cost of this reduced staffing based on current city costs with a growth factor applied to each category of expenses. The Private Operator model is based on the projected expenditures of a professional parking operator assuming operations in accordance with industry standards.

In calculating the City's direct labor costs, historical data was collected from DOT, GSD and RAP. Since the Cinerama Dome already employs PARCS technology and is operated by a contract manager, the model assumes no staffing reductions resulting from the lease of this asset to a concessionaire, and no reduction in CRA staff costs. The City's indirect labor costs are calculated based on compensated time off (CTO), pension, health and welfare costs. GSD uses a mix of full-time, part-time and half-time employees to operate the seven structures, and under existing City rules, these groups have markedly different benefits packages. Since CAP rates use a "one size fits all" approach, the working group determined that a more accurate measure of avoided costs through a concession would be the reduction of costs in payroll and benefits associated with those specific positions. There would not be a significant reduction in departmental or citywide overhead costs, particularly since some staff will be needed to monitor the concession. Also, CAP rates are based on historical data from two years prior and the working group believed current data was more relevant to this analysis. Projections for LACERS costs are based on figures used in the CAO forecast. Salaries are escalated by one percent in the initial years and three percent after 2011. The CAO calculated the fringe benefit rates as follows:

CTO (Full-Time, Half-Time)	19.20%
LACERS/Medicare (Full-Time, Half-Time)	20.96%
Pension Savings Plan/Medicare (Part-Time)	4.50%
FLEX (Full-Time, Half-Time)	$9,087 (Full-Time) or $4,489 (Half-Time)

Administrative staff expenses for the management of the structures by DOT are captured separately as current cost accounting systems do not capture these costs by structure and these positions manage the entire inventory of DOT parking facilities.

Continuing debt obligations of the Special Parking Revenue Fund (Ventura, Mangrove, Hollywood and Highland) are included in the City-operated mode. The CRA's debt for the Cinerama Dome is also included.

The Private Operator model assumes costs based on Desman's industry experience, adjusted for inflation. DOT administration costs for the administration of the concession and lease are included. This model assumes no continuing debt obligations as the debt carried on the structures would be defeased if a transaction were executed (see Use of Proceeds discussion below).

Capital expenditure projections included preventative maintenance and capital improvements needed for each structure based on site inspections by Desman and were included in both models. This data is discussed in a separate Desman report entitled "Capital Expenditures" attached herein.

7. VALUATION

SBS was hired to provide a high-level analysis of the potential value ranges that the City could receive from a long-term concession for the ten previously-identified parking structures.

SBS developed numerous scenarios to frame the value ranges, based on the information provided by Desman. Any value range depends heavily on the specific terms and conditions embedded in the concession agreement. SBS value estimates do not consider any specific concession terms, each of which may materially affect the amount paid to the City. Therefore, these values ranges are only **estimates**, not a guarantee that these levels could be achieved.

Key variables that could have a major impact on value include, but are not limited to, parking rates and hours limits, free or reduced-cost validation practices, labor considerations, default events and remedies, investor suitability provisions, regulatory provisions and other legal issues from the private sector.

Base Case Assumptions

SBS developed base case assumptions for the calculations of two scenarios, one public and one private. The "Private Operator Scenario" assumes that the City retains ownership of the asset, but transfers the parking structure operations to a private operator through concession and operating agreements, and the City receives an upfront payment. The second scenario, the "Current Operating Structure Model," evaluates the future cash stream under continued city ownership, with modified staffing as described above. The SBS base case assumptions are as follows:

- Revenue and operating expense forecasts use Desman estimates, without further adjustments.
- 50 year term, recognizing that 50 years is the legal limit for contracts and would show the greatest value to continued public operation given higher capital costs of private ownership.
- Private Operator Scenario weighted average cost of capital of 10.625 percent.
- Private Operator Scenario would incur financing costs of 2 percent of upfront proceeds.

- Private operator would incur an effective tax rate of 25 percent of net income after Year 20. For years 1 to 20, the private operator would eliminate the tax liability through eligible operating expense deductions, including depreciating the asset over that time.
- Current Operating Model Scenario weighted average cost of capital of 7.5 percent. This rate is used to present value the future cash flows. The rate is based on the historic levels of taxable municipal finance interest rates for parking assets. A taxable rate is used assuming use of proceeds would include such items that would not be eligible for tax-exempt treatment.
- Cost of bond defeasance in Private Operator Scenario of $95,475,000 based on detailed refunding analysis of City debt incurred to finance the targeted parking structures and secured in whole or in part by parking revenues associated with the targeted parking structures.
- Parking structures would be subject to possessory interest taxes, which is applicable when an entity leases real estate owned by a government agency. Depending on the allocation by the County of concession proceeds to property interests that are subject to the tax, the tax will negatively impact the value of the upfront proceeds by $38 million on the base case, assuming the entire gross value of the transaction is subject to possessory interest tax. However, this would be partially offset by an increase in City revenues from its share of the additional taxes to be received. If the City chooses to subsidize or otherwise offset the concessionaire's cost of the City's share of the tax, the negative impact on upfront proceeds would be reduced.

Base Case Results

SBS' base case valuation estimate for the Private Operator Scenario produces an approximate $200 to $300 million in gross upfront value to the City or $100 to $200 million net after defeasing debt at Hollywood & Highland and Cinerama Dome. This value would be further reduced by the impact of possessory interest taxes. In comparison, the base case for the public ownership, Current Operating Model Scenario, produces $198 million in estimated *present value* although *no cash* payment is received by the City. SBS did not estimate the value to the City of public services that could be provided or preserved (e.g. public safety, neighborhood improvements, etc.) from the upfront proceeds associated with the Private Operator Scenario that are lost in the Current Operating Model Scenario.

Results with Sensitivity Analysis

SBS performed sensitivity analyses on the Private Operator and Current Operating model scenarios around term, cost of capital, and revenue and expense adjustments to produce a range of values for each scenario. The range for the Private Operator Scenario is $42.2 million to $265.4 million (less the possessory interest tax impact) and for the Current Operating Model Scenario is $43.9 million to $422.7 million.

Concession Agreement Analysis

There are certain decisions that the City must make regarding terms in the Concession Agreement that will affect the value of the transaction.

Term. The base case analysis assumes a 50 year term. SBS projects that a 10 year term would reduce upfront proceeds to the City, from $158.7 million to $42.2 million, in each case net of the $95.5 million debt defeasance cost.

Hours. The model assumes no change in current hours of operation. Although a limit on hours of operation would not affect hours currently assumed in the model, a reduction in operator flexibility may result in a lower value.

Broxton validation. SBS assumed that the validation program at Broxton is eliminated. If not, upfront proceeds would be reduced by $9.7 million.

Price caps. The model contemplates rate adjustments in the initial five year period to reflect the current market for parking, based on detailed surveys of competing facilities presented in the Desman studies. After that period, rates grow at the Consumer Price Index (CPI) annually. Although a CPI cap after the initial adjustment period would not affect rates assumed in the model, the reduction of operator flexibility may result in a lower value. The rate assumptions are more thoroughly explained in the Desman report.

Revenue share. The Concession Agreement should include a revenue share, whereby the City accepts a certain amount of upfront proceeds and receives a share of revenue going forward. However, the market for a revenue share transaction is evolving and SBS is uncertain on its impact to valuation. Debt would need to be defeased under a revenue share scenario.

Current Operating Structure Model

Desman's projections for the Current Operating Model assume that public sector rate adjustments would match the Private Operator Model adjustments, but would occur two years later than the Private Operator. In addition, Desman assumes that total revenues under the Current Operating Model would reach 90 percent of the revenue growth projected in the Private Operator Model. As the City was unable to provide historical information or planning documents that parking structures would be operated substantially differently going forward than they have been operated in the past, the valuation presented for the Current Operating Scenario cannot be relied upon as an accurate depiction of the worth of parking structures in their current form. SBS states that if operations do not achieve the 90 percent effectiveness level, the value of the Current Operating Model falls dramatically. In fact, if current operations do not achieve any of the growth projected for the Private Operator Model, the value of the asset approaches zero.

Based on the statement above, Desman and SBS attempted to value the asset as if the public sector could achieve the same revenues as the private sector. After discussions between Desman and SBS, observations of City operations, and discussions with both the CAO and DOT, Desman believes, and SBS concurs, that given the budgetary constraints and the labor obstacles to contracting and personnel management, rate setting and revenue optimization, it is unlikely that the City will achieve the same revenues the private sector could achieve. In the absence of evidence that the City could achieve optimized revenues, the extensive history

showing that it would not, and the absence of any plans showing how the public sector could achieve such results, SBS was unwilling to provide any valuation of public ownership beyond how the assets are presently managed. Any estimates to the contrary would be entirely speculative and not based on any reasonable financial, statistical or business models.

8. TRANSACTION ISSUES

The concession and lease agreement will be the document that establishes the terms and conditions by which the winning bidder would be required to maintain and operate the parking structures. A variety of factors need to be considered to define the City's objectives for this transaction and develop a document that meets these goals. Typical practice for P3 concessions involves the development of a draft concession agreement while bidders are responding to the City's Request for Qualifications (RFQ). Once potential bidders have been qualified, the draft concession is presented to the qualified bidders for comment. The City will have the opportunity to respond to any questions or concerns raised by qualified bidders. The working group proposes to draft this concession over the next two months, for review by the Mayor and Council prior to release bidders. If the draft is changed in response to bidder concerns, the revised draft would again be presented for approval before final bids are due.

Typically, the period to comment on the draft concession ends at least one month before final bids are due, so bidders know the exact form of the concession agreement that will be required from the winning bidder. In most cases, bidders are also required to post nonrefundable deposits with their bids, which the City can retain as liquidated damages if it subsequently fails to close. Chicago recently retained a $126 million deposit from the winning bidder in the Midway Airport transaction, which the bidder failed to close. The working group believes that this process will enable the City to recoup its transactional costs if the deal fails to close, assuming the City is willing to proceed with a commercially reasonable concession. To the extent that the City imposes terms and conditions that are unfamiliar in the P3 industry, or requires bidders to accept risks that are difficult for bidders to quantify, it is possible that the City receives no bids and thus is unable to recoup its costs. The working group proposes to mitigate this risk by adhering to commercially reasonable terms that have been proven in other P3 transactions. The Mayor and Council will have the opportunity to review the proposed concession terms early, before presentation to the bidders.

Outstanding Debt

As noted, the City has outstanding debt for the Hollywood & Highland facility and the CRA has outstanding debt for the Cinerama Dome facility. The debt on these facilities must be defeased if the proposed concession closes. Though the Mangrove property is not included in this proposed concession, existing debt on Mangrove is also structured within the Special Parking Revenue Fund (SPRF). Since Mangrove would be the only remaining debt within the SPRF if the concession concludes, defeasing the Mangrove debt upon closing of the P3 will maximize the City's operational flexibility. If the Mangrove debt is defeased through the concession proceeds and the Mangrove property is later sold, the net proceeds to the City from the sale of Mangrove will be higher. If sale of the Mangrove property closes before the P3, the sale proceeds can be used to defease the Mangrove debt, and the net proceeds from

the P3 concession will be higher. The estimated expenditure to defease debt, with and without Mangrove, is as follows:

	Debt Series	Available Reserves	Net
H & H	1999A	$ (5,398,000)	$ 59,950,000
Cinerama Dome	2000	3,108,217	35,525,000
Subtotal		$ (8,506,217)	$ 95,475,000
Mangrove	2003A	(3,211,560)	25,025,000
Total w/Mangrove		$ (11,717,777)	$ 120,500,000

Avoided interest costs from defeasing debt on Hollywood and Highland and Cinerama Dome would be approximately $137 million; this amount increases to $163 million if Mangrove is also defeased. Average annual debt service of $5.4 million on Hollywood and Highland and $3.1 million on Cinerama Dome would become available for programming towards other priorities.

Not all of the City's parking lots paid for by bonds currently generate sufficient revenue to pay for its operation, maintenance and debt service. In the case of Hollywood and Highland, revenues were insufficient to cover the cost of operations, maintenance and debt service by $989,000 in Fiscal Year 2008-09. Revenues from Cinerama Dome have only recently started to just cover all costs, including debt service.

Transaction Structure and Use of Proceeds

The working group has explored various potential transaction structures, including a single upfront payment, a partial upfront payment with some type of revenue sharing, or compensation based entirely on revenue-sharing over a specified duration. Some of the factors that have been considered include the status of the credit markets, the valuation impact of equity compared to debt financing, and the City's short and long term financial goals. It is increasingly likely that this transaction will be largely equity-based, given current market conditions and the relative size of this transaction, therefore credit considerations may have a minimal impact on value. In the short-term, the City is facing a shrinking Reserve Fund as revenues continue to fall and expenditures are not sufficiently reduced. However, the need to continue to invest in the City's infrastructure over time remains.

The working group recommends further exploration of a combination of a single upfront payment plus revenue-sharing over the life of the concession. Dedicating one-time upfront proceeds to the Reserve Fund and using ongoing proceeds from a revenue-sharing plan would provide funds to address the City's current financial challenges and provide a financially sustainable mechanism to partially offset the loss of revenue from these structures and fund new priorities. Preliminary information on value shows an inverse relationship between upfront proceeds and revenue sharing, lower upfront proceeds will likely result in a higher percentage share of net revenues. Given the urgent need to replenish the reserve fund, the working group recommends structuring the transaction so that upfront proceeds, net of debt defeasance, are in the range of $50 to $80 million. The CAO and CLA strongly recommend that these proceeds go to the Reserve Fund. The amount of on-going revenue cannot be quantified at this time as it will depend on various factors built into the concession.

Rates

Rate setting authority is a significant element of the concession. If the Mayor and Council retain authority to set rates, or restrict the concessionaire's ability to react to market conditions, the value of the return on the concession will be significantly reduced. Chicago permitted its structure concessionaire to adjust rates at will, without further city approval. Chicago determined that normal market conditions, particularly the supply of privately-owned parking in the vicinity of its structures, were sufficient to moderate concessionaire price hikes. The working group does not recommend pursuing this approach. Instead, the working group concurs with the recommendations of the City's parking consultant, to establish a specific schedule of rates for the next five years and a CPI-based rate ceiling thereafter (see Analysis, Tables 35 and 36). The City could retain the right to approve increases above this ceiling, so that both parties continue to engage in dialogue to maximize opportunities for revenue growth. This also signals to the concessionaire that the City remains a committed partner to the project and while not assuming it entirely, is sharing in the long-term risk of operations.

Labor

A mix of City employees from GSD, DOT and RAP currently work at or in support of these structures. DOT and RAP use staff to cover these structures and other matters, and have therefore preferred to report time on a Full-Time Equivalent (FTE) basis. For example, under an FTE approach, if two people each work half-time the result is reported as a single FTE. GSD expressed concern that FTE aggregation could understate the number of current City employees that would be affected by the proposed concession, and preferred to report actual counts of full-time, half-time, and part-time employees. The charts below report both actual counts and FTE equivalents, by department, by union and by employment status:

Employment by Department	# of Positions	FTEs
GSD	47	46.2
LADOT	7	1.5
RAP	5	3.4
Total	**59**	**51.1**

Employment by Union	# of Positions	FTEs
ASFCME	3	0.9
EAA	11	4.2
LACCSA	1	0.2
SEIU Local 347	44	45.9
Total	**59**	**51.1**

Employment by Status	# of Positions
Full-Time	40
Part-Time/Half-Time	19
Total	**59**

The working group believes that active labor support is essential to the success of this project and expects that labor issues will be addressed within these parameters:

- Investors in complex public-private partnerships recognize the importance of labor support. The working group believes that these investors are comfortable with requirements like the Service Worker Protection policy, pursuant to which a winning bidder would be required to offer employment to affected employees, and prevailing wage, pursuant to which the winning bidder must pay scale wages for construction or significant refurbishment that may be required during the life of the concession.

- Under the City Charter and existing MOUs, City workers are entitled to a variety of protections, including seniority-based bumping and layoff avoidance systems. The working group expects that any current City employee who does not voluntarily accept a position with the winning bidder would be entitled to these protections.

- Some of the employees now working at these structures were employed by the previous operator, before GSD took operations in-house. Though the City offers superior compensation and benefits, many of the current employees are used on an as-needed basis, and as such do not qualify for City benefits.

The concession must state the City's labor and workforce requirements. The working group proposes to incorporate Service Worker Protection and Prevailing Wage, and will also meet with affected unions prior to the next report back to assess other options and enhancements. The working group will also engage in discussions with bidders, once qualified, to assess the impact of alternative labor strategies on investor expectations.

Operating Standards

The concession must define the City's expectations for operating and maintaining the assets. This will be developed in part based on the Desman report and must be sufficiently flexible to adapt to future technological and operational challenges. It is expected that the concessionaire will seek to use technology and automate where feasible to maximize revenue generation. The working group proposes to incorporate comprehensive requirements that address both the concessionaire's interests and the City's desire to protect its assets and report in further detail in a future report.

Release of a Request for Qualifications

A Request for Qualifications (RFQ) is necessary to qualify interested bidders. The RFQ process allows the City to engage in negotiations with qualified bidders over the terms of the concession agreement. In addition, by qualifying potential bidders, the City will be able to gauge the interest of the qualified parties and better assess the financial and practical risks that could dissuade bidders from bidding. A proposed RFQ is attached (see Attachment 3). The working group seeks authorization to release the RFQ.

Timing of the Transaction

The City's consideration of a concession agreement for parking assets has raised concerns regarding the timing of this proposal, in that real estate markets have dropped dramatically and the financial marketplace is still recovering from the recent near-collapse of the financial markets, so the City's assets could be undervalued in any transaction offered within this context. According to the City's financial advisors, conventional real estate assets (residential and commercial real estate) where there are more sellers than buyers has resulted in a buyers market. In contrast, there is a limited supply of high quality infrastructure assets currently being offered in the marketplace. A diverse set of investors continues show interest in this asset class despite the weak economic environment and the financial crisis.

The City's financial advisors note that over the last 2-3 years, infrastructure funds have raised a tremendous amount of capital which they are anxious to deploy. While parking is not considered their core infrastructure, lack of adequate deal flow has resulted in infrastructure funds expanding there sphere of activities to non-core infrastructure such as parking. These funds have a history of bidding for, and successfully operating, parking assets in partnership with parking management firms.

In terms of the City's potential parking concession, the City's financial advisors note that it is rare for more than 8000 parking spaces to come to the market in one offering, thereby presenting a great opportunity for both mid-size regional parking operators and national/international operators. Parking operations have become increasingly automated with higher fixed costs (such as information technology) and lower variable costs. Consequently, size matters in this case as fixed costs can be spread over a larger parking base. The indicative transaction valuation would likely attract both large international/national operators and smaller players. The City's financial advisors believe that, with credit concerns gradually subsiding over the last year and an interested, motivated buyer universe, the timing of the transaction is unlikely to constrain valuation.

9. CONCLUSIONS

In September 2009, the working group was requested by the Mayor and Council to provide the final parking study, an analysis of the results and a discussion of options for consideration by the Council.

This analysis is limited to the information provided by these reports, but includes several policy issues. Below is a summary of those "Pros and Cons" to a P3 Parking concession:

Pros

- Decrease in City expenses (operations and maintenance)
- Decrease pension obligations
- Increase in City revenues (either one-time and/or stream-of-revenue)
- Increase in Parking Occupancy Tax revenues (related to any approved rate increases)

- Renovation and maintenance of garages by private entity to provide better public service, and to limit risk of deteriorating physical condition due to deferred City maintenance
- Reduction of risk due to declining demand for parking
- Reduction of debt obligations at H&H and Cinerama Dome
- Reduction or elimination of normal risks pertaining to property ownership (e.g., slip and fall liability) and employment (e.g., workers' comp claims)
- Avoided interest costs from defeasing debt on Hollywood and Highland and Cinerama Dome totaling approximately $137 million
- Ability of City to focus human resources on other core functions, such as safety, parking enforcement, etc.
- Ability of City to focus financial resources on other core functions (reducing debt obligations, increasing Reserve Funds, providing constituent services, improving infrastructure, etc.)

Cons

- Loss of control of property.
- Elimination of City jobs when parking operations are transferred to the private sector.
- Increase of parking rates, e.g., areas near these garages are less accessible to those who cannot pay, area businesses may suffer in the short-term, and could upset stakeholders
- Monitoring and enforcement of P3 agreement will require staff to ensure City receives it share of stream-of-revenue and all contract provisions are honored, regardless of method of payment
- Poor maintenance of the parking structures could trigger a default under the concession agreement, but enforcing default rights is time consuming and can be contentious. As the City pursues legal remedies, the City could be blamed for bad conditions even though it no longer handles operations and maintenance.
- Loss of a continuing revenue stream currently available to fund City services.

The CAO and CLA believe that despite all the cons, parking is one area where there is the opportunity to shed a function that is not a core function of the City. Although the City could upgrade the parking structures and maintain them, and theoretically the value of the parking assets would be greater than privatization, historically the City has not committed the resources to do this and it is unlikely that sufficient resources will be available in the foreseeable future to make the necessary investment to maximize parking asset value and revenue. DOT has stated that it cannot embrace a City Optimized Model for these reasons and cannot guarantee any increase in future revenue. The working group recommends that the Mayor and Council continue with the "Next Steps" outlined below.

NEXT STEPS

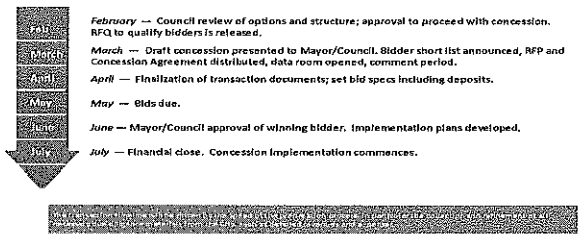
The following are key milestones for the proposed transaction.

- The working group, in consultation with the City's advisors, will identify the bidders who qualify pursuant to the requirements stated in the RFQ.

- The working group will report back to the Mayor and Council for approval of the Request for Proposals (RFP), which will include the proposed concession and lease agreement and the list of qualified bidders. At that time, the working group will also seek authority to enter into negotiations with the qualified bidders over the final form of the concession and lease agreement.

- A final concession and lease agreement will be developed based on feedback from the qualified bidders and released for bids. The working group will report back to the Mayor and Council with the outcome of the bid process and recommendations for the selection of the winning concessionaire.

Preliminary Transaction Timetable



10. FUNDING

As noted above, additional funds will be needed to execute and implement the proposed concession and lease. The Council previously authorized $630,000 for the assessment phase, including $70,000 for an Operations Manual that will be valuable to DOT irrespective of the outcome of these discussions. The exact scope and nature of the work that would be required in the next phases of this transaction is difficult to estimate since it depends on a variety of factors that the working group can not predict, such as the number of interested bidders and the complexity of negotiations. As detailed earlier in this report, the working group recommends that the Council and Mayor authorize the appropriation of an additional $510,000 at this time, to proceed with this agreement. This estimate is based on additional services required by SBS ($185,000), parking consultants ($40,000), outside counsel ($260,000), and non-contingent expenses capped by contract that may be incurred by the Sell-Side Advisor ($20,000). The working group will report on the expenditure of these funds, and need for additional funds, in a future report, as necessary.

Adoption of the recommendations in this report is consistent with the City's Financial Policies in that funding to evaluate and implement a potential public-private partnership with respect to the City's parking assets was included in the Unappropriated Balance of the 2009-10 Adopted Budget. The Adopted Budget provides a total of $3 million for this purpose from funds originating from the Special Parking Revenue Fund. Of this amount $130,000 has been transferred to the Capital Finance Administration Fund to fund expenses associated with the assessment phase (C.F. 09-0600-S120), leaving a balance of $2.87 million available for the implementation phase of this project.

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Attachments:

1. Revenue and Expense Projection Model Summary (Desman)

2. Desman Associates Reports:
   a. *Financial Analysis and Condition Appraisal*
   b. *Market Assessment of City-Owned Parking Garages*
   c. *On-Street Meter Survey Areas-Market Descriptions*
   d. *Parking Revenue Control Technology*
   e. *Physical Due Diligence Review and Evaluation*

3. Draft Request For Qualifications

ATTACHMENT 1

Revenue and Expense Projection Model Summary (Desman)

DESMAN
ASSOCIATES

Table 39
Revenue and Expense Projection Model Summary, Current vs. Private Operator

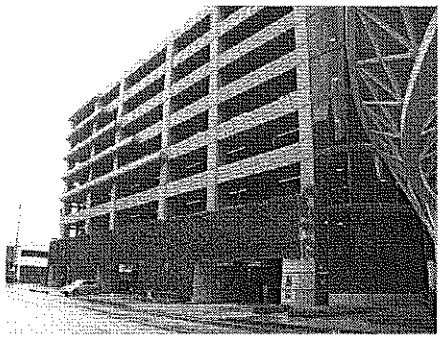
Current Operating Structure Model	Year 1 2010	Year 2 2011	Year 3 2012	Year 4 2013	Year 5 2014	Year 10 2019	Year 12 2021	Year 20 2029	Year 22 2031	Year 30 2039	Year 32 2041	Year 40 2049	Year 42 2051	Year 50 2059
Gross Revenue	$20,473,497	$22,477,927	$26,192,010	$27,585,174	$29,698,115	$37,027,907	$39,606,707	$48,541,546	$51,719,689	$66,701,786	$71,094,175	$91,816,483	$97,899,900	$126,521,432
Parking Tax	($2,011,075)	($2,210,429)	($2,580,717)	($2,718,879)	($2,926,983)	($3,655,460)	($3,910,457)	($4,790,546)	($5,104,506)	($6,584,694)	($7,018,727)	($9,066,964)	($9,668,109)	($12,507,748)
Operating Revenues Net of Parking Tax	$18,462,422	$20,267,497	$23,611,294	$24,866,295	$26,769,131	$33,372,448	$35,696,250	$43,751,000	$46,615,383	$60,117,094	$64,075,449	$82,751,519	$88,231,791	$114,113,684
Operating Expenses	$10,685,230	$11,060,057	$10,138,272	$10,492,323	$10,867,608	$12,847,129	$13,730,281	$17,994,523	$19,273,310	$25,455,442	$27,312,939	$36,300,215	$39,001,513	$52,092,144
Operating Income Net of Parking Tax	$7,777,193	$9,207,440	$13,473,022	$14,373,973	$16,901,523	$20,525,319	$21,965,969	$25,756,477	$27,342,073	$34,660,652	$36,762,510	$46,451,304	$49,230,277	$62,021,540
Parking Equipment Cap-Ex[3]		$4,436,053					$5,961,685		$8,012,006		$10,767,466		$14,470,574	
Facility Maintenance Cap-Ex[3]	$609,657	$627,947	$646,785	$666,189	$686,174	$596,699	$1,076,948	$1,364,246	$3,268,202	$4,140,060	$789,520	$1,000,141	$1,061,049	$1,344,106
Total Capex	$609,657	$5,064,000	$646,785	$666,189	$686,174	$596,699	$7,038,633	$1,364,246	$11,280,208	$4,140,060	$11,556,986	$1,000,141	$16,531,623	$1,344,106
Debt Service[4]	$11,859,199[5]	$11,856,874	$11,855,374	$11,614,876	$11,601,126	$11,556,579	$11,557,110	$8,366,511	$3,106,180					
Net Cash Flow	($4,691,663)	($7,713,434)	$970,863	$2,092,908	$3,614,223	$8,362,041	$3,370,226	$16,025,720	$12,955,685	$30,520,592	$25,205,523	$45,451,163	$33,698,654	$60,677,434

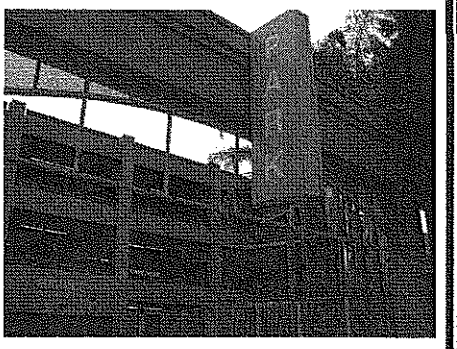
Private Operator Model	Year 1 2010	Year 2 2011	Year 3 2012	Year 4 2013	Year 5 2014	Year 10 2019	Year 11 2020	Year 20 2029	Year 21 2030	Year 30 2039	Year 31 2040	Year 40 2049	Year 41 2050	Year 50 2059
Gross Revenue	$25,045,079	$26,457,476	$34,819,846	$36,487,340	$43,041,060	$51,470,482	$53,349,390	$69,716,342	$72,161,647	$98,480,994	$101,950,883	$139,329,314	$144,260,998	$197,431,715
Parking Tax	($2,463,233)	($2,603,234)	($3,438,196)	($3,603,632)	($4,257,650)	($5,093,194)	($5,279,469)	($6,899,258)	($7,141,617)	($9,750,832)	($10,094,903)	($13,802,212)	($14,291,459)	($19,567,495)
Operating Revenues Net of Parking Tax	$22,581,847	$23,854,241	$31,381,650	$32,883,709	$38,783,409	$46,377,289	$48,069,922	$62,817,084	$65,020,030	$88,730,162	$91,855,981	$125,527,102	$129,969,539	$177,864,220
Operating Expenses	$6,572,014	$6,790,339	$7,016,243	$7,249,996	$7,491,879	$8,833,830	$9,131,003	$12,265,056	$12,683,263	$17,181,890	$17,774,816	$24,162,693	$25,006,029	$34,103,239
Operating Income Net of Parking Tax	$16,009,833	$17,063,902	$24,365,407	$25,633,713	$31,291,530	$37,543,458	$38,938,919	$50,552,028	$52,336,766	$71,548,273	$74,081,165	$101,364,209	$104,963,510	$143,760,981
Parking Equipment Cap-Ex[3]	$1,655,480						$2,226,171		$2,991,787		$4,020,712		$5,403,600	
Facility Maintenance Cap-Ex[3]	$609,657	$627,947	$646,785	$666,189	$686,174	$596,699	$1,045,591	$1,364,246	$3,173,011	$4,140,060	$756,525	$1,000,141	$1,030,145	$1,344,106
Total Capex	$2,265,137	$627,947	$646,785	$666,189	$686,174	$596,699	$3,271,762	$1,364,246	$6,164,799	$4,140,060	$4,787,236	$1,000,141	$6,433,645	$1,344,106
Net Cash Flow	$13,743,696	$16,435,955	$23,718,622	$24,967,524	$30,605,355	$36,946,760	$35,667,167	$49,187,781	$46,171,968	$67,408,212	$69,293,928	$100,364,068	$98,529,865	$142,416,876

Attachment 1

ATTACHMENT 2A

Financial Analysis and Condition Analysis (Desman)



Financial Analysis and Condition Appraisal

Los Angeles Public Parking System

Prepared by:

DESMAN
ASSOCIATES

Chicago, Illinois

November 3, 2009

EXECUTIVE SUMMARY

Scott Balice Strategies retained DESMAN Associates to perform a 50-year financial review of the City of Los Angeles ("City") Parking System under two scenarios: (i) the existing operation by the Los Angeles Department of Transportation ("LADOT") and (ii) Private operation under a concession lease based Public-Private Partnership. The City of Los Angeles Parking System ("the Parking System") consists of both on-street and off-street parking. The off-street, operated parking system analyzed includes 10 parking structures. The metered off-street and on-street parking system analyzed includes 39,692 metered spaces distributed in 13 of the 15 City Council Districts, including both single- and multi-space meter technologies. The purpose of this study was to assess the existing physical and financial state of the parking system and its place in the competitive market and to formulate long-term financial projections.

Aside from data supplied by various City of Los Angeles entities including, but not limited to: the LADOT, the Department of Recreation and Parks, the Community Redevelopment Agency ("CRA"), the CAO's office and the Mayor's office – DESMAN used occupancy data gathered from parking surveys performed at the 10 garages and 58 metered lots included in the study. In addition to gathering hourly and daily utilization pattern data on the subject facilities, particularly in relation to the garages, DESMAN also identified competing parking facilities, including space inventories, occupancies and rates, made observations of the commercial and residential areas surrounding each facility and identified possible areas of new development that could impact the supply of and demand for parking in the market area of each facility. These surveys and observation periods were undertaken during a weekday, a weekend day and a weekend evening at each facility, in order to accurately document the varying levels of parking activity that occur at a facility based on its surrounding market area. All of this data was gathered during the month of June 2009.

In addition to parking occupancy surveys and market area observations, a detailed engineering survey was conducted at each of the 10 parking garages. The information gathered during these surveys was used to evaluate the physical condition of each facility as well as to forecast the potential costs associated with repairing and maintaining the facilities over the course of the next 50 years.

For the on-street meter portion of the assignment, detailed surveys were conducted to identify operational characteristics of representative meter areas around the City. One on-street meter area was surveyed in each of the 13 Council Districts containing parking meters. In addition to geographic distribution, the surveys were also selected based on meter performance. The Parking Meter Zones ("PMZ's") were assigned a value based upon the documented revenue generated per meter, per year in each zone. The meter zones were ranked based on their activity

level (hours occupied per meter) and the more active PMZ's were selected to be surveyed (the highest activity level areas were not always selected as we determined that this may skew the results). The specific street selected in each of the 13 PMZ's to be surveyed was based on a site visit to find an area of meters that met the following criteria: good visibility, 8 to 10 meters in close proximity and high activity/turnover. Also performed in June 2009, each sample area survey was conducted during the hours of operation specific to that location.

Prior to the development of a financial model to project the revenues and expenses of the parking meter system, DESMAN Associates was instructed by the LA City officials directing the project to cease work on the parking meter portion of the assignment. However, the data collected and analyzed in relation to the parking meter system to that point is included in the report and indicates that improvements to the operations and technology of the system are possible.

In preparing financial models of the performance of the 10 parking garages over a 50-year period, in addition to historical revenue and expense data, the following elements were analyzed: population growth, economic conditions, existing and future parking demand, sources of revenue enhancement within the parking system, and changes in system operating expenses. Additionally, the facility repair and maintenance costs, developed as a result of the engineering surveys, were incorporated into the financial models. From this information, two models were developed: the Current Operating Structure model to project the performance of the system if the City, the CRA and the Department of Recreation and Parks continue to operate and manage the system as is and the Private Operator model to illustrate how the performance of the system would be affected if a professional private parking operator were to take over and improve the operations of all 10 garages.

The Current Operating Structure model makes several assumptions about future revenues, expenses and capital expenditures including, but not limited to:

- Parking fee increases equivalent to the increases shown in the Private Operator model will be implemented throughout the life of the model, but the public sector implementation will lag two years behind private sector adoption.
- Rates will increase by an average of 3% per year beginning in 2017 to match the historical rate of inflation.
- Expenses will increase each year at a rate of growth that depends on the expense category.
- Nearly all of the facilities will be equipped with such technologies that will make the operations of the garages almost completely automated by the end of 2011 and labor costs will be reduced in half once the new technologies are in place.

The Private Operator model assumes:

- Parking fee increases that occur on a set schedule beginning in 2010 for the first five years of the concession and at the historical rate of inflation thereafter.
- Lower operating expenses due to the expertise of the private operator that will also increase over time based on each expense category.
- Nearly all of the facilities will be equipped with such technologies that will make the operations of the garages almost completely automated in the first year of the concession.

Several selected years of projected revenues, operating expenses, capital expenditures and Net Cash Flows are shown below to illustrate the effects of maintaining the current operating structure of these 10 parking garages versus privatizing the operations in exchange for a lump sum cash payment.

Current Operating Structure Model	Year 1 2010	Year 2 2011	Year 10 2019	Year 12 2021	Year 20 2029	Year 22 2031	Year 30 2039	Year 32 2041	Year 40 2049	Year 42 2051	Year 50 2059
Gross Revenue	$20,473,497	$22,477,927	$37,027,907	$39,606,707	$48,541,546	$51,719,889	$66,701,788	$71,094,175	$91,818,483	$97,899,900	$126,621,432
Parking Tax	($2,011,075)	($2,210,429)	($3,655,460)	($3,910,457)	($4,790,546)	($5,104,506)	($6,584,694)	($7,018,727)	($9,066,964)	($9,668,109)	($12,507,748)
Operating Revenues Net of Parking Tax	**$18,462,422**	**$20,267,497**	**$33,372,448**	**$35,696,250**	**$43,751,000**	**$46,615,383**	**$60,117,094**	**$64,075,449**	**$82,751,519**	**$88,231,791**	**$114,113,684**
Operating Expenses	$9,707,489	$9,879,129	$11,041,772	$11,707,824	$14,818,866	$15,723,309	$19,953,553	$21,184,918	$26,951,840	$28,632,580	$36,514,308
Operating Income Net of Parking Tax	**$8,754,934**	**$10,388,368**	**$22,330,676**	**$23,988,426**	**$28,932,134**	**$30,892,073**	**$40,163,542**	**$42,890,531**	**$55,799,678**	**$59,599,211**	**$77,599,375**
Parking Equipment Cap-Ex[2]		$4,436,053		$5,961,685		$8,012,006		$10,767,466		$14,470,574	
Facility Maintenance Cap-Ex[2]	$609,657	$627,947	$596,699	$1,076,948	$1,364,246	$3,268,202	$4,140,060	$789,520	$1,000,141	$1,061,049	$1,344,106
Total Capex	**$609,657**	**$5,064,000**	**$596,699**	**$7,038,633**	**$1,364,246**	**$11,280,208**	**$4,140,060**	**$11,556,986**	**$1,000,141**	**$15,531,623**	**$1,344,106**
Debt Service[3]	**$8,678,611[4]**	**$8,676,736**	**$8,425,923**	**$8,420,860**	**$8,366,511**	**$3,106,180**					
Net Cash Flow	**($533,334)**	**($3,352,368)**	**$13,308,055**	**$8,528,933**	**$19,201,377**	**$16,505,686**	**$36,023,481**	**$31,333,545**	**$54,799,538**	**$44,067,587**	**$76,255,270**

Private Operator Model	Year 1 2010	Year 10 2019	Year 11 2020	Year 20 2029	Year 21 2030	Year 30 2039	Year 31 2040	Year 40 2049	Year 41 2050	Year 50 2059
Gross Revenue	$25,045,079	$51,470,482	$53,349,390	$69,716,342	$72,161,647	$98,480,994	$101,950,883	$139,329,314	$144,260,998	$197,431,715
Parking Tax	($2,463,233)	($5,093,194)	($5,279,469)	($6,899,258)	($7,141,617)	($9,750,832)	($10,094,903)	($13,802,212)	($14,291,459)	($19,567,495)
Operating Revenues Net of Parking Tax	**$22,581,847**	**$46,377,289**	**$48,069,922**	**$62,817,084**	**$65,020,030**	**$88,730,162**	**$91,855,981**	**$125,527,102**	**$129,969,539**	**$177,864,220**
Operating Expenses	$7,277,567	$9,680,763	$9,996,181	$13,310,641	$13,750,754	$18,463,928	$19,082,637	$25,719,776	$26,592,389	$35,968,543
Operating Income Net of Parking Tax	**$15,304,280**	**$36,696,526**	**$38,073,741**	**$49,506,443**	**$51,269,275**	**$70,266,234**	**$72,773,343**	**$99,807,326**	**$103,377,150**	**$141,895,677**
Parking Equipment Cap-Ex[2]	$1,656,480		$2,226,171		$2,991,787		$4,020,712		$5,403,500	
Facility Maintenance Cap-Ex[2]	$609,657	$596,699	$1,045,581	$1,364,246	$3,173,011	$4,140,060	$766,525	$1,000,141	$1,030,145	$1,344,106
Total Capex	**$2,266,137**	**$596,699**	**$3,271,752**	**$1,364,246**	**$6,164,799**	**$4,140,060**	**$4,787,236**	**$1,000,141**	**$6,433,645**	**$1,344,106**
Net Cash Flow	**$13,038,143**	**$36,099,827**	**$34,801,989**	**$48,142,197**	**$45,104,477**	**$66,126,174**	**$67,986,107**	**$98,807,185**	**$96,943,504**	**$140,551,571**

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1.0 Introduction

Scott Balice Strategies retained DESMAN Associates to perform a 50-year financial review of the City of Los Angeles ("City") Parking System under two scenarios: (i) the existing operation by LADOT and (ii) private operation under a concession lease based Public-Private Partnership. The City of Los Angeles Parking System ("the Parking System") consists of both on-street and off-street parking. The off-street, operated parking system to be analyzed includes 10 parking structures. The metered off-street and on-street parking system to be analyzed includes 39,692 metered spaces, which are distributed in 13 of the 15 City Council Districts. The purpose of this study is to assess the existing physical and financial state of the Parking System and its place in the competitive market and to formulate long-term financial projections.

The ten parking structures include (i) 8 parking garages operated by the Los Angeles Department of Transportation ("LADOT") containing 5,091 spaces, (ii) 1 garage owned by the City's Community Redevelopment Agency ("LACRA") containing 1,717 spaces and (iii) one 1590-space garage operated by the City's Department of Recreation and Parks. The on-street meters include both single space meters and Pay-by-Space meters. The meters and off-street parking lots are managed and operated by the LADOT Bureau of Parking Operations and Facilities.

In preparing a financial model of the City's parking system over a 50-year period, the following elements were analyzed: population growth, economic conditions, existing and future parking demand, sources of revenue enhancement within the parking system, and changes in system operating expenses. The study focused on two primary types of changes: short term and long term. The short term changes, such as potential increases in rates and changes in operating expenses are likely to occur quickly. The impact of marketing activities will begin to show up in the first year and will stabilize after five years. After that, long term growth trends will affect both revenue and expenses. Also, a review of the condition of the parking facilities and the future improvements necessary to keep the parking system in sound operating condition are incorporated into the financial models.

2.0 DESMAN

DESMAN Associates is a national specialist in parking structure planning, design and restoration. We also offer a full range of services including transportation engineering, master planning, economic feasibility studies, site/size selection analysis, cost estimating, parking functional design, architectural design, structural engineering, revenue/access control system design, condition survey/due diligence studies, parking consulting, and restoration engineering. We have been in existence since 1973 and currently operate on a national basis out of eight principle offices. We have a total staff of over one-hundred twenty people, comprised mostly of transportation and parking planners, architects, and structural engineers. We have been involved in market and revenue studies for the following Public-Private Partnership projects: Chicago Garages located at Millennium Park, the Chicago Parking Meter System, Midway Airport, City of Harrisburg Parking System, and the San Juan Luis Munoz Marin International Airport. We have also performed financial analyses of the parking systems in the City of St. Louis, the

University of Illinois at Urbana-Champaign, the Ballpark Village in St. Louis, MO, Hamot Medical Center in Erie, Pennsylvania and many others.

3.0 Market Area

Figure 1 displays a map of the City of Los Angeles. Located in Southern California, Los Angeles is the largest city in California and the second largest in the United States. The City covers a total area of 498.3 square miles and it had a population of approximately 3.8 million in 2007. Los Angeles County covers 4,084 square miles and includes 88 incorporated cities, with the central city being Los Angeles. Based on the U.S. Census Bureau, the County of Los Angeles had a population of 9,862,049 in 2008. Los Angeles County's economy would be the 18th largest in the world if it were a nation **(Appendix 1)**. There are more than 244,000 businesses in L.A. County and it is the nation's top international trade center and manufacturing center.

Future parking utilization in the City is dependent on the projected growth in population, employment, vehicle use, and major institutions. In order to understand the future success and growth of the City, historical and projected data regarding the items listed below were examined.

- Population
- Employment
- Economic Factors
- Journey to Work
- Alternative Modes of Transportation
- Major Institutions

3.1 Population

The population trend in the City of Los Angeles is essential to help project its future growth and prosperity. Population in the City is derived from the U.S. Census Bureau's tabulation of surveys conducted at 10-year intervals. As such, population estimates are required when attempting to characterize a year between Census counts. The U.S. Census' last estimate for the City of Los Angeles was calculated for 2007. The historical U.S. Census population data between 1900 and 2007 for the City of Los Angeles and Los Angeles County are provided in **Table 1**. The percentages in the table reflect the rate change in relation to the previous year. Overall, the residential population in the City has increased over every ten-year period and has increased approximately 10% between 1990 and 2007.

Figure 1 – City of Los Angeles Map

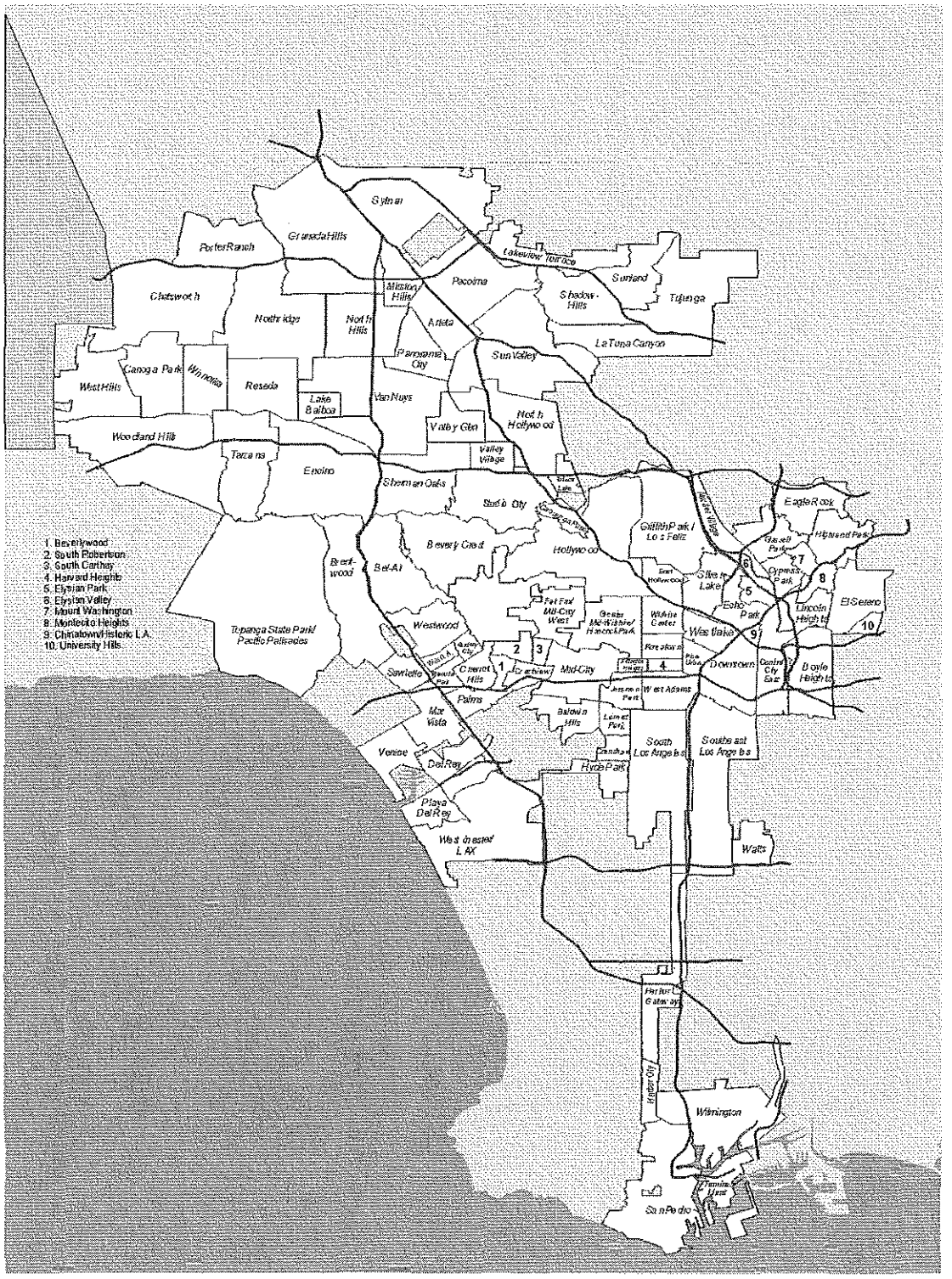

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Table 1
City of Los Angeles and Los Angeles County Population Trends from 1900 to 2007

	City of Los Angeles		Los Angeles County	
Year	Population	Growth Rate	Population	Growth Rate
1900	102,479	-	170,298	-
1910	319,198	211.5%	504,131	196.0%
1920	576,673	80.7%	936,455	85.8%
1930	1,238,048	114.7%	2,208,492	135.8%
1940	1,504,277	21.5%	2,785,643	26.1%
1950	1,970,358	31.0%	4,151,687	49.0%
1960	2,479,015	25.8%	6,038,771	45.5%
1970	2,816,061	13.6%	7,041,980	16.6%
1980	2,966,850	5.4%	7,477,421	6.2%
1990	3,485,398	17.5%	8,863,164	18.5%
2000	3,694,820	6.0%	9,519,338	7.4%
2007	3,834,340	3.8%	9,883,649	3.8%

Source: U.S. Census Bureau
DESMAN Associates

The population growth rate since 1970 has slowed primarily due to a decrease in the overall population growth rate in the United States and the expansion of suburban communities further outside the Los Angeles metropolitan area.

Table 2 displays population growth projections to 2030 for the areas that contain parking meters. These projections are based on the Department of City Planning's *Policy Allocation of Population by Community Plan*. Based on this data, the City population is projected to increase approximately 9.5% between 2005 and 2030, or at an average annual rate of 0.38%. In Council Districts where parking growth is more heavily dependent on population growth and not employment growth, the annual population growth projections listed in **Table 2** will be one of the factors utilized to determine future parking demand growth.

3.2 Employment

Employment growth in the City plays a major role in the projected utilization of the parking system. The economy of Los Angeles is primarily driven by international trade, entertainment, aerospace, technology, petroleum, fashion, apparel, and tourism. The ports of Los Angeles and Long Beach together comprise the fifth busiest port in the world and are vital to trade within the Pacific Rim. As of 2007, the Los Angeles Combined Statistical Area had a gross metropolitan product (GMP) of $697.9 billion, making it the second largest economic center in the Western Hemisphere **(Appendix 2).**

Table 2
Projected Population Growth from 2005 to 2030 – Los Angeles Council Districts

Citywide	2005 Base Employment	2030 Future Employment	Growth	Growth per Year (25 yrs)
TOTALS	3,947,712	4,320,975	373,263	0.38%

Source: Final Population Analysis – Consultant Version Revised – DCP (column 8)
DESMAN Associates

Table 3 compiles the historical employment data for Los Angeles County between 1980 and April 2009. This employment data was obtained from the California Employment Development Department. Between 1980 and April 2009, employment in the County of Los Angeles has increased by a total of 909,100 employees, despite certain periods where the employed population decreased in L.A. County. The unemployment rate has ranged between 5.3% and 10.7%. The April 2009 unemployment rate of 10.7% is due to the recent economic downturn in the U.S. and Global economies.

Table 3
Los Angeles County Employment Trends between 1980 and 2009

Year	Labor Force	# Employed	# Unemployed	Unemployment Rate	Growth Rate in # Employed
1980	3,781,200	3,534,600	246,600	6.5	-
1985	3,988,600	3,708,400	280,200	7	4.9%
1990	4,523,700	4,259,700	264,000	5.8	14.9%
1995	4,282,500	3,938,600	343,900	8	-7.5%
2000	4,677,300	4,424,900	252,400	5.4	12.3%
2005	4,810,000	4,552,800	257,100	5.3	2.9%
2009	4,974,400	4,443,700	530,700	10.7	-2.4%

Source: California Employment Development Department – April 2009
DESMAN Associates

Table 4 displays projected employment growth between 2005 and 2030 in the City of Los Angeles. These projections are based on the Southern California Association of Governments (SCAG) *2004 Regional Transportation Plan Growth Forecast*. SCAG is the federally designated metropolitan planning organization for the Southern California region. Based on the SCAG *2004 Regional Transportation Report*, employment in the 13 Council Districts studied is projected to increase by 401,400 employees by 2030. The projected overall growth in employment is approximately 22%, which represents an annual growth of 0.89%. The annual employment growth projections will be applied to determine future parking demand in the financial model.

Table 4
City of Los Angeles Council District Employment Growth Projections – 2005 to 2030

Citywide	2005 Base Employment	2030 Future Employment	Growth	Growth per Year (25 yrs)
TOTALS	1,800,700	2,202,100	401,400	0.89%

Source: SCAG – 2004 RTP Growth Forecast
DESMAN Associates

The local economy in Los Angeles is not based solely on one industry sector. **Table 5** lists the City of Los Angeles employment by industry in 2000. As shown in **Table 5**, the City has a good distribution of employment over many industries. Los Angeles is the largest manufacturing center in the United States. It also contains one of the world's busiest ports and is a major banking and financial center. Los Angeles also has one of the largest retail markets in the United States with $140 billion in taxable retail sales **(Appendix 3)**. A well diversified economy is essential to help prevent a drastic economic downturn from the collapse of one industry.

Historical and future projections of employment data for the City of Los Angeles reveal that employment will continue to increase. Although recent developments in the National and World economy have presently halted employment growth, it is expected that average yearly employment growth figures will closely match the SCAG report in the long term. Furthermore, considering that the population in the areas surrounding the City and Los Angeles County is projected to increase, more people will be dependent on vehicle travel, which will cause a growth in parking demand. An examination of Journey to Work (JTW) data and competing modes of transportation in the City will help show the extent to which people rely on vehicle travel.

Table 5
City of Los Angeles Employment by Industry

Industry	Employed Population	Percentage
Agriculture, forestry, fishing and hunting, and mining	3,158	0.2%
Construction	81,032	5.3%
Manufacturing	202,277	13.2%
Wholesale trade	60,691	4.0%
Retail trade	158,118	10.3%
Transportation and warehousing, and utilities	60,867	4.0%
Information	107,285	7.0%
Finance, insurance, real estate, and rental and leasing	108,032	7.1%
Professional, scientific, management, administrative, and waste management services	197,876	12.9%
Educational, health and social services	265,613	17.3%
Arts, entertainment, recreation, accommodation and food services	147,462	9.6%
Other services (except public administration)	105,037	6.9%
Public administration	34,626	2.3%
Total Employed Population	**1,532,074**	**100%**

Source: 2000 U.S. Census Bureau
DESMAN Associates

3.3 Journey to Work

The City of Los Angeles has approximately 6,500 miles of streets, 21 freeways, 4,300 signalized intersections and tens of thousands of traffic control devices. According to the California Department of Motor Vehicles (DMV), there were 2,499,764 automobiles, commercial vehicles, and motorcycles registered in the City of Los Angeles as of January 1, 2007. According to 2005 U.S. Census data, all but 8% of people live in households with a vehicle and 25% live in households where there are 3 or more vehicles available **(Appendix 4)**.

The number of people who drive to work in the City of Los Angeles correlates directly with the parking demand. U.S. Census Bureau data regarding the preferred method of transportation when commuting to work, known as Journey to Work (JTW) data, can be used to understand the travel patterns of residents of the City of Los Angeles and Los Angeles County. **Table 6** provides the 2007 breakdown of the method of travel of people that live in both the City of Los Angeles and Los Angeles County. Based on this data, 73% and 78% of the City and County residents drive to work, respectively.

Table 7 shows the historical trend of mode split for Los Angeles County between 1993 and 2005. This data is based on SCAG's *2006 State of the Commute Report*. Based on this data, between 1993 and 2005 there has been an annual decrease of 0.42% in commuters that drive alone. The percentage of commuters that utilize public transportation (public bus and commuter rail) has increased 0.67% per year. However, both the percentage of commuters that carpool and either walk or bike to work has decreased **(Appendix 5)**.

Table 6
2007 Breakdown of Modes of Transportation to Work for the City of Los Angeles and Los Angeles County

	City of Los Angeles		Los Angeles County	
Mode Split	**Employees**	**Percentage**	**Employees**	**Percentage**
Car, truck, or van -- drove alone	1,149,669	67.3%	3,159,712	72.3%
Car, truck, or van -- carpooled	192,572	11.3%	508,762	11.6%
Public transportation (excluding taxicab)	187,880	11.0%	307,725	7.0%
Walked	60,365	3.5%	124,586	2.8%
Other means	36,707	2.1%	90,535	2.1%
Worked at home	80,997	4.7%	181,613	4.2%
Drive to Work	**1,245,955**	**73%**	**3,414,093**	**78%**

Source: U.S. Census Bureau 2007 data
DESMAN Associates

Table 7
Historical Mode Split Trend for Los Angeles County 1993 – 2005

	Year					Ann. Trend between
Mode of Travel	**1993**	**1995**	**1997**	**1998**	**2005**	**1993 - 2005**
Drive Alone	80%	74%	75%	77%	75%	-0.42%
Carpool	14%	15%	14%	14%	12%	-0.17%
Vanpool	1%	1%	1%	1%	1%	0.00%
Bicycle	1%	0%	0%	0%	0%	-0.08%
Motorcycle	0%	0%	2%	0%	0%	0.00%
Public Bus	3%	7%	5%	6%	9%	0.50%
Commuter Rail	0%	1%	1%	1%	2%	0.17%
Private Bus	0%	0%	0%	0%	0%	0.00%
Walk	1%	2%	2%	1%	0%	-0.08%

Source: SCAG – *2006 State of Commute Report*
DESMAN Associates

3.4 Alternative Modes of Travel

Future development in the public transportation system and investment in travel demand management (TDM) strategies could decrease the number of vehicle trips for both visitors and residents of the City of Los Angeles. Based on SCAG's *2008 Regional Transportation Plan* (RTP), within a six county area surrounding and including Los Angeles County (Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial) there are plans to invest $2.2 billion through 2035 in TDM strategies and over $2.6 billion for non-motorized transportation (bicycles, walking, etc.). TDM strategies include ridesharing, telecommuting, and park-n-ride programs. Parking pricing can also be implemented as a TDM strategy, through congestion pricing and the elimination of free employee parking. The effectiveness of TDM strategies in deterring vehicle

trips has been difficult to measure, but the City of Los Angeles is committed to the continued implementation of TDM strategies.

The City of Los Angeles also provides a multitude of public transportation options which include an extensive transit operation managed by the Los Angeles County Metropolitan Transportation Authority, transit options through the LADOT (Commuter Express, DASH, and City Ride) and the MetroLink commuter train service. Each of these services has been vital in increasing transit usage in the City and in helping to reduce the number of vehicle trips. The weekday and weekend DASH schedules are listed in **Appendix 6.**

In the 1990's there was a decline in transit utilization. However, new rail and bus rapid transit lines resulted in a nearly 20% growth in passenger trips between 2000 and 2006. During this time period, bus ridership increased by 11%, Metrolink ridership increased by 68%, and urban rail ridership increased by 45% **(Appendix 7).**

Within the six-county region, the 2008 RTP has designated $44 billion for transit projects, with $23.3 billion for bus and intermodal facilities, $6.2 billion to commuter rail projects and approximately $14.5 billion to heavy rail, light rail and other projects **(Appendix 7).** The Future development plans for both transit and rail lines in Los Angeles County are listed below.

Future Transit Developments

- Regional Connector LRT (Union Station to 7th St/Metro Center) - 2035
- Gold Line Foothill Extension Phase 2 (Azusa-Citrus to Montclair) - 2020
- Westside Extension (Metro Purple/Red Line Extension) - 2020
- Green Line Extension (Mariposa/Nash to Century/Sepulveda LAX, technology TBD) - 2030

Future Rail Capacity Improvements

- 3rd main track, Fullerton (Basta) – City of Commerce (Bandini)
- 4th main track, Hobart-Fullerton
- 2nd main track, Pomona (Oak) – Montclair (Roselawn)
- 2nd main track, Alhambra – Walnut

3.5 Major Institutions

As with many major metropolitan areas across the United States, the City of Los Angeles is also a host to a variety of higher-education facilities, health-care facilities, and government organizations. These institutions constitute some of the major employers and are a large part of the City's economy. **Table 8** lists the top 30 employers in Los Angeles County. Of these 30 employers, 15 are located in the City of Los Angeles. Of those 15 employers, 9 are major institutions made up of government departments, government services, schools and a health-care facility. The three largest employers are the County of Los Angeles, the Los Angeles Unified School District, and the Federal Government, including the U.S. Post Office. The two main universities in the City are the University of California - Los Angeles (UCLA) and the

University of Southern California (USC). Due to the high volume of government employees and institutions, the City of Los Angeles is less susceptible to economic downturn than most U.S. Cities. This creates a stable market for the public parking system.

Table 8
Top 30 Employers in Los Angeles County

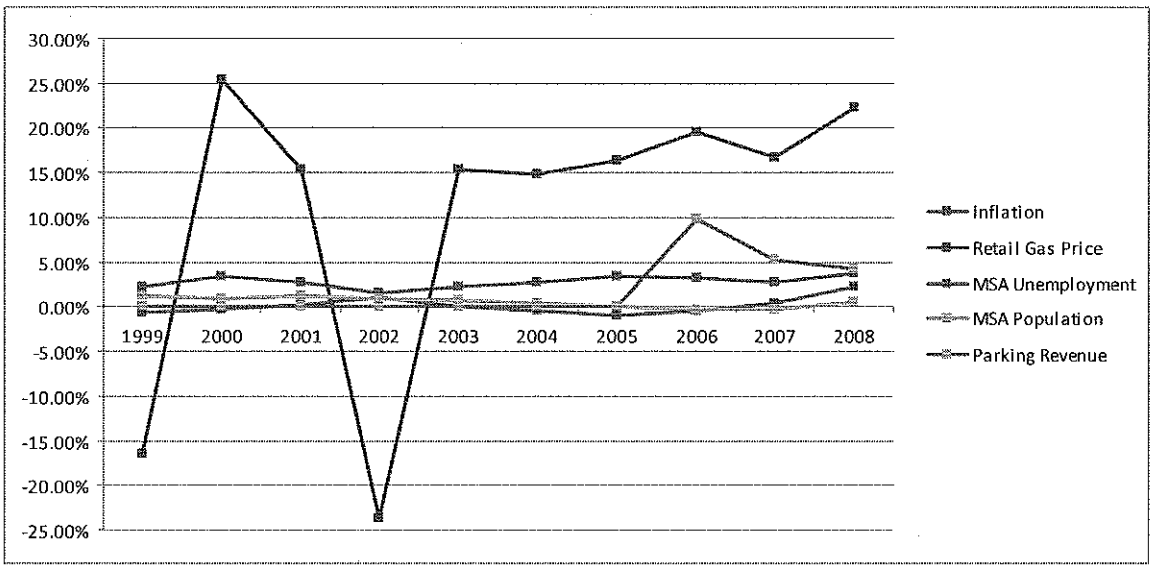
	Employer	Main or Local Headquarters	Number of Employees	
			2006	2002
1	County of Los Angeles	Los Angeles	93,200	93,354
2	Los Angeles Unified School District	Los Angeles	74,632	80,802
3	Federal Government*	Los Angeles	53,200	56,100
4	University of California, Los Angeles	Los Angeles	35,543	36,354
5	City of Los Angeles	Los Angeles	53,471	51,150
6	State of California (non-education)	Los Angeles	30,200	32,300
7	Kaiser Permanente	Pasadena	32,180	27,635
8	Northrop Grumman Corp.	Los Angeles	21,000	10,000
9	Boeing Co.	Long Beach	15,825	23,468
10	Kroger Co. (former Ralph's Grocery Co.)	Los Angeles	14,000**	17,211
11	University of Southern California	Los Angeles	12,379	9,297
12	Bank of America	Los Angeles	12,200	11,943
13	Vons	Arcadia	12,116	N/A
14	Target	Pasadena	12,066	10,993
15	Walt Disney Co.	Burbank	N/A	11,200
16	Metropolitan Transit Authority (L.A. Co.)	Los Angeles	10,402	N/A
17	Long Beach Unified School District	Long Beach	9,622	10,152
18	AT&T Inc. (former SBC Pacific Bell)	Los Angeles	9,500	10,670
19	Cedars-Sinai Medical Center	Los Angeles	8,817	8,582
20	Wells Fargo	Los Angeles	8,458	N/A
21	California Institute of Technology	Pasadena	8,453	N/A
22	Amgen Inc.	Thousand Oaks	8,000	N/A
23	Fedex Corp.	Memphis, TN	7,976	N/A
24	Albertsons Southern California Region	Fullerton	7,431	N/A
25	ABM Industries Inc.	Los Angeles	7,221	9,250
26	Providence Health System	Burbank	7,058	N/A
27	City of Long Beach	Long Beach	6,035	6,657
28	Edison International	Rosemead	6,768	5,565
29	Catholic Healthcare West	Pasadena	6,338	N/A
30	UPS	Burbank	7.058	N/A
Total Employees of City of Los Angeles Institutions			570,098	522,683

Source: California Employment Development Department
DESMAN Associates

3.6 Economic Factors

In order to develop a sense of how the economy in general will affect the City of Los Angeles Parking System, DESMAN performed an analysis of the relationship between the average revenue of the parking system and several potentially influential economic factors. These factors included inflation, fuel prices, unemployment, mass transit ridership, and growth trends of the local population. The corresponding data (collected from 1999-2007) suggests that average parking revenue is neither dependent on nor closely interdependent with any of these leading economic factors. A graphic representation of this data is presented in **Figure 2.**

Figure 2 – Relationship between Economic Factors and Parking Revenues



Note: Parking Revenue figures prior to 2005 were unavailable at the time the report was submitted.
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Inflation (Blue)
Using historical inflation data from the Bureau of Labor Statistics (**Appendix 8**), DESMAN was able to analyze the annual change in the inflation rate during the period in question. The changes in revenue over the period seem to be unaffected by the rate of inflation. As most consumers will not consider inflationary pressure on such a small cost transaction and the cost of most coin-operated meters cannot quickly be changed, it is logical that inflation does not noticeably affect revenue.

Fuel Prices (Red)
Changes in fuel prices had a varying relationship with meter revenues over the period. In some time periods, such as 2006, there is an inverse relationship as one would expect; as the price of gasoline rose, the revenue produced by the parking system decreased. In other time periods however, such as 2002, as the price of gas increased so did the revenues generated by the parking meter system. From the data, it appears that there may be some relationship between the price of

gas and parking revenues, but it does not appear that an increase in gas prices means an automatic decrease in revenue **(Appendix 8)**.

Unemployment (Light Purple)
Unemployment in the Los Angeles MSA rose from 2001 – 2003, declined from 2004 – 2006 and rose again in 2007 **(Appendix 8)**. From this analysis, it appears that there is a relationship between unemployment and parking revenues. As unemployment decreased in 2004, revenues rose. After a peak in 2006, parking revenue fell as unemployment once again rose. Although this factor absolutely has an effect on parking revenues, unemployment alone cannot be used to predict movements in parking revenue.

3.7 Trends and Projections Conclusion

The population in the City and County of Los Angeles has been consistently increasing since 1900 and there is projected population growth in the City of 0.38% per year until 2030. Along with the population, the number of employees within the City is also projected to continue to increase at an annual rate of 0.89% until the year 2030. The City's economy is less susceptible to an economic downturn due to the presence of highly diverse industries and the fact that 9 of the 15 largest employers are in relatively stable sectors (government departments, government services, schools and a health-care facility).

Not only is there projected growth in the City, but there is also a high dependence on vehicle travel as 73% of people in the City drive to work and 92% of the households own a vehicle. However, the percentage of commuters that utilize public transportation (public bus and commuter rail) has increased 0.67% per year between 1993 and 2005 and there are future development plans for both rail and transit services in the City of Los Angeles. Due to the sprawled, decentralized layout of Los Angeles, it is difficult to provide effective public transportation options for all residents. There have also been and will continue to be large investments by the City in TDM strategies, but it is difficult to specifically measure how effective these methods have been in reducing vehicle trips.

In comparing the growth in employment and mode split for commuter travel, there was a 1.6% annual increase in employment in Los Angeles County (1995 to 2005) and an annual increase of 0.67% in public transportation utilization in Los Angeles County between 1993 and 2005. This reveals that the growth in commuter parking demand was approximately 0.93% annually. Overall, the City of Los Angeles resident and employment populations are projected to grow and as the City continues to remain primarily dependent on vehicle travel, parking demand will continue to grow.

4.0 Overview of U.S. Parking Industry

In order to understand how the Los Angeles parking system ranks in comparison to the standard for similar U.S. cities, a discussion of the parking rates, parking tax, and parking technologies in the U.S. is provided. Analyzing the existing average parking rates and parking taxes in the U.S. provides insight into how the parking rates and parking taxes in Los Angeles compare. Also,

parking technology trends in the U.S. are examined because technology plays a key role in modern parking systems.

4.1 Parking Rates and Parking Taxes

In the City of Los Angeles there is a 10% parking tax imposed on all parking revenue. **Table 9** shows the parking tax imposed in thirteen U.S. cities. The average parking tax of these Cities is approximately 16%. This shows that the Los Angeles parking tax of 10% is below average in comparison to other major metropolitan areas.

Table 9
Parking Tax in Select U.S. Cities

U.S. Cities	Parking Tax (%)
Chicago, IL	25 to 35
San Francisco, CA	25
Harrisburg, PA	15
Oakland, CA	10
Anaheim, CA	7.75
Berkley, CA	10
Santa Monica, CA	10
Cleveland, OH	8
Miami, FL	20
New York, NY	18.5
New Orleans, LA	12
Baltimore, MD	12
Pittsburgh, PA	35
Average Rate	**16**
Los Angeles Tax	**10**

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Tables 10, 11 and 12 provide the parking rates in either 2008 or 2009 for selected U.S. Cities. This data is based on a parking rate survey conducted by Colliers International North America. The parking rates in each table are ranked from lowest to highest based on the median parking rate. The LA parking rates are compared to both the national average and the average of the ten highest rates.

Table 10 lists the monthly unreserved and reserved parking rates. The data shows that the 2009 median unreserved and reserved monthly parking rate in the U.S. was approximately $154 and $189, respectively. The City of Los Angeles median monthly parking rates for unreserved and reserved parking are $205 and $293, respectively. The City's median monthly parking rates are both greater than the national median rates, but less than median rates of the 10 U.S. cities with the highest monthly parking rates. As shown in **Table 11**, the median L.A. daily parking rate ($28.20) is much greater than the national median daily parking rate ($15.96), but approximately the same as the median rate of the 10 U.S. cities with the highest daily parking rate ($30.52). The median early bird parking rate in L.A. ($9.95) is nearly the same as the median national average early bird parking rate ($10.05), but less than the 10 U.S. cities with the highest rates ($17.18). The hourly parking rates provided in **Table 12** reveal that the median hourly parking

rate charged at off-street parking facilities in L.A. ($12) is more than double the national median hourly rate ($5.57) and very close to the 10 highest cities' median hourly rate ($13.55). However, the hourly metered parking rate in L.A. ($1.21) is less than both the national median rate of $1.46 and the 10 highest cities' median rate of $2.93.

Table 10
Monthly Parking Rates in Selected U.S. Cities

2009 Parking Rate Data	Monthly Unreserved Parking Rate (US$)			2009 Parking Rate Data	Monthly Reserved Parking Rate (US$)		
Market	High	Low	Median	Market	High	Low	Median
Bakersfield,CA	$50.00	$40.00	$40.00	Ft. Lauderdale,FL	-	-	-
Reno, NV	$55.00	$30.00	$45.00	New York,NY-Downtown	-	-	-
Ft. Lauderdale,FL	$63.60	$26.50	$53.00	New York,NY-Midtown	-	-	-
Memphis,TN	$90.00	$20.00	$57.00	West Palm Beach,FL	-	-	-
Walnut Creek,CA	$65.00	$50.00	$57.50	Little Rock,AR	$107.85	$48.37	$53.75
Little Rock,AR	$77.40	$48.37	$59.12	Walnut Creek,CA	$65.00	$50.00	$57.50
Fresno,CA	$95.00	$40.00	$60.00	Bakersfield,CA	$70.00	$60.00	$60.00
Columbia,SC	$90.00	$40.00	$65.00	Reno, NV	$75.00	$45.00	$60.00
Las Vegas,NV	-	-	$65.00	Fresno,CA	$100.00	$50.00	$70.00
Phoenix,AZ	$75.00	$40.00	$65.00	Phoenix,AZ	$95.00	$65.00	$80.00
West Palm Beach,FL	$85.00	$68.90	$68.90	Columbia,SC	$135.00	$65.00	$82.50
Greenville,SC	$70.00	$69.70	$69.75	Greenville,SC	$94.70	$94.70	$94.70
Boise,ID	$90.00	$80.00	$80.00	Boise,ID	$100.00	$90.00	$95.00
Orlando,FL	$150.00	$75.00	$85.00	Las Vegas,NV	-	-	$95.00
Atlanta,GA	$135.00	$35.00	$90.00	Memphis,TN	$140.00	$65.00	$100.00
Dallas,TX	$160.00	$45.00	$90.00	Minneapolis/St. Paul,MN	$290.00	$95.00	$115.00
Kansas City,MO	$136.00	$75.00	$90.00	Raleigh,NC	$150.00	$115.00	$115.00
Charleston,SC	$125.00	$85.00	$94.50	Charleston,SC	$150.00	$85.00	$117.50
Jacksonville,FL	$125.00	$85.60	$94.54	Kansas City,MO	$210.00	$110.00	$125.00
Raleigh,NC	$125.00	$60.00	$95.00	Nashville,TN	$180.00	$75.00	$125.00
Louisville,KY	$150.00	$70.00	$96.00	Jacksonville,FL	$155.00	$100.00	$127.50
Charlotte,NC	$170.00	$20.00	$103.75	Columbus,OH	$240.00	$100.00	$130.00
Indianapolis,IN	$130.00	$90.00	$105.00	Indianapolis,IN	$175.00	$105.00	$130.00
St. Louis,MO	$140.00	$45.00	$105.00	Atlanta,GA	$200.00	$40.00	$135.00
Columbus,OH	$200.00	$60.00	$110.00	Louisville,KY	$165.00	$110.00	$135.00
Milwaukee,WI	$180.00	$70.00	$110.00	Milwaukee,WI	$190.00	$100.00	$136.00
San Jose/Silicon Valley,CA	$135.00	$100.00	$117.50	St. Louis,MO	$160.00	$120.00	$138.50
Nashville,TN	$180.00	$75.00	$125.00	Charlotte,NC	$215.00	$85.00	$140.35
Cincinnati,OH	$225.00	$25.00	$127.50	Orlando,FL	$300.00	$125.00	$150.00
Tampa,FL	$140.00	$105.00	$133.00	Dallas,TX	$300.00	$115.00	$185.00
Miami,FL	$147.54	$127.36	$134.12	Hartford,CT	$235.00	$135.00	$195.00
Houston,TX	$250.00	$76.00	$140.00	Tampa,FL	$242.00	$135.00	$196.00
Baltimore,MD	$180.00	$110.00	$160.00	Cincinnati,OH	$250.00	$150.00	$197.50
Bellevue,WA	$210.00	$136.13	$170.00	Portland,OR	$210.00	$185.00	$197.50
Cleveland,OH	$260.00	$90.00	$172.50	Houston,TX	$350.00	$97.00	$200.00
Denver,CO	$195.00	$165.00	$175.00	San Jose/Silicon Valley,CA	$250.00	$150.00	$200.00
Hartford,CT	$210.00	$100.00	$175.00	Miami,FL	-	-	$207.89
San Diego,CA	$190.00	$150.00	$180.00	Cleveland,OH	$295.00	$120.00	$215.00
Portland,OR	$195.00	$160.00	$185.00	Sacramento,CA	$322.50	$161.25	$215.00
Minneapolis/St. Paul,MN	$270.00	$105.00	$187.00	Denver,CO	$300.00	$200.00	$225.00
Oakland,CA	$220.00	$136.56	$192.50	Baltimore,MD	$400.00	$210.00	$230.00
Los Angeles,CA	$363.00	$100.00	$205.00	Oakland,CA	$255.00	$180.00	$245.00
Honolulu,HI	**$325.00**	**$130.00**	**$212.33**	**Bellevue,WA**	**$385.00**	**$150.00**	**$250.00**
Sacramento,CA	**$322.50**	**$161.25**	**$215.00**	**San Diego,CA**	**$275.00**	**$190.00**	**$250.00**
Washington,DC	**$260.00**	**$200.00**	**$215.00**	Los Angeles,CA	$580.00	$170.00	$292.50
Seattle,WA	**$353.88**	**$178.65**	**$290.00**	**Honolulu,HI**	**$425.00**	**$150.00**	**$314.14**
Philadelphia,PA	**$464.00**	**$200.00**	**$314.00**	**San Francisco,CA**	**$600.00**	**$125.00**	**$383.00**
Chicago,IL	**$505.00**	**$210.00**	**$325.00**	**Chicago,IL**	**$515.00**	**$289.99**	**$400.00**
San Francisco,CA	**$475.00**	**$130.00**	**$350.00**	**Seattle,WA**	**$650.00**	**$275.00**	**$400.00**
Boston,MA	**$500.00**	**$325.00**	**$402.50**	**Philadelphia,PA**	**$582.00**	**$295.00**	**$413.00**
New York,NY-Downtown	**$550.00**	**$450.00**	**$500.00**	**Washington,DC**	**$520.00**	**$400.00**	**$430.00**
New York,NY-Midtown	**$700.00**	**$350.00**	**$550.00**	**Boston,MA**	**$630.00**	**$400.00**	**$550.00**
NATIONAL AVERAGE	$208.98	$107.16	$153.98	NATIONAL AVERAGE	$268.13	$136.65	$188.75
10 Highest US Cities Average	$458.93	$244.99	$351.26	10 Highest US Cities Average	$516.20	$244.50	$368.26
Los Angeles,CA	$363.00	$100.00	$205.00	Los Angeles,CA	$580.00	$170.00	$292.50

Source: Colliers International North American Parking Rate Survey 2009
DESMAN Associates

Table 11
Daily Parking Rates in Selected U.S. Cities

2009 Parking Rate Data	Daily Parking Rate (US$)			2008 Parking Rate Data	Early Bird Parking Rate (US$)		
Market	High	Low	Median	Market	High	Low	Median
Memphis,TN	$6.00	$1.00	$4.00	Bakersfield,CA	-	-	-
Greenville,SC	$6.00	$6.00	$6.00	Boise,ID	-	-	-
Little Rock,AR	$10.75	$3.22	$6.46	Charleston,SC	$6.00	-	-
Bakersfield,CA	$9.00	$6.00	$7.25	Ft. Lauderdale,FL	-	-	-
Fresno,CA	$10.00	$6.00	$8.00	Greenville,SC	-	-	-
Jacksonville,FL	$15.00	$6.96	$8.70	Houston,TX	-	-	-
Columbus,OH	$15.00	$5.00	$9.00	Little Rock,AR	-	-	-
Louisville,KY	$19.00	$5.00	$9.00	Louisville,KY	-	-	-
Phoenix,AZ	$12.00	$6.00	$9.00	Raleigh,NC	-	-	-
Portland,OR	$12.00	$6.00	$9.00	San Jose/Silicon Valley,CA	-	-	-
Cincinnati,OH	$16.00	$1.50	$9.50	West Palm Beach,FL	-	-	-
Cleveland,OH	$20.00	$6.00	$10.00	Memphis,TN	$4.00	$2.00	$2.50
Columbia,SC	$12.00	$7.00	$10.00	Kansas City,MO	$5.25	$4.00	$4.50
Kansas City,MO	$15.00	$8.00	$10.00	Atlanta,GA	$8.00	$3.00	$5.00
Walnut Creek,CA	$12.00	$9.00	$10.00	Columbus,OH	$10.00	$3.00	$5.00
Dallas,TX	$22.00	$3.00	$10.50	St. Louis,MO	$6.00	$3.00	$5.00
Indianapolis,IN	$23.00	$8.00	$11.00	Denver,CO	$10.00	$5.00	$6.00
Atlanta,GA	$22.00	$4.00	$12.00	Indianapolis,IN	$8.00	$3.00	$6.00
Boise,ID	$12.00	$12.00	$12.00	Milwaukee,WI	$8.00	$3.00	$6.00
Houston,TX	$30.00	$5.00	$12.00	Cleveland,OH	$8.75	$4.00	$6.25
Milwaukee,WI	$20.00	$4.00	$12.00	Charlotte,NC	$10.00	$3.00	$6.50
Nashville,TN	$22.00	$6.00	$12.00	Miami,FL	$7.25	$6.00	$6.50
Raleigh,NC	$24.00	$6.00	$12.00	Cincinnati,OH	$11.00	$4.00	$7.00
St. Louis,MO	$24.00	$5.00	$12.00	Sacramento,CA	$8.00	$6.00	$7.00
Charleston,SC	$16.00	$10.00	$12.80	Nashville,TN	$10.00	$5.00	$7.50
Baltimore,MD	$25.00	$10.00	$13.00	Bellevue,WA	$9.00	$7.00	$8.00
Charlotte,NC	$20.00	$10.00	$13.61	Fresno,CA	$10.00	$6.00	$8.00
Bellevue,WA	$20.00	$6.00	$14.00	Hartford,CT	$10.00	$7.00	$8.00
Washington,DC	$20.00	$13.00	$14.00	Phoenix,AZ	$10.00	$6.00	$8.00
Ft. Lauderdale,FL	-	-	$15.00	Portland,OR	$11.50	$6.00	$8.50
Orlando,FL	$15.00	$9.00	$15.00	Dallas,TX	$15.00	$3.00	$9.00
San Jose/Silicon Valley,CA	$15.00	$15.00	$15.00	Honolulu,HI	$15.00	$6.00	$9.00
Tampa,FL	$20.00	$10.00	$15.00	Minneapolis/St. Paul,MN	$14.00	$3.00	$9.65
Denver,CO	$26.00	$12.00	$16.00	Los Angeles,CA	$23.00	$5.00	$9.95
West Palm Beach,FL	$20.00	$15.00	$16.00	Baltimore,MD	$12.00	$9.00	$10.00
Miami,FL	$19.00	$12.00	$17.00	Columbia,SC	$12.00	$7.00	$10.00
Minneapolis/St. Paul,MN	$27.00	$7.50	$17.25	Walnut Creek,CA	$12.00	$9.00	$10.00
Oakland,CA	$30.00	$10.00	$18.00	Washington,DC	$12.00	$9.00	$10.00
Sacramento,CA	$32.25	$12.90	$19.35	Jacksonville,FL	$14.00	$9.00	$12.00
Hartford,CT	**$30.00**	**$15.00**	**$20.00**	**Tampa,FL**	**$20.00**	**$10.00**	**$12.00**
San Francisco,CA	**$39.00**	**$6.00**	**$25.00**	**Oakland,CA**	**$15.00**	**$10.00**	**$12.50**
Philadelphia,PA	**$33.00**	**$20.50**	**$26.00**	**Seattle,WA**	**$15.00**	**$10.00**	**$13.00**
San Diego,CA	**$30.00**	**$18.00**	**$26.00**	**Orlando,FL**	**$15.00**	**$9.00**	**$15.00**
Seattle,WA	**$35.00**	**$18.00**	**$28.00**	**San Diego,CA**	**$15.00**	**$15.00**	**$15.00**
Los Angeles,CA	**$47.00**	**$7.00**	**$28.20**	**Chicago,IL**	**$25.00**	**$10.00**	**$16.00**
Chicago,IL	**$52.00**	**$17.00**	**$31.00**	**Philadelphia,PA**	**$19.00**	**$9.00**	**$17.50**
Boston,MA	**$39.00**	**$25.00**	**$34.00**	**San Francisco,CA**	**$22.00**	**$15.00**	**$18.00**
Honolulu,HI	**$75.00**	**$21.00**	**$35.50**	**Boston,MA**	**$24.00**	**$10.00**	**$19.00**
New York,NY-Downtown	**$45.00**	**$25.69**	**$38.00**	**New York,NY-Downtown**	**$28.00**	**$16.00**	**$22.51**
New York,NY-Midtown	**$65.00**	**$32.00**	**$44.00**	**New York,NY-Midtown**	**$33.62**	**$15.00**	**$23.29**
NATIONAL AVERAGE	$24.16	$10.07	$15.96	NATIONAL AVERAGE	$13.28	$7.05	$10.12
10 Highest US Cities Average	$44.55	$18.65	$30.52	10 Highest US Cities Average	$21.06	$11.73	$16.71
Los Angeles,CA	$47.00	$7.00	$28.20	Los Angeles,CA	$23.00	$5.00	$9.95

Source: Colliers International North American Parking Rate Survey 2008 and 2009
DESMAN Associates

Table 12
Hourly Parking Rates in Selected U.S. Cities

2009 Parking Rate Data	Hourly Parking Rate (US$)			2008 Parking Rate Data	Hourly Metered Parking Rate (US$)		
Market	High	Low	Median	Market	High	Low	Median
Las Vegas,NV	-	-	-	San Jose/Silicon Valley,CA	$1.00	$1.00	
Santa Rosa,CA	-	-	-	Bakersfield,CA	–	–	–
Fresno,CA	$1.00	$0.50	$0.75	Walnut Creek,CA	$1.00	–	–
Walnut Creek,CA	$1.00	$0.50	$0.75	Greenville,SC	–	–	–
Ft. Lauderdale,FL	-	-	$1.00	Las Vegas,NV	–	–	–
Raleigh,NC	$3.00	$1.00	$1.00	Charlotte,NC	–	–	–
West Palm Beach,FL	$1.25	$0.75	$1.00	Bellevue,WA	–	–	–
Phoenix,AZ	$1.50	$1.00	$1.25	Boston,MA	$1.00	–	–
Jacksonville,FL	$4.00	$1.07	$1.47	Louisville,KY	$1.00	$0.25	$0.50
Bakersfield,CA	$2.00	$1.50	$1.50	Raleigh,NC	$0.50	$0.50	$0.50
Boise,ID	$1.50	$1.50	$1.50	Baltimore,MD	$1.00	$0.25	$0.50
Greenville,SC	$1.50	$1.50	$1.50	Cleveland,OH	$0.75	$0.25	$0.50
Little Rock,AR	$1.61	$1.45	$1.61	Fresno,CA	$0.60	$0.60	$0.60
Sacramento,CA	$4.30	$1.08	$1.88	Milwaukee,WI	$1.00	$0.25	$0.63
Columbia,SC	$2.00	$0.75	$2.00	Santa Rosa,CA	$0.75	$0.50	$0.75
Louisville,KY	$5.00	$1.00	$2.00	Jacksonville,FL	$1.00	$0.50	$0.75
Orlando,FL	$3.00	$1.00	$2.00	Columbia,SC	$0.75	$0.50	$0.75
Charleston,SC	$6.00	$1.00	$2.25	Orlando,FL	$1.00	$0.50	$0.75
Tampa,FL	$3.25	$1.60	$2.25	Tampa,FL	$1.50	$0.25	$0.75
Cincinnati,OH	$8.00	$1.00	$2.75	St. Louis,MO	$0.75	$0.75	$0.75
San Jose/Silicon Valley,CA	$3.50	$2.25	$2.88	Indianapolis,IN	$0.75	$0.75	$0.75
Charlotte,NC	$4.00	$1.00	$2.99	Boise,ID	$1.00	$1.00	$1.00
Columbus,OH	$6.00	$0.50	$3.00	Sacramento,CA	$1.00	$1.00	$1.00
Kansas City,MO	$4.00	$2.00	$3.00	Columbus,OH	$1.25	$0.25	$1.00
Milwaukee,WI	$8.00	$1.00	$3.00	Cincinnati,OH	$1.00	$1.00	$1.00
Portland,OR	$6.00	$1.15	$3.00	Honolulu,HI	$1.25	$0.75	$1.00
St. Louis,MO	$12.00	$1.00	$3.00	Kansas City,MO	$1.00	$1.00	$1.00
Atlanta,GA	$8.00	$1.00	$4.00	Nashville,TN	$1.00	$1.00	$1.00
Indianapolis,IN	$11.00	$2.00	$4.00	Dallas,TX	$1.25	$0.75	$1.00
Bellevue,WA	$8.00	$3.00	$4.50	Philadelphia,PA	$1.00	$1.00	$1.00
Dallas,TX	$8.00	$1.00	$4.50	Minneapolis/St. Paul,MN	$2.00	$0.25	$1.00
Houston,TX	$10.00	$1.00	$4.50	Chicago,IL	$3.00	$0.25	$1.00
Nashville,TN	$6.00	$2.00	$5.00	**Los Angeles,CA [1]**	**$4.00**	**$1.00**	**$1.21**
Minneapolis/St. Paul,MN	$10.00	$1.00	$5.50	Phoenix,AZ	$1.50	$1.00	$1.25
Honolulu,HI	$10.00	$1.50	$6.00	Charleston,SC	$1.25	$1.25	$1.25
Memphis,TN	$12.00	$2.00	$6.00	Portland,OR	$1.25	$1.25	$1.25
Miami,FL	$7.00	$4.00	$6.00	Oakland,CA	$1.25	$1.25	$1.25
Oakland,CA	$8.00	$1.50	$6.00	San Diego,CA	$1.25	$1.25	$1.25
Cleveland,OH	$12.50	$6.00	$8.00	Seattle,WA	$1.50	$1.50	$1.50
Hartford,CT	$10.00	$5.00	$8.00	Hartford,CT	$1.50	$1.50	$1.50
San Diego,CA	$9.00	$4.00	$8.00	Ft. Lauderdale,FL	$3.00	$1.00	$2.00
Washington,DC	**$12.00**	**$7.00**	**$8.00**	**Miami,FL**	**$3.00**	**$1.00**	**$2.00**
San Francisco,CA	**$12.50**	**$2.00**	**$9.00**	**Atlanta,GA**	**$2.00**	**$1.00**	**$2.00**
Baltimore,MD	**$15.00**	**$7.00**	**$10.00**	**Houston,TX**	**$6.00**	**$1.00**	**$2.00**
Denver,CO	**$10.00**	**$2.00**	**$10.00**	**Washington,DC**	**$2.00**	**$1.00**	**$2.00**
Seattle,WA	**$12.00**	**$7.00**	**$10.00**	**San Francisco,CA**	**$3.00**	**$1.00**	**$2.00**
Los Angeles,CA	**$28.00**	**$3.00**	**$12.00**	**New York,NY-Downtown**	**$2.00**	**$2.00**	**$2.00**
Philadelphia,PA	**$16.00**	**$9.00**	**$12.00**	**New York,NY-Midtown**	**$2.00**	**$2.00**	**$2.00**
Chicago,IL	**$22.00**	**$10.00**	**$17.00**	**Denver,CO**	**$6.00**	**$2.00**	**$4.00**
Boston,MA	**$27.00**	**$14.00**	**$18.00**	**Memphis,TN**	**$5.00**	**$2.00**	**$4.00**
New York,NY-Downtown	**$26.00**	**$17.00**	**$20.00**	**Little Rock,AR**	**$5.35**	**$4.25**	**$4.25**
New York,NY-Midtown	**$33.00**	**$13.00**	**$23.00**	**West Palm Beach,FL**	**$8.00**	**$4.00**	**$6.00**
NATIONAL AVERAGE	$8.91	$3.12	$5.57	NATIONAL AVERAGE	$1.91	$1.05	$1.46
10 Highest US Cities Average	$19.41	$8.27	$13.55	10 Highest US Cities Average	$4.03	$1.93	$2.93
Los Angeles,CA	$28.00	$3.00	$12.00	Los Angeles,CA	$4.00	$1.00	$1.21

[1] *Hourly Metered Parking Rates are based on City of Los Angeles data.*

Source: Colliers International North American Parking Rate Survey 2008 and 2009
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4.2 Revenue Collection Technology for Parking

Software and equipment technology used in the collection of parking revenue has continually become more sophisticated and customer-friendly over the years. The current trend in the U.S. has been towards Pay-on-Foot technology[1] for off-street parking systems that offer transient/daily parking. The revenue technology and software supporting Pay-on-Foot technology allows for fewer errors and easier accounting than traditional manned cashiering systems. Pay-on-Foot technology also creates a more efficient ingress and egress system, provides the consumer multiple payment options, and reduces the number of personnel needed to operate a parking facility. Overall, Pay-on-Foot technology requires an initial capital investment to upgrade the equipment and software, but the pay-off comes through lower personnel expenses and a reduction in bookkeeping errors.

The current parking technology trend for monthly parkers is the use of transponders and/or proximity cards. This type of parking technology allows for automated parking gates where the user either has to flash a card or have a transponder in their vehicle in order to enter and exit a parking facility. This allows the parker to pay a monthly, quarterly, or yearly fee to receive a proximity card and/or transponder to access a specific parking facility.

The current trend for on-street parking is towards Pay-and-Display systems. In many cities and communities across the U.S., the old single space meters are being replaced by Pay-and-Display meters. On an average length street, one Pay-and-Display meter can replace all of the single-space meters (i.e. 15 to 20 meters). The advantages of Pay-and-Display machines are that they allow for less clutter along the sidewalks, they require less maintenance, revenue is easier to collect, piggybacking[2] is eliminated, and multiple payment options are possible (cash, coin and credit). Payment by credit card and by cash for on-street meters makes it easier for the consumer to pay for higher parking rates, as opposed to coin-only meters which can require the user to carry large amounts of change.

Other emerging on-street revenue collection technologies include Pay-by-Phone and in-vehicle meters. The Pay-by-Phone technology, which allows customers to call a toll-free number when they are about to park and to call again when they are finished, is already being used in Seattle and Vancouver for off-street parking and is utilized for on-street parking in several European countries. In-vehicle meters used in many European cities as well as in Aspen, CO and Arlington, VA in the United States, work together with a pre-paid smart card and allow drivers to start their meter with the card and turn it off when they return to their vehicle.

A separate document is provided which discusses the current parking technologies implemented in the City of Los Angeles and extensively analyzes and compares modern parking revenue control technology for both on-street and off-street parking.

[1] Includes paying for parking at a pay station (no cashiers) before exiting the parking facility
[2] When a parker utilizes the time left on the meter by a prior user

5.0 Parking System Inventory

5.1 Inventory of Operated Facilities

There are a total of 10,661 parking spaces located in 27 operated parking facilities in the City of Los Angeles parking system. At the direction of the City, 10 of these 27 parking facilities are included in our analysis, or a total 8,398 parking spaces. **Table 13** lists each operated parking facility, its location, owner, the type of facility (lot or structure) and the number of spaces it contains. **Figure 3** displays the approximate location of each of the 10 analyzed parking facilities. Two of the 10 facilities included in the analysis are not owned by the LADOT (Pershing Square and Cinerama Dome Garage). All 10 of the analyzed facilities are garages and are revenue generating facilities. A listing of each facility and corresponding operating agreement is listed in **Appendix 9**.

Table 13
Inventory of Operated Parking Facilities

Parking Facilities Included in Analysis						
Lot #	**CD**	**Address**	**Community**	**Owner/Operator**	**Type**	**Spaces**
NA	9	Pershing Sq	Downtown	Dept. of Rec - Parks	Structure	1,590
NA	13	Cinerama Dome Garage	Hollywood	LACRA	Structure	1,717
601	6	14401 Friar St	Van Nuys	LADOT	Structure	237
629	5	14591 Dickens St	Sherman Oaks	LADOT	Structure	198
670	13	1710 Cherokee Ave	Hollywood	LADOT	Structure	386
680	5	1036 Broxton Ave	Westwood	LADOT	Structure	366
690	2	12225 Ventura Blvd	Studio City	LADOT	Structure	397
703	5	123 S Robertson Blvd	Carthay	LADOT	Structure	334
732	4	218 N Larchmont Blvd	Hancock Park	LADOT	Structure	167
745	13	6801 Hollywood Blvd	Hollywood	LADOT	Structure	3,006
Total Inventory of Operated Facilities Included in Study						**8,398**
Parking Facilities Not Included in Analysis						
Lot #	**CD**	**Address**	**Community**	**Owner/Operator**	**Type**	**Spaces**
609	6	14521 Friar St	Van Nuys	LADOT	Surface Lot	76
610	6	14532 Gilmore St	Van Nuys	LADOT	Surface Lot	138
620	6	14607 Sylvan St	Van Nuys	LADOT	Surface Lot	52
630	6	14517 Erwin St	Van Nuys	LADOT	Surface Lot	75
631	6	14402 Gilmore St	Van Nuys	LADOT	Surface Lot	68
649	13	1533 N Schrader Blvd	Hollywood	LADOT	Surface Lot	55
677	9	308 S Hill St	Downtown	LADOT	Structure	200
691	10	682 S Vermont Ave	Wilshire Center	LADOT	Surface Lot	65
701	11	2150 Dell Ave	Venice	LADOT	Surface Lot	150
702	13	1625 N. Vine St	Hollywood	LADOT	Surface Lot	107
713	14	249 N. Chicago St	Boyle Heights	LADOT	Surface Lot	70
731	11	200 N. Venice Blvd	Venice	LADOT	Surface Lot	177
740	11	301 S. Main St	Venice	LADOT	Surface Lot	42
742	13	1637 N. Wilcox Ave	Hollywood	LADOT	Surface Lot	149
752	6	6265 Sylmar St	Van Nuys	LADOT	Structure	302
753	9	414 E. Temple St.	Downtown	LADOT	Surface Lot	397
758	9	636 Maple Ave	Downtown	LADOT	Structure	140
Total Inventory of Operated Facilities Not Included in Study						**2,263**
TOTAL PARKING FACILTIES INVENTORY						**10,661**

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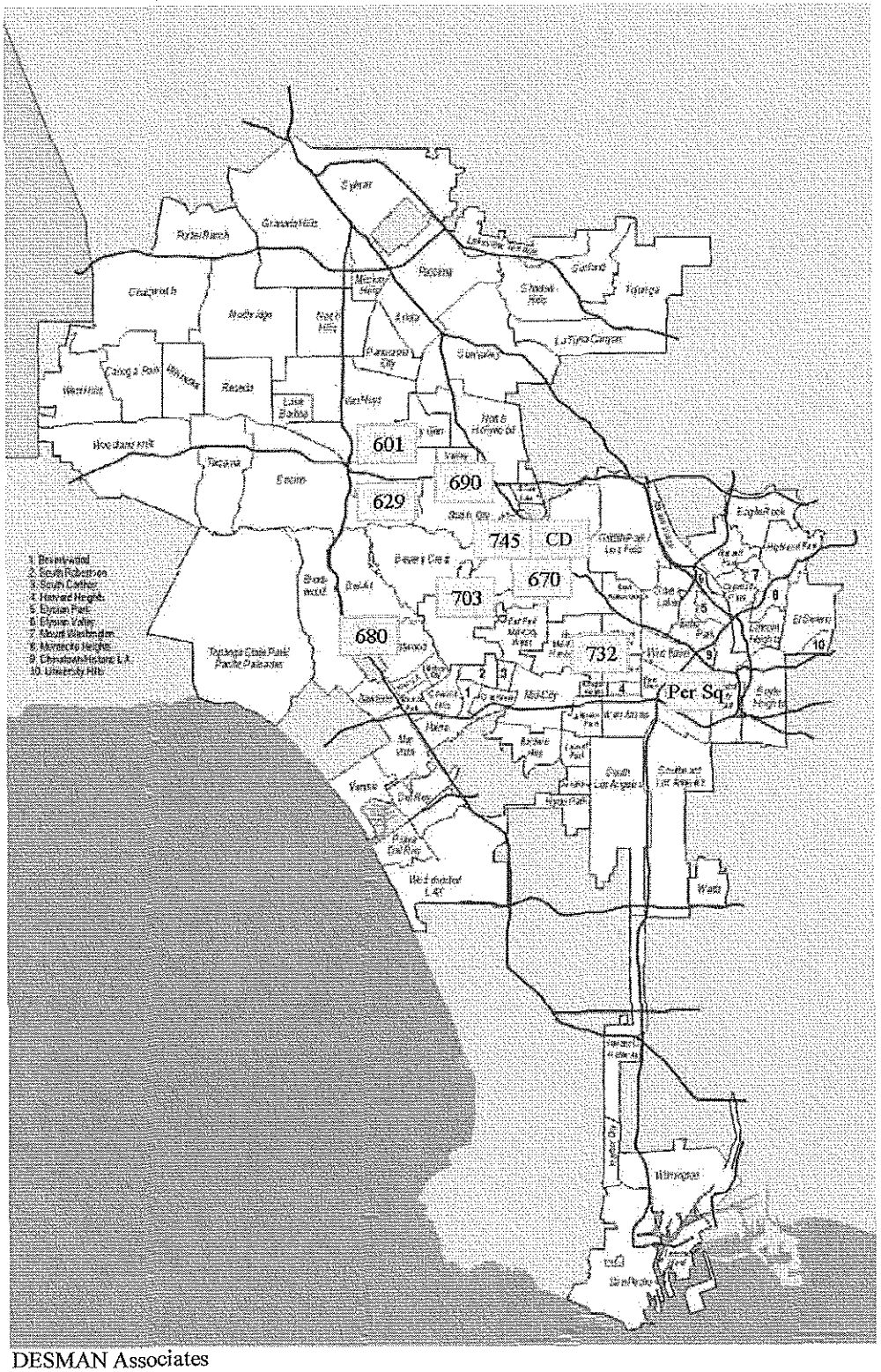
Figure 3 – Map of 10 Subject Parking Garages



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5.2 Inventory of On-Street and Off-Street Parking Meters

There are a total of 39,692 on-street and off-street meters in the City which are distributed in 13 of the 15 Council Districts. The 13 Council Districts contain a total of 71 Parking Meter Zones (PMZ) which define the exact boundaries of each group of meters. **Table 14** provides the number of on-street and off-street meters per district. **Figures 4a, 4b and 4c** display maps of the PMZ's by region. There are no meters in Districts 7 or 12.

Table 14
Number of On-Street and Off-Street Meters in Each Council District

Council District	On-Street	Off-Street	Total Meters
1	3,030	341	3,371
2	1,788	23	1,811
3	2,191	79	2,270
4	3,310	187	3,497
5	6,299	250	6,549
6	1,168	0	1,168
8	1,274	287	1,561
9	6,423	0	6,423
10	4,331	54	4,385
11	2,851	248	3,099
13	2,907	150	3,057
14	1,171	115	1,286
15	966	249	1,215
TOTAL	**37,709**	**1,983**	**39,692**

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There are a total of 58 metered off-street parking lots which are included in the analysis. There are another 32 free parking lots in the City which were not analyzed.

In May 2007, the LADOT initiated the Parking Meter Technology Program which outlined the deployment of new single- and multi-space parking meters. Since the start of the program, the LADOT has completed the conversion and upgrade of 30 metered parking lots to new Park & Pay Stations (Duncan VM or Digital Shelby multi-space meters) which have improved revenue by an average of 19% **(Appendix 10)**. Twenty PMZ's in the City were partially or completely upgraded with new single- and/or multi-space meters to replace the existing on-street parking meters.

The City now operates approximately 440 pay-stations serving approximately 3,000 on- and off-street spaces, or about 7.5% of all metered spaces. The surface parking lots contain a total of 63 pay-stations distributed among 32 locations. The LADOT is also in the process of upgrading

4,000 (approximately 10%) of the City's highest-demand single space meters with more reliable and vandal-resistant meters, as well as with high-security housings and electronic locks. The advantage of the enhanced single space meters is that they accept dollar coins and have high-security meter housings and high-security electronic revenue locks. The pay-stations permit credit card payments and utilize real-time communication, which has improved the average uptime to over 99% over a two-month period.

Figure 4a – Parking Meter Zone Map – Valley Area

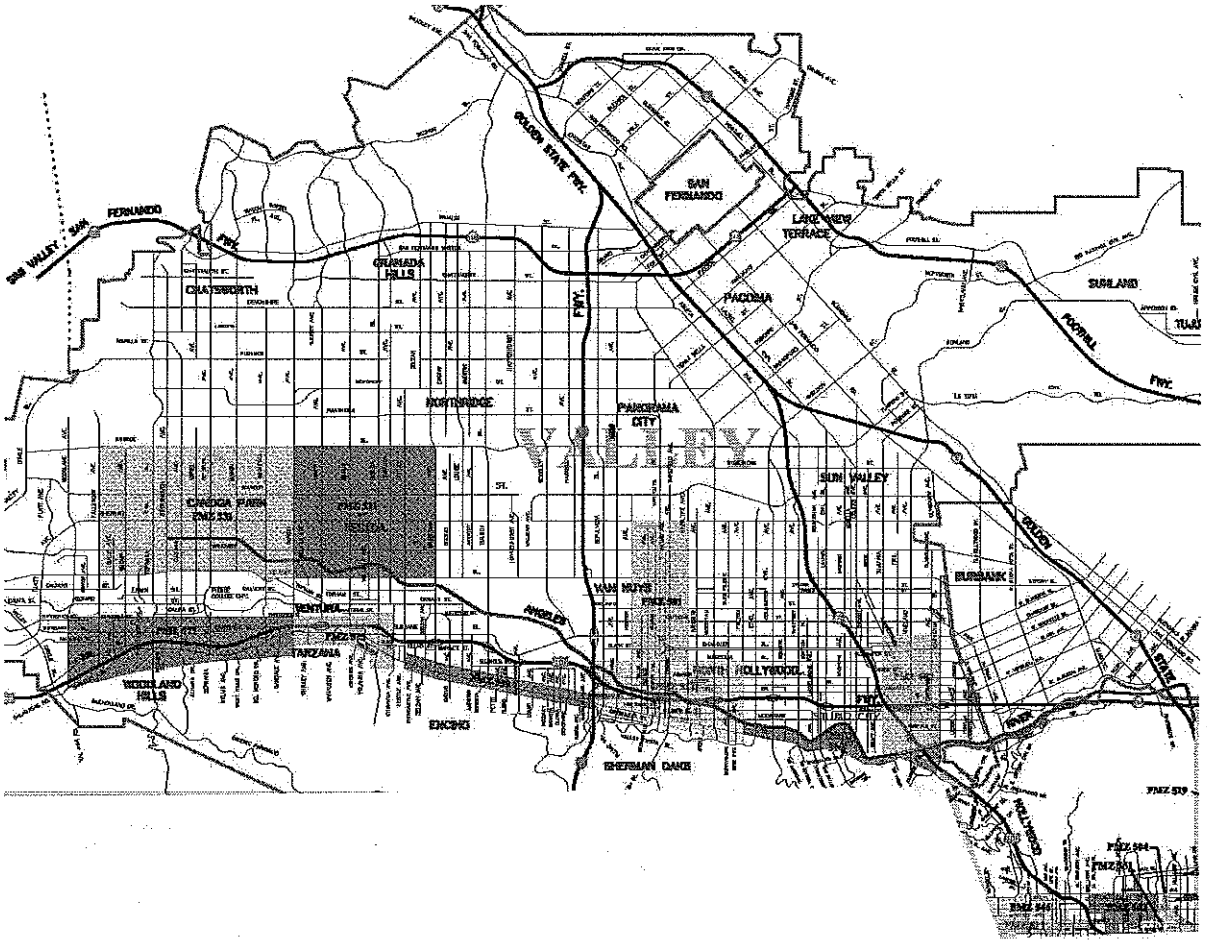

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Figure 4b – Parking Meter Zone Map – Western Area

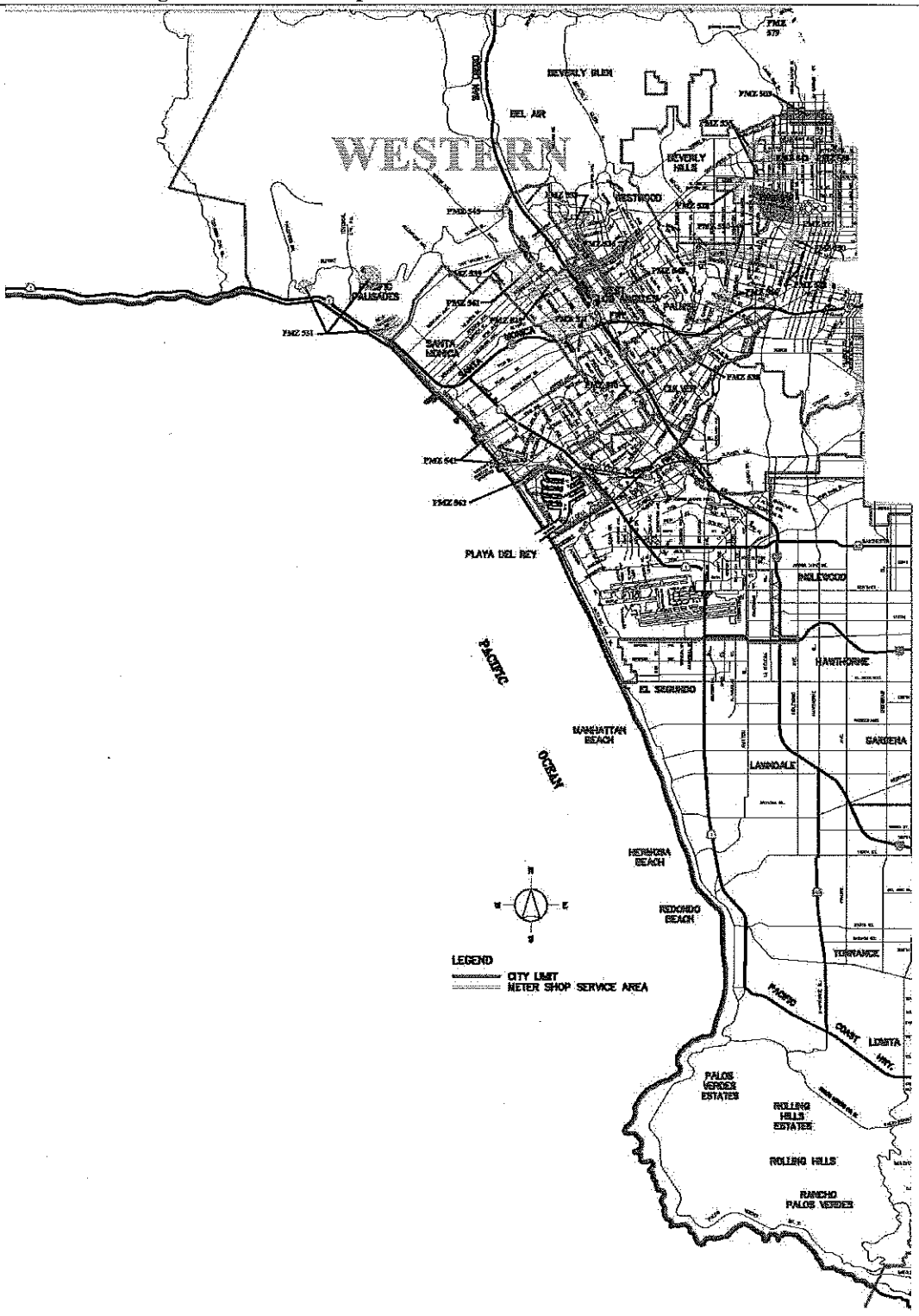

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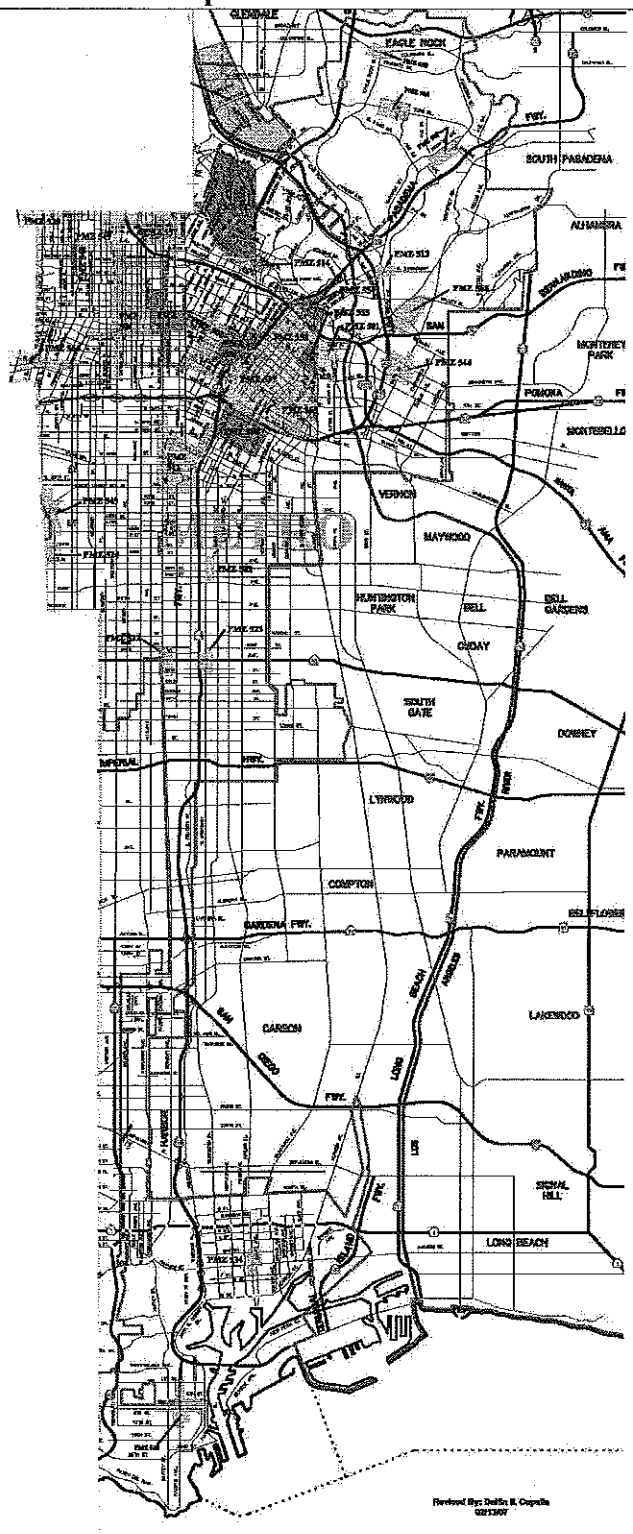
Figure 4c – Parking Meter Zone Map – Metro Area



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6.0 Parking Facility Surveys

Parking occupancy counts were conducted of the 10 garages and the 58 metered lots in order to determine the utilization levels of the parking facilities included in the study. The parking rates of the facilities were also recorded at the time of the surveys. An example of the on-street survey form, off-street survey form and a map of one of the parking meter zones that were surveyed can be found in **Appendix 11**. The weekend occupancy surveys were conducted on Saturday, June 6, 2009 and Saturday, June 13, 2009 during the morning (10AM – 12PM), the afternoon (2PM – 4PM) and the evening (6PM – 8PM). The weekday occupancy counts were conducted on Tuesday, June 16, 2009 and Wednesday, June 17, 2009 during the morning (10AM–12PM), the afternoon (2PM–4PM) and the evening (6PM–8PM). A separate document has been submitted along with this report that summarizes each of the garage field survey efforts which includes a general description of the facilities, a description of each market area and the surrounding land uses, lists of competing parking facilities, the parking rates of each facility and its competing facilities, discussions of future development growth and discussions of future revenue potential at each facility.

6.1 Parking Garage Occupancy Surveys

Table 15 shows the inventory and occupancy rates for each of the 10 garages. Between the garages there are a total of 8,398 spaces. The highest occupancy count at each garage is highlighted and the corresponding peak occupancy rate is listed in the last column of **Table 15**. The peak occupancy rates range from 12% to 92% and the garages are listed in descending order based on peak occupancy level. The overall occupancy for all the garages during each time period is provided on the last row of **Table 15**. The garages had the highest aggregate occupancy level during the weekend evening (6PM–10PM) when 46% of the parking spaces were occupied. The peak period correlates with the time period when the Cinerama Dome and the Hollywood Boulevard garages had their highest occupancy; these two garages make up 37% of the total parking spaces surveyed. The garages had the lowest aggregate utilization during the weekend morning (10AM-12PM) when only 22% of the total parking spaces were occupied. With a peak occupancy rate of only 46%, the entire garage parking system surveyed is underutilized. For eight of the 10 garages, the peak occupancy level was found to be below 80%.

6.2 Parking Lot Occupancy Surveys

Table 16 shows the inventory and occupancy rates for the 58 lots surveyed. There are a total of 2,577 parking spaces in the metered lots. The highest occupancy count at each metered lot is highlighted and the corresponding peak occupancy rate is listed in the last column of **Table 16**. The lots are listed in descending order based on the peak occupancy levels. The peak occupancy rates range from 100% at 4642 Russell Avenue (Lot #675) to 11% at Lot #764 and Lot #715. The metered lots had the highest aggregate utilization during the weekday afternoon (2PM-4PM) when 37% or 943 spaces were occupied. The metered lots had the lowest aggregate utilization during the weekend evening (6PM-8PM) when 24% or 631 parking spaces were occupied. Many of these lots are located in residential areas which have low activity during the weekend evenings. Only 15 (26%) of the 58 lots had a peak occupancy rate of 80-100% and 43 of the lots

are operating under a peak occupancy level of 80%. A majority of the lots are not well utilized which limits their overall financial value.

Table 15
Parking Garage Occupancy Survey Results

District	LOT #	Facility	Inventory	Occupancy						Peak Occupancy
				Weekend			Weekday			
				10AM -12PM	2PM - 4PM	6PM - 8PM	10AM -12PM	2PM - 4PM	6PM - 8PM	
				#	#	#	#	#	#	%
5	680	1036 Broxton Ave	366	106	326	205	320	338	272	92%
6	601	14401 Friar St	237	NA	NA	NA	212	169	12	89%
4	NA	Cinerama Dome Garage	1,717	494	888	1,332	445	529	556	78%
4	732	218 N Larchmont Ave	167	45	87	21	110	115	68	69%
14	NA	Pershing Square	1,590	208	244	157	931	1,022	409	64%
13	745	6801 Hollywood Blvd	3,006	759	1,398	1,835	543	701	718	61%
13	670	1710 Cherokee Ave	386	219	184	261	198	183	187	57%
5	703	123 S. Robertson Blvd	334	24	82	42	56	124	73	37%
2	690	12225 Ventura Blvd	397	12	31	11	60	69	18	15%
6	629	14591 Dickens St	198	18	24	8	4	14	13	12%
Total Inventory/Occupancy of Garages			8,396	1,885	3,264	3,872	2,879	3,264	2,326	
% Occupancy of Garages				22%	39%	46%	34%	39%	28%	

** Peak Occupancy Highlighted for each Facility*
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6.3 Parking Rates at Garages and Lots

Table 17 shows the hours of operation, revenue control systems in place, hourly rates and monthly rates for the parking garages surveyed. The average hourly, daily and monthly rates are listed on the last line of **Table 17**. The average hourly rate is $2.81, the average daily maximum rate is $8.23 and the average monthly rate is $92.15. The Broxton Avenue garage (Lot 680) offers free parking for the first 2 hours; each hour costs $4.50 thereafter. All of the garages are operated by attendants. Three of the garages are open 24 hours a day, 7 days a week: the Cinerama Dome, Cherokee Avenue and Pershing Square garages. A summary of the parking rates, hours of operation, surrounding land uses, area descriptions, and competing parking resources in the area around each of the parking facilities can be found in the *Garage Market Studies* report which is a separate document.

Table 18 shows the current and historical rates for the eight LADOT-owned garages surveyed. The Dickens Street Garage (Lot 629) is the only garage that has not had its rates changed since the garage was opened. The remaining garages have had historical rate adjustments. The Friar Street garage (Lot 601) experienced a 10% increase in the monthly rate in 2002; the hourly and daily maximum rates were left unchanged. The Cherokee Avenue Garage (Lot 670) saw a 300% increase in the hourly rate and a 45% increase in the daily maximum rate; the flat rate was effective only on weekdays, but is now effective daily. The Broxton Avenue Garage (Lot 680) originally had a $2.50 hourly rate, a $5.00 maximum daily rate and $93.50 monthly rate. The garage currently offers free 2-hour parking from 8AM-6PM, an $8.00 daily maximum rate and charges a monthly rate of $125.00. The Ventura Boulevard Garage (Lot 690) originally offered free 2-hour parking but that policy changed on May 1, 2005 when the hourly rate increased to $0.50. The Robertson Boulevard Garage (Lot 703) adjusted the monthly rate from $100.00 to a new rate of $125.00. The Larchmont Boulevard Garage (Lot 732) adjusted the hourly, daily

maximum and monthly rates on July 1, 2004. The hourly rates increased, but the monthly rate decreased by $5.00; this may have been due to pressure from competing facilities. The Hollywood-Highland Garage (Lot 745) experienced a decrease in the hourly rate by 33% from the original rate set in 2002. The monthly rate increased from $95.00 in 2003, to $100.00 in 2009.

These rate changes illustrate the fact that rates are very dependent on the activity of the garage and its competing facilities. Locations with high demand are able to raise their rates and thus increase the value of their facility. The historical parking rates of the garages were taken into account when forecasting future parking rates.

Table 19 lists the hours of operation, revenue control systems in place, hourly rates and monthly rates for the metered lots. The average daily and monthly rates are listed on the last line of **Table 19**. The metered lots differ widely in their hours of operation. Six of the 58 metered lots are designated as short term parking and have a 2-hour parking time limit. Eight of the 58 metered lots contain free short-term parking. The number of free short-term parking spaces in each lot is listed on **Table 19** under the revenue control column. The city lot located at 21901 West Constanso Street (Lot 705) is the only lot that offers 12-hour parking. The remaining lots allow a maximum of 4 or 10 hours of parking and charge a maximum rate of $4.00. Nine of the 58 metered lots offer monthly parking. The average monthly parking rate is $32.22.

Table 16
Metered Parking Lot Occupancy Survey Results

District	LOT #	Facility	Inventory	Occupancy						Peak Occupancy
				Weekend			Weekday			
				10AM -12PM	2PM - 4PM	6PM - 8PM	10AM -12PM	2PM - 4PM	6PM - 8PM	
				#	#	#	#	#	#	%
4	675	4642 Russell Ave	32	19	31	32	19	18	24	100%
13	676	1146 Glendale Blvd	9	9	0	1	7	7	8	100%
14	682	318 N Breed St	28	6	18	18	27	24	10	96%
1	639	116 S. Ave 56	46	17	30	44	20	28	40	96%
8	744	8463 S. Vermont Ave	23	6	5	15	20	22	8	96%
11	651	1516 Barry Ave	20	6	19	17	18	6	4	95%
5	685	2386 Malcolm Ave	19	7	18	10	15	17	10	95%
4	694	209 N Larchmont Ave	34	22	32	9	18	25	17	94%
4	619	1451 Gardner St	22	13	12	14	6	8	20	91%
1	669	154 Avenue 24	51	19	11	2	45	38	0	88%
5	756	139 George Burns Rd	74	12	14	8	29	64	29	86%
4	627	11231 Magnolia Blvd	47	40	31	23	27	23	35	85%
11	656	1615 Colby Ave	33	7	5	5	16	28	12	85%
1	672	124 S. Ave 57	32	19	27	13	12	18	15	84%
11	652	1530 Butler Ave	43	12	32	36	22	25	21	84%
1	695	123 N. Ave 57	38	16	21	8	13	14	29	76%
11	681	15216 Sunset Blvd	25	18	12	10	9	19	5	76%
1	635	119 N. Ave. 56	84	8	28	58	16	33	26	69%
11	653	1547 Corinth Ave	38	6	6	3	22	20	26	68%
1	638	120 S Ave 58	28	19	19	2	6	9	3	68%
5	698	2367 Prosser Blvd	28	13	19	3	11	10	9	68%
5	688	1156 Clark Ave	27	9	6	5	10	18	6	67%
5	707	2377 Midvale Ave	40	21	24	16	11	25	18	63%
8	626	3328 W. 43rd St	105	65	54	15	27	20	36	62%
4	602	11320 Chandler Blvd	46	3	28	26	9	14	26	61%
14	686	5063 Caspar Ave	29	17	10	12	11	8	2	59%
15	683	445 W 5th St	26	3	15	3	12	14	11	58%
8	625	3416 W. 43rd St	173	92	97	32	54	69	53	56%
13	663	1146 Logan St	34	19	9	4	9	7	8	56%
5	689	8866 Pico Blvd	39	17	14	4	20	19	14	51%
15	684	460 W 7th St	92	7	27	15	47	40	18	51%
11	654	1611 Beloit Ave	20	0	3	0	10	9	0	50%
1	637	124 N. Ave 59	36	17	10	10	8	7	13	47%
4	671	672 Detroit St	54	25	22	13	20	16	24	46%
1	658	216 Avenue 24	60	26	13	6	14	6	4	43%
11	655	11312 Idaho Ave	17	2	7	4	5	6	3	41%
1	673	117 S. Ave 58	32	12	10	4	9	7	8	38%
5	799	14758 Ventura Blvd	24	5	4	4	8	9	6	38%
13	662	1152 Lemoyne St	73	26	23	26	26	27	22	37%
5	642	1421 S. Wooster St	49	5	5	2	16	18	10	37%
11	645	1540 Purdue Ave	37	0	5	7	6	13	9	35%
13	643	1147 Echo Park Ave	37	13	11	7	2	5	9	35%
15	647	474 W 8th St	41	7	8	14	9	11	13	34%
4	614	728 S Cochran Ave	41	12	6	5	11	13	10	32%
1	659	2334 Daly St	80	17	22	13	18	23	21	29%
13	679	1711 Sunset Blvd	14	1	4	1	4	2	2	29%
1	628	2418 Daly St	28	5	6	2	7	6	6	25%
3	705	21901 W. Costanso St	29	3	5	7	3	3	0	24%
15	735	396 W. 6th St	58	0	14	8	9	7	2	24%
10	692	601 S Vermont Ave	57	8	10	10	9	13	8	23%
15	641	462 W 9th St	102	13	11	8	5	14	22	22%
1	636	5712 E. Marmion Way	62	0	1	1	2	13	12	21%
4	747	5000 N. Vineland Ave	92	4	3	5	5	10	16	17%
1	669	5033 Lincoln Ave	42	7	5	5	3	3	6	17%
3	644	7219 Remmet Ave	18	3	2	3	3	2	1	17%
14	668	5058 Meridian St	45	7	4	0	6	4	3	16%
5	715	2371 Overland Ave	27	2	2	2	3	3	2	11%
3	704	7128 Jordan Ave	37	2	1	1	4	3	0	11%
Total Inventory/Occupancy of Lots			2,577	769	691	631	819	943	775	
% Occupancy of Lots				30%	35%	24%	32%	37%	30%	

* The peak occupancy period is highlighted for each lot

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Table 17
Parking Garage Rates

Fac #	Facility Name	Location	Spaces	Owner/ Operator	Hours of Operation	Rates						Mode of Operation
						1 hour	2 hour	Daily Max	Event	Monthly	Validation	
629	Dickens Garage	14591 Dickens St	198	LADOT / GSD	7AM-11:30PM Daily	$1.50	$3.00	$4.50		$38.50		Attendant/Booth/Time Stamped Tkt
703	Robertson Garage	123 S. Roberston Blvd	334	LADOT / GSD	8AM-12:30AM M-Sa 8AM-7PM Su	$2.00	$4.00	$12.00		$125.00		Attendant/Gates/Fee Computer
601	Friar Garage	14401 Friar St	237	LADOT / GSD	5:30AM-7PM M-F	$1.10	$2.20	$4.40		$49.50		Attendant/Booth Time Stamped Tkt
629	Ventura Garage	12225 Ventura Blvd	397	LADOT / GSD	7PM-10:30PM Su-Th 7AM-12AM F-Sa	1st 20 mins. Free $0.50	1.5	$4.50		38.5	Free / 10% off	Attendant/Gates/Fee Computer
670	Cherokee Garage	1710 Cherokee Ave	386	LADOT / PCI	24-hours Daily	$4.00	$8.00	$8.00	$8.00	$100.00		Attendant/Gates/Fee Computer
680	Broxton Garage	1036 Broxton Ave	386	LADOT / GSD	7AM-12AM Su-Th 7AM-2:30AM F-Sa	Free	Free	$8.00	$3.00 Evening	$125.00	$1.50 ea 20min. 1st - 2 hrs.	Attendant/Gates/Fee Computer
732	Larchmonth Garage	218 N. Larchmont Blvd	167	LADOT / GSD	8AM-8PM M-Th 8AM 11PM F-Sa 11AM-5PM Su	$1.50	$3.00	$5.25		$60.00	1-hr Free	Attendant/Booth/Time Stamped Tkt
745	Hollywood Highlands garage	6801 Hollywood Blvd.	3,025	LADOT / NSP	10AM-10PM Su-Th 10AM-2AM F-Sa	$3.00	$6.00	$10.00		$95.00 $50.00 Qtr	$2.00 - 4hrs	Attendant/Gates/Fee Computer
CD	Cinerama Dome Garage	6389 De Longpre Ave.	1,725	CRA / PCI	24-hours Daily	$4.00	$8.00	$10.00	$3- 4hrs $10 - max	$100.00	50% - 75%	Attendant/Gates/Fee Computer
PS	Pershing Square Garage	441 West 6th St.	1,590	LADOT / GSD	24-hours Daily	$7.72	$15.40	$15.40	$9.35 E.B. $6.60 > 5PM	$190 - Non-Res. $280 - Res.		Attendant/Gates/Time Stamped Tkt
Average LADOT Parking Garage Rates						$3.10	$5.68	$8.21	$5.15	$92.15		

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Table 18
LADOT Garages, Historical Parking Rates

			Rates					% Rate Change		
Lot #	Address	Rate Change Date	1 hour	2 hour	Daily Max	Flat Rate	Monthly	Hourly	Daily Max	Monthly
601	14401 Friar St	Current: 02/27/2002	$ 1.10	$ 2.20	$ 4.40	-	$ 49.50	0%	0%	10%
		Effective: 06/01/2001	$ 1.10	$ 2.20	$ 4.40	-	$ 45.00	-	-	-
629	14491 Dickens St	Current: 07/01/2005	$ 1.50	$ 3.00	$ 4.50	-	$ 38.50	-	-	-
670	1710 N. Cherokee Ave	Current: 09/01/2007	$ 4.00	$ 8.00	$ 8.00	$8.00 after 5PM Daily	$ 100.00	0%	0%	0%
		Effective: 03/01/2007	$ 4.00	$ 8.00	$ 8.00	$8.00 after 5PM Mon-Fri	$ 100.00	300%	45%	82%
		Effective: 07/01/2004	$ 1.00	$ 1.00	$ 5.50	-	$ 55.00	-	-	-
680	1036 Broxton Ave.	Current: 07/01/2004	$ -	$ -	$ 8.00	$3.00 after 6PM	$ 125.00	-100%	60%	34%
		Effective: 04/01/1999	$ 2.50	$ 5.00	$ 5.00	$2.00 after 5PM	$ 93.50	-	-	-
690	12225 Ventura Blvd.	Current: 05/01/2005	$ 0.50	$ 1.50	$ 4.50	-	$ 38.50	-	0%	0%
		Effective 12/04/2004	-	-	$ 4.50	-	$ 38.50	-	-	-
703	123 S. Robertson Blvd	Current: 01/01/2009	$ 2.00	$ 4.00	$ 12.00	-	$ 125.00	0%	0%	25%
		Effective 11/19/1998	$ 2.00	$ 4.00	$ 12.00	-	$ 100.00	-	-	-
732	218 N. Larchmont Blvd.	Current: 07/01/2004	$ 1.50	$ 3.00	$ 5.25	-	$ 60.00	50%	50%	9%
		Effective 04/01/1999	$ 1.00	$ 2.00	$ 4.40	-	$ 55.00	-	-	-
745	6801 Hollywood Blvd.	Current: 07/01/2009	$ 2.00	$ 2.00	$ 10.00	-	$ 100.00	0%	0%	5%
		Effective: 06/25/2003	$ 2.00	$ 2.00	$ 10.00	-	$ 95.00	-33%	-67%	-
		Effective: 11/07/2002	$ 3.00	$ 6.00	$ 10.00	-	-	-	-	-
CD	Cinerama Dome Garage	Current: 2008	$ 4.00	$ 8.00	$ 10.00	$3.00 for 4hrs $10 - Max	$ 100.00	33%	33%	0%
		Effective:2003	$ 3.00	$ 6.00	$ 6.00	-	$ 100.00	-	-	-
PS	Pershing Square Garage	Current: April 2008	$ 7.72	$ 15.40	$ 15.40	$9.35 Early Bird	$ 190.00	10%	10%	9%
		Effective: September 2000	$ 7.00	$ 14.00	$ 14.00	$8.50 Early Bird	$ 175.00	-	-	-

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Table 19
Metered Parking Lot Rates

District	LOT #	Facility	Hours of Operation	Revenue Control	Rates					
					1 hour	2 hour	4 hour	10 hour	12 hour	Monthly
1	628	2418 Daly St	7AM-9PM Mon-Sat	Pay Station	$1.00	$2.00	$4.00	$4.00	-	$30.00
1	635	119 N. Ave. 56	7AM-9PM	Meter - (30) Free	$1.00	$2.00	$4.00	$4.00	-	-
1	636	5712 E. Marmion Way	4AM-2PM	Meter - (10) Free	$1.00	$2.00	$4.00	$4.00	-	-
1	637	124 N. Ave 59	7AM-9PM	Meter - (23) Free	$1.00	$2.00	$4.00	$4.00	-	-
1	638	120 S Ave 58	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
1	639	116 S. Ave 56	7AM-9PM	Meter - (14) Free	$1.00	$2.00	$4.00	$4.00	-	-
1	658	216 Avenue 24	7AM-9PM	Single Space Meter	$1.00	$2.00	-	-	-	-
1	659	2334 Daly St	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
1	660	154 Avenue 24	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	$30.00
1	669	5033 Lincoln Ave	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
1	672	124 S. Ave 57	8AM-6PM Mon-Sat	Meter - (15) Free	$1.00	$2.00	$4.00	$4.00	-	-
1	673	117 S. Ave 58	7AM-9PM	Meter - (20) Free	$1.00	$2.00	$4.00	$4.00	-	-
1	695	123 N. Ave 57	6AM-4PM Mon-Sat	Meter - (20) Free	$1.00	$2.00	$4.00	$4.00	-	-
3	644	7219 Remmet Ave	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	-	-	-
3	704	7128 Jordan Ave	7AM-9PM	Single Space Meter	$1.00	$2.00	-	-	-	-
3	705	21901 W. Costanso St	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	$6.00	-
4	602	11320 Chandler Blvd	7AM-9PM Mon-Sat	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
4	614	728 S Cochran Ave	7AM-9PM Mon-Sat	Pay Station	$1.00	$2.00	$4.00	$4.00	-	$30.00
4	619	1451 Gardner St	7AM-12PM	Single Space Meter	$1.00	$2.00	-	-	-	-
4	627	11231 Magnolia Blvd	7AM-9PM Mon-Sat	Pay Station	$1.00	$2.00	$4.00	$4.00	-	
4	671	672 Detroit St	7AM-10PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	$30.00
4	675	4642 Russel Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00		-	-
4	694	209 N Larchmont Ave	7AM-12PM	Pay Station	$1.00	$2.00	-	-	-	-
4	747	5000 N. Vineland Ave	7AM-9PM	Meter - (18) Free	$1.00	$2.00	$4.00	$4.00	-	-
5	642	1421 S. Wooster St	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
5	685	2386 Malcolm Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
5	688	1156 Clark Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
5	689	8866 Pico Blvd	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
5	698	2367 Prosser Blvd	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
5	707	2377 Midvale Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
5	715	2371 Overland Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
5	756	139 George Burns Rd	9AM-10PM Mon-Sat	Pay Station	$1.00	$2.00	$4.00	-	-	-
5	799	14758 Ventura Blvd	7AM-9PM	Pay Station	$1.00	$2.00	-	-	-	-
8	625	3416 W. 43rd St	7AM-9PM Mon-Sat	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	$25.00
8	626	3328 W. 43rd St	7AM-9PM Mon-Sat	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	$25.00
8	744	8463 S. Vermont Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
10	692	601 S Vermont Ave	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
11	645	1540 Purdue Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	-	-	-
11	651	1516 Barry Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
11	652	1530 Butler Ave	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	-	-	-
11	653	1547 Corinth Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	$50.00
11	654	1611 Beloit Ave	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	$40.00
11	655	11312 Idaho Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	-	-	-
11	656	1615 Colby Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	-	-	-
11	681	15216 Sunset Blvd	7AM-9PM	Pay Station	$1.00	$2.00	-	-	-	-
13	643	1147 Echo Park Ave	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
13	662	1152 Lemoyne St	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	$30.00
13	663	1146 Logan St	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
13	676	1146 Glendale Blvd	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
13	679	1711 Sunset Blvd	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
14	668	5058 Meridian St	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
14	682	318 N Breed St	7AM-9PM	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
14	686	5063 Caspar Ave	7AM-9PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
15	641	462 W 9th St	8AM-6PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
15	647	474 W 8th St	8AM-6PM	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
15	683	445 W 5th St	8AM-6PM Mon-Sat	Single Space Meter	$1.00	$2.00	$4.00	$4.00	-	-
15	684	460 W 7th St	8AM-6PM Mon-Sat	Pay Station	$1.00	$2.00	$4.00	$4.00	-	-
15	735	396 W. 6th St	8AM-6PM Mon-Sat	Pay Station	$1.00	$2.00	$4.00	-	-	-
Average Lot Rates					$1.00	$2.00	$4.00	$4.00	$6.00	$32.22

(#) indicates the 2-hour limit free parking inventory

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7.0 On-Street Parking Meter Surveys

Based on our knowledge of statistics and our experience with surveys and sampling from past projects, it was determined that conducting detailed surveys of a 1% sample of the on-street meters would provide us with sufficient data to accurately project the performance of the entire meter system. Based on software provided by Creative Research Systems (www.surveysystem.com), it was determined that a sample of only 380 on-street meters would supply us with enough data to be 95% confident in the results, with a 5% confidence interval. This means that, for example, if a survey of 380 on-street meters indicated that the peak period occupancy of meters was 75%, we could be 95% confident that the system-wide peak period utilization is between 70 – 80%.

In order to improve the accuracy of the survey results, an attempt was made to distribute the blocks surveyed across each Council district (all 13 that contain meters) both geographically and based on meter performance. Geographic distribution was based on the assumption that the closer two meter zones are in number, the closer they are located to one another geographically. The proposed study includes a 1% sample of approximately 44 blocks.

In addition to geographic distribution, the surveys were also distributed based on meter performance. The Parking Meter Zones were assigned a value based upon the documented revenue generated per meter, per year in each zone. This method of classification resulted in the creation of six (6) separate revenue/year categories. The proposed blocks to be surveyed were then distributed proportionally across these six (6) performance levels based on the number of meters in each category; in other words, if 10% of the meters system-wide fall in the lowest revenue category, approximately 10% of the meters to be surveyed would also be from this revenue category.

The number of surveys per council district range from 2 to 7 depending on the number of meters in that district. In those districts with only 2 surveys the surveys represent close to a 2% sample. The proposed study includes a 1% sample of approximately 44 blocks. The survey could be enhanced by the adding a few blocks to the smaller districts in effect having the greater of 1% sample or 3 surveys in each council district. This would require 53 total blocks. Similarly the greater of 1% or 4 surveys would require only 59 surveys. Not only is the size of the sample considered adequate statistically speaking, the proposed meters to be surveyed were distributed both geographically and by relative revenue production in order to further ensure that representative data is collected upon which DESMAN's analysis will be based.

Of the 15 Council Districts in the City, 13 have on-street meters. Detailed surveys were conducted to identify operational characteristics of representative meter areas around the City. One on-street area was surveyed in each of the 13 Council Districts. These surveys were performed at 13 locations (3 Pay-by-Space locations and 10 single space metered locations) between Tuesday, June 9, 2009 and Thursday, June 11, 2009. At each of the 13 locations, between 8 and 10 meters were analyzed. The surveys were conducted between the hours of operation specific to each location. **Table 20** lists the 13 locations where on-street meter surveys were conducted. The exact location, type of revenue control systems in place, hours of operation

and number of spaces surveyed at each of the 13 locations are also provided in **Table 20**. A summary of the parking rates, hours of operation, surrounding land uses, area descriptions, and competing parking resources in each survey area can be found in *On-Street Meter Survey Areas - Market Descriptions* report which is a separate document.

Table 20
Surveyed Paring Meter Zone Locations

Location	District	PMZ	Survey Location	Revenue Control	Hours of Operation	# of Spaces Surveyed
1	1	508	Park View Street (West side), between 6th St. and Wilshire Blvd.	Meters	8AM- 6PM	10
2	2	510	Ventura Blvd. (South side), between Vantage Ave. and Laurelgrove Ave.	Pay-by-Space	8AM - 8PM	10
3	3	577	Ventura Blvd. (South side), between Don Pio Dr. and Topanga Canyon Blvd.	Meters	9AM - 8PM	10
4	4	540	Larchmont Blvd. (East side), between 1st St. and Beverly Blvd.	Pay-by-Space	8AM - 8PM	10
5	5	556	Wilshire Blvd. (South side), between San Vincente Blvd. and La Jolla Ave.	Meters	9AM - 4PM	9
6	6	501	Van Nuys Blvd. (East side), between Sylvan St. and Friar St.	Meters	8AM - 6PM	9
7	8	512	Figueroa St. (East side), between Exposition Blvd. and USC McCarthy Way	Meters	9AM - 6PM	9
8	9	580	Hill St. (East side), between 22nd St. and 23rd St.	Meters	8AM - 6PM	9
9	10	506	Serrano St. (West side), between 7th St. and Wilshire Blvd.	Meters	8AM - 6PM	10
10	11	571	Olympic Blvd. (South side), between Butler Ave. and Colby Ave.	Meters	8AM - 6PM	9
11	13	514	Sunset Blvd. (South side), between Hyperion Ave. and Sanborn Ave.	Pay-by-Space	8AM - 6PM	10
12	14	544	Cesar Chavez Ave. (North side), between Soto St. and Mathews St.	Meters	8AM - 8PM	8
13	15	534	Avalon Blvd. (West side), between 1st St. and Anaheim St.	Meters	8AM - 6PM	10

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In determining the meter survey locations the goal was to survey an area in each of the 13 Council Districts containing meters. In addition to geographic distribution, the surveys were also selected based on meter performance. The PMZ's were assigned a value based upon the documented revenue generated per meter, per year in each zone. The meter zones were ranked based on their activity level (hours occupied per meter) and the more active PMZ's were selected to be surveyed. The highest activity level areas were not always selected as we determined that this may skew the results. It was concluded that some distribution in activity levels was needed. The specific street selected in each of the 13 PMZ's to be surveyed was based on a site visit to the area to find an area of meters that met the following criteria: good visibility, 8 to 10 meters in close proximity and high activity/turnover. Three locations with Pay-by-Space meters were chosen so that comparisons of their performance to that of single-space meters could be made.

Figures 5, 6, and 7 show the PMZ locations where the on-street meter surveys were conducted divided by the three main regions of the City (Valley, Western and Metro). The number on each figure correlates to the location number in **Table 20**. **Figure 5** shows the three locations surveyed in the Valley Region. **Figure 6** displays the two locations surveyed in the Western Region. **Figure 7** shows the eight locations surveyed in the Metro Region.

The City has yet to update the technology of the entire on-street meter system. They have made some effort to update the technology by implementing multi-space (Pay-by-Space) meters in certain areas. However, the use of single-space meters and a Pay-by-Space meter system has hurt the overall revenue potential of the metered parking system. DESMAN conducted a variety of on-street meter surveys in order to assess the utilization of meters, the efficiency of

enforcement, the amount of piggybacking occurring, and uptime of the parking meters. The results of the surveys provide key data in modeling the revenue enhancements from utilizing Pay-and-Display meters verses Pay-by-Space and single-space meters, as well as geometric and procedural encumbrances on parking system revenue growth.

Figure 5 – Surveyed Locations in Valley Area

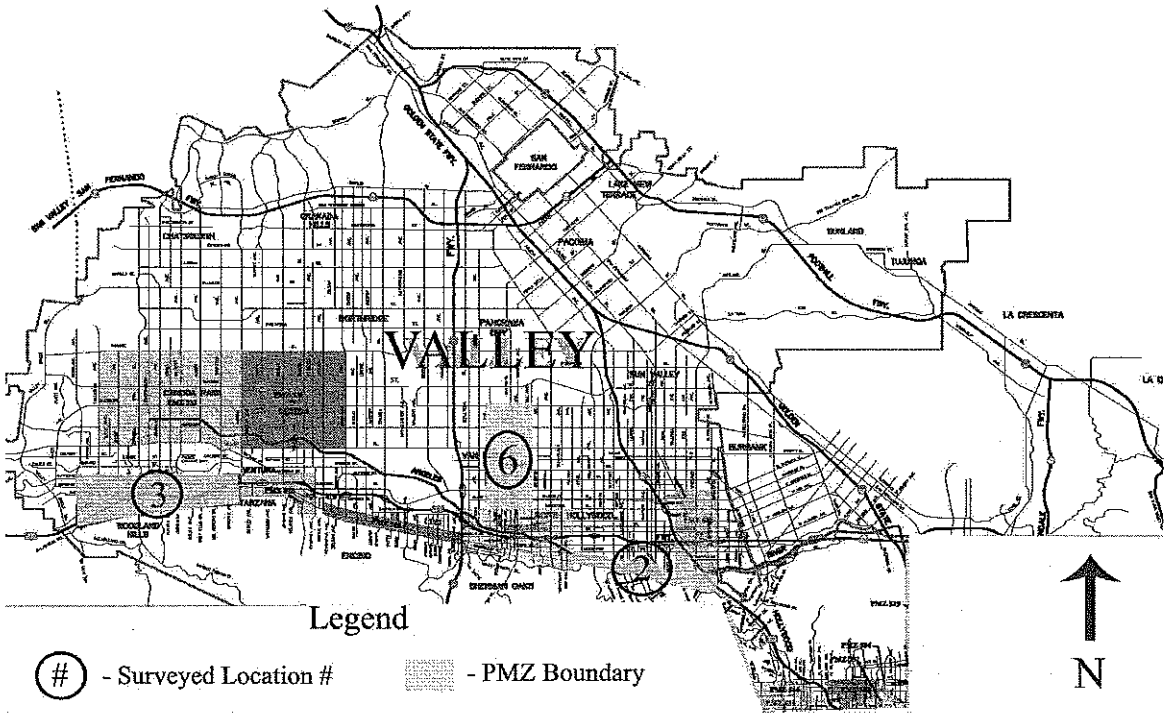

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Figure 6 – Surveyed Locations in Western Area

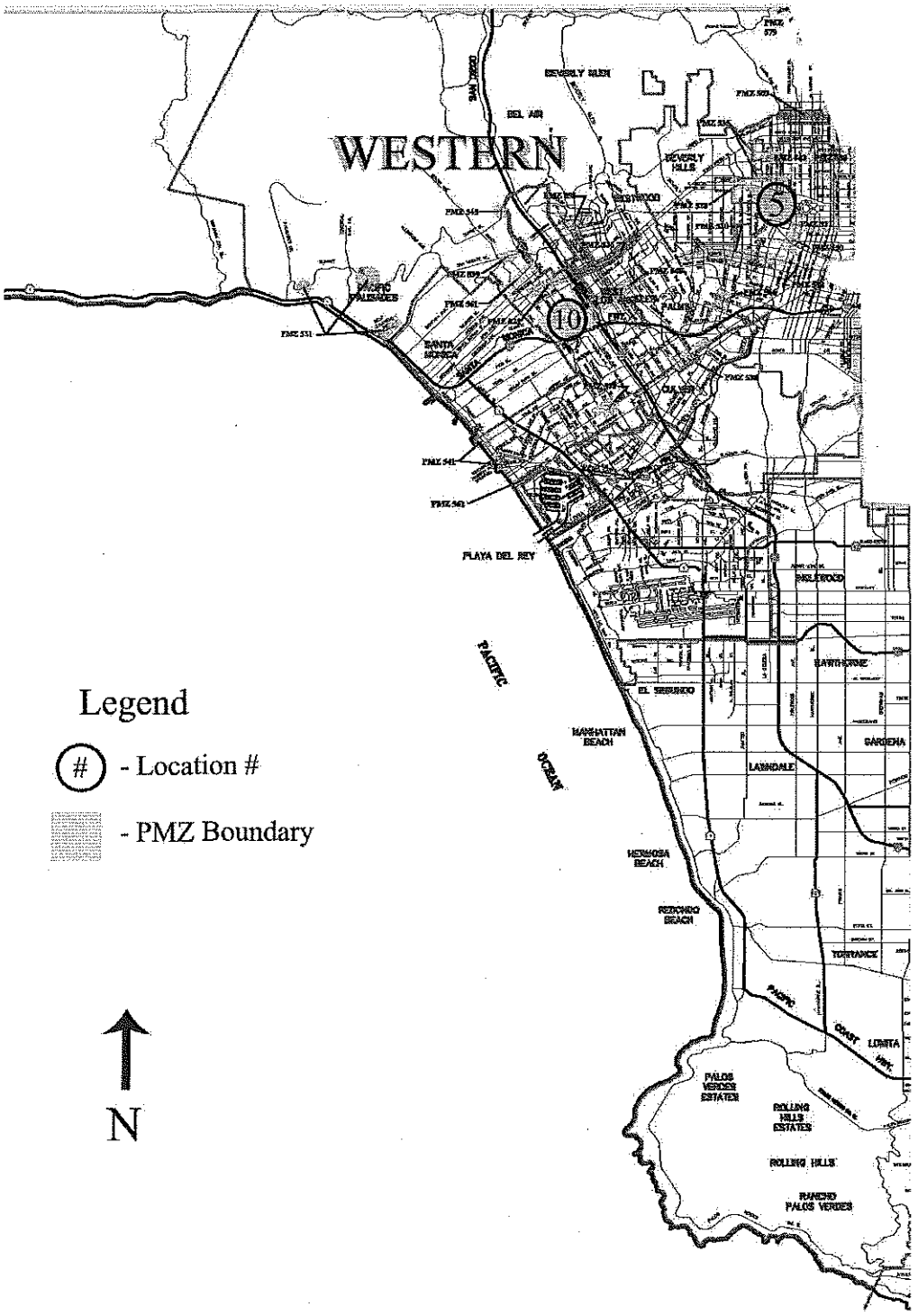

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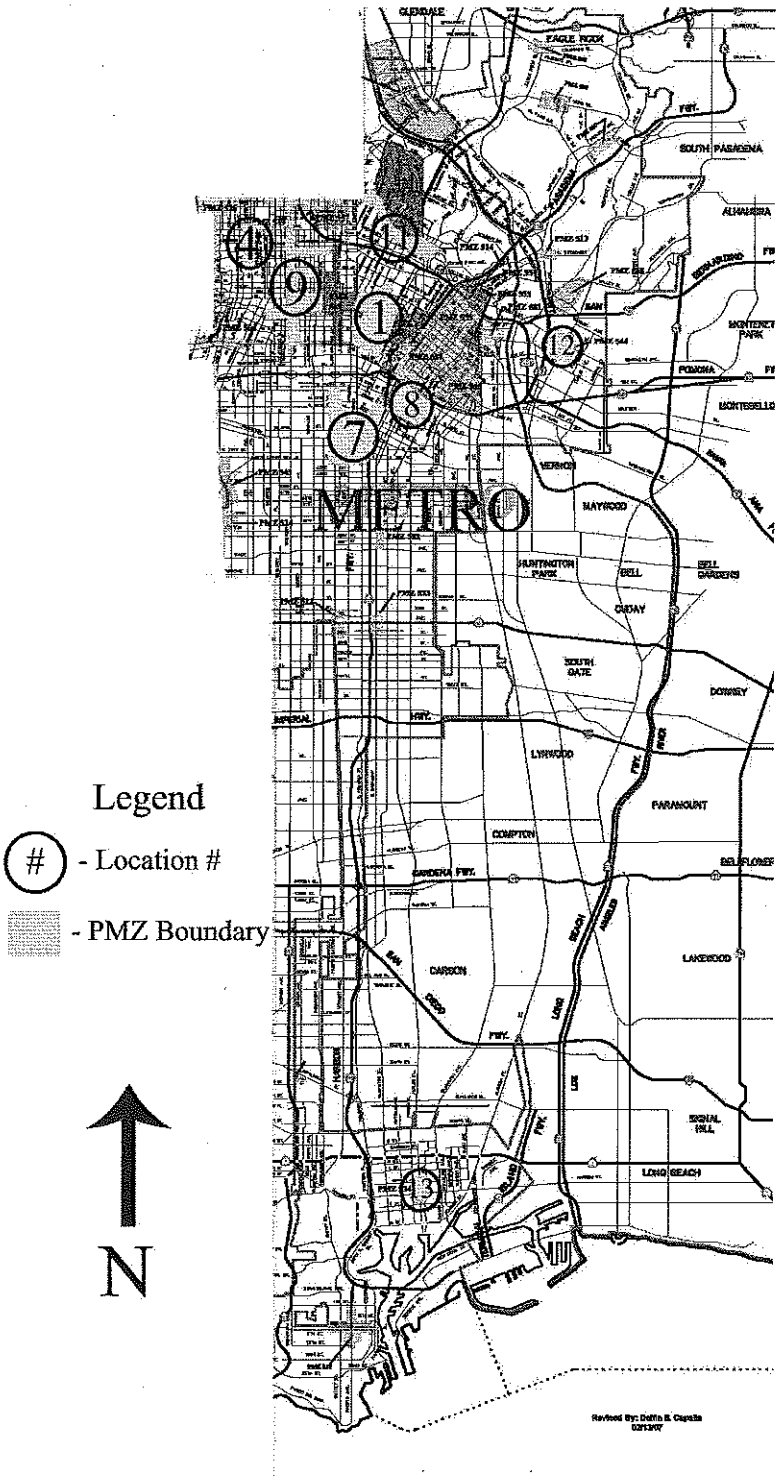
Figure 7 – Surveyed Locations in Metro Area



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In order to determine the extent of the benefit of the Pay-and-Display technology, we began with anecdotal evidence in the industry that the typical benefit of conversion from single-space meters to Pay-and-Display technology is a 30% increase in revenue. We contacted a number of communities which had converted from single space meters to Pay-and-Display and were able to identify three communities that tracked revenue increases resulting solely from the implementation of a Pay-and-Display system. Based on discussions with staff in each town, we identified the revenue percentage increases which are shown in **Table 21.** The results are consistent with the anecdotal evidence of a 30% increase.

There is a wide range in the revenue benefits related to the implementation of a Pay-and-Display meter technology system (25% to 75%). For this reason, it became necessary to develop specific factors to model the revenue benefits of implementing a Pay-and-Display meter system in the City of Los Angeles. DESMAN developed a field verification process to document the potential benefits. This process involved several types of field surveys to identify the revenue benefits of the elimination of piggybacking, elimination of broken meters, and improvement of enforcement.

Table 21
Pay-and-Display Revenue Benefits in Sample Cities

Location	Revenue Increase
Philadelphia, PA	30%
Syracuse, NY	75%
Calgary, Alberta	25%
Average	43%

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7.1 Piggybacking

Overpayment at a meter allows the next car to park at the same space for some period of time at no cost to them. This free-rider problem is known as "piggybacking". DESMAN conducted a survey of the amount of time patrons "piggyback" at on-street meters.

The surveyed areas were analyzed according to city region since each area's meters have unique performance characteristics. **Table 22** shows the meter surveys that were conducted in the Valley. A total of 8,512 occupied minutes were recorded from the 29 meters analyzed in the Valley Region. The average number of operating hours per day for this region is 11 hours. The revenue gain from eliminating piggybacking was based on the total number of occupied minutes and the total number of piggyback minutes. During the meter's hours of operation, the elimination of the 599 minutes of "piggybacking" would result in 7% revenue growth in the Valley Region.

Table 22
Piggyback Analysis - Valley Area

Location	Zone Name	Operating Hours	# of Occupied Minutes	# of Meters	Piggyback Minutes
2	Studio City	12	3,057	10	333
3	Woodland Hills	11	1,566	10	73
6	Van Nuys	10	3,889	9	193
TOTAL		11	8,512	29	599
% of Minutes a Vehicle was Piggbacking					7%

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Table 23 shows the meter surveys that were conducted in the Metro Area. The average number of operating hours per day for this region is 10 hours. A total of 31,669 occupied minutes were recorded at the 76 meters analyzed in the Metro Area with 3,562 of these minutes the result of patrons "piggybacking". This evidence suggests that the elimination of "piggybacking" in the Metro Area with the implementation of Pay-and-Display meter technology would result in an increase in revenue of 11%.

Table 23
Piggyback Analysis – Metro Area

Location	Zone Name	Operating Hours	# of Occupied Minutes	# of Meters	Piggyback Minutes
1	Wilshire-Alvarado	10	3,142	10	295
4	Larchmont	12	5,869	10	980
7	USC	9	2,985	9	84
8	Washington-Broadway	10	4,120	9	319
9	Wilshire-Western	10	4,687	10	383
11	Sunset-Alvarado	10	5,425	10	1,058
12	Boyle Heights	12	3,249	8	164
13	Wilmington	10	2,192	10	279
TOTAL		10	31,669	76	3,562
% of Minutes a Vehicle was Piggybacking					11%

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Table 24 displays the meter surveys that were conducted in the Western Area. The average number of operating hours per day for this region is 9 hours. A total of 7,294 occupied minutes were recorded at the 18 meters analyzed in the Western Area with 269 of these minutes the result of patrons "piggybacking". This data suggests that the elimination of "piggybacking" in the Western Area would result in 4% revenue growth.

Table 24
Piggyback Analysis – Western Area

Location	Zone Name	Operating Hours	# of Occupied Minutes	# of Meters	Piggyback Minutes
5	Wilshire-Fairfax	7	2,801	9	112
10	Olympic-Sawtelle	10	4,493	9	157
TOTAL		9	7,294	18	269
% of Minutes a Vehicle was Piggybacking					4%

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Figure 8 shows the three regions in the City along with the average percentage of minutes that parking patrons were observed to be "piggybacking". These factors can be applied in the financial analysis of both the on-street and off-street meters to determine the revenue gain from implementing Pay-and-Display meter technology. However, the revenue gain factor for each region cannot be directly applied for the Pay-by-Space meters. The unique configuration of the communication among Pay-by-Space meters means that if a piggybacking patron uses a different meter (for example the northern end of the block instead of the southern end) than the original parker, the meter does not register the pre-existing time. In simple terms, we estimate that with Pay-by-Space meters, one-sixth of the time a patron will use a different pay-station than the last parker and potentially miss the opportunity to piggyback. The one-sixth factor is simply based on the straightforward calculation that one-third of the spaces are located in-between two pay-stations and half the time a person will use a different pay-station than the previous parker. To represent this phenomenon in a financial model, a one-sixth reduction factor could be applied for Pay-by-Space areas.

7.2 *Broken Meters*

In 1999, the CBS 2 News Special Assignment team (the I-Team) checked 1,000 of the City's meters and found that more than 10% of them were not working properly **(Appendix 12)**. This investigation led to the LADOT enacting a parking policy that permits vehicles to park at broken/inoperable meters; this is the same as allowing a person to park for free. When a meter is broken and occupied, revenue is lost. To assess the approximate percentage of meters which are broken (failed), a survey of 13 random on-street parking locations was conducted. Some of the locations are the same as the ones listed in **Table 20** but not all locations are the same. These were spot surveys which were performed at random times within the hours of operation of the meters. **Table 25** displays the total number of meters at each location, the number of failed meters at each location, and the occupancy of all meters and failed meters. As shown in **Table 25**, a total of 306 meters were surveyed and 46 were observed as being broken. Based on the analysis, approximately 15% of the meters were inoperable and 72% of the inoperable meters were occupied.

Figure 8 – Percent Piggybacking by Area

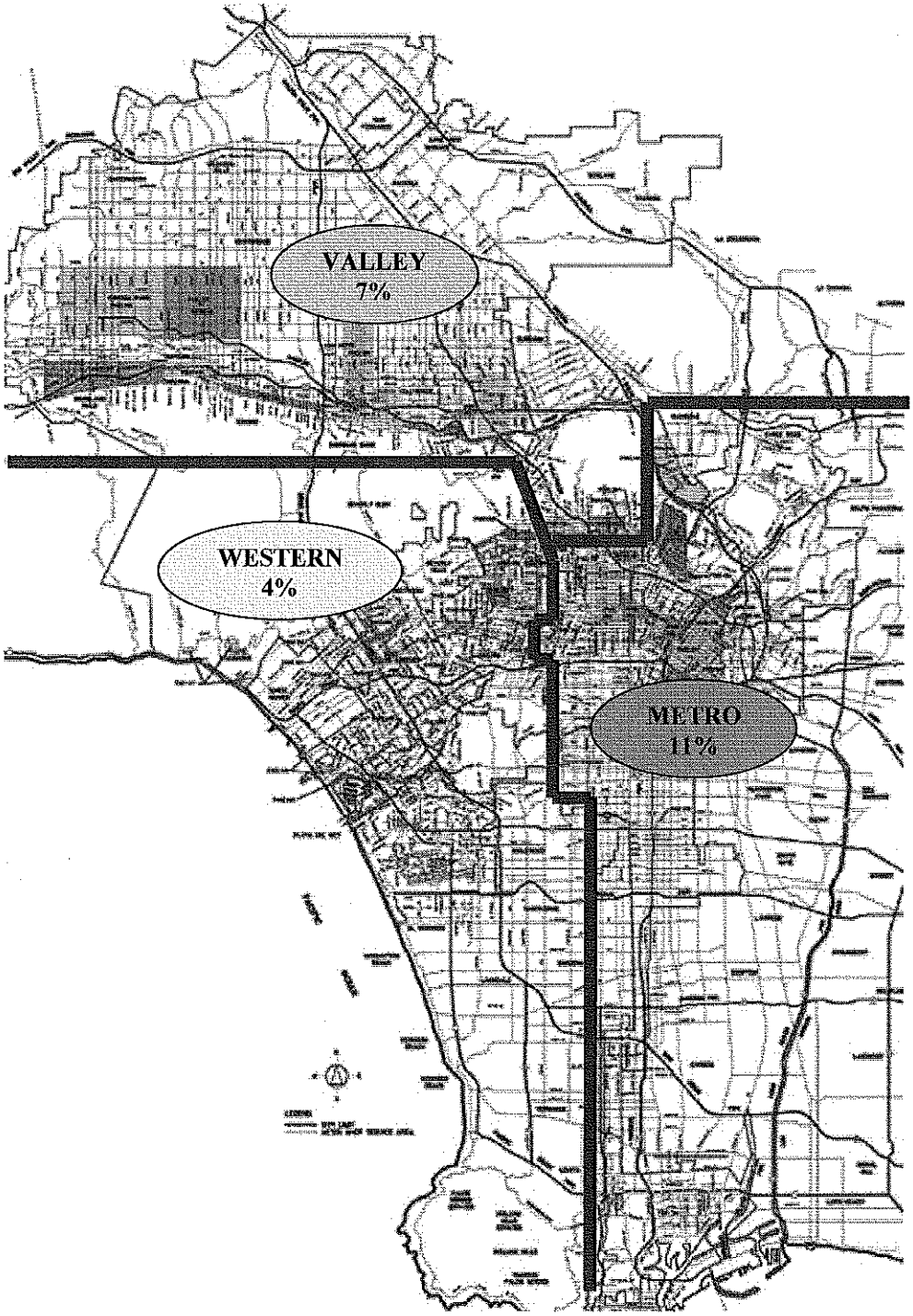

Table 25
Inventory and Occupancy of Broken Meters at 13 On-Street Parking Locations

							Inventory		Occupancy	
Date	Time	District	PMZ	Location	Street	Side of Street	# of Meters	# of Fail Meters	All Meters	Fail Meters
6/11/2009	10:45 AM	6	501	Van Nuys	Van Nuys Blvd., between Friar St. and Sylvan St.	East	10	1	8	1
						West	9	1	5	0
6/10/2009	11:00 AM	11	571	Olympic-Sawtelle	Butler Ave., between Olympic Blvd. and Tennessee Ave.	East	16	6	15	6
						West	9	1	9	1
6/10/2009	12:15 PM	5	536	Westwood Santa Monica	Westwood Blvd., North of Santa Monica Blvd.	East	18	5	14	4
						West	14	4	11	2
6/10/2009	2:20 PM	5	520	Pico-Robertson	Pico Blvd., between Robertson Blvd. and Livonia Ave.	North	11	1	9	0
						South	18	6	15	5
6/10/2009	2:55 PM	5	528	Robertson-Alden	Robertson Blvd., between Beverly Blvd. and Alden Dr.	East	15	1	13	1
						West	14	2	14	2
6/10/2009	3:20 PM	5	535	La Cienega Center	La Cienga Blvd., between Waring Ave. and Melrose Pl.	East	12	2	9	1
						West	12	1	6	1
6/10/2009	3:45 PM	5	542	Beverly Fairfax	Melrose Ave., between Sierra Bonita and Curson Ave.	North	6	0	6	0
						South	8	0	8	0
6/10/2009	6:00 PM	13	573	Silverlake	Rowena Ave., between Hyperion Ave. and Avenel St.	North	0	0	0	0
						South	13	0	10	0
6/11/2009	4:20 PM	8	524	Crenshaw-Slauson	Crenshaw Blvd., between 57th St. and 54th St.	East	17	4	3	1
						West	17	1	4	0
6/11/2009	10:20 AM	2	517	Sherman Oaks	Ventura Blvd., between Cedros Ave. East and West	North	10	0	2	0
						South	14	1	10	1
6/11/2009	11:40 AM	5	559	Encino	Ventura Blvd., between Rubio and Petit	North	11	6	11	6
						South	7	0	7	0
6/11/2009	1:25 PM	3	532	Canoga Park	Sherman Way, between Alabama and Remmet	North	10	1	4	0
						South	11	0	8	0
6/11/2009	2:15 PM	3	521	Reseda	Reseda Blvd., between Gault St. and Hart St.	East	14	1	4	0
						West	10	1	8	1
Total Inventory and Occupancy							306	46	213	33
% of Failed Meters			15%							
% of Failed Meters Occupied			72%							

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In order to quantify the amount of lost revenue from allowing vehicles to utilize broken meters, it was necessary to determine the total number of minutes a vehicle occupied a broken meter. **Table 26** provides the number of meters that were broken or failed during the survey period. Of the 123 meters surveyed, 13 meters, or 11% of the total number of parking meters, were inoperable. Parkers continued to occupy the failed meter spaces. Patrons parked for free at the failed meters for a total of 5,480 minutes. Of the 47,475 occupied minutes surveyed, 12% of those minutes were of parkers utilizing a failed meter; occupied minutes are defined as the total number of minutes that the meter was occupied by a parker. With the implementation of pay-stations both on-street and off-street, a vehicle can utilize any pay-station in the area. This eliminates the opportunity to park for free at a broken meter. This shows that if pay-stations, whether Pay-by-Space or Pay-and-Display, replace every meter, there would be an expected increase in revenue of 12%; to be conservative, a 10% factor could be applied in the financial modeling of the metered parking system. The 10% revenue increase factor would not be applied to lots and on-street areas which already have pay-stations, but would be applied to all on-street and off-street single-space meters.

Table 26
Broken Meters Analysis

Location	Zone Name	# of Occupied Minutes	# Meters Surveyed	# of Fail Meters	Fail Meter Minutes
1	Wilshire- Alvarado	3,142	10	0	0
2	Studio City	3,057	10	3	963
3	Woodland Hills	1,566	10	0	467
4	Larchmont	5,869	10	0	821
5	Wilshire-Fairfax	2,801	9	0	322
6	Van Nuys	3,889	9	0	0
7	USC	2,985	9	1	123
8	Washington-Broadway	4,120	9	0	0
9	Wilshire-Western	4,687	10	0	0
10	Olympic-Sawtelle	4,493	9	4	1,932
11	Sunset-Alvarado	5,425	10	0	0
12	Boyle Heights	3,249	8	5	852
13	Wilmington	2,192	10	0	0
	TOTALS	47,475	123	13	5,480
% of Broken Meters					11%
% of Total Time a Broken Meter was Occupied					12%

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7.3 Reduction in Violations

The frequency and duration of meter violations can have a considerable impact on revenue. Of the 13 locations surveyed, DESMAN recorded the amount of time vehicles were in violation and if a parking ticket was issued to vehicles in violation. **Table 27** shows the 13 survey locations along with the total number of violations observed, the number of violations of 15 minutes or greater, and the number of tickets issued. A total of 351 vehicles were observed in violation, with 118 of those vehicles in violation for 15 minutes or greater. There were no tickets issued for violations that were less than 15 minutes. Approximately **10%** of the violations that were 15 minutes or greater were issued tickets and there was a 36 minute average violation time per meter space.

Table 28 shows the violation capture rate for eight U.S. cities, taken from a study of Miami Beach **(Appendix 13)**. The study found that the violation capture rate ranges from 5.9% to 34%, with an average of 18%. For cities that have effective enforcement programs, the violation capture rate can range from 20-25%. The City of Los Angeles is well below the average capture rate at 10%. Increasing the percentage of ticketed violations will increase revenue as parkers will be more likely to pay for their entire parking occupancy if the threat of receiving a ticket is greater.

Table 27
Surveyed Violations and Tickets Issued

Location	Zone Name	Total Violations		Violations Greater Than 15 min.		Tickets Issued	
		#	Minutes	#	Minutes	Less Than 15 Min.	Greater Than 15 Min.
1	Wilshire- Alvarado	19	595	12	550	0	1
2	Studio City	40	491	9	325	0	0
3	Woodland Hills	28	236	7	150	0	0
4	Larchmont	40	435	15	228	0	0
5	Wilshire-Fairfax	13	161	2	100	0	1
6	Van Nuys	22	320	6	211	0	2
7	USC	3	64	1	57	0	1
8	Washington-Broadway	22	1,081	12	988	0	4
9	Wilshire-Western	21	185	4	79	0	1
10	Olympic-Sawtelle	6	266	4	185	0	1
11	Sunset-Alvarado	60	1,279	25	1,035	0	1
12	Boyle Heights	25	297	8	209	0	0
13	Wilmington	52	552	13	359	0	0
TOTALS		351	5,962	118	4,476	0	12
Number of Meter Spaces							123
% of Ticketed Violations Greater Than 15 Minutes							10%
Average Minutes in Violation Greater Than 15 minutes per Meter Space							36 (min)

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Table 28
Violation Capture Rate in U.S. Cities

City	Violation Capture Rate
Boston	34%
Denver	25%
Philadelphia	24%
Houston	16%
New Orleans	15%
Washington, D.C.	15%
New York	11%
Miami Beach	5.9%
Average Rate	18%

Source: Kimley-Horn & Associates, Inc.
DESMAN Associates

DESMAN conducted a study of meter violations in Chicago, Illinois as part of a report dated November 2008. Chicago utilizes both single space meters and Pay-and-Display meters (multi-space), which are different than Pay-by-Space meters. In both Los Angeles and Chicago, the parking ticket fee for parking at an expired meter is $50.

Table 29 provides a comparison of the number of minutes per meter a vehicle is in violation for vehicles in violation for 15 minutes or greater. Based on this analysis, the Chicago meters are not as well enforced overall as those in Los Angeles. However, the multi-space meters in Chicago are substantially better enforced than in Los Angeles, as vehicles are only in violation

an average of 13 minutes per multi-space meter in comparison to 53 minutes per multi-space meter in Los Angeles. The downtown (Loop) area of Chicago is where the multi-space meters are located. This is a high-traffic area, which is generally a high priority for parking enforcement. For this analysis, it was conservatively assumed that with better enforcement and the implementation of a parking meter system that offers multiple payment options, the City could easily reach an average of 25 minutes in violation per meter, or a 31% reduction in violation time. This 31% reduction in violations equates to a 3% growth in revenue. This 3% growth in revenue would be figured into the model along with the additional costs associated with improving the level of enforcement.

Table 29
Parking Violation Comparison – Los Angeles vs. Chicago

	L.A.	Chicago
Meter Violations 15 Min. or Greater	2,888	4,193
Pay-by-Space Violations 15 Min. or Greater	1,588	413
Number of Meter Spaces	93	110
Number of Pay-by-Space Spaces	30	31
Minutes in Violation per Single Space Meters	31	38
Minutes in Violation per Multi-Space Meters	53	13
% of Single Space Meter Violations 15 Min. or Greater Ticketed	16%	4%
% of Multi-Space Meter Violations 15 Min. or Greater Ticketed	2%	17%
% of Total Meters Violations 15 Min or Greater Ticketed	10%	6%

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7.4 Exempt Parkers

Vehicles which are exempt from having to pay parking meters include patrons with a handicap plaque, mileage placards (i.e. City employees on assignment), disabled veterans, marked emergency vehicles, public utility vehicles and government vehicles. Enforcement personnel also permit vehicles that are sitting idle with a person in the vehicle to park for free.

Table 30 provides the number of exempt parkers observed at the 13 meter survey locations during the on-street meter surveys. The percentage of total parkers surveyed that were idle parkers, City workers, and handicap parkers was 6%, 0.3% and 5%, respectively. The percentage of the total number of occupied minutes surveyed at the meters that were from idle parkers, City workers, and handicap parkers was 1.8%, 0.4% and 17.4%, respectively. This shows that idle parkers and City workers do not stay for extended periods of time. However, handicap parkers were observed parking for extended periods. Overall, 11% of the parkers observed were exempt from paying the meters and 20% of the total occupied minutes were utilized by exempt parkers. Handicap parkers are exempt from paying meters based on California state law. These non-paying minutes limit potential revenue.

Table 30
Survey of Vehicles Exempt from Paying Meters

Location	Zone Name	# of Occupied Minutes	Total Parkers	Idle		City Workers		Handicap	
				# Parkers	Minutes	# Parkers	Minutes	# Parkers	Minutes
1	Wilshire- Alvarado	3,142	66	5	79	0	0	6	1,011
2	Studio City	3,057	152	7	60	0	0	7	963
3	Woodland Hills	1,566	110	16	78	1	3	16	231
4	Larchmont	5,869	210	1	15	0	0	0	821
5	Wilshire-Fairfax	2,801	54	3	16	0	0	3	322
6	Van Nuys	3,889	119	15	174	4	210	4	951
7	USC	2,985	46	2	4	0	0	2	772
8	Washington-Broadway	4,120	69	0	0	0	0	4	452
9	Wilshire-Western	4,687	115	2	4	0	0	6	964
10	Olympic-Sawtelle	4,493	183	5	142	0	0	23	1,433
11	Sunset-Alvarado	5,425	161	3	36	0	0	1	137
12	Boyle Heights	3,249	180	27	166	0	0	8	164
13	Wilmington	2,192	153	11	57	0	0	3	26
TOTALS		47,475	1,618	97	831	5	213	83	8,247
Percent of Total				6.0%	1.8%	0.3%	0.4%	5.1%	17.4%
Total Percent of Exempt Parkers									11%
Total Percent of Occupied Minutes Utilized by Exempt Parkers									20%

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7.5 Geometry

The installation of Pay-and-Display technology eliminates the rigid structure of one meter/one car along the block face. Instead of specific spaces of equal length, with Pay-and-Display, cars park on the block as tightly as possible. DESMAN's research indicates that the geometric benefit of using Pay-and-Display technology results in a 9% increase in the number of spaces. Research shows that the average meter space is 22 feet long while only 20 feet is needed per parking space (the average car length is 17 feet). This provides an extra 2 feet per space or a geometric increase between 9% and 11%, depending on the number of spaces on the block. Taking into account the inefficient parking practices that often result from spatially unrestricted parking, DESMAN prefers the more conservative 9% increase in the number of spaces. This geometric improvement applies to all on-street metered spaces, even the Pay-by-Space areas.

7.6 Parking Meter Rates

The phase-in of new on- and off-street parking meter rates began in the fall of 2008. **Table 31** shows the inventory and new hourly rates of the City's parking meters. There are 602 on-street meters that have a new hourly rate of $4.00 per hour; these are the District 9 meters located in parts of the Central Business District and part of the Civic Center. District 9 also contains the two locations that charge a new rate of $3.00 per hour, also located in parts of the Central Business District and the Civic Center. District 9 charges the highest rates due to a high parking demand and competitive rate structure. The majority of the remaining meters have a new hourly rate of $1.00 per hour. The new parking meter rates became effective on August 31, 2008.

Table 31
New Hourly Meter Rates

	On-Street	Off-Street
$4.00	602	0
$3.00	2,016	0
$2.00	2,514	66
$1.50	173	0
$1.00	32,404	1,917
TOTALS	**37,709**	**1,983**
TOTAL METERS		**39,692**

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Table 32 shows the new meter rate structure by Council District. It lists the total number of meters, the previous hourly rate, and the new hourly rate in each PMZ. Meters that had hourly rates of $0.25 to $0.50 are now $1.00; meters with rates of $0.75 per hour charge a new rate of $1.50; the remaining meters rates' are double the previous rates. The Council Districts that have a higher supply of parking meters charge higher rates for their meters. This is due to the fact that these locations are in higher traffic areas that have a higher utilization during their peak hours.

Table 32
Old and New Hourly Meter Rate Structure by Council District

PMZ	Parking Meter Zone	Council District	On-Street	Off-Street	Total Meters	Hourly Rate	New Hourly Rate
554	Chinatown	1	485	0	485	$ 1.00	$ 2.00
508	Wilshire Alvarado	1	475	0	475	$ 0.50	$ 1.00
560	Wilshire Union II	1	500	0	500	$ 0.50	$ 1.00
507	Highland Park	1	181	133	314	$ 0.25	$ 1.00
513	Lincoln Heights	1	272	208	480	$ 0.25	$ 1.00
508	Wilshire Alvarado	1	760	0	760	$ 0.25	$ 1.00
560	Wilshire Union I	1	357	0	357	$ 0.25	$ 1.00
	TOTALS DISTRICT 1		3,030	341	3,371		
510	Studio City II	2	173	0	173	$ 0.75	$ 1.50
517	Sherman Oaks II	2	490	0	490	$ 0.50	$ 1.00
517	Sherman Oaks I	2	583	23	606	$ 0.25	$ 1.00
510	Studio City I & III	2	542	0	542	$ 0.25	$ 1.00
	TOTAL DISTRICT 2		1,788	23	1,811		
575	Tarzana	3	608	0	608	$ 0.50	$ 1.00
532	Canoga Park	3	282	52	334	$ 0.25	$ 1.00
521	Reseda	3	548	0	548	$ 0.25	$ 1.00
577	Woodland Hills	3	753	27	780	$ 0.25	$ 1.00
	TOTAL DISTRICT 3		2,191	79	2,270		
540	Larchmont	4	222	32	254	$ 0.50	$ 1.00
527	Miracle Mile I	4	471	0	471	$ 0.50	$ 1.00
527	Miracle Mile II	4	187	0	187	$ 0.25	$ 1.00
502	North Hollywood	4	778	104	882	$ 0.25	$ 1.00
550	Olympic Fairfax	4	139	0	139	$ 0.25	$ 1.00
526	Santa Monica Highland	4	317	0	317	$ 0.25	$ 1.00
557	Santa Monica Vermont Vir	4	433	0	433	$ 0.25	$ 1.00
503	Sunset Gardner	4	383	21	404	$ 0.25	$ 1.00
579	Universal City	4	197	0	197	$ 0.25	$ 1.00
504	Vermont Hollywood	4	183	30	213	$ 0.25	$ 1.00
	TOTAL DISTRICT 4		3,310	187	3,497		
528	Robertson Alden	5	166	26	192	$ 1.00	$ 2.00
542	Beverly Fairfax	5	738	36	774	$ 0.50	$ 1.00
559	Encino	5	969	0	969	$ 0.50	$ 1.00
558	La Brea Melrose I	5	160	0	160	$ 0.50	$ 1.00
535	La Cienega Center	5	448	0	448	$ 0.50	$ 1.00
520	Pico Robertson I	5	368	62	430	$ 0.50	$ 1.00
548	Pico Westwood	5	396	81	477	$ 0.50	$ 1.00
536	Westwood Santa Monica	5	751	0	751	$ 0.50	$ 1.00
533	Westwood Village	5	464	0	464	$ 0.50	$ 1.00
556	Wilshire Fairfax	5	563	0	563	$ 0.50	$ 1.00
558	La Brea Melrose II	5	600	0	600	$ 0.25	$ 1.00
538	Palms	5	221	0	221	$ 0.25	$ 1.00
520	Pico Robertson II	5	347	45	392	$ 0.25	$ 1.00
566	Robertson South	5	108	0	108	$ 0.25	$ 1.00
	TOTAL DISTRICT 5		6,299	250	6,549		
501	Van Nuys	6	1,168	0	1,168	$ 0.25	$ 1.00
	TOTAL DISTRICT 6		1,168	0	1,168		
524	Crenshaw Slauson	8	99	0	99	$ 0.25	$ 1.00
543	Leimert Park	8	262	267	529	$ 0.25	$ 1.00
512	USC	8	758	0	758	$ 0.25	$ 1.00
522	Vermont Manchester	8	155	20	175	$ 0.25	$ 1.00
	TOTAL DISTRICT 8		1,274	287	1,561		
537	Central Business I	9	374	0	374	$ 4.00	$ 4.00
553	Civic Center I	9	228	0	228	$ 2.00	$ 4.00
537	Central Business II	9	1,846	0	1,846	$ 1.50	$ 3.00
553	Civic Center II	9	170	0	170	$ 1.50	$ 3.00
555	Little Tokyo	9	377	0	377	$ 1.00	$ 2.00
537	Central Business III-IV	9	1,160	0	1,160	$ 0.50	$ 1.00
553	Civic Center III	9	344	0	344	$ 0.50	$ 1.00
565	East Downtown	9	572	0	572	$ 0.50	$ 1.00
581	Alameda East	9	607	0	607	$ 0.25	$ 1.00
582	Broadway Slauson	9	79	0	79	$ 0.25	$ 1.00
580	Washington Broadway	9	666	0	666	$ 0.25	$ 1.00
	TOTAL DISTRICT 9		6,423	0	6,423		
515	Vermont Wilshire	10	466	54	520	$ 0.50	$ 1.00
506	Wilshire Western	10	561	0	561	$ 0.50	$ 1.00
552	Hollywood Western	10	433	0	433	$ 0.25	$ 1.00
564	Pico Crenshaw	10	183	0	183	$ 0.25	$ 1.00
572	Pico La Brea	10	374	0	374	$ 0.25	$ 1.00
515	Vermont Wilshire	10	942	0	942	$ 0.25	$ 1.00
506	Wilshire Western	10	1,372	0	1,372	$ 0.25	$ 1.00
	TOTAL DISTRICT 10		4,331	54	4,385		
539	Brentwood San Vic	11	236	0	236	$ 1.00	$ 2.00
545	Brentwood Village	11	113	0	113	$ 1.00	$ 2.00
541	Venice	11	166	40	206	$ 1.00	$ 2.00
562	Washington Pacific	11	186	0	186	$ 1.00	$ 2.00
561	Wilshire San Vicente	11	297	0	297	$ 0.50	$ 1.00
531	Pacific Palisades	11	280	23	303	$ 0.50	$ 1.00
525	Santa Monica Sawtelle	11	580	185	765	$ 0.50	$ 1.00
570	Mar Vista	11	192	0	192	$ 0.25	$ 1.00
574	Olympic Sawtelle	11	801	0	801	$ 0.25	$ 1.00
	TOTAL DISTRICT 11		2,851	248	3,099		
546	Hollywood Vine	13	785	0	785	$ 1.00	$ 2.00
511	Sunset Vine	13	752	0	752	$ 0.50	$ 1.00
519	Glendale Atwater	13	253	0	253	$ 0.25	$ 1.00
549	Santa Monica Western	13	424	0	424	$ 0.25	$ 1.00
573	Silverlake	13	179	0	179	$ 0.25	$ 1.00
514	Sunset Alvarado	13	178	150	328	$ 0.25	$ 1.00
551	Vermont Sunset	13	336	0	336	$ 0.25	$ 1.00
	TOTAL DISTRICT 13		2,907	150	3,057		
544	Boyle Heights	14	331	0	331	$ 0.25	$ 1.00
530	Eagle Rock	14	139	27	166	$ 0.25	$ 1.00
568	Medical District	14	642	0	642	$ 0.25	$ 1.00
509	York	14	59	88	147	$ 0.25	$ 1.00
	TOTAL DISTRICT 14		1,171	115	1,286		
518	San Pedro	15	721	249	970	$ 0.25	$ 1.00
534	Wilmington	15	245	0	245	$ 0.25	$ 1.00
	TOTAL DISTRICT 15		966	249	1,215		
	COUNCIL DISTRICT TOTALS		37,709	1,983	39,692		

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8.0 Parking Garage Financial Models

8.1 Revenue Projections

The financial models project the future revenues of each of the 10 parking garages for the next 50 years based upon several factors: parking demand growth, parking rate increases, and changes to current parking policies. Each facility is unique in terms of pricing, parking policy and demand characteristics. As a result, each facility will experience a varying degree of revenue growth in the future. The paragraphs below describe the methodology used to derive the revenue growth factors for each facility and present the factors used in the models to project future revenues. **Table 33** presents the revenue projections for the system if the LADOT were to continue managing operations ("Current Operating Structure Model") and **Table 34** projects revenues based on a private operator managing the system ("Private Operator Model").

Growth in Parking Demand
Revenue gains resulting from increases in parking demand are analyzed based on the following categories: parking patrons (transient/monthly/event), the available capacity of each parking facility and potential land use changes in each market area. The current occupancy and mix of parking users in each facility and the potential increases in parking demand from nearby development are used to determine what types of users will demand parking in the future. The projected parking demand and existing parking capacity were then analyzed to determine the point at which each facility is expected to reach its practical capacity; this parking industry standard is used to describe the occupancy at which a facility can no longer accommodate additional parkers without excessive cruising for spaces and frustration on the part of potential customers. In the case of these models, when a facility reaches a peak period occupancy of 90% of the total capacity of the facility it is assumed that no further demand growth can be accommodated.

Growth in the demand for monthly parking was derived based upon projections for market area employment growth, multiplied by the percentage of workers who drive to work. Market area employment growth is an accurate basis for projecting the growth in monthly parkers at a given facility since employees of a particular market area account for the entirety of the monthly parking demand unless the facility also services residential parkers; in the case of the 10 facilities included in the models, it was concluded that none of them service residential parkers. Employment growth projections are based on SCAG's *2004 Regional Transportation Plan* (**Table 4**) and the vehicle utilization figure is based on 2007 U.S. Census Bureau data (**Table 6**).

Transient parking demand growth was calculated using projected market area population growth figures and the percentage of the population of driving age (16 years and older) with access to a motor vehicle. Population growth figures by Council District were taken from data supplied by the Department of City Planning (**Table 2**) and information on driving age population with access to a motor vehicle was taken from the *City of Los Angeles 2009 Transportation Profile,* prepared by the Los Angeles Department of Transportation.

In order to determine the effects of development on parking demand at the City facilities, data was gathered concerning in-progress, planned and proposed developments within the market area of each facility. The parking demand generated by these developments was then determined and refined to account for the portion of these parkers that are expected to use the particular City facility in the market area. Of the 10 facilities included in this effort, only three, the Hollywood-Highland Garage, the Cinerama Dome Garage and the Pershing Square Garage, are expected to be impacted by new development in their market areas.

Other factors considered in projecting future parking demand and revenues were the impact of transit improvements, inflation, gas prices and the existing and future capacity of competing parking facilities.

Because parking facilities have only a limited amount of capacity, the models also attempt to determine when each facility will reach its practical capacity (assumed to be 90% occupancy for the sake of this exercise). Based upon the current peak hour occupancy figures observed during DESMAN's field survey work and the projected effects of both elasticity and demand growth, peak occupancy figures were projected for each of the facilities in order to determine the point at which growth in demand will no longer be plausible. Once a facility reached capacity, only rate increases were used to increase revenues. This fact was relevant in modeling the expected revenues for those facilities that are currently at or are projected to reach practical capacity during the next 50 years.

Rate Increases and Price Elasticity of Demand

One of the primary methods for increasing the parking revenue generated by a parking facility is through rate increases. The success or failure of parking rate increases in generating additional revenue is dependent on both the demand for parking at a facility and the level of rate increases implemented. If the demand for parking at a specific facility is currently high, an increase in rates will most likely not deter parkers from utilizing the facility. Conversely, if current demand is low, potential parkers may be less likely to park once rates are increased. The proposed parking rates to be charged at each facility were based on the observed demand as well as on the rates charged at competing facilities within each market area.

The degree to which demand changes once rates are increased is referred to as the Price Elasticity of Demand. Factors affecting elasticity at a particular facility include not only current demand but the level of rate increases, the quality of the parking facility, the availability of alternate parking options and general economic forces. While determining the price elasticity of demand for parking is not an exact science, there are some generally accepted factors used within the parking industry for predicting the effect that rate increases will have on parking demand. Within the industry, an elasticity of 0.1 – 0.6 is used to describe this effect. For example, an elasticity of 0.3 indicates that for every 100% increase in parking rates, it is projected that parking demand will decrease by 30%. Data referenced in the Victoria Transportation Policy Institute's "Transportation Elasticities: *How Prices and Other Factors Affect Travel Behavior,*" July 2009, suggests that the price elasticity of parking demand is much lower at between 0.02 and 0.30, depending on the purpose of the trip; higher elasticities of 0.1 – 0.3 are usually associated with a shift from free parking to paid parking, according to the same source

(Appendix 14). In the case of the revenue projection models developed for the City of Los Angeles, the elasticity factors were adjusted by user group (i.e. monthly, transient or special event) on a facility-by-facility basis in order to accurately predict future revenues in each of the facilities. Each of the parking garages being examined by DESMAN under the scope of this project is unique in its demand and market characteristics, applying the same elasticity factor to every user group and facility would result in less accurate projections of potential future revenue.

In terms of the actual rate increases assumed for each of the models, the Current Operating Structure model assumes that rate increases will occur according to the same schedule as the Private Operator model but will begin in the third year of the model, or 2012, and at an average rate equal to inflation (3%) beginning in 2017. In addition, the rate schedule at the Hollywood & Highland garage differs between the two models as the Current Operating Structure model assumes rate increase that resulted from discussions with the DOT. The Private Operator model assumes that rate increases will occur according to a set schedule for the first five years, as seen in **Table 35**, and at the 3% rate of inflation thereafter. The rate schedule used in the Private Operator model was established based on the current rates at competing facilities (**Table 36**) and on DESMAN's knowledge of the parking industry.

8.2 Expense Projections

Annual garage operating expenses consist of payroll expenses (salaries, benefits, etc.), office expenses, maintenance expenses and utilities. The current and budgeted payroll expenses for the parking system are listed in **Appendix 15**. As with the revenue projections, two models were developed to deal with the possible future expenses of the garages. The Current Operating Structure analysis applies a growth factor to each category of current expenses in order to estimate the future operating expenses. The Private Operator version of the model projects expenses as if a professional private parking operator were to take over the operations of all of the facilities.

Current Operating Structure
As it was the desire of the City to have a basis for comparison to the potential expenses if a private operator took over the operations of the garages, one version of the expense side of the model projects what it would cost the City to continue operating the facilities. DESMAN has used information obtained from the City, LADOT, and private parking operators, among others, along with projected inflation statistics, to forecast expenses for each facility. Cost projections for this scenario can be found in **Table 37**.

Private Operator
The financial analysis of using a professional private parking operator combines DESMAN's knowledge of private operator expenses and our knowledge of each garage in determining the operational structure that will best serve each facility in the most efficient way. Per space operating costs were established for each facility based upon assumptions about which facilities a private operator would choose to automate and the type of equipment that would be installed, as well as on DESMAN's knowledge of the parking industry. This information was used to formulate the cost projections found in **Table 38**.

8.3 Capital Expenditures

The financial models include a 50 year forecast of the anticipated capital expenditures necessary to maintain each parking garage and to equip each facility with the PARC technology required in each operational scenario. Our analysis includes the necessary preventative maintenance and capital improvements needed for each parking garage in order to maintain the facilities in good condition. Information gathered from an on-site physical condition assessment of each facility was used by DESMAN engineers to develop both the current and future costs to properly maintain these facilities. The physical assessment information is summarized in a separate report. The capital expenditure projections were then combined with both the revenue and expense projections in order to determine the overall financial performance of the 10 parking garages over the next 50 years.

8.4 Summary

For comparisons sake, **Table 39** presents the revenue, expense and Cap Ex projection summaries for the Current Operating Structure and Private Operator models.

As noted above, the development of each of the models was guided by an individual set of assumptions regarding rate changes, technology improvements, operating approaches, background demand growth and many other factors. While the Private Operator model assumptions were based almost entirely on DESMAN's knowledge of the parking industry and the best practices of private parking operators, the Current Operating Structure model was formulated based on DESMAN's facility-specific assumptions and the responses of City personnel to those assumptions (found in **Appendix 16**) as well as on historical data provided by the City (a portion of which is found in **Appendix 17**).

The Private Operator model was developed to reflect the manner in which a private parking operator would likely operate the 10 facilities studied during this effort. It was assumed that appropriate rate schedules would be implemented at each facility based on the rates charged at competing facilities and on the current utilization levels observed at each City facility. It was further assumed that a private operator would implement full or close to full automation at each of the 10 garages. It was also assumed that only the free parking policy at the Broxton garage would be eliminated but that the validations provided at all of the other facilities would remain in place.

Due to a lack of specific responses by City personnel to DESMAN's assumptions in **Appendix 16**, the Current Operating Structure model was formulated to provide a conservative, but realistic revenue and expense scenario if the City were to retain control of the facilities and NOT enter into a Public-Private partnership through a concession lease agreement. The Current Operating Structure model assumed that parking rates would follow a schedule similar to that implemented by a private operator but would not begin until 2012 and that the rates at Hollywood & Highland would be based on discussions with the DOT. As in the Private Operator model, it was assumed that only the free parking policy at the Broxton garage would be eliminated but that the validations provided at all of the other facilities would remain in place. Additionally, a factor

was included in the Current model to account for the fact that a private operator would be more efficient than the City in managing the entire parking operation. This factor indicates that the City is only 90% as effective as a private operator would be in managing the parking assets.

In addition to the revenue, operating and capital expense projections, we also list the annual debt service associated with outstanding debt under the Current Operating Structure model to provide a more holistic view of the performance of these garages under public control.

Under the Private Operator Model, the outstanding Parking System debt would be defeased from the proceeds of the concession lease. Thus, from the City's perspective, there would not be any annual debt service associated with the Parking System operations. The private operator might include debt in its capital structure, secured and serviced by its own assets and cash flows. DESMAN cannot comment on what capital structure private operators are likely to employ.

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Table 33
Current Operating Structure Model, Parking Garage Revenue Projections

LOS ANGELES PARKING SYSTEM OPERATING REVENUE	Spaces	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	YEAR 1 2010	YEAR 2 2011	YEAR 3 2012	YEAR 4 2013	YEAR 5 2014	YEAR 10 2019	YEAR 20 2029	YEAR 30 2039	YEAR 40 2049	YEAR 50 2059
OPERATING REVENUE (By Garage)																	
Pershing Square Garage	1590																
Monthly Parking		$1,558,755	$1,339,725	$1,419,381	$1,475,268	$1,686,089	$1,592,280	$1,523,116	$1,534,398	$1,545,764	$1,557,214	$1,568,748	$2,004,844	$2,660,752	$3,454,269	$4,484,437	$5,821,933
Reserved Rental Car Concession Spaces		$12,409	$11,455	$10,500	$11,455	$11,455	$15,688	$12,522	$12,897	$13,284	$13,683	$14,093	$18,338	$21,957	$29,506	$39,656	$53,295
Unreserved Rental Car Concession Spaces		$39,295	$36,273	$33,250	$36,273	$36,273	$33,207	$36,835	$37,940	$39,078	$40,250	$41,458	$48,061	$64,590	$86,803	$116,656	$156,776
Daily Parking (Regular Rate)		$930,668	$952,665	$1,075,017	$1,165,780	$1,257,974	$1,160,638	$1,120,143	$1,150,636	$1,217,344	$1,250,484	$1,416,029	$1,901,740	$2,632,883	$3,362,926	$4,295,401	$5,486,429
Daily Parking (Early Bird Rate)		$164,235	$168,117	$189,709	$205,726	$221,995	$204,819	$197,672	$203,053	$220,515	$226,518	$270,547	$400,440	$554,393	$708,116	$904,462	$1,155,251
Annual Parking		$104,077	$85,686	$43,150	$60,100	$18,459	$38,567	$55,414	$55,824	$56,236	$56,655	$57,074	$72,933	$96,803	$125,673	$163,153	$211,810
Validations		$353,139	$258,909	$247,753	$242,450	$221,051	$289,877	$273,496	$281,701	$290,152	$298,856	$307,822	$356,850	$479,577	$644,511	$866,169	$1,164,058
Other Parking Income/After 5PM		$28,532	$82,529	$717	$10,622	$4,067	$2,813	$21,764	$22,330	$21,308	$21,861	$27,722	$39,760	$53,686	$67,073	$83,829	$104,772
Office Space Rental		$11,568	$11,568	$10,604	$11,568	$11,568	$12,532	$11,915	$12,272	$12,641	$13,020	$13,410	$15,546	$20,893	$28,079	$37,735	$50,713
Other Income (Tunnel Lease and Late Fees)		$10,016	$7,712	$8,653	$11,457	$10,947	$8,948	$9,911	$10,208	$10,515	$10,830	$11,155	$12,932	$17,379	$23,356	$31,388	$42,183
Total Gross Revenue		**$3,210,894**	**$2,934,638**	**$3,038,734**	**$3,230,698**	**$3,479,879**	**$3,339,349**	**$3,262,787**	**$3,321,260**	**$3,426,837**	**$3,488,370**	**$3,728,059**	**$4,869,244**	**$6,502,893**	**$8,530,316**	**$11,022,687**	**$14,247,119**
Total Gross Parking Revenue		**$3,189,110**	**$2,915,358**	**$3,019,477**	**$3,207,673**	**$3,467,363**	**$3,317,869**	**$3,240,961**	**$3,298,779**	**$3,403,682**	**$3,465,520**	**$3,703,494**	**$4,840,766**	**$6,564,621**	**$8,478,882**	**$10,963,763**	**$14,164,223**
Parking Tax (10% of Gross Parking Revenue)		($318,911)	($291,536)	($301,948)	($320,767)	($345,736)	($331,787)	($324,096)	($329,878)	($340,368)	($346,552)	($370,349)	($484,077)	($656,462)	($847,888)	($1,095,376)	($1,415,422)
Total Net Revenue		**$2,891,783**	**$2,643,103**	**$2,736,786**	**$2,909,931**	**$3,134,142**	**$3,007,552**	**$2,938,691**	**$2,991,362**	**$3,085,469**	**$3,142,818**	**$3,357,710**	**$4,385,167**	**$5,946,431**	**$7,682,428**	**$9,927,510**	**$12,831,697**
Parking Utilization Percentage							65%	67%	69%	72%	74%	78%	85%				
Cinerama Dome Garage	1717																
Monthly Revenue				$772,558	$812,823	$824,933	$1,001,680	$1,012,651	$1,023,742	$1,034,954	$1,046,289	$1,057,748	$1,420,138	$2,055,839	$2,976,101	$4,308,304	$6,236,845
Transient Revenue				$3,478,717	$3,660,026	$3,714,555	$4,510,421	$4,548,949	$4,587,807	$5,563,962	$6,524,591	$7,475,248	$10,334,572	$14,372,041	$19,986,853	$27,795,236	$38,654,188
Special Event Revenue				$163,341	$171,854	$174,414	$211,784	$213,593	$215,417	$217,257	$250,981	$284,006	$413,162	$562,221	$765,058	$1,041,074	$1,416,670
Interest Income				$33,883	$69,800	$17,614	$1,916	$31,727	$32,679	$33,660	$34,669	$35,709	$41,397	$55,634	$74,769	$100,481	$135,038
Reimbursement from Developer				$26,961	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income (Settlement)				($983,355)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Gross Revenue				**$3,492,104**	**$4,714,503**	**$4,731,516**	**$5,726,801**	**$5,806,920**	**$5,859,645**	**$6,849,833**	**$7,856,531**	**$8,852,712**	**$12,209,269**	**$17,045,736**	**$23,802,780**	**$33,245,095**	**$45,442,721**
Total Gross Parking Revenue				**$4,414,615**	**$4,544,703**	**$4,713,902**	**$5,723,885**	**$5,776,193**	**$5,826,866**	**$6,816,174**	**$7,821,861**	**$8,817,003**	**$12,167,872**	**$16,990,102**	**$23,728,012**	**$33,144,614**	**$45,307,683**
Parking Tax (10% of Gross Parking Revenue)				($379,931)	($408,046)	($471,390)	($509,864)	($577,519)	($582,697)	($681,617)	($782,186)	($881,700)	($1,216,787)	($1,699,010)	($2,372,801)	($3,314,461)	($4,530,768)
Total Net Revenue				**$3,112,173**	**$4,306,457**	**$4,260,126**	**$5,216,937**	**$5,229,401**	**$5,276,948**	**$6,168,216**	**$7,074,345**	**$7,971,012**	**$10,992,482**	**$15,346,726**	**$21,429,979**	**$29,930,634**	**$41,811,953**
Parking Utilization Percentage							52%	53%	54%	54%	53%	53%	56%	63%	70%	77%	83%
Friar Street Garage (#601)	237																
Monthly Revenue		$158,202	$156,616	$217,652	$139,980	$191,763	$185,823	$176,112	$177,191	$211,486	$212,782	$245,450	$308,057	$409,822	$532,043	$690,714	$896,706
Transient Revenue		$45,225	$46,255	$16,146	$12,022	$100,039	$42,812	$43,796	$43,843	$56,686	$56,746	$72,031	$77,931	$99,963	$127,681	$163,085	$208,305
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Gross Revenue		**$203,427**	**$203,071**	**$233,797**	**$152,001**	**$291,802**	**$228,635**	**$219,908**	**$221,034**	**$268,172**	**$269,529**	**$317,481**	**$385,988**	**$509,785**	**$659,724**	**$853,799**	**$1,105,011**
Total Gross Parking Revenue		**$203,427**	**$203,071**	**$233,797**	**$152,001**	**$291,802**	**$228,635**	**$219,908**	**$221,034**	**$268,172**	**$269,529**	**$317,481**	**$385,988**	**$509,785**	**$659,724**	**$853,799**	**$1,105,011**
Parking Tax (10% of Gross Parking Revenue)		($18,461)	($18,461)	($21,254)	($13,818)	($26,527)	($22,864)	($21,991)	($22,103)	($26,817)	($26,953)	($31,748)	($38,599)	($50,979)	($65,972)	($85,380)	($110,501)
Total Net Revenue		**$184,966**	**$184,610**	**$212,543**	**$138,183**	**$265,275**	**$205,772**	**$197,917**	**$198,930**	**$241,355**	**$242,576**	**$286,733**	**$347,389**	**$458,807**	**$593,752**	**$768,419**	**$994,510**
Parking Utilization Percentage							89%	89%	90%	88%	89%	88%	89%				
Dickens Street Garage (#629)	198																
Monthly Revenue		$0	$0	$0	$0	$1,810	$1,810	$1,823	$1,836	$2,334	$2,351	$2,368	$2,655	$3,707	$5,176	$7,226	$10,088
Transient Revenue		$47,234	$44,313	$51,401	$46,225	$110,748	$73,145	$92,213	$92,481	$92,749	$93,019	$93,289	$101,862	$133,936	$176,107	$231,558	$304,467
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income		$0	$0	$412	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Gross Revenue		**$47,234**	**$44,313**	**$51,813**	**$46,225**	**$112,557**	**$74,954**	**$94,036**	**$94,317**	**$95,083**	**$95,370**	**$95,657**	**$104,516**	**$137,643**	**$181,283**	**$238,784**	**$314,555**
Total Gross Parking Revenue		**$47,234**	**$44,313**	**$51,401**	**$46,225**	**$112,557**	**$74,954**	**$94,036**	**$94,317**	**$95,083**	**$95,370**	**$95,657**	**$104,516**	**$137,643**	**$181,283**	**$238,784**	**$314,555**
Parking Tax (10% of Gross Parking Revenue)		$0	$0	$0	$0	($10,232)	($7,495)	($9,404)	($9,432)	($9,508)	($9,537)	($9,566)	($10,452)	($13,764)	($18,128)	($23,878)	($31,456)
Total Net Revenue		**$47,234**	**$44,313**	**$51,813**	**$46,225**	**$102,325**	**$67,459**	**$84,632**	**$84,885**	**$85,575**	**$85,833**	**$86,091**	**$94,066**	**$123,879**	**$163,155**	**$214,905**	**$283,100**
Parking Utilization Percentage							7%	8%	8%	8%	9%	9%	11%	15%	18%	22%	25%
Cherokee Garage (#670)	388																
Monthly Revenue		$223,025	$195,415	$198,670	$196,220	$359,000	$358,600	$362,382	$365,898	$369,448	$373,033	$442,822	$502,576	$718,600	$1,027,478	$1,469,123	$2,100,601
Transient Revenue		$186,830	$323,006	$416,128	$495,960	$427,806	$472,835	$388,465	$389,641	$546,146	$548,080	$697,427	$918,645	$1,215,596	$1,608,536	$2,126,494	$2,816,528
Special Event Revenue		$32,970	$57,001	$73,434	$87,522	$75,495	$83,442	$66,553	$68,795	$81,466	$81,755	$93,977	$120,680	$156,256	$202,321	$261,965	$339,192
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income (Retail Space Rental)		$10,140	$10,140	$10,140	$10,140	$10,140	$10,140	$10,444	$10,758	$11,080	$11,413	$11,755	$13,527	$18,314	$24,612	$33,077	$44,463
Total Gross Revenue		**$452,965**	**$585,562**	**$698,572**	**$791,842**	**$872,441**	**$926,217**	**$829,844**	**$835,292**	**$1,008,141**	**$1,014,280**	**$1,245,982**	**$1,565,528**	**$2,108,756**	**$2,862,948**	**$3,892,659**	**$5,300,774**
Total Gross Parking Revenue		**$442,825**	**$575,422**	**$689,432**	**$781,702**	**$862,301**	**$916,077**	**$819,400**	**$824,536**	**$997,060**	**$1,002,868**	**$1,234,227**	**$1,541,901**	**$2,090,462**	**$2,838,336**	**$3,859,582**	**$5,256,321**
Parking Tax (10% of Gross Parking Revenue)		($52,311)	($52,311)	($62,676)	($71,064)	($78,391)	($91,508)	($81,940)	($82,453)	($99,706)	($100,287)	($123,423)	($154,190)	($209,045)	($283,834)	($385,958)	($525,632)
Total Net Revenue		**$400,664**	**$533,251**	**$636,896**	**$720,778**	**$794,050**	**$833,709**	**$747,904**	**$752,839**	**$908,434**	**$913,994**	**$1,122,559**	**$1,401,338**	**$1,899,721**	**$2,579,114**	**$3,506,701**	**$4,775,142**
Parking Utilization Percentage							54%	55%	55%	53%	54%	52%	54%	57%	60%	63%	66%

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Table 33
Current Operating Structure Model, Parking Garage Revenue Projections (continued)

LOS ANGELES PARKING SYSTEM OPERATING REVENUE	Spaces	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	YEAR 1 2010	YEAR 2 2011	YEAR 3 2012	YEAR 4 2013	YEAR 5 2014	YEAR 10 2019	YEAR 20 2029	YEAR 30 2039	YEAR 40 2049	YEAR 50 2059
OPERATING REVENUE (By Garage)																	
Broxton Garage (#680)	366																
Monthly Revenue		$162,784	$174,625	$181,375	$159,750	$171,250	$180,875	$172,618	$173,460	$174,307	$193,853	$194,599	$242,734	$330,871	$451,009	$614,769	$837,990
Transient Revenue		$474,704	$384,745	$388,427	$396,572	$379,630	$375,132	$401,115	$402,365	$288,991	$289,892	$368,729	$403,042	$631,071	$699,768	$922,054	$1,214,949
Special Event Revenue		$324,924	$354,641	$382,256	$387,135	$393,881	$388,562	$369,712	$370,864	$535,709	$537,379	$539,054	$820,574	$1,057,988	$1,384,093	$1,758,761	$2,267,618
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Increased Revenue from Elimination of Free Parking								$0	$0	$700,270	$793,840	$1,009,472	$1,103,413	$1,453,918	$1,915,762	$2,524,314	$3,326,176
Other Income (Retail Space Rental)		$50,436	$92,926	$72,813	$128,724	$144,124	$134,718	$138,760	$142,923	$147,210	$151,627	$156,175	$181,050	$243,316	$326,997	$439,456	$590,592
Total Gross Revenue		**$1,012,847**	**$1,006,937**	**$1,024,871**	**$1,072,181**	**$1,088,865**	**$1,069,287**	**$1,082,202**	**$1,089,612**	**$1,846,485**	**$1,966,190**	**$2,268,030**	**$2,750,814**	**$3,617,164**	**$4,767,529**	**$6,259,354**	**$8,237,324**
Total Gross Parking Revenue		**$962,411**	**$914,011**	**$952,058**	**$943,457**	**$944,741**	**$924,569**	**$943,443**	**$946,689**	**$1,689,278**	**$1,814,564**	**$2,111,854**	**$2,568,764**	**$3,373,848**	**$4,430,532**	**$5,819,898**	**$7,646,732**
Parking Tax (10% of Gross Parking Revenue)		($83,092)	($83,092)	($86,551)	($85,789)	($85,885)	($92,457)	($94,344)	($94,669)	($169,928)	($181,456)	($211,185)	($256,976)	($337,385)	($443,053)	($581,990)	($764,673)
Total Net Revenue		**$929,755**	**$923,845**	**$938,320**	**$986,412**	**$1,002,979**	**$986,830**	**$987,858**	**$994,943**	**$1,676,561**	**$1,784,734**	**$2,056,844**	**$2,493,838**	**$3,279,779**	**$4,314,566**	**$5,677,364**	**$7,472,651**
Parking Utilization Percentage							92%	92%	93%	79%	84%	83%	82%	83%	84%	85%	86%
Ventura Blvd Garage (#690)	397																
Monthly Revenue			$6,892	$31,917	$35,497	$28,914	$28,914	$31,539	$31,769	$32,733	$34,075	$35,062	$40,969	$57,199	$79,854	$111,486	$155,645
Transient Revenue			$15,322	$46,443	$58,777	$52,594	$42,633	$50,758	$50,906	$51,054	$51,202	$55,566	$60,672	$79,776	$104,694	$137,922	$181,349
Interest Income			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Parking Revenue (Bank of America Lease)			$0	$24,317	$24,317	$24,317	$24,317	$25,047	$25,798	$26,572	$27,369	$28,190	$32,980	$43,819	$59,024	$79,323	$106,603
Total Gross Revenue			**$22,213**	**$104,676**	**$118,591**	**$105,824**	**$95,863**	**$107,343**	**$108,472**	**$110,359**	**$112,646**	**$118,818**	**$134,322**	**$180,893**	**$243,772**	**$328,730**	**$443,597**
Total Gross Parking Revenue			**$22,213**	**$104,676**	**$118,591**	**$105,824**	**$95,863**	**$107,343**	**$108,472**	**$110,359**	**$112,646**	**$118,818**	**$134,322**	**$180,893**	**$243,772**	**$328,730**	**$443,597**
Parking Tax (10% of Gross Parking Revenue)			($2,019)	($9,516)	($10,781)	($9,620)	($9,585)	($10,734)	($10,847)	($11,036)	($11,265)	($11,882)	($13,432)	($18,089)	($24,377)	($32,873)	($44,360)
Total Net Revenue			**$20,194**	**$95,160**	**$107,810**	**$96,204**	**$86,277**	**$96,609**	**$97,625**	**$99,323**	**$101,382**	**$106,936**	**$120,888**	**$162,803**	**$219,395**	**$295,857**	**$399,237**
Parking Utilization Percentage							17%	18%	18%	19%	19%	19%	21%	24%	28%	32%	35%
Robertson Garage (#703)	334																
Monthly Revenue		$215,400	$248,200	$268,200	$247,200	$388,700	$308,025	$280,653	$282,024	$283,403	$284,788	$316,395	$350,609	$477,914	$651,443	$887,980	$1,210,403
Transient Revenue		$164,626	$279,546	$305,184	$146,070	$401,715	$305,102	$271,043	$271,694	$272,742	$273,592	$393,125	$531,010	$699,689	$921,949	$1,214,810	$1,600,701
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income (Retail Space Rental)		$0	$136,071	$143,982	$148,716	$151,026	$155,334	$159,994	$164,794	$169,738	$174,830	$180,075	$206,756	$280,551	$377,037	$506,706	$680,971
Total Gross Revenue		**$400,026**	**$662,817**	**$717,366**	**$541,986**	**$941,441**	**$768,461**	**$711,696**	**$718,713**	**$726,882**	**$733,210**	**$879,596**	**$1,090,376**	**$1,458,153**	**$1,950,428**	**$2,609,496**	**$3,492,075**
Total Gross Parking Revenue		**$400,026**	**$626,746**	**$573,384**	**$393,270**	**$790,415**	**$613,127**	**$551,702**	**$553,919**	**$556,144**	**$558,380**	**$699,520**	**$881,619**	**$1,177,602**	**$1,573,391**	**$2,102,790**	**$2,811,104**
Parking Tax (10% of Gross Parking Revenue)		($47,886)	($47,886)	($52,126)	($35,752)	($71,856)	($81,313)	($55,170)	($95,392)	($55,614)	($55,838)	($69,952)	($88,162)	($117,760)	($157,339)	($210,279)	($281,110)
Total Net Revenue		**$362,140**	**$614,931**	**$566,240**	**$606,234**	**$869,585**	**$707,149**	**$656,526**	**$663,321**	**$670,268**	**$677,372**	**$809,643**	**$1,002,213**	**$1,340,393**	**$1,793,089**	**$2,399,217**	**$3,210,965**
Parking Utilization Percentage							37%	37%	38%	38%	39%	37%	38%	41%	43%	46%	48%
Larchmont Garage (#732)	187																
Monthly Revenue		$90,915	$87,000	$88,280	$82,100	$83,580	$90,300	$89,297	$89,733	$90,172	$90,613	$91,055	$115,884	$157,669	$214,945	$292,991	$399,375
Transient Revenue		$89,898	$95,264	$95,618	$101,045	$85,265	$89,848	$89,769	$90,046	$90,329	$90,611	$90,893	$112,863	$148,715	$195,955	$256,201	$340,220
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Gross Revenue		**$180,813**	**$182,264**	**$184,898**	**$193,145**	**$168,846**	**$180,148**	**$179,065**	**$179,782**	**$180,501**	**$181,223**	**$181,949**	**$228,547**	**$306,403**	**$410,900**	**$549,192**	**$739,595**
Total Gross Parking Revenue		**$180,813**	**$182,264**	**$184,898**	**$193,145**	**$168,846**	**$180,148**	**$179,065**	**$179,782**	**$180,501**	**$181,223**	**$181,949**	**$228,547**	**$306,403**	**$410,900**	**$549,192**	**$739,595**
Parking Tax (10% of Gross Parking Revenue)		($16,569)	($16,569)	($16,809)	($17,559)	($15,350)	($16,015)	($17,907)	($17,978)	($18,050)	($18,122)	($18,195)	($22,855)	($30,640)	($41,090)	($55,119)	($73,959)
Total Net Revenue		**$164,244**	**$166,695**	**$168,089**	**$175,586**	**$153,496**	**$144,133**	**$161,158**	**$161,804**	**$162,451**	**$163,101**	**$163,754**	**$205,693**	**$275,763**	**$369,810**	**$496,073**	**$665,636**
Parking Utilization Percentage							69%	69%	70%	70%	71%	71%	72%	75%	77%	80%	82%
Hollywood & Highland Garage (#745)	3008																
Monthly Revenue		$721,620	$710,030	$925,680	$1,037,400	$954,180	$869,820	$963,057	$1,115,609	$1,134,600	$1,200,557	$1,221,209	$1,548,384	$2,383,942	$3,670,464	$5,651,273	$8,701,048
Transient Revenue		$4,883,869	$4,975,539	$5,271,421	$5,985,263	$6,487,724	$6,593,394	$6,136,424	$7,647,451	$7,914,484	$7,982,089	$8,050,272	$9,039,956	$12,571,650	$17,483,092	$24,313,316	$33,811,945
Special Event Revenue		$861,859	$878,096	$930,251	$1,056,223	$1,144,893	$1,163,540	$1,080,214	$1,086,741	$1,093,307	$1,099,913	$1,106,558	$1,219,296	$1,618,517	$2,148,452	$2,851,898	$3,785,667
Cirque de Soleil Revenue										$1,536,123	$1,534,286	$1,631,794	$1,891,697				
Other Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Gross Revenue		**$6,467,348**	**$6,563,665**	**$7,127,352**	**$8,078,886**	**$8,586,797**	**$8,626,754**	**$8,179,695**	**$10,049,801**	**$11,680,714**	**$11,866,825**	**$12,009,834**	**$13,699,303**	**$16,574,109**	**$23,302,008**	**$32,816,487**	**$46,298,660**
Total Gross Parking Revenue		**$6,467,348**	**$6,563,665**	**$7,127,352**	**$8,078,886**	**$8,586,797**	**$8,626,754**	**$8,179,695**	**$10,049,801**	**$11,680,714**	**$11,866,825**	**$12,009,834**	**$13,699,303**	**$16,574,109**	**$23,302,008**	**$32,816,487**	**$46,298,660**
Parking Tax (10% of Gross Parking Revenue)		($596,691)	($596,691)	($647,941)	($734,444)	($780,618)	($862,675)	($817,969)	($1,004,980)	($1,168,071)	($1,186,682)	($1,200,983)	($1,369,930)	($1,657,411)	($2,330,201)	($3,281,649)	($4,629,866)
Total Net Revenue		**$5,870,657**	**$5,966,974**	**$6,479,411**	**$7,344,442**	**$7,806,179**	**$7,764,079**	**$7,361,726**	**$9,044,821**	**$10,512,642**	**$10,680,142**	**$10,808,850**	**$12,329,373**	**$14,916,698**	**$20,971,807**	**$29,534,838**	**$41,668,794**
Parking Utilization Percentage							43%	44%	44%	45%	46%	47%	52%	60%	68%	76%	84%
OPERATING REVENUE (System Summary)																	
Monthly Revenue		$3,286,482	$3,032,116	$4,192,812	$4,306,065	$4,756,404	$4,705,766	$4,718,014	$4,902,321	$4,988,001	$5,105,941	$5,288,082	$6,678,753	$9,439,682	$13,304,766	$18,937,766	$26,792,414
Transient Revenue		$7,369,426	$7,542,680	$11,608,280	$12,540,232	$13,485,413	$14,144,973	$13,638,896	$15,437,924	$16,631,726	$17,713,050	$19,309,168	$24,272,265	$33,563,209	$45,079,415	$63,310,031	$87,044,974
Special Event Revenue		$1,246,285	$1,372,207	$1,549,999	$1,713,357	$1,792,730	$1,830,141	$1,753,836	$1,764,148	$3,487,170	$3,576,155	$3,683,112	$4,505,168	$3,448,650	$4,546,997	$5,997,526	$7,913,918
Interest Income		$0	$0	$33,883	$69,800	$17,614	$1,916	$31,727	$32,679	$33,660	$34,669	$35,709	$41,397	$55,634	$74,768	$100,481	$135,038
Other Income		$82,160	$258,417	($736,751)	$310,605	$327,806	$321,673	$331,024	$340,955	$351,184	$361,719	$372,571	$431,912	$580,453	$780,080	$1,048,383	$1,408,912
Total Gross Revenue		**$11,976,354**	**$12,205,421**	**$16,875,183**	**$18,940,058**	**$20,379,967**	**$21,004,470**	**$20,473,497**	**$22,477,927**	**$26,192,010**	**$27,886,174**	**$28,688,116**	**$37,027,907**	**$48,641,646**	**$65,701,788**	**$91,818,483**	**$126,521,432**
Parking Tax		($1,133,921)	($1,108,565)	($1,578,752)	($1,698,000)	($1,895,607)	($2,005,563)	($2,011,075)	($2,210,429)	($2,580,717)	($2,718,879)	($2,928,983)	($3,655,460)	($4,790,548)	($6,584,694)	($9,066,964)	($12,507,748)
Total After Tax Revenue		**$10,841,433**	**$11,096,856**	**$15,096,431**	**$17,242,058**	**$18,484,361**	**$18,998,906**	**$18,462,422**	**$20,267,497**	**$23,611,294**	**$24,966,298**	**$25,759,131**	**$33,372,448**	**$43,751,098**	**$60,117,094**	**$82,751,519**	**$114,113,684**

DESMAN
ASSOCIATES

Table 34
Private Operator Model, Parking Garage Revenue Projections

LOS ANGELES PARKING SYSTEM OPERATING REVENUE	Spaces	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	YEAR 1 2010	YEAR 2 2011	YEAR 3 2012	YEAR 4 2013	YEAR 5 2014	YEAR 10 2019	YEAR 20 2029	YEAR 30 2039	YEAR 40 2049	YEAR 50 2059
OPERATING REVENUE (By Garage)																	
Pershing Square Garage	1590																
Monthly Parking		$1,558,755	$1,339,725	$1,419,381	$1,475,268	$1,686,089	$1,592,280	$1,523,116	$1,534,398	$1,545,764	$1,557,214	$1,810,709	$2,171,487	$2,887,744	$3,991,251	$5,331,811	$7,122,631
Reserved Rental Car Concession Spaces		$12,409	$11,455	$10,500	$11,455	$11,455	$15,668	$12,522	$12,897	$13,284	$13,683	$14,093	$16,338	$21,957	$29,508	$39,656	$53,295
Unreserved Rental Car Concession Spaces		$39,295	$36,273	$33,250	$36,273	$36,273	$33,207	$36,635	$37,940	$39,076	$40,250	$41,458	$48,061	$64,590	$86,803	$116,656	$156,776
Daily Parking (Regular Rate)		$930,658	$952,855	$1,075,017	$1,165,780	$1,257,974	$1,160,638	$1,157,401	$1,188,910	$1,360,196	$1,397,224	$1,580,559	$2,070,633	$3,024,816	$3,968,585	$5,206,817	$6,831,388
Daily Parking (Early Bird Rate)		$164,235	$168,117	$189,709	$205,726	$221,995	$204,819	$210,238	$215,962	$261,950	$269,081	$338,597	$443,584	$647,995	$850,175	$1,115,437	$1,463,463
Annual Parking		$104,077	$65,686	$43,150	$80,100	$18,459	$38,567	$55,414	$55,824	$56,238	$56,655	$65,877	$79,003	$108,700	$145,210	$193,962	$259,135
Validations		$353,139	$258,909	$247,753	$242,450	$221,051	$269,877	$273,486	$281,701	$290,152	$298,856	$307,822	$356,850	$479,577	$644,511	$866,169	$1,164,058
Other Parking Income/After 5PM		$26,532	$82,529	$717	$10,622	$4,087	$2,813	$20,074	$20,595	$26,671	$27,363	$33,689	$43,342	$61,507	$78,777	$100,896	$129,227
Additional Revenue from Marketing Efforts								$34,960	$36,029	$37,110	$38,224	$39,370	$45,641				
Office Space Rental		$11,568	$11,568	$10,604	$11,568	$11,568	$12,532	$11,915	$12,272	$12,641	$13,020	$13,410	$15,546	$20,893	$28,078	$37,735	$50,713
Other Income (Tunnel Lease and Late Fees)		$10,016	$7,712	$6,663	$11,457	$10,947	$8,948	$9,911	$10,208	$10,515	$10,830	$11,155	$12,932	$17,379	$23,356	$31,386	$42,183
Total Gross Revenue		**$3,210,694**	**$2,934,638**	**$3,038,734**	**$3,230,698**	**$3,479,879**	**$3,339,349**	**$3,345,901**	**$3,405,736**	**$3,653,597**	**$3,722,399**	**$4,256,741**	**$5,303,416**	**$7,435,157**	**$9,846,254**	**$13,040,548**	**$17,272,869**
Total Gross Parking Revenue		**$3,189,110**	**$2,915,358**	**$3,019,477**	**$3,207,673**	**$3,457,383**	**$3,317,869**	**$3,324,075**	**$3,384,255**	**$3,630,441**	**$3,698,549**	**$4,232,175**	**$5,274,938**	**$7,396,886**	**$9,794,819**	**$12,971,424**	**$17,179,973**
Parking Tax (10% of Gross Parking Revenue)		($318,911)	($291,536)	($301,948)	($320,767)	($345,736)	($331,787)	($332,407)	($338,426)	($363,044)	($369,855)	($423,218)	($527,494)	($739,689)	($979,482)	($1,297,142)	($1,717,997)
Total Net Revenue		**$2,891,783**	**$2,643,103**	**$2,736,786**	**$2,906,931**	**$3,134,142**	**$3,007,562**	**$3,013,493**	**$3,068,311**	**$3,290,552**	**$3,352,544**	**$3,833,523**	**$4,775,922**	**$6,695,469**	**$8,866,772**	**$11,743,405**	**$15,554,872**
Parking Utilization Percentage							65%	67%	69%	69%	72%	73%	83%				
Cinerama Dome Garage	1717																
Monthly Revenue				$772,558	$812,823	$824,933	$1,001,680	$1,012,851	$1,023,742	$1,034,954	$1,046,289	$1,264,221	$1,542,976	$2,296,433	$3,423,768	$5,100,079	$7,597,129
Transient Revenue				$3,478,717	$3,660,026	$3,714,555	$4,510,421	$5,572,483	$6,636,170	$7,704,222	$8,778,549	$9,860,626	$11,765,357	$16,835,239	$24,048,933	$34,353,608	$49,073,710
Special Event Revenue				$163,341	$171,854	$174,414	$211,784	$213,593	$250,229	$286,576	$322,763	$390,624	$481,282	$643,254	$897,012	$1,250,876	$1,744,335
Additional Revenue from Marketing Efforts								$37,774	$38,907	$40,074	$41,277	$42,515	$49,287	$66,237	$89,017	$119,631	$160,774
Interest Income				$33,883	$69,800	$17,614	$1,916	$31,727	$32,679	$33,660	$34,669	$35,709	$41,397	$55,634	$74,766	$100,481	$135,038
Reimbursement from Developer				$26,961	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income (Settlement)				($983,355)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Gross Revenue				**$3,492,104**	**$4,714,503**	**$4,731,516**	**$5,725,801**	**$6,868,208**	**$7,981,727**	**$9,099,485**	**$10,223,547**	**$11,593,695**	**$13,880,299**	**$19,896,796**	**$28,533,498**	**$40,924,676**	**$58,710,987**
Total Gross Parking Revenue				**$4,414,615**	**$4,644,703**	**$4,713,902**	**$5,723,885**	**$6,836,481**	**$7,949,048**	**$9,065,826**	**$10,188,878**	**$11,557,985**	**$13,838,902**	**$19,843,162**	**$28,458,731**	**$40,824,194**	**$58,575,949**
Parking Tax (10% of Gross Parking Revenue)				($379,931)	($408,048)	($471,390)	($509,864)	($683,648)	($794,905)	($906,583)	($1,018,888)	($1,155,799)	($1,383,890)	($1,984,316)	($2,845,873)	($4,082,419)	($5,857,595)
Total Net Revenue				**$3,112,173**	**$4,306,457**	**$4,260,128**	**$5,215,937**	**$6,184,560**	**$7,186,822**	**$8,192,903**	**$9,204,660**	**$10,437,896**	**$12,496,409**	**$17,914,480**	**$25,687,625**	**$36,842,256**	**$52,853,392**
Parking Utilization Percentage							52%	52%	52%	51%	51%	50%	54%	60%	67%	74%	80%
Friar Street Garage (#601)	237																
Monthly Revenue		$158,202	$156,816	$217,652	$139,960	$191,763	$185,823	$212,563	$213,866	$250,202	$251,735	$288,633	$343,950	$473,725	$632,838	$845,392	$1,129,338
Transient Revenue		$45,225	$46,255	$16,146	$12,022	$100,039	$42,812	$57,985	$58,046	$75,411	$75,491	$75,572	$87,023	$114,763	$150,596	$197,583	$259,230
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Gross Revenue		**$203,427**	**$203,071**	**$233,797**	**$152,001**	**$291,802**	**$228,635**	**$270,548**	**$271,912**	**$325,613**	**$327,227**	**$364,205**	**$430,973**	**$588,508**	**$783,433**	**$1,042,975**	**$1,388,568**
Total Gross Parking Revenue		**$203,427**	**$203,071**	**$233,797**	**$152,001**	**$291,802**	**$228,635**	**$270,548**	**$271,912**	**$325,613**	**$327,227**	**$364,205**	**$430,973**	**$588,508**	**$783,433**	**$1,042,975**	**$1,388,568**
Parking Tax (10% of Gross Parking Revenue)		($18,461)	($18,461)	($21,254)	($13,818)	($26,527)	($22,864)	($27,055)	($27,191)	($32,561)	($32,723)	($36,421)	($43,097)	($58,851)	($78,343)	($104,297)	($138,857)
Total Net Revenue		**$184,966**	**$184,610**	**$212,543**	**$138,183**	**$265,275**	**$205,772**	**$243,493**	**$244,721**	**$293,052**	**$294,504**	**$327,785**	**$387,875**	**$529,657**	**$705,090**	**$938,677**	**$1,249,711**
Parking Utilization Percentage							89%	88%	88%	87%	87%	87%	89%				
Dickens Street Garage (#629)	198																
Monthly Revenue		$0	$0	$0	$0	$1,810	$1,810	$2,353	$2,370	$2,387	$2,405	$2,422	$2,903	$4,171	$5,992	$8,608	$12,366
Transient Revenue		$47,234	$44,313	$51,401	$46,225	$110,748	$73,145	$92,213	$92,481	$92,749	$93,019	$93,289	$108,417	$146,430	$197,770	$267,112	$360,766
Additional Revenue from Marketing Efforts								$4,356	$4,487	$4,621	$4,760	$4,903	$5,684	$7,638	$10,265	$13,796	$18,540
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income		$0	$0	$412	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Gross Revenue		**$47,234**	**$44,313**	**$51,813**	**$46,225**	**$112,557**	**$74,954**	**$98,922**	**$99,338**	**$99,758**	**$100,184**	**$100,614**	**$117,004**	**$158,238**	**$214,028**	**$289,516**	**$391,672**
Total Gross Parking Revenue		**$47,234**	**$44,313**	**$51,401**	**$46,225**	**$112,557**	**$74,954**	**$98,922**	**$99,338**	**$99,758**	**$100,184**	**$100,614**	**$117,004**	**$158,238**	**$214,028**	**$289,516**	**$391,672**
Parking Tax (10% of Gross Parking Revenue)		$0	$0	$0	$0	($10,232)	($7,495)	($9,892)	($9,934)	($9,976)	($10,018)	($10,061)	($11,700)	($15,824)	($21,403)	($28,952)	($39,167)
Total Net Revenue		**$47,234**	**$44,313**	**$51,813**	**$46,225**	**$102,325**	**$67,459**	**$89,030**	**$89,404**	**$89,782**	**$90,165**	**$90,553**	**$105,303**	**$142,415**	**$192,625**	**$260,564**	**$352,505**
Parking Utilization Percentage							7%	7%	6%	8%	9%	9%	11%	15%	18%	22%	25%
Cherokee Garage (#670)	388																
Monthly Revenue		$223,025	$195,415	$199,870	$198,220	$359,000	$358,800	$362,382	$365,898	$441,564	$445,649	$450,174	$546,048	$803,396	$1,182,032	$1,739,116	$2,558,751
Transient Revenue		$186,830	$323,006	$416,128	$495,980	$427,806	$472,835	$559,390	$561,371	$731,116	$733,705	$901,972	$1,051,573	$1,429,327	$1,942,780	$2,640,681	$3,589,286
Additional Revenue from Marketing Efforts								$8,492	$8,747	$9,009	$9,279	$9,556	$11,080	$14,891	$20,012	$26,894	$36,144
Special Event Revenue		$32,970	$57,001	$73,434	$97,522	$75,495	$83,442	$82,263	$82,555	$96,235	$96,576	$116,302	$133,968	$177,760	$235,865	$312,965	$415,267
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income (Retail Space Rental)		$10,140	$10,140	$10,140	$10,140	$10,140	$10,140	$10,444	$10,758	$11,080	$11,413	$11,755	$13,627	$18,314	$24,612	$33,077	$44,453
Total Gross Revenue		**$452,965**	**$585,562**	**$699,572**	**$791,842**	**$872,441**	**$925,217**	**$1,022,971**	**$1,029,328**	**$1,289,005**	**$1,296,622**	**$1,489,761**	**$1,756,296**	**$2,443,688**	**$3,405,302**	**$4,752,734**	**$6,643,901**
Total Gross Parking Revenue		**$442,825**	**$575,422**	**$689,432**	**$781,702**	**$862,301**	**$915,077**	**$1,012,527**	**$1,018,571**	**$1,277,924**	**$1,285,409**	**$1,478,006**	**$1,742,669**	**$2,425,374**	**$3,380,690**	**$4,719,657**	**$6,599,448**
Parking Tax (10% of Gross Parking Revenue)		($52,311)	($52,311)	($62,676)	($71,064)	($78,391)	($91,508)	($101,253)	($101,857)	($127,792)	($128,541)	($147,801)	($174,267)	($242,537)	($338,069)	($471,966)	($659,945)
Total Net Revenue		**$400,654**	**$533,251**	**$636,896**	**$720,778**	**$794,050**	**$833,709**	**$921,719**	**$927,471**	**$1,161,212**	**$1,168,281**	**$1,341,961**	**$1,582,029**	**$2,201,150**	**$3,067,233**	**$4,280,768**	**$5,983,956**
Parking Utilization Percentage							54%	52%	52%	51%	51%	50%	52%	55%	58%	61%	64%

DESMAN
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Table 34
Private Operator Model, Parking Garage Revenue Projections (continued)

LOS ANGELES PARKING SYSTEM OPERATING REVENUE	Spaces	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	YEAR 1 2010	YEAR 2 2011	YEAR 3 2012	YEAR 4 2013	YEAR 5 2014	YEAR 10 2019	YEAR 20 2029	YEAR 30 2039	YEAR 40 2049	YEAR 50 2059
OPERATING REVENUE (By Garage)																	
Broxton Garage (#680)	366																
Monthly Revenue		$162,794	$174,625	$181,375	$159,750	$171,250	$180,875	$172,816	$193,809	$194,756	$195,708	$224,117	$265,427	$372,294	$522,188	$732,433	$1,027,326
Transient Revenue		$474,704	$384,745	$388,427	$396,572	$379,630	$375,132	$274,541	$275,396	$356,617	$359,635	$360,756	$419,701	$568,057	$768,855	$1,040,631	$1,408,475
Special Event Revenue		$324,924	$354,641	$362,256	$367,135	$393,861	$366,562	$550,460	$552,176	$553,897	$603,654	$806,159	$926,651	$1,224,357	$1,617,706	$2,137,427	$2,824,119
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Increased Revenue from Elimination of Free Parking		$0	$0	$0	$0	$0	$0	$700,270	$793,640	$1,033,179	$1,036,399	$1,039,629	$1,209,497	$1,637,032	$2,215,692	$2,998,899	$4,058,955
Other Income (Retail Space Rental)		$50,436	$92,926	$72,813	$128,724	$144,124	$134,718	$138,760	$142,923	$147,210	$151,627	$156,175	$181,050	$243,316	$326,997	$439,456	$590,592
Total Gross Revenue		$1,012,847	$1,006,537	$1,024,871	$1,072,181	$1,088,866	$1,059,287	$1,836,847	$1,967,943	$2,287,559	$2,547,022	$2,586,836	$3,002,326	$4,045,056	$5,461,438	$7,348,846	$9,909,467
Total Gross Parking Revenue		$962,411	$914,011	$962,068	$943,457	$944,741	$924,569	$1,697,587	$1,816,021	$2,140,349	$2,396,396	$2,430,661	$2,821,276	$3,801,739	$5,124,441	$6,909,389	$9,318,876
Parking Tax (10% of Gross Parking Revenue)		($83,092)	($83,092)	($86,551)	($85,769)	($85,886)	($92,457)	($169,789)	($181,502)	($214,035)	($239,540)	($243,066)	($282,128)	($380,174)	($512,444)	($690,939)	($931,887)
Total Net Revenue		$929,755	$923,845	$938,320	$986,412	$1,002,979	$966,830	$1,666,868	$1,776,441	$2,073,524	$2,307,482	$2,343,770	$2,720,198	$3,664,882	$4,948,994	$6,657,906	$8,977,579
Parking Utilization Percentage							92%	78%	84%	83%	81%	81%	82%	83%	84%	85%	86%
Ventura Blvd Garage (#690)	397																
Monthly Revenue			$6,892	$31,917	$35,497	$28,914	$28,914	$32,341	$33,768	$34,848	$35,921	$37,007	$44,356	$63,721	$91,541	$131,507	$188,921
Transient Revenue			$15,322	$48,443	$58,777	$52,594	$42,633	$50,758	$50,906	$65,710	$55,872	$56,034	$65,120	$87,953	$118,790	$160,440	$216,693
Additional Revenue from Marketing Efforts								$8,734	$8,996	$9,266	$9,544	$9,830	$11,396	$15,315	$20,582	$27,661	$37,174
Interest Income			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Parking Revenue (Bank of America Lease)			$0	$24,317	$24,317	$24,317	$24,317	$25,047	$25,798	$26,572	$27,369	$28,190	$32,680	$43,919	$59,024	$79,323	$106,603
Total Gross Revenue			$22,213	$104,676	$118,591	$105,824	$95,863	$116,880	$119,488	$126,396	$128,705	$131,061	$153,552	$210,908	$289,937	$398,930	$549,391
Total Gross Parking Revenue			$22,213	$104,676	$118,591	$105,824	$95,863	$116,880	$119,488	$126,396	$128,705	$131,061	$153,552	$210,908	$289,937	$398,930	$549,391
Parking Tax (10% of Gross Parking Revenue)			($2,019)	($9,516)	($10,781)	($9,620)	($9,586)	($11,688)	($11,949)	($12,640)	($12,871)	($13,106)	($15,355)	($21,091)	($28,994)	($39,893)	($54,939)
Total Net Revenue			$20,194	$95,160	$107,810	$96,204	$86,277	$106,192	$107,539	$113,756	$116,835	$117,955	$138,197	$189,817	$260,943	$359,037	$494,452
Parking Utilization Percentage							17%	17%	18%	18%	18%	19%	21%	24%	28%	32%	35%
Robertson Garage (#709)	334																
Monthly Revenue		$215,400	$248,200	$268,200	$247,200	$388,700	$308,025	$280,553	$282,024	$316,649	$318,197	$319,752	$378,590	$531,159	$745,016	$1,044,976	$1,465,707
Transient Revenue		$184,626	$278,546	$305,184	$146,070	$401,715	$305,102	$271,049	$271,894	$392,748	$393,972	$512,862	$596,663	$807,600	$1,093,071	$1,479,452	$2,002,411
Additional Revenue from Marketing Efforts								$7,348	$7,568	$7,795	$8,029	$8,270	$9,587	$12,885	$17,316	$23,271	$31,275
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income (Retail Space Rental)		$0	$136,071	$143,982	$148,716	$151,026	$155,334	$159,994	$164,794	$169,738	$174,830	$180,075	$208,756	$280,551	$377,037	$506,706	$680,971
Total Gross Revenue		$400,026	$662,817	$717,366	$541,986	$941,441	$768,461	$719,044	$726,281	$886,931	$896,029	$1,020,979	$1,193,717	$1,632,196	$2,232,440	$3,054,405	$4,180,363
Total Gross Parking Revenue		$400,026	$526,746	$573,384	$393,270	$790,415	$613,127	$559,050	$561,487	$717,193	$720,199	$840,905	$984,961	$1,361,644	$1,865,403	$2,547,699	$3,499,393
Parking Tax (10% of Gross Parking Revenue)		($47,886)	($47,886)	($52,126)	($35,752)	($71,856)	($61,313)	($55,905)	($56,149)	($71,719)	($72,020)	($84,090)	($98,496)	($136,164)	($186,540)	($254,770)	($349,939)
Total Net Revenue		$362,140	$614,931	$668,240	$606,234	$869,585	$707,149	$663,139	$670,132	$816,211	$823,009	$936,889	$1,095,221	$1,497,030	$2,046,900	$2,799,635	$3,830,424
Parking Utilization Percentage							37%	37%	38%	38%	38%	38%	37%	39%	42%	44%	47%
Larchmont Garage (#732)	167																
Monthly Revenue		$90,915	$87,000	$89,280	$92,100	$83,580	$90,300	$89,297	$89,733	$90,172	$90,613	$105,877	$125,393	$175,879	$246,692	$345,015	$485,329
Transient Revenue		$89,898	$95,264	$95,618	$101,046	$85,265	$69,848	$89,769	$90,048	$90,329	$90,611	$104,628	$121,723	$164,750	$222,987	$301,808	$408,492
Additional Revenue from Marketing Efforts								$3,674	$3,784	$3,898	$4,015	$4,135	$4,794	$6,442	$8,658	$11,636	$15,637
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Gross Revenue		$180,813	$182,264	$184,898	$193,146	$168,846	$160,148	$182,739	$183,566	$184,399	$185,238	$214,640	$261,910	$347,072	$478,337	$658,460	$909,459
Total Gross Parking Revenue		$180,813	$182,264	$184,898	$193,146	$168,846	$160,148	$182,739	$183,566	$184,399	$185,238	$214,640	$261,910	$347,072	$478,337	$658,460	$909,459
Parking Tax (10% of Gross Parking Revenue)		($16,569)	($16,569)	($16,809)	($17,559)	($15,350)	($16,015)	($18,274)	($18,357)	($18,440)	($18,524)	($21,464)	($25,191)	($34,707)	($47,834)	($65,946)	($90,946)
Total Net Revenue		$164,244	$165,696	$168,089	$175,586	$153,496	$144,133	$164,465	$165,209	$165,959	$166,714	$193,176	$226,719	$312,366	$430,503	$592,514	$818,513
Parking Utilization Percentage							69%	69%	70%	70%	71%	70%	71%	74%	76%	79%	81%
Hollywood & Highland Garage (#746)	3006																
Monthly Revenue		$721,620	$710,030	$925,680	$1,037,400	$954,180	$889,820	$1,012,677	$1,030,097	$1,252,351	$1,273,895	$1,401,453	$1,763,998	$2,794,714	$4,427,684	$7,014,810	$11,113,610
Transient Revenue		$4,863,869	$4,975,539	$5,271,421	$5,985,263	$6,487,724	$6,593,394	$7,983,715	$8,031,741	$11,664,501	$11,764,139	$15,397,651	$18,403,175	$26,288,711	$37,553,103	$53,644,150	$76,630,014
Special Event Revenue		$861,859	$876,036	$930,251	$1,056,223	$1,144,893	$1,163,540	$1,490,595	$1,499,702	$1,904,395	$1,915,901	$2,312,972	$2,697,671	$3,669,861	$4,991,867	$6,790,474	$9,237,131
Cirque de Soleil Revenue								$0	$0	$1,922,653	$1,980,333	$2,039,743	$2,364,621	$0	$0	$0	$0
Additional Revenue from Marketing Efforts								$66,132	$68,116	$70,159	$72,264	$74,432	$86,287	$115,963	$155,844	$209,442	$281,472
Interest Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Income/Advertising Revenue		$0	$0	$0	$0	$0	$0	$50,000	$51,500	$53,045	$54,636	$56,275	$65,239	$87,675	$117,828	$158,351	$212,811
Total Gross Revenue		$6,467,348	$6,563,605	$7,127,352	$8,078,886	$8,586,797	$8,626,754	$10,583,219	$10,681,156	$15,897,104	$17,061,168	$21,282,527	$25,380,990	$32,956,724	$47,245,327	$67,817,226	$97,476,038
Total Gross Parking Revenue		$6,467,348	$6,563,605	$7,127,352	$8,078,886	$8,586,797	$8,626,754	$10,533,219	$10,629,656	$15,814,059	$17,006,832	$21,226,251	$25,316,752	$32,869,049	$47,128,499	$67,658,875	$97,262,227
Parking Tax (10% of Gross Parking Revenue)		($596,691)	($596,691)	($647,941)	($734,444)	($780,618)	($862,675)	($1,053,322)	($1,062,966)	($1,581,406)	($1,700,683)	($2,122,625)	($2,531,575)	($3,286,905)	($4,712,850)	($6,765,887)	($9,726,223)
Total Net Revenue		$5,870,657	$5,966,914	$6,479,411	$7,344,442	$7,806,179	$7,764,079	$9,529,897	$9,618,190	$14,186,699	$15,360,515	$19,169,902	$22,845,416	$29,669,819	$42,633,477	$61,061,339	$87,748,816
Parking Utilization Percentage							43%	40%	42%	39%	40%	39%	43%	51%	59%	67%	75%
OPERATING REVENUE (System Summary)																	
Monthly Revenue		$3,286,462	$3,032,116	$4,192,812	$4,306,065	$4,756,404	$4,705,766	$4,805,418	$4,875,386	$5,272,248	$5,328,412	$6,025,795	$7,328,630	$10,700,483	$15,530,523	$22,645,041	$33,170,313
Transient Revenue		$7,360,428	$7,542,680	$11,608,280	$12,540,232	$13,485,413	$14,144,973	$16,598,065	$17,780,424	$23,104,172	$24,337,524	$29,616,578	$35,542,518	$50,639,155	$71,619,180	$101,353,210	$143,514,591
Special Event Revenue		$1,246,285	$1,372,207	$1,549,999	$1,713,357	$1,792,730	$1,830,141	$2,357,055	$2,405,256	$4,790,426	$5,146,590	$5,699,488	$6,827,535	$9,776,539	$7,821,228	$10,592,638	$14,350,078
Additional Revenue from Marketing Efforts								$171,490	$176,635	$181,934	$187,392	$193,014	$223,756	$239,371	$321,595	$432,331	$581,017
Interest Income		$0	$0	$33,883	$69,800	$17,814	$1,916	$31,727	$32,679	$33,660	$34,669	$35,709	$41,397	$55,634	$74,768	$100,481	$135,038
Other Income		$82,180	$258,417	($736,751)	$310,605	$327,606	$321,573	$381,024	$392,455	$404,229	$416,355	$428,846	$497,150	$668,128	$897,909	$1,206,714	$1,621,723
Total Gross Revenue		$11,975,354	$12,205,421	$16,676,183	$18,940,058	$20,379,967	$21,004,470	$24,046,079	$25,457,476	$33,818,846	$36,487,340	$42,041,060	$51,470,482	$69,716,342	$96,480,994	$135,329,314	$197,431,716
Parking Tax		($1,133,921)	($1,108,565)	($1,578,752)	($1,698,000)	($1,895,607)	($2,005,563)	($2,463,233)	($2,603,234)	($3,436,196)	($3,603,632)	($4,257,650)	($5,093,194)	($6,899,258)	($9,750,832)	($13,802,212)	($19,567,495)
Total After Tax Revenue		$10,841,433	$11,096,856	$15,096,431	$17,242,058	$18,484,361	$18,998,906	$22,581,847	$23,854,241	$31,381,650	$32,883,709	$38,783,409	$46,377,289	$62,817,084	$86,730,162	$121,527,102	$177,864,220

Table 35
Private Operator Model, Current vs. Proposed Rates

	Current Rates	Proposed Rates 2010	Proposed Rates 2011	Proposed Rates 2012	Proposed Rates 2013	Proposed Rates 2014
Pershing Square						
Monthly/Annual	$190.00	$190.00	$190.00	$190.00	$190.00	$220.00
Transient (Regular)	$7.72	$8.00	$8.00	$9.00	$9.00	$10.00
Transient (Early Bird)	$9.35	$10.00	$10.00	$12.00	$12.00	$15.00
After 5 PM	$6.60	$6.00	$6.00	$8.00	$8.00	$10.00
Arc Light/Cinerama Dome						
Monthly	$100.00	$100.00	$100.00	$100.00	$100.00	$120.00
Transient	$4.00	$5.00	$6.00	$7.00	$8.00	$9.00
Event	$10.00	$10.00	$12.00	$14.00	$16.00	$20.00
Friar Street Garage						
Monthly	$49.50	$60.00	$60.00	$70.00	$70.00	$80.00
Transient	$1.10	$1.50	$1.50	$2.00	$2.00	$2.00
Dickens Street Garage						
Monthly	$38.50	$50.00	$50.00	$50.00	$50.00	$50.00
Transient	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Cherokee Garage						
Monthly	$100.00	$100.00	$100.00	$120.00	$120.00	$120.00
Transient	$4.00	$6.00	$6.00	$8.00	$8.00	$10.00
Event	$8.00	$10.00	$10.00	$12.00	$12.00	$15.00
Broxton Garage						
Monthly	$125.00	$125.00	$140.00	$140.00	$140.00	$160.00
Transient - Paying Customer	$4.50	$3.00	$3.00	$4.00	$4.00	$4.00
Transient - Parking for Free	$0.00	$3.00	$3.00	$4.00	$4.00	$4.00
Event	$3.00	$5.00	$5.00	$5.00	$8.00	$8.00
Ventura Blvd. Garage						
Monthly	$38.50	$39.50	$41.00	$42.00	$43.00	$44.00
Transient[1]	$0.50	$0.50	$0.50	$0.55	$0.55	$0.55
Robertson Garage						
Monthly	$125.00	$125.00	$125.00	$140.00	$140.00	$140.00
Transient	$2.00	$2.00	$2.00	$3.00	$3.00	$4.00
Larchmont						
Monthly	$60.00	$60.00	$60.00	$60.00	$60.00	$70.00
Transient	$1.50	$1.50	$1.50	$1.50	$1.50	$1.75
Hollywood & Highland Garage						
Monthly	$95.00	$100.00	$100.00	$120.00	$120.00	$130.00
Transient	$3.00	$4.00	$4.00	$6.00	$6.00	$8.00
Event	$10.00	$15.00	$15.00	$20.00	$20.00	$25.00

(1) Raised to $0.60 in 2015

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Table 36
LA Parking Garages and Competing Parking Facilities Summary

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
629	**Dickens-Cedros Garage**	**14591 Dickens Street**	**Garage**	**198**	**LADOT/ GSD**	**---**	7AM-11:30PM Daily	**$1.50**	**$3.00**	**$4.50**		**$38.50**			**7%**	**12%**	**4%**	**Attendant/Booth Time Stamped Tkt**
799	Sherman Oaks Lot	14758 Ventura Blvd	Lot	21	LADOT	2.5 blocks	7AM-9PM Daily	$1.00	$2.00	$2.00	-	-	-	High	-	Low	-	Unmanned/ Pay by Space
1	La Riena Fashion Plaza Garage	14622 Venura Blvd	Garage	193	MPI	2 blocks	7AM-9PM Daily	$6.00	$6.00	-	-	-	-	-	-	High	-	Attendant/Gates/ Fee Computer
2	Unknown	14724 Ventura Blvd	Garage	367	AMPCO	1 block	7AM-8PM M-F	$6.80	$13.60	$15.30	-	$120.00	-	High	-	Low	-	Attendant/Booth Time Stamped Tkt
703	**Robertson Garage**	**123 S. Roberston Blvd**	**Garage**	**334**	**LADOT/ GSD**	**---**	**6AM-12:30AM M-Sa 9AM-7PM Su**	**$2.00**	**$4.00**	**$12.00**		**$125.00**		**37%**		**25%**		**Attendant/Gates/ Fee Computer**
756	George Burns Garage	139 George Burns Rd	Garage	78	LADOT	1.5 blocks	9AM-10PM M-Sa	$2.00	$4.00	$8.00	-	-	-	High	-	-	-	Unmanned/ Pay-by-Space
1	Unknown	8744 Beverly Blvd	Lot	50	-	2.5 blocks	8AM-6PM M-Sa	$4.00	$8.00	$8.00				High		Med		Attendant/Booth Time Stamped Tkt
2	Pacific Theatre	116-120 N. Robertson Blvd	Garage	300	PCOA	1 block	8AM-6PM M-Sa	$9.00	$17.50	$17.50	-	$148.50 Non Res. $203 Res	-	-	-	High	-	Attendant/Booth Time Stamped Tkt
3	Cedars-Sinai Medical Center	140 George Burns Rd	Garage	409	AMP	1.5 blocks	8AM-10PM M-Sa	$7.80	$13.65	$13.65	-	No Public Monthly	-	High	-	-	-	Attendant/Gates/ Fee Computer
4	Unknown	8640 West 3rd Street	Lot	20	PMG	1.5 blocks	-	$8.00	$16.00	$20.00	-	-	-	Med	-	-	-	Attendant/Booth Time Stamped Tkt
601	**Friar Garage**	**14401 Friar St.**	**Garage**	**237**	**LADOT/ GSD**	**---**	**5:30AM-7PM M--F**	**$1.10**	**$2.20**	**$4.40**		**$49.50**		**89%**	**70%**	**-**	**-**	**Attendant/Booth Time Stamped Tkt**
609	Van Nuys Lot	14521 Friar St	Lot	76	LADOT	1.5 blocks	8AM-5PM M-Sa	$1.10	$2.20	$4.40	-	$49.50	-	High	-	Low	-	Attendent Booth
610	Van Nuys Lot	14532 Gilmore St	Lot	137	LADOT	2.5 blocks	8AM-5PM M-F	$1.10	$2.20	$4.40	-	$38.50	-	Med	-	Low	-	Attendent Booth/Pay on Foot
620	Van Nuys Lot	14607 Sylvan St	Lot	58	LADOT	2 blocks	8AM-5PM M-F	$1.10	$2.20	$4.40	-	$38.50	-	-	-	Low	-	Attendent Booth
630	Van Nuys Lot	Erwin St	Lot	137	LADOT	2.5 blocks	8AM-5PM M-F	$1.10	$2.20	$4.40	-		-	Med	-	Low	-	Attendent Booth/Pay on Foot
631	Van Nuys Lot	14402 Glimore St	Lot	67	LADOT	2 blocks	8AM-5PM M-F	$1.10	$2.20	$4.40	-	$38.50	-	Med	-	Med	-	Attendent Booth
752	Van Nuys Lot	6265 Sylmar St	Garage	302	LADOT/ GSD	2 blocks	6:30AM-6PM M-W, F 6:30AM -7PM Th	$2.00	$4.00	$8.00	-	$100.00	-	High	-	-	-	Attendent Booth
1	Pyramid Professional Bldg	6454 Van Nuys Blvd	Lot	82	Valley Exec. Suites	1 block	-	$1.50	$2.50	$2.50	$2.50	No Public Monthly	-	High	-	Low	-	Attendent Booth

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Table 36
LA Parking Garages and Competing Parking Facilities Summary (continued)

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
629	**Ventura Garage**	**12225 Ventura Blvd**	**Garage**	**397**	**LADOT/ GSD**	**—**	**7PM-10:30PM Su-Th 7AM-12AM F-Sa**	**1st 20 Mins Free/ $0.50**	**$1.50**	**$4.50**		**$38.50**	**Free/ 10% off**	**17%**	**5%**	**8%**	**3%**	**Attendant/Gates/ Fee Computer**
1	California Pavilion Garage	12265 Laurel Grove Ave	Garage	86	CP	0.5 block	10AM-8 PM Daily	$3.60	$7.20	$8.00	-	-	-	Low	-	Low	-	Unmanned/ Free
3	Unknown	3970 Laurel Canyon Blvd	Lot	290	Unknown	1 block	Retail Store Hour	FREE	FREE	FREE	-	-	-	High	-	High	-	Unmanned/ Free
2	Unknown	12178 -12102 Ventura Blvd	Lot	454	Unknown	1 block	Retail Store Hour	FREE	FREE	FREE	-	-	-	High	-	High	-	Unmanned/ Free
4	Good Earth Office Garage	123 Ventura Ct	Garage	141	Unknown	1 block	10AM-8 PM Daily	-	-	-	-	No Monthly	-	High	-	Low	-	Unmanned/ Free
670	**Cherokee Garage**	**1710 Cherokee Ave**	**Garage**	**386**	**LADOT/ PCI**	**—**	**24-hours Daily**	**$4.00**	**$8.00**	**$8.00**	**$8.00**	**$100.00**		**51%**	**68%**	**45%**		**Attendant/Gates/ Fee Computer**
1	Unknown	1639 N. Schrader Blvd	Lot	167	LAPS	1.5 blocks	8AM-2PM Daily	$10.00	$10.00	$10.00	$10.00	-	-	Med	-	-	-	Attendant/Booth Time Stamped Tkt
2	Eygptian Theatre Parking	1526 McCadden Pl	Lot	249	GP	2 blocks	24-hours Daily	$10.00	$10.00	$10.00	$10.00	$80.00	-	High	-	-	-	Valet
3	Unknown	1632 Cherokee Ave	Lot	170	CPI	1.5 blocks	24-hours Daily	$8.00	$10.00	$10.00	$15/$20	$80.00	-	-	-	-	-	Valet
4	Unknown	1719 Cherokee Ave	Lot	166	GP	<0.5 blocks	8AM-11PM Daily	$8.00	$10.00	$10.00	-	-	-	Med	-	-	-	Attendant/Booth Time Stamped Tkt
5	Unknown	1714 Whitley Ave	Lot	75	COP	1 block	6AM-6PM Daily	$10.00	$10.00	$10.00	$10.00	-	-	Med	Med	-	-	Attendant/Booth Time Stamped Tkt
6	Unknown	1715 N. Wilcox Ave	Lot	76	CP	2 blocks	24-hours Daily	$6.00	$6.00	$6.00	$6.00	-	-	High	-	-	-	Attendant/Booth Time Stamped Tkt
7	Unknown	1632 N Wilcox Ave	Lot	133	CP	2 blocks	24-hours Daily	$8.00	$8.00	$8.00	$8.00	-	-	High	-	-	-	Attendant/Booth Time Stamped Tkt
649	Hollywood	1533 Schrader Blvd	Lot	55	LADOT/ PCI	2.5 blocks	4PM-12:30AM M-F 7AM-5PM Sa 8AM-4PM Su	$8.00	$8.00	$8.00	-	$100.00	-	-	-	-	-	Attendant/Booth Time Stamped Tkt
732	**Larchmont Garage**	**218 N. Larchmont Blvd**	**Garage**	**167**	**LADOT/ GSD**	**—**	**8PM-8 M-TH 8AM-11PM F-SA 11AM-5PM Su**	**$1.50**	**$3.00**	**$5.25**	-	**$60.00**	**1-hr Free**	**69%**	**41%**	**52%**	**13%**	**Attendant/Booth Time Stamped Tkt**
694	Larchmont Lot	209 N. Larchmont Blvd	Lot	34	LADOT	<0.5 blocks	7AM-12AM Daily	$0.50	$1.00	$4.00	-	-	-	High	High	High	High	Unmanned/ Pay-by-Space
1	Unknown	314 N. Larchmont Blvd	Garage	150	AMPCO	1.5 blocks	7:30AM-7PM M-F	$2.85	$5.70	$6.65	-	-	-	Med	-	-	-	Attendent/Gates Fee Computer

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Table 36
LA Parking Garages and Competing Parking Facilities Summary (continued)

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
680	**Broxton Garage**	**1036 Broxton Ave**	**Garage**	**366**	**LADOT/ GSD**	**—**	**7AM-12AM Su-Th 7AM-2:30AM F-Sa**	**Free**	**Free**	**$8.00**	**$3.00 Nightly**	**$125.00**	**$1.50 ea 20 mins. 1st-2hrs**	**92%**	**70%**	**70%**		**Attendant/Gates/ Fee Computer**
1	Unknown	924 Westwood	Garage	296	SP	2 blocks	7AM-12AM Su-Sa	$10.00	$20.00	$20.00	$7.00	-	-	Med	-	-	-	Attendant/Booth Time Stamped Tkt
2	Unknown	980 Gayley	Lot	27	VSP	1 block	7AM-12AM Su-Sa	$7.00	$7.00	$7.00	$7.00	-	-	High	Med	Med	High	Attendant Parked
3	Unknown	1030 Gayley Ave	Garage	92	MPI	0.5 block	9AM-12AM Sa-Su	$8.00	$8.00	$8.00	$5.00 Nightly		-	High	High	Med	High	Attendant/Booth Time Stamped Tkt
4	Unknown	1031 Broxton Ave	Lot	55	MPI	<0.5 blocks	8AM-12PM Sa-Su	$4.80	$8.00	$8.00	$3.00 Nightly	-	-	High	Med	-	-	Attendant/Booth Time Stamped Tkt
5	Gayley Plaza	962 Gayley Ave	Lot	23	FAMA	1.5 blocks	8AM-11PM Su-Sa	$6.00	$6.00	$6.00	$6.00	-	-	-	High	-	-	Valet Attendant
6	Unknown	10922 Le Conte Ave	Lot	126	VSP	1.5 blocks	8AM-11PM M-W 8AM-12AM Th 8AM-1AM Sa 10AM-1AM Sa 10AM-11PM Su	$6.50	$11.75	$11.75	$5 After 4PM	-	-	High	High	-	-	Attendant/Gates/ Fee Computer
7	Westwood Village Square	10920 Lindbrook Dr	Garage	233	AMPCO	1.5 blocks	8:30AM-11PM M-F 8AM-11PM Sa 10AM-10PM Su	$9.00	$15.75	$15.75	$6 after 5PM	$140.00	-	Low	-	-	-	Attendant/Booth Time Stamped Tkt
8	Westwood Center	1100 Glendon	Garage	708	SP	2 blocks	6AM-12PM M-F 9AM-11PM Sa-Su	$11.00	$22.00	$25.00	-	-	-	High	-	-	-	Attendant/Booth Time Stamped Tkt
9	Palazzo Westwood Village	1058 Glendon Ave	Lot	27	HP	2 blocks	24-hours Daily	$8.00	$16.00	$16.00	-	-	-	-	Low	-	-	Automated Time Stamp
10	Unknown	10920 Weyburn Ave	Lot	43	VSP	<0.5 blocks	9AM-11PM M-Sa	$9.00	$10.50	$10.50	$5 After 4PM	-	-	-	High	-	-	Attendant/Booth Time Stamped Tkt

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Table 36
LA Parking Garages and Competing Parking Facilities Summary (continued)

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
745	**Hollywood Highlands Garage**	**6801 Hollywood Blvd**	**Garage**	**3025**	**LADOT/ NSP**	**----**	**10AM-10PM Su-Th 10AM-2AM F-Sa**	**$3.00**	**$6.00**	**$10.00**		**$95.00 $50.00 Qtr.**	**$2 - 4hrs**	**23%**	**24%**	**47%**	**61%**	**Attendant/Gates/ Fee Computer**
1	Hollywood Galaxy	7021 Hollywood Blvd	Garage	690	-	2 blocks	8AM-10PM Daily	$8.00	$8.00	$8.00	-	-	-	-	-	-	-	Auto Pay Station
2	Unknown	7083 Hollywood Blvd	Garage	189	AMPCO	2.5 blocks	7AM-8PM M-Th 8AM-2AM F 5PM-2AM Sa-Su	$8.00	$12.00	$12.00	$8 After 5PM	-	-	High	-	-	-	Attendant/Gates/ Fee Computer
3	Unknown	7060 Hollywood Blvd	Garage	163	SP	2 blocks	8AM-11PM M-W 8AM-2AM Th-Sa	-	-	-	$10<6PM $20>6PM	$100.00	-	-	-	-	-	Attendant/Gates/ Fee Computer
4	Unknown	6922 Hollywood Blvd	Garage	397	SP	1 block	8AM-11PM Su-Sa	$9.00	$18.00	-	$16.00	-	-	High	-	-	-	Attendant/Gates/ Fee Computer
5	Jimmy Kimmel Theatre	1641 Hollywood Blvd	Lot	141	CP	1.5 blocks	24-hours Daily	$10.00	$10.00	$15.00	-	-	-	High				Attendent Booth
6	Unknown	1639 N. Highland	Lot	63	QPS	1 block	24-hours Daily	$10.00	$10.00	$10.00			-	Med	-			Attendent Booth
7	Mel's Drive-In	1406 Highland Ave	Lot	32	GP	1 blocks	-	$8.00	$10.00	$10.00	-	-	-	-	-	-	-	Attendent Booth
8	Eygptian Theatre Parking	1526 McCadden Pl	Lot	249	GP	2 blocks	8AM-2AM Daily	$10.00	$10.00	$10.00	$8.00	$80.00	-	High	-	-	-	Valet
9	Hollywood Business Center	1800 Hollywood Blvd	Garage	187	AMPCO	1 block	8AM-6PM M-F 9AM-1AM Sa	$9.00	$10.00	$10.00	-	-	-	-	Low	-	-	Time Stamp Ticket
ALG	**Arc Light Garage**	**6389 De Longpre Ave**	**Garage**	**1725**	**CRA/PCI**	**-----**	**24-hours Daily**	**$4.00**	**$8.00**	**$10.00**	**$3 - 4hrs $10 - max**	**$100.00**	**50% -75%**	**31%**	**32%**	**52%**	**78%**	**Attendant/Gates/ Fee Computer**
1	Unknown	1555 Vine Street	Garage	443	VPS	1.5 blocks	8AM-12AM Daily	$6.00	-	$8.00	-	$100.00	1hr Free	High	Med	High	Med	Attendant/Gates/ Fee Computer
2	Unknown	6350 Selma Ave	Lot	76	JGPS	2 blocks	24-hours Daily	$8.00	$8.00	$8.00	$8.00		-		Med			Attendant/Gates/ Fee Computer
3	CNN Garage	6430 Sunset Blvd	Garage	460	STDP	1.5 blocks	24-hours Daily	$10.00	$16.00	$6.00	-	$100.00	-	High	-	-	-	Attendant/Gates/ Fee Computer
4	Unknown	6255 Sunset Garage	Garage	602	MPI	2.5 blocks	7AM-7PM M-F	$9.00	$16.00	$16.00	$7 after 5PM	$100.00	-	High	Med	-	-	Attendant/Gates/ Fee Computer
5	LA Film School Garage	6363 Sunset Blvd	Garage	139	-	2 block	-	$4.00	$8.00	$8.00	-	-	-	-	Med	-	-	Attendant/Gates/ Fee Computer
6	Unknown	1584 N. Vine St	Lot	336	GP	2.5 blocks	-	$8.00	$8.00	$10.00	-	$70.00	-	Med	Med	Low	Low	Attendant/Booth Time Stamped Tkt
7	Unknown	6304 Selma Ave	Lot	59	GP	3 blocks	-	$6.00	$10.00	$10.00	-	-	-	-	Med	-	-	Attendant/Booth Time Stamped Tkt

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Table 36
LA Parking Garages and Competing Parking Facilities Summary (continued)

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
PS	Pershing Square Garage	441 West 6th St	Garage	1590	LADOT/ GSD	—	24-hours Daily	$7.72	$15.40	$15.40	$9.35 E.B. $6.60 >5PM	$190 - Non-Res. $280 - Res.		64%	26%	13%	15%	Attendant/Gates Time Stamped Tkt
1	Unknown	504 Hill St	Lot	111	JOE	<0.5 blocks	8AM-11PM Daily	$12.00	$15.00	$15.00	$5 >4PM and Wknds	-	-	High	-	Low	-	Attendant/Booth/ Time Stamped Tkt
2	Unknown	630 Hill St	Lot	28	PAR	.5 blocks	8AM-6PM Daily	$16.00	$18.00	$18.00	$5 Su	$200.00	-	High	High	-	-	Attendant/Booth/ Time Stamped Tkt
3	Jeweler's Mall Garage	625 Hill St	Garage	256	CENT	.5 blocks	7AM-8PM M-Sa	$15.00	-	$15.00	$10 E.B. $4 >4PM	$208 Non-Res $250 Res.	-	High	-	-	-	Attendant/Booth/ Time Stamped Tkt
4	Unknown	645 Hill St	Lot	28	PAR	1 block	7AM-8PM M-Sa	$12.00	$18.00	$18.00	-	-	-	High	High	-	-	Attendant/Booth/ Time Stamped Tkt
5	Unknown	637 S. Olive St	Lot	41	PP	1 block	7AM-6PM M-Sa	$10.00	-	$10.00	$5 >4PM and Sa	-	-	High	-	-	-	Attendant/Booth/ Time Stamped Tkt
6	LA Athletic Club Olive Park	646 S. Olive St	Garage	424	AMPCO	1 block	24-hours Daily	$5.25	$10.50	$12.25			$4.50/hr LA Ath.	-	High	-	-	Attendant/Booth/ Time Stamped Tkt
7	LA Athletic Club	618 S. Olive St	Lot	120	AMPCO	.5 blocks	8AM-6PM M-Sa	$10.80	$18.00	$18.00	$5 >5PM M-F and Sa	-	-	-	Med	-	-	Attendant/Booth/ Time Stamped Tkt
8	City National Bank Garage	606 6th St	Garage	220	QPS	<0.5 blocks	5:30AM-7PM M-Sa	$7.28	-	-	$10 E.B. $5 Sa	-	-	-	-	-	-	Automated Pay-on-Exit
9	Unknown	550 Hill St	Garage	160	AMP	<0.5 blocks	6AM - 8PM Daily	$8.00	$15.00	$15.00	$10 E.B. $3 Su	-	-	-	High	-	-	Automated Pay-on-Exit
10	Broadway Mall	440 S. Broadway St	Garage	138	JOE	1.5 blocks	6AM-9PM Daily	$6.00	$8.00	$8.00	$6 Sa-Su	$110.00	-	-	Med	-	-	Attendant/Booth/ Time Stamped Tkt
11	Unknown	420 S. Broadway St	Garage	127	STDP	2 blocks	6AM-8PM M-F 8AM-8PM Sa-Su	$10.00	-	$10.00	$8 E.B. $7 Sa-Su	$110 Non-Res $165 Res.	-	-	High	-	-	Automated Pay-on-Exit
12	Unknown	400 Hill St	Lot	40	ATH	1 block	6AM-8PM M-Sa	$12.00	$14.00	$14.00	$5 >4PM and Su	-	-	High	High	-	-	Attendant/Booth/ Time Stamped Tkt
13	Unknown	354 Hill St	Lot	109	JOE	1.5 blocks	6:30AM-6PM Daily	$12.00	$14.00	$14.00	$5 >4PM and Sa	-	-	-	High	-	-	Attendant/Booth/ Time Stamped Tkt
14	Unknown	437 Hill St	Lot	317	JOE	<0.5 blocks	6:30AM-6PM Daily	$12.00	-	$12.00	-	$160.00	-	High	High	-	-	Attendant/Booth/ Time Stamped Tkt
15	Gas Company Tower Garage	555 West 5th St	Garage	-	-	<0.5 blocks	6:30AM-6PM Daily	$24.60	-	$37.35	$5 >4PM	-	-	-	-	-	-	All Valet
16	Unknown	611 West 5th St	Garage	515	STDP	1 block	24-hours Daily	$11.25	$22.50	$29.25	$10 >4PM	-	-	-	High	-	-	All Valet
17	Pacific Center Garage	523 West 6th St	Garage	400±	PNI	1 block	6AM-12AM M-Sa 7AM-12AM Su	$17.50	-	$30.00	$10 >4PM	-	65%	-	Med	-	-	All Valet
18	Crown Plaza Garage	631 S. Olive Street	Garage	119	CENT	1 block	7AM-8PM M-Sa 8AM-4:30PM Su	$12.00	-	$12.00	$8 E.B. $4 Sa	$120 Non-Res. $260 Res.	-	-	High	-	-	All Valet/Monthly Permit
19	St. Vincent's Jewelry Center	639-659 Broadway St	Garage	254	FSP	1.5 blocks	8AM-6PM M-F 7AM-7PM Sa-Su	$12.00	$15.00	$15.00	$5 >2PM $8 Sa $6 Su	$180 Non-Res. $300-Res.	-	-	High	-	-	Attendant/Booth/ Time Stamped Tkt

CP	California Parking	MPI	Modern Parking Inc	VPS	Valet Parking Services	PAR	Paragon Parking
STDP	Standard Parking	JC	Jamar Corporation	HP	Hodes Parking	CENT	Central Parking
PCI	Parking Concepts Inc	LAPS	LA Parking Systems	ATH	Athena Parking Inc	PNI	Parking Network, Inc.
GP	Grant Parking	CPI	Classic Parking Inc	JOE	Joe's Parking	FSP	Five Star Parking
JGPS	J&G Parking Services	COP	Coast Parking	PP	Prestige Parking	SP	Sunshine Parking
NSP	New South Parking	PCOA	Parking Company of America	GAS	Gas Company Parking	UPS	Unified Parking Service
QPS	Quality Parking Services	AMP	Auto Mac Parking	CENT	Central Parking	GSD	General Services Department

DESMAN
ASSOCIATES

Table 37
Current Operating Structure Model, Parking Garage Expense Projections

LOS ANGELES PARKING SYSTEM EXPENSES	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	BASE YEAR 1 2010	YEAR 2 2011	YEAR 3 2012	YEAR 4 2013	YEAR 5 2014	YEAR 10 2019	YEAR 20 2029	YEAR 30 2039	YEAR 40 2049	YEAR 50 2059
EXPENSES (by Garage)																
Pershing Square Garage																
Labor	$760,319	$1,008,220	$993,059	$1,144,158	$1,231,437	$1,149,265	$1,213,782	$1,249,917	$1,037,930	$1,085,942	$1,139,691	$1,378,540	$1,954,027	$2,776,123	$3,953,024	$5,641,366
Facility Administration Supplies	$5,051	$625	$3,852	$1,795	$15,973	$5,095	$5,248	$5,406	$5,568	$5,735	$5,907	$6,848	$9,203	$12,368	$16,621	$22,337
Utilities	$0	$0	$0	$207,462	$182,710	$216,973	$220,228	$223,531	$226,884	$230,287	$233,742	$251,806	$292,231	$339,145	$393,593	$456,781
Insurance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Supplies	$3,345	$536	$433	$5,230	$609	$2,408	$2,659	$2,739	$2,821	$2,906	$2,993	$3,469	$4,663	$6,266	$8,421	$11,318
Maintenance	$137,186	$103,350	$145,317	$70,871	$142,732	$92,303	$139,824	$144,018	$148,339	$152,789	$157,373	$182,438	$245,182	$329,504	$442,825	$595,120
Other	$602,839	$663,288	$805,111	$1,028,622	$753,397	$1,210,539	$768,752	$776,462	$799,756	$823,748	$848,461	$983,596	$1,321,874	$1,776,488	$2,387,461	$3,208,535
Security Services	$467,710	$590,210	$588,553	$598,312	$647,482	$760,058	$767,658	$775,335	$798,595	$822,553	$847,229	$982,171	$1,319,956	$1,773,910	$2,383,987	$3,203,879
Capital Improvement and Equipment - Garage	$127,832	$71,475	$208,223	$426,310	$100,969	$449,419										
Parking Supplies	$7,296	$1,603	$8,335	$4,000	$4,947	$1,062	$1,094	$1,127	$1,161	$1,195	$1,231	$1,427	$1,918	$2,578	$3,465	$4,656
Total Operating Expenses	**$1,508,740**	**$1,776,019**	**$1,947,772**	**$2,468,158**	**$2,328,857**	**$2,676,502**	**$2,350,492**	**$2,402,073**	**$2,221,900**	**$2,301,407**	**$2,388,366**	**$2,806,700**	**$3,827,179**	**$5,239,895**	**$7,201,937**	**$9,935,457**
% Chg.		18%	10%	26%	-5%	15%	-12%	2%	-8%	4%	4%	3%	3%	3%	3%	3%
Cinerama Dome Garage																
Labor			$901,736	$922,562	$908,725	$1,037,050	$1,047,421	$1,057,895	$1,068,632	$1,122,321	$1,155,990	$1,340,110	$1,800,995	$2,420,387	$3,252,798	$4,371,488
Management Fee			$49,770	$52,053	$52,260	$54,369	$56,000	$57,680	$59,411	$61,193	$63,029	$73,068	$98,197	$131,988	$177,354	$238,349
Utilities			$89,756	$102,335	$87,105	$107,996	$109,616	$111,260	$112,929	$114,623	$116,343	$125,334	$145,455	$168,807	$195,907	$227,358
Insurance			$158,445	$172,634	$173,107	$173,580	$178,787	$184,151	$189,676	$195,366	$201,227	$233,277	$313,505	$421,324	$566,224	$760,958
Supplies			$37,690	$55,175	$24,708	$43,424	$44,727	$46,069	$47,451	$48,874	$50,340	$58,358	$78,429	$105,401	$141,651	$190,367
Maintenance			$110,164	$180,200	$176,494	$235,036	$242,087	$249,349	$256,830	$264,536	$272,471	$315,868	$424,501	$570,493	$766,895	$1,030,374
Other			$214,411	$267,327	$365,131	$265,762	$273,735	$281,947	$290,405	$299,118	$308,091	$357,162	$479,996	$645,074	$866,926	$1,165,076
Total Operating Expenses			**$1,461,962**	**$1,722,286**	**$1,785,530**	**$1,917,217**	**$1,952,373**	**$1,988,351**	**$2,046,333**	**$2,106,029**	**$2,167,491**	**$2,503,177**	**$3,341,077**	**$4,463,466**	**$5,967,555**	**$7,983,971**
% Chg.				18%	4%	7%	2%	2%	3%	3%	3%	3%	3%	3%	3%	3%
Friar Street Garage (#601)																
Labor					$112,435	$78,036	$81,385	$83,361	$85,997	$88,494	$91,286	$73,812	$104,110	$147,186	$208,570	$295,234
Management Fee					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Utilities					$0	$6,389	$6,464	$6,561	$6,660	$6,760	$6,861	$7,391	$8,578	$9,955	$11,563	$13,408
Insurance					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Supplies					$3,812	$3,927	$4,044	$4,166	$4,291	$4,419	$4,552	$5,277	$7,092	$9,531	$12,808	$17,214
Maintenance					$4,740	$4,882	$5,029	$5,180	$5,335	$5,495	$5,660	$6,561	$8,818	$11,850	$15,926	$21,403
Other					$6,484	$6,647	$6,847	$7,052	$7,264	$7,482	$7,706	$8,933	$12,006	$16,135	$21,683	$29,141
Total Operating Expenses					**$130,833**	**$134,768**	**$103,769**	**$106,320**	**$109,546**	**$112,650**	**$116,063**	**$101,976**	**$140,603**	**$194,657**	**$270,541**	**$377,399**
% Chg.						3%	-23%	2%	-25%	4%	4%	3%	3%	3%	3%	3%
Dickens Street Garage (#625)																
Labor					$174,381	$142,687	$150,576	$155,007	$112,702	$116,139	$124,289	$151,045	$215,352	$307,710	$440,618	$632,241
Management Fee					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Utilities					$0	$112	$113	$115	$117	$119	$120	$130	$150	$175	$203	$235
Insurance					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Supplies					$5,925	$6,103	$6,266	$6,474	$6,669	$6,869	$7,075	$8,202	$11,022	$14,813	$19,907	$26,754
Maintenance					$57,460	$7,684	$7,914	$8,152	$8,396	$8,648	$8,908	$10,326	$13,878	$18,651	$25,065	$33,685
Other					$10,788	$11,112	$11,445	$11,788	$12,142	$12,506	$12,881	$14,933	$20,069	$26,971	$36,247	$48,712
Total Operating Expenses					**$248,554**	**$167,697**	**$176,334**	**$181,536**	**$140,026**	**$146,281**	**$153,273**	**$184,636**	**$260,471**	**$368,319**	**$522,039**	**$741,628**
% Chg.						-33%	5%	3%	-23%	4%	5%	3%	4%	4%	4%	4%
Cherokee Garage (#670)																
Labor		$193,196	$196,992	$204,962	$211,111	$217,444	$219,816	$221,815	$114,239	$117,662	$121,191	$140,494	$188,812	$253,748	$341,016	$458,297
Management Fee		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Utilities		$2,592	$2,670	$2,750	$2,832	$32,934	$33,428	$33,929	$34,438	$34,955	$35,479	$38,221	$44,357	$51,478	$59,743	$69,334
Insurance		$6,549	$6,746	$6,948	$7,156	$7,371	$7,592	$7,820	$8,055	$8,296	$8,545	$9,906	$13,313	$17,892	$24,045	$32,314
Supplies		$8,006	$8,247	$8,494	$8,749	$9,011	$9,282	$9,560	$9,847	$10,142	$10,447	$12,110	$16,275	$21,873	$29,395	$39,505
Maintenance		$1,382	$1,424	$1,467	$9,231	$9,508	$9,793	$10,087	$10,389	$10,701	$11,022	$12,777	$17,172	$23,077	$31,014	$41,680
Other		$41,876	$38,668	$39,124	$37,024	$44,945	$46,293	$47,682	$49,112	$50,586	$52,103	$60,402	$81,175	$109,093	$146,612	$197,034
Total Operating Expenses		**$263,604**	**$256,746**	**$263,744**	**$276,103**	**$321,213**	**$326,006**	**$330,892**	**$226,076**	**$232,341**	**$238,787**	**$273,911**	**$361,106**	**$477,161**	**$631,824**	**$838,163**
% Chg.			1%	3%	5%	16%	1%	1%	-32%	3%	3%	3%	3%	3%	3%	3%
Broxton Garage (#650)																
Labor		$138,160	$146,033	$163,001	$171,856	$262,612	$277,893	$286,401	$211,878	$222,261	$234,031	$284,937	$407,137	$582,988	$836,525	$1,202,729
Management Fee		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Utilities		$706	$727	$749	$771	$79,794	$80,991	$82,206	$83,439	$84,690	$85,961	$92,604	$107,471	$124,724	$144,748	$167,985
Insurance		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Supplies		$9,674	$9,964	$10,263	$10,571	$10,888	$11,215	$11,551	$11,898	$12,255	$12,622	$14,633	$19,665	$26,428	$35,518	$47,733
Maintenance		$11,155	$11,490	$11,835	$12,190	$12,555	$12,932	$13,320	$13,719	$14,131	$14,555	$16,873	$22,676	$30,475	$40,956	$55,041
Other		$42,661	$34,806	$40,722	$56,583	$34,032	$35,053	$36,104	$37,188	$38,303	$39,452	$45,736	$61,465	$82,604	$111,013	$149,193
Total Operating Expenses		**$196,804**	**$203,026**	**$226,568**	**$251,970**	**$399,881**	**$418,083**	**$429,582**	**$356,120**	**$371,640**	**$386,621**	**$454,783**	**$618,416**	**$847,220**	**$1,168,760**	**$1,622,681**
% Chg.			4%	12%	11%	59%	5%	3%	-17%	4%	4%	3%	3%	3%	3%	3%
Venture Blvd Garage (#690)																
Labor		$98,549	$206,847	$201,841	$206,541	$184,845	$196,651	$203,125	$155,265	$163,093	$172,000	$210,121	$301,430	$433,289	$624,036	$900,426
Management Fee		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Utilities		$0	$0	$0	$0	$27,971	$28,390	$28,816	$29,248	$29,687	$30,132	$32,461	$37,672	$43,720	$50,739	$58,885
Insurance		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Supplies		$1,554	$2,744	$2,826	$2,911	$2,998	$3,088	$3,181	$3,276	$3,375	$3,476	$4,030	$5,415	$7,278	$9,781	$13,145
Maintenance		$2,856	$5,043	$5,194	$5,350	$5,510	$5,676	$5,846	$6,021	$6,202	$6,388	$7,406	$9,953	$13,375	$17,975	$24,157
Other		$8,143	$3,893	$4,010	$4,131	$4,254	$4,382	$4,514	$4,649	$4,788	$4,932	$5,718	$7,684	$10,327	$13,878	$18,651
Total Operating Expenses		**$111,102**	**$218,527**	**$213,871**	**$218,932**	**$225,579**	**$238,187**	**$245,482**	**$198,460**	**$207,145**	**$216,928**	**$259,734**	**$362,164**	**$507,989**	**$716,410**	**$1,016,264**
% Chg.			97%	-2%	2%	3%	6%	3%	-19%	4%	5%	3%	3%	3%	4%	4%

DESMAN
A S S O C I A T E S

Table 37
Current Operating Structure Model, Parking Garage Expense Projections (continued)

LOS ANGELES PARKING SYSTEM EXPENSES	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	BASE YEAR 1 2010	YEAR 2 2011	YEAR 3 2012	YEAR 4 2013	YEAR 5 2014	YEAR 10 2019	YEAR 20 2029	YEAR 30 2039	YEAR 40 2049	YEAR 50 2059
EXPENSES (by Garage)																
Robertson Garage (#703)																
Labor					$216,734	$244,428	$259,149	$267,299	$200,118	$210,029	$221,280	$269,749	$366,003	$553,517	$795,336	$1,145,030
Management Fee					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Utilities					$0	$67,574	$68,587	$69,616	$70,660	$71,720	$72,796	$78,422	$91,012	$105,623	$122,580	$142,259
Insurance					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Supplies					$7,348	$7,569	$7,796	$8,030	$8,271	$8,519	$8,774	$10,172	$13,670	$18,372	$24,690	$33,181
Maintenance					$6,680	$6,880	$7,087	$7,299	$7,518	$7,744	$7,976	$9,247	$12,427	$16,701	$22,444	$30,163
Other		$14,495	$13,362	$13,553	$28,799	$29,005	$29,875	$30,771	$31,695	$32,645	$33,625	$38,960	$52,386	$70,403	$94,616	$127,155
Total Operating Expenses		$14,495	$13,362	$13,553	$252,198	$355,456	$372,495	$383,016	$318,262	$330,658	$344,451	$406,570	$555,498	$764,615	$1,059,665	$1,477,789
% Chg.						41%	5%	3%	-17%	4%	4%	3%	3%	3%	3%	3%
Larchmont Garage (#732)																
Labor		$62,316	$72,720	$74,187	$76,413	$98,972	$104,188	$107,143	$111,758	$116,455	$121,653	$145,561	$203,731	$285,762	$401,752	$566,137
Management Fee		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Utilities		$202	$208	$214	$220	$25,169	$25,546	$25,930	$26,319	$26,713	$27,114	$29,210	$33,899	$39,341	$45,657	$52,987
Insurance		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Supplies		$2,764	$2,847	$2,932	$3,020	$3,111	$3,204	$3,300	$3,399	$3,501	$3,606	$4,181	$5,619	$7,551	$10,148	$13,638
Maintenance		$3,187	$3,283	$3,381	$3,483	$3,587	$3,695	$3,806	$3,920	$4,037	$4,159	$4,821	$6,479	$8,707	$11,702	$15,726
Other		$756	$779	$802	$826	$851	$876	$903	$930	$958	$986	$1,144	$1,537	$2,065	$2,776	$3,730
Total Operating Expenses		$55,944	$79,837	$81,517	$83,962	$131,690	$137,509	$141,081	$146,325	$151,665	$157,518	$184,935	$251,264	$343,427	$472,034	$652,218
% Chg.			43%	2%	3%	57%	4%	3%	4%	4%	4%	3%	3%	3%	3%	3%
Hollywood & Highland Garage (#745)																
Total Compensation to Operator	$2,244,948	$2,158,486	$1,898,309	$2,168,885	$2,195,136	$2,260,990	$2,283,600	$2,306,436	$1,789,282	$1,842,960	$1,898,249	$2,200,591	$2,957,410	$3,974,512	$5,341,411	$7,178,410
Garage Expense					$2,381											
Garage Electrical Costs	$388,690	$274,909	$352,747	$341,232	$427,052	$439,864	$446,462	$453,158	$459,956	$466,855	$473,858	$510,480	$592,432	$687,542	$797,921	$926,020
Total CAM Costs	$848,570	$661,047	$729,242	$631,517	$636,361	$655,452	$662,007	$668,627	$688,685	$709,346	$730,626	$846,996	$1,138,292	$1,529,769	$2,055,862	$2,762,933
Total Operating Expenses	$3,482,209	$3,094,443	$2,980,299	$3,141,634	$3,260,930	$3,356,305	$3,392,058	$3,428,221	$2,937,923	$3,019,161	$3,102,733	$3,558,067	$4,688,134	$6,191,823	$8,195,214	$10,867,363
% Chg.		-11%	-4%	5%	4%	3%	1%	1%	-14%	3%	3%	3%	3%	3%	3%	3%
OPERATING EXPENSES (System Summary)																
Labor	$760,319	$1,800,442	$2,419,387	$2,710,711	$3,307,632	$3,415,359	$3,550,661	$3,631,963	$3,089,515	$3,214,395	$3,331,609	$3,994,387	$5,561,597	$7,760,712	$10,853,675	$15,213,946
Management Fee	$8,051	$628	$53,622	$53,846	$68,233	$59,465	$61,246	$63,086	$64,978	$66,928	$68,936	$79,915	$107,400	$144,336	$193,976	$260,687
Utilities	$0	$3,499	$93,360	$313,529	$273,639	$564,890	$573,384	$581,984	$590,694	$599,554	$608,547	$655,578	$760,626	$882,959	$1,024,722	$1,189,231
Insurance	$0	$6,549	$165,191	$179,562	$180,263	$180,951	$186,380	$191,971	$197,730	$203,662	$209,772	$243,183	$326,818	$439,216	$590,269	$793,273
Supplies	$3,345	$22,534	$61,924	$84,921	$87,654	$88,439	$92,301	$95,070	$97,922	$100,860	$103,885	$120,432	$161,850	$217,513	$292,319	$392,863
Maintenance	$137,186	$121,931	$278,711	$242,947	$418,358	$377,945	$434,036	$447,057	$460,468	$474,282	$488,511	$566,318	$761,084	$1,022,833	$1,374,602	$1,847,350
Other	$602,639	$771,221	$1,111,031	$1,394,159	$1,263,132	$1,607,147	$1,177,256	$1,197,223	$1,233,140	$1,270,134	$1,308,238	$1,516,606	$2,038,192	$2,739,160	$3,681,202	$4,947,227
Hollywood & Highland Expenses	$3,482,209	$3,094,443	$2,980,299	$3,141,634	$3,260,930	$3,356,306	$3,392,068	$3,428,221	$2,937,923	$3,019,161	$3,102,733	$3,558,067	$4,688,134	$6,191,823	$8,195,214	$10,867,363
Total Operating Expenses	**$4,990,949**	**$5,521,245**	**$7,161,525**	**$8,121,332**	**$8,839,841**	**$9,651,501**	**$9,467,317**	**$9,636,555**	**$8,672,370**	**$8,948,977**	**$9,242,232**	**$10,734,486**	**$14,405,900**	**$19,398,561**	**$26,205,978**	**$35,511,932**
% Chg.		11%	30%	13%	9%	9%	-2%	2%	-10%	3%	3%	3%	3%	3%	3%	3%
LADOT Parking Garage Administrative Expenses			Total Compensation of Staff Responsible for Oversight of 8 GSD-Run Facilities in the Model	Portion of Compensation Attributable to the 8 Facilities	Additional Overhead Percentage	DOT Expenses Attributable to the GSD-Run Facilities in the Model in FY 2009										
Garage/Lot Personnel (by Title)			$674,782	$136,629		$221,806	$224,025	$226,265	$233,053	$240,044	$247,246	$286,625	$385,201	$517,677	$695,715	$934,983
Senior Management Analyst II			$117,524	$5,876	60%	$9,402	$9,496	$9,591	$9,879	$10,175	$10,480	$12,149	$16,328	$21,943	$29,490	$39,632
Senior Management Analyst I			$98,908	$29,672	60%	$47,476	$47,951	$48,430	$49,883	$51,379	$52,921	$61,350	$82,449	$110,805	$148,912	$200,125
Senior Management Analyst I			$98,908	$29,672	60%	$47,476	$47,951	$48,430	$49,883	$51,379	$52,921	$61,350	$82,449	$110,805	$148,912	$200,125
Management Analyst II			$83,253	$20,813	60%	$33,301	$33,634	$33,971	$34,990	$36,039	$37,121	$43,033	$57,833	$77,722	$104,452	$140,375
Management Analyst II			$83,253	$20,813	60%	$33,301	$33,634	$33,971	$34,990	$36,039	$37,121	$43,033	$57,833	$77,722	$104,452	$140,375
Management Analyst II			$83,253	$20,813	60%	$33,301	$33,634	$33,971	$34,990	$36,039	$37,121	$43,033	$57,833	$77,722	$104,452	$140,375
Transportation Engineer			$109,683	$10,968	60%	$17,549	$17,725	$17,902	$18,439	$18,992	$19,562	$22,678	$30,477	$40,959	$55,045	$73,976
GSD Parking Garage Administrative Expenses (including indirect costs)						Actual 2009										
Garage/Lot Personnel (by Title)						$15,988	$16,148	$16,309	$16,798	$17,302	$17,821	$20,660	$27,765	$37,314	$50,147	$67,393
Accounting Clerk II						$4,636	$4,683	$4,729	$4,871	$5,017	$5,168	$5,991	$8,052	$10,821	$14,542	$19,543
Management Analyst II						$6,186	$6,248	$6,311	$6,500	$6,695	$6,896	$7,994	$10,743	$14,438	$19,404	$26,077
Parking Supervisor						$5,165	$5,217	$5,269	$5,427	$5,590	$5,758	$6,675	$8,970	$12,055	$16,201	$21,773
ADMINISTRATIVE EXPENSES																
Personnel						$237,794	$240,172	$242,574	$249,851	$257,347	$265,067	$307,285	$412,966	$554,991	$745,862	$1,002,376
TOTAL EXPENSES						**$9,889,295**	**$9,707,489**	**$9,879,129**	**$8,922,221**	**$9,206,323**	**$9,507,299**	**$11,041,772**	**$14,818,866**	**$19,953,553**	**$26,951,840**	**$36,514,308**

DESMAN
ASSOCIATES

Table 38
Private Operator Model, Parking Garage Expense Projections

LOS ANGELES PARKING SYSTEM EXPENSES	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	BASE YEAR 1 2010	YEAR 2 2011	YEAR 3 2012	YEAR 4 2013	YEAR 5 2014	YEAR 10 2019	YEAR 20 2029	YEAR 30 2039	YEAR 40 2049	YEAR 50 2059
EXPENSES (by Garage)																
Pershing Square Garage																
Labor	$760,319	$1,008,220	$993,059	$1,144,158	$1,231,437	$1,149,285	$323,787	$336,738	$350,208	$364,216	$378,785	$460,849	$682,170	$1,009,776	$1,494,718	$2,212,546
Management Fee/Facility Administration	$5,051	$625	$3,852	$1,795	$15,973	$5,096	$66,780	$68,783	$70,847	$72,972	$75,161	$87,133	$117,099	$157,371	$211,494	$284,230
Utilities	$0	$0	$0	$207,482	$182,710	$216,973	$45,911	$46,600	$47,299	$48,008	$48,728	$52,494	$60,922	$70,702	$82,053	$95,226
Insurance	$0	$0	$0	$0	$0	$0	$159,000	$163,770	$168,683	$173,744	$178,956	$207,459	$278,807	$374,694	$503,557	$676,739
Supplies	$3,345	$536	$433	$5,230	$609	$2,408	$39,750	$40,943	$42,171	$43,436	$44,739	$51,865	$69,702	$93,673	$125,889	$169,185
Maintenance	$137,186	$103,350	$145,317	$70,871	$142,732	$92,303	$238,500	$245,655	$253,025	$260,615	$268,434	$311,188	$418,211	$562,041	$755,336	$1,015,108
Other	$502,839	$663,288	$805,111	$1,028,622	$753,397	$1,210,539	$238,500	$247,563	$256,974	$266,747	$276,896	$333,806	$428,673	$630,902	$929,000	$1,368,577
Total Operating Expenses	**$1,508,740**	**$1,776,019**	**$1,947,772**	**$2,458,158**	**$2,326,857**	**$2,676,602**	**$1,112,228**	**$1,150,052**	**$1,189,206**	**$1,229,739**	**$1,271,699**	**$1,504,794**	**$2,055,584**	**$2,899,152**	**$4,102,048**	**$5,821,613**
% Chg.		18%	10%	26%	-5%	15%	-58%	3%	3%	3%	3%	3%	3%	4%	4%	4%
Cinerama Dome Garage																
Labor			$801,736	$922,562	$908,725	$1,037,050	$1,076,532	$1,121,673	$1,166,540	$1,213,202	$1,261,730	$1,535,088	$2,272,305	$3,363,566	$4,978,899	$7,369,987
Management Fee			$49,770	$52,053	$52,260	$54,369	$72,114	$74,277	$76,506	$78,801	$81,165	$94,092	$126,452	$169,941	$228,387	$306,933
Utilities			$89,756	$102,335	$87,105	$107,996	$57,568	$58,431	$59,308	$60,197	$61,100	$65,822	$76,389	$88,653	$102,885	$119,403
Insurance			$158,445	$172,634	$173,107	$173,580	$178,787	$184,151	$189,676	$195,366	$201,227	$233,277	$313,505	$421,324	$566,224	$760,958
Supplies			$37,690	$55,175	$24,708	$43,424	$44,727	$46,069	$47,451	$48,874	$50,340	$58,358	$78,429	$105,401	$141,651	$190,367
Maintenance			$110,154	$150,200	$176,494	$235,036	$242,057	$249,349	$256,830	$264,535	$272,471	$315,868	$424,501	$570,493	$766,695	$1,030,374
Other			$214,411	$267,327	$365,131	$265,762	$273,735	$281,947	$290,405	$299,118	$308,091	$357,162	$479,996	$645,074	$866,926	$1,165,076
Total Operating Expenses			**$1,461,962**	**$1,722,286**	**$1,785,530**	**$1,917,217**	**$1,947,550**	**$2,015,898**	**$2,086,715**	**$2,160,092**	**$2,236,124**	**$2,659,666**	**$3,771,576**	**$5,364,453**	**$7,651,668**	**$10,943,098**
% Chg.				18%	4%	7%	2%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Friar Street Garage (#601)																
Labor					$112,435	$78,036	$56,060	$56,302	$60,634	$63,060	$65,582	$79,791	$118,110	$174,832	$258,793	$383,077
Management Fee					$0	$0	$4,977	$5,126	$5,280	$5,439	$5,602	$6,494	$8,727	$11,729	$15,762	$21,183
Utilities					$0	$6,369	$3,421	$3,473	$3,525	$3,578	$3,631	$3,912	$4,540	$5,269	$6,115	$7,097
Insurance					$0	$0	$23,700	$24,411	$25,143	$25,898	$26,675	$30,923	$41,556	$55,851	$75,059	$100,872
Supplies					$3,612	$3,927	$3,555	$3,662	$3,771	$3,885	$4,001	$4,638	$6,234	$8,378	$11,259	$15,131
Maintenance					$4,740	$4,882	$17,775	$18,308	$18,857	$19,423	$20,006	$23,192	$31,169	$41,888	$56,294	$75,654
Other					$6,454	$6,647	$15,405	$15,867	$16,343	$16,833	$17,338	$20,100	$27,013	$36,303	$48,788	$65,587
Total Operating Expenses					**$130,833**	**$134,758**	**$124,893**	**$129,150**	**$133,555**	**$138,115**	**$142,835**	**$169,051**	**$237,350**	**$334,248**	**$472,070**	**$668,582**
% Chg.						3%	-7%	3%	3%	3%	3%	3%	3%	3%	4%	4%
Dickens Street Garage (#629)																
Labor					$174,381	$142,687	$46,835	$48,708	$50,657	$52,683	$54,790	$66,661	$98,674	$146,062	$216,207	$320,039
Management Fee					$0	$0	$4,158	$4,283	$4,411	$4,544	$4,680	$5,425	$7,291	$9,799	$13,168	$17,697
Utilities					$0	$112	$55	$57	$58	$58	$59	$64	$74	$86	$100	$116
Insurance					$0	$0	$19,800	$20,394	$21,006	$21,636	$22,285	$25,835	$34,719	$46,660	$62,707	$84,273
Supplies					$5,925	$6,103	$1,980	$2,039	$2,101	$2,164	$2,229	$2,583	$3,472	$4,666	$6,271	$8,427
Maintenance					$57,460	$7,684	$14,850	$15,296	$15,754	$16,227	$16,714	$19,376	$26,040	$34,995	$47,030	$63,205
Other					$10,788	$11,112	$16,830	$17,335	$17,855	$18,391	$18,942	$21,959	$29,512	$39,661	$53,301	$71,632
Total Operating Expenses					**$248,554**	**$167,697**	**$104,509**	**$108,112**	**$111,841**	**$115,702**	**$119,699**	**$141,903**	**$199,782**	**$281,926**	**$398,785**	**$565,390**
% Chg.						-33%	-38%	3%	3%	3%	3%	3%	3%	4%	4%	4%
Cherokee Garage (#670)																
Labor		$193,196	$198,992	$204,962	$211,111	$217,444	$114,559	$119,142	$123,907	$128,864	$134,018	$163,054	$241,358	$357,271	$528,848	$782,824
Management Fee		$0	$0	$0	$0	$0	$12,159	$12,524	$12,899	$13,286	$13,685	$15,885	$21,321	$28,653	$38,508	$51,751
Utilities		$2,592	$2,670	$2,750	$2,832	$32,934	$19,293	$19,582	$19,876	$20,174	$20,477	$22,059	$25,600	$29,710	$34,480	$40,015
Insurance		$6,549	$6,746	$6,948	$7,156	$7,371	$38,600	$39,758	$40,951	$42,179	$43,445	$50,384	$67,685	$90,963	$122,247	$164,290
Supplies		$8,006	$8,247	$8,494	$8,749	$9,011	$5,790	$5,964	$6,143	$6,327	$6,517	$7,555	$10,153	$13,645	$18,337	$24,644
Maintenance		$1,382	$1,424	$1,467	$9,231	$9,508	$28,950	$29,819	$30,713	$31,634	$32,583	$37,773	$50,764	$68,223	$91,686	$123,218
Other		$41,878	$38,668	$39,124	$37,024	$44,945	$33,465	$34,469	$35,503	$36,568	$37,665	$43,684	$58,681	$78,862	$105,984	$142,434
Total Operating Expenses		**$253,604**	**$256,746**	**$263,744**	**$276,103**	**$321,213**	**$252,816**	**$261,257**	**$269,992**	**$279,033**	**$288,390**	**$340,334**	**$475,564**	**$667,327**	**$940,090**	**$1,329,176**
% Chg.			1%	3%	5%	16%	-21%	3%	3%	3%	3%	3%	3%	3%	4%	4%
Broxton Garage (#650)																
Labor		$138,160	$145,033	$163,001	$171,856	$262,612	$101,302	$105,354	$109,569	$113,951	$118,509	$144,185	$213,429	$315,927	$467,549	$692,234
Management Fee		$0	$0	$0	$0	$0	$11,529	$11,875	$12,231	$12,598	$12,976	$15,043	$20,216	$27,169	$36,513	$49,070
Utilities		$706	$727	$749	$771	$79,794	$41,186	$41,804	$42,431	$43,068	$43,714	$47,092	$54,652	$63,426	$73,608	$85,426
Insurance		$0	$0	$0	$0	$0	$36,600	$37,698	$38,829	$39,994	$41,194	$47,755	$64,178	$86,250	$115,913	$155,778
Supplies		$9,674	$9,964	$10,263	$10,571	$10,888	$5,490	$5,655	$5,824	$5,999	$6,179	$7,163	$9,627	$12,938	$17,387	$23,367
Maintenance		$11,165	$11,490	$11,835	$12,190	$12,555	$27,450	$28,274	$29,122	$29,995	$30,895	$36,816	$48,134	$64,688	$86,935	$116,833
Other		$42,661	$34,806	$40,722	$56,583	$34,032	$35,645	$36,716	$37,816	$38,951	$40,119	$46,509	$62,504	$84,001	$112,890	$151,715
Total Operating Expenses		**$195,804**	**$203,020**	**$226,569**	**$251,970**	**$399,881**	**$259,203**	**$267,374**	**$275,822**	**$284,556**	**$293,586**	**$343,563**	**$472,740**	**$654,398**	**$910,895**	**$1,274,422**
% Chg.			4%	12%	11%	59%	-35%	3%	3%	3%	3%	3%	3%	3%	3%	3%

DESMAN
A S S O C I A T E S

Table 38
Private Operator Model, Parking Garage Expense Projections (continued)

LOS ANGELES PARKING SYSTEM EXPENSES	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	BASE YEAR 1 2010	YEAR 2 2011	YEAR 3 2012	YEAR 4 2013	YEAR 5 2014	YEAR 10 2019	YEAR 20 2026	YEAR 30 2036	YEAR 40 2046	YEAR 50 2056
EXPENSES (by Garage)																
Ventura Blvd Garage (#690)																
Labor		$98,549	$206,847	$201,841	$206,541	$184,845	$93,906	$97,663	$101,569	$105,632	$109,857	$133,658	$187,847	$292,861	$433,506	$641,695
Management Fee		$0	$0	$0	$0	$0	$8,337	$8,587	$8,845	$9,110	$9,383	$10,878	$14,619	$19,647	$26,404	$35,484
Utilities		$0	$0	$0	$0	$27,971	$16,336	$16,580	$16,829	$17,082	$17,338	$18,678	$21,676	$25,156	$29,195	$33,882
Insurance		$0	$0	$0	$0	$0	$39,700	$40,891	$42,118	$43,381	$44,683	$51,799	$69,614	$93,556	$125,731	$168,972
Supplies		$1,554	$2,744	$2,826	$2,911	$2,998	$5,955	$6,134	$6,318	$6,507	$6,702	$7,770	$10,442	$14,033	$18,860	$25,346
Maintenance		$2,856	$5,043	$5,194	$5,350	$5,510	$29,775	$30,668	$31,588	$32,536	$33,512	$38,850	$52,211	$70,167	$94,298	$126,729
Other		$8,143	$3,893	$4,010	$4,131	$4,254	$33,745	$34,757	$35,800	$36,874	$37,980	$44,030	$69,172	$79,522	$106,871	$143,626
Total Operating Expenses		$111,102	$218,527	$213,871	$218,932	$225,579	$227,754	$235,280	$243,067	$251,122	$259,456	$305,662	$425,581	$594,942	$834,865	$1,175,734
% Chg.			97%	-2%	2%	3%	1%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Robertson Garage (#703)																
Labor					$216,734	$244,428	$96,108	$99,952	$103,950	$108,108	$112,432	$136,791	$202,484	$299,726	$443,668	$656,738
Management Fee					$0	$0	$10,521	$10,837	$11,162	$11,497	$11,841	$13,728	$18,449	$24,793	$33,320	$44,780
Utilities					$0	$67,674	$34,661	$35,181	$35,709	$36,244	$36,788	$39,631	$45,994	$53,378	$61,947	$71,892
Insurance					$0	$0	$33,400	$34,402	$35,434	$36,497	$37,592	$43,579	$58,567	$78,709	$105,779	$142,158
Supplies					$7,348	$7,669	$5,010	$5,160	$5,315	$5,475	$5,639	$6,537	$8,785	$11,806	$15,867	$21,324
Maintenance					$6,690	$6,980	$25,050	$25,802	$26,576	$27,373	$28,194	$32,685	$43,925	$59,032	$79,334	$106,618
Other		$14,495	$13,362	$13,553	$28,799	$29,005	$26,697	$27,498	$28,323	$29,173	$30,048	$34,834	$46,814	$62,914	$84,561	$113,630
Total Operating Expenses		$14,495	$13,362	$13,553	$252,198	$355,456	$231,447	$238,832	$246,468	$254,366	$262,535	$307,785	$425,018	$590,359	$824,466	$1,157,138
% Chg.						41%	-35%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Larchment Garage (#732)																
Labor		$62,316	$72,720	$74,187	$76,413	$98,972	$98,313	$102,246	$106,336	$110,589	$115,013	$139,930	$207,131	$306,605	$453,850	$671,809
Management Fee		$0	$0	$0	$0	$0	$5,261	$5,418	$5,581	$5,748	$5,921	$6,864	$9,224	$12,397	$16,660	$22,390
Utilities		$202	$208	$214	$220	$25,169	$13,065	$13,261	$13,460	$13,662	$13,867	$14,939	$17,337	$20,120	$23,350	$27,099
Insurance		$0	$0	$0	$0	$0	$16,700	$17,201	$17,717	$18,249	$18,796	$21,790	$29,284	$39,356	$52,889	$71,079
Supplies		$2,764	$2,847	$2,932	$3,020	$3,111	$3,204	$3,300	$3,399	$3,501	$3,606	$4,181	$5,619	$7,551	$10,148	$13,638
Maintenance		$3,187	$3,283	$3,381	$3,483	$3,587	$3,695	$3,806	$3,920	$4,037	$4,159	$4,821	$6,479	$8,707	$11,702	$15,726
Other		$758	$779	$802	$826	$851	$4,216	$4,343	$4,473	$4,607	$4,746	$5,501	$7,394	$9,936	$13,353	$17,946
Total Operating Expenses		$55,944	$79,837	$81,517	$83,962	$131,690	$144,454	$149,575	$154,686	$160,394	$166,107	$198,026	$262,467	$404,671	$561,953	$839,687
% Chg.			43%	2%	3%	57%	10%	4%	4%	4%	4%	4%	4%	4%	4%	4%

Hollywood & Highland Garage (#745) — Actual

Hollywood & Highland Garage (#745)	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009
Total Compensation to Operator	$2,244,948	$2,158,486	$1,898,309	$2,168,885	$2,195,136	$2,260,990
Base Compensation to Operator	$2,259,101	$2,151,272	$2,072,982	$2,135,171	$2,167,195	$2,232,211
LADOT Audit Deductions			($183,126)	($424)		
Authorized Expenses	($14,153)	$7,215	$8,453	$34,138	$27,941	$28,779
Garage Expense					$2,381	
Garage Electrical Costs	$388,690	$274,909	$352,747	$341,232	$427,052	$439,864
Total CAM Costs	$848,570	$661,047	$729,242	$631,517	$636,361	$655,452
DOTs Security CAM Costs (25%)	$547,060	$460,769	$543,863	$547,473	$545,386	$561,748
DOTs Vertical Trans. CAM Costs (25%)	$59,914	$46,888	$57,877	$62,073	$74,311	$76,540
DOTs Property Ins. CAM Costs (25%)	$241,597	$153,391	$127,503	$21,971	$16,664	$17,164
Total Operating Expenses	$3,482,209	$3,094,443	$2,980,299	$3,141,634	$3,260,930	$3,356,306
% Chg.		-11%	-4%	5%	4%	3%

Hollywood & Highland Garage (#745) — Projections

Expense Categories	BASE YEAR 1 2010	YEAR 2 2011	YEAR 3 2012	YEAR 4 2013	YEAR 5 2014	YEAR 10 2019	YEAR 20 2026	YEAR 30 2036	YEAR 40 2046	YEAR 50 2056
Labor	$390,167	$405,774	$422,005	$438,885	$456,440	$555,330	$822,023	$1,216,796	$1,801,155	$2,666,149
Management Fee	$126,252	$130,040	$133,941	$137,959	$142,098	$164,730	$221,384	$297,521	$399,843	$537,356
Utilities	$460,863	$467,776	$474,793	$481,915	$489,144	$526,947	$611,543	$709,721	$823,660	$955,891
Electricity	$446,462	$453,158	$459,956	$466,855	$473,858	$510,480	$592,432	$687,542	$797,921	$926,020
Telephone	$14,402	$14,618	$14,837	$15,060	$15,286	$16,467	$19,111	$22,179	$25,739	$29,871
Insurance	$300,600	$309,618	$318,907	$328,474	$338,328	$392,215	$527,104	$708,384	$952,008	$1,279,420
Supplies	$75,160	$77,405	$79,727	$82,118	$84,582	$98,054	$131,776	$177,096	$238,002	$319,855
Maintenance	$450,900	$464,427	$478,360	$492,711	$507,492	$588,322	$790,656	$1,062,575	$1,428,012	$1,919,129
Other	$668,780	$688,843	$709,509	$730,794	$752,718	$872,606	$1,172,710	$1,576,024	$2,118,045	$2,846,476
Security Services	$578,600	$595,958	$613,837	$632,252	$651,219	$754,942	$1,014,679	$1,363,609	$1,832,442	$2,462,649
Total Operating Expenses	$2,472,713	$2,543,883	$2,617,240	$2,692,856	$2,770,802	$3,198,203	$4,277,196	$5,748,116	$7,760,725	$10,524,274
% Chg.	-26%	3%	3%	3%	3%	3%	3%	3%	3%	3%

OPERATING EXPENSES (System Summary)

OPERATING EXPENSES (System Summary)	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Actual 2009	BASE YEAR 1 2010	YEAR 2 2011	YEAR 3 2012	YEAR 4 2013	YEAR 5 2014	YEAR 10 2019	YEAR 20 2026	YEAR 30 2036	YEAR 40 2046	YEAR 50 2056
Labor	$760,319	$1,500,442	$2,419,387	$2,710,711	$3,307,632	$3,415,359	$2,006,403	$2,089,779	$2,173,370	$2,260,305	$2,350,717	$2,860,007	$4,233,508	$6,266,628	$9,276,134	$13,730,950
Management Fee	$5,051	$626	$53,622	$53,646	$68,233	$59,466	$195,836	$201,711	$207,762	$213,995	$220,415	$255,521	$343,399	$461,499	$620,216	$833,519
Utilities	$0	$3,499	$93,360	$313,529	$273,639	$564,890	$231,497	$234,969	$238,494	$242,071	$245,702	$264,691	$307,185	$356,501	$413,734	$480,156
Insurance	$0	$8,549	$185,191	$179,582	$180,263	$180,951	$546,287	$562,676	$579,556	$596,943	$614,851	$712,781	$957,918	$1,287,362	$1,730,107	$2,325,119
Supplies	$3,545	$22,534	$61,924	$64,921	$67,654	$68,439	$115,461	$118,925	$122,493	$126,167	$129,952	$150,650	$202,461	$272,091	$365,668	$491,427
Maintenance	$137,180	$121,931	$276,711	$242,047	$418,358	$377,946	$628,132	$646,976	$666,385	$686,376	$706,968	$819,569	$1,101,433	$1,480,233	$1,989,310	$2,673,466
Other	$602,839	$771,221	$1,111,031	$1,394,159	$1,263,132	$1,607,147	$678,239	$700,494	$723,493	$747,262	$771,826	$907,565	$1,199,758	$1,667,176	$2,321,668	$3,240,203
Hollywood & Highland Expenses	$3,482,209	$3,094,443	$2,980,299	$3,141,634	$3,260,930	$3,356,306	$2,472,713	$2,543,883	$2,617,240	$2,692,856	$2,770,802	$3,198,203	$4,277,196	$5,748,116	$7,760,725	$10,524,274
Total Operating Expenses	$4,990,949	$5,521,246	$7,161,626	$8,121,332	$8,839,841	$9,651,501	$6,877,667	$7,099,412	$7,328,793	$7,565,975	$7,811,233	$9,168,988	$12,622,858	$17,539,605	$24,477,584	$34,299,113
% Chg.		11%	30%	13%	9%	9%	-29%	3%	3%	3%	3%	3%	3%	3%	3%	3%

LADOT Parking Garage Administrative Expenses	Total Compensation of Staff Responsible for Oversight of 8 GSD-Run Facilities in the Model	Portion of Compensation Attributable to the 8 Facilities	Additional Overhead Percentage	DOT Expenses Attributable to the GSD-Run Facilities in the Model in FY 2009	Compensation and Benefits of City Personnel Retained to Oversee the Operations 2010	2011	2012	2013	2014	2019	2026	2036	2046	2056
Garage/Lot Personnel (by Title)	$674,782	$135,629		$221,806	$400,000	$404,000	$416,120	$428,604	$441,462	$511,775	$687,783	$924,323	$1,242,213	$1,669,430
Senior Management Analyst II	$117,524	$5,876	60%	$9,402	$160,000	$161,600	$166,448	$171,441	$176,585	$204,710	$275,113	$369,729	$495,885	$667,772
Management Analyst II	$83,253	$20,813	60%	$33,301	$120,000	$121,200	$124,836	$128,581	$132,439	$153,533	$206,335	$277,297	$372,664	$500,828
Management Analyst II	$83,253	$20,813	60%	$33,301	$120,000	$121,200	$124,836	$128,581	$132,439	$153,533	$206,335	$277,297	$372,664	$500,829
Senior Management Analyst I	$98,908	$29,672	60%	$47,476										
Senior Management Analyst I	$98,908	$29,672	60%	$47,476										
Management Analyst II	$83,253	$20,813	60%	$33,301										
Transportation Engineer	$109,883	$10,968	60%	$17,549										

GSD Parking Garage Administrative Expenses (including indirect costs)	Actual 2009	BASE YEAR 1 2010	YEAR 2 2011	YEAR 3 2012	YEAR 4 2013	YEAR 5 2014	YEAR 10 2019	YEAR 20 2026	YEAR 30 2036	YEAR 40 2046	YEAR 50 2056
Garage/Lot Personnel (by Title)	$15,988										
Accounting Clerk II	$4,636										
Management Analyst II	$6,186										
Parking Supervisor	$5,165										
ADMINISTRATIVE EXPENSES											
Personnel	$237,794	$400,000	$404,000	$416,120	$428,604	$441,462	$511,775	$687,783	$924,323	$1,242,213	$1,669,430
TOTAL EXPENSES	$9,889,295	$7,277,567	$7,503,412	$7,744,913	$7,994,579	$8,262,694	$9,680,763	$13,310,641	$18,463,928	$25,719,776	$36,968,643

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Table 39
Revenue and Expense Projection Model Summary, Current vs. Private Operator

Current Operating Structure Model	Year 1 2010	Year 2 2011	Year 3 2012	Year 4 2013	Year 5 2014	Year 10 2019	Year 12 2021	Year 20 2029	Year 22 2031	Year 30 2039	Year 32 2041	Year 40 2049	Year 42 2051	Year 50 2059
Gross Revenue	$20,473,497	$22,477,927	$26,192,010	$27,585,174	$29,698,115	$37,027,907	$39,606,707	$48,541,546	$51,719,889	$66,701,788	$71,094,175	$91,818,483	$97,899,900	$126,621,432
Parking Tax	($2,011,075)	($2,210,429)	($2,580,717)	($2,718,879)	($2,928,983)	($3,655,460)	($3,910,457)	($4,790,546)	($5,104,506)	($6,584,694)	($7,018,727)	($9,066,964)	($9,668,109)	($12,507,748)
Operating Revenues Net of Parking Tax	**$18,462,422**	**$20,267,497**	**$23,611,294**	**$24,866,295**	**$26,769,131**	**$33,372,448**	**$35,696,250**	**$43,751,000**	**$46,615,383**	**$60,117,094**	**$64,075,449**	**$82,751,519**	**$88,231,791**	**$114,113,684**
Operating Expenses	$9,707,489	$9,879,129	$8,922,221	$9,206,323	$9,507,299	$11,041,772	$11,707,824	$14,818,866	$15,723,309	$19,953,553	$21,184,918	$26,951,840	$28,632,580	$36,514,308
Operating Income Net of Parking Tax	**$8,754,934**	**$10,388,368**	**$14,689,073**	**$15,659,972**	**$17,261,833**	**$22,330,676**	**$23,988,426**	**$28,932,134**	**$30,892,073**	**$40,163,542**	**$42,890,531**	**$55,799,678**	**$59,599,211**	**$77,599,375**
Parking Equipment Cap-Ex[3]		$4,436,053					$5,961,685		$8,012,006		$10,767,466		$14,470,574	
Facility Maintenance Cap-Ex[3]	$609,657	$627,947	$646,785	$666,189	$686,174	$596,699	$1,076,948	$1,364,246	$3,268,202	$4,140,060	$788,520	$1,000,141	$1,061,049	$1,344,106
Total Capex	**$609,657**	**$5,064,000**	**$646,785**	**$666,189**	**$686,174**	**$596,699**	**$7,038,633**	**$1,364,246**	**$11,280,208**	**$4,140,060**	**$11,556,986**	**$1,000,141**	**$15,531,623**	**$1,344,106**
Debt Service[4]	$8,676,611[1]	$8,676,736	$8,684,686	$8,445,889	$8,442,114	$8,425,923	$8,420,860	$8,366,511	$3,106,180					
Net Cash Flow	**($533,334)**	**($3,352,368)**	**$5,357,601**	**$6,547,895**	**$8,133,545**	**$13,308,055**	**$8,528,933**	**$19,201,377**	**$16,505,686**	**$36,023,481**	**$31,333,545**	**$54,799,538**	**$44,067,587**	**$76,255,270**

Private Operator Model	Year 1 2010	Year 2 2011	Year 3 2012	Year 4 2013	Year 5 2014	Year 10 2019	Year 11 2020	Year 20 2029	Year 21 2030	Year 30 2039	Year 31 2040	Year 40 2049	Year 41 2050	Year 50 2059
Gross Revenue	$25,045,079	$26,457,476	$34,819,846	$36,487,340	$43,041,060	$51,470,482	$53,349,390	$69,716,342	$72,161,647	$98,480,994	$101,950,883	$139,329,314	$144,260,998	$197,431,715
Parking Tax	($2,463,233)	($2,603,234)	($3,438,196)	($3,603,632)	($4,257,650)	($5,093,194)	($5,279,469)	($6,899,258)	($7,141,617)	($9,750,832)	($10,094,903)	($13,802,212)	($14,291,459)	($19,567,495)
Operating Revenues Net of Parking Tax	**$22,581,847**	**$23,854,241**	**$31,381,650**	**$32,883,709**	**$38,783,409**	**$46,377,289**	**$48,069,922**	**$62,817,084**	**$65,020,030**	**$88,730,162**	**$91,855,981**	**$125,527,102**	**$129,969,539**	**$177,864,220**
Operating Expenses	$7,277,567	$7,503,412	$7,744,913	$7,994,579	$8,252,694	$9,680,763	$9,996,181	$13,310,641	$13,750,754	$18,463,928	$19,082,637	$25,719,776	$26,592,389	$35,968,543
Operating Income Net of Parking Tax	**$15,304,280**	**$16,350,830**	**$23,636,738**	**$24,889,130**	**$30,530,715**	**$36,696,526**	**$38,073,741**	**$49,506,443**	**$51,269,275**	**$70,266,234**	**$72,773,343**	**$99,807,326**	**$103,377,150**	**$141,895,677**
Parking Equipment Cap-Ex[3]	$1,656,480						$2,226,171		$2,991,787		$4,020,712		$5,403,500	
Facility Maintenance Cap-Ex[3]	$609,657	$627,947	$646,785	$666,189	$686,174	$596,699	$1,045,581	$1,364,246	$3,173,011	$4,140,060	$766,525	$1,000,141	$1,030,145	$1,344,106
Total Capex	**$2,266,137**	**$627,947**	**$646,785**	**$666,189**	**$686,174**	**$596,699**	**$3,271,752**	**$1,364,246**	**$6,164,799**	**$4,140,060**	**$4,787,236**	**$1,000,141**	**$6,433,645**	**$1,344,106**
Net Cash Flow	**$13,038,143**	**$15,722,883**	**$22,989,952**	**$24,222,942**	**$29,844,541**	**$36,099,827**	**$34,801,989**	**$48,142,197**	**$45,104,477**	**$66,126,174**	**$67,986,107**	**$98,807,185**	**$96,943,504**	**$140,551,571**

9.0 Parking Meter System Financial Model

9.1 Revenue Projections

By developing a parking meter revenue projection model it would be possible to project the revenues of the entire parking meter system by each parking meter zone (PMZ) for the next 50 years based upon a number of factors, including: growth in demand, parking rate increases, revenue enhancements from the implementation of new meter technology, the reduction of lost revenue due to inoperable meters and revisions to the policy of exempting certain user groups from paying parking meter fees. Due to the fact that the PMZ's are spread out across the City in 13 of the 15 Council Districts, the demand characteristics of each zone are unique. Using data gathered during field surveys conducted in June 2009 along with historical parking meter data and DESMAN's knowledge of user parking behaviors, revenue projections can be formulated upon which the meter system's value could be based. Although work on the parking meter revenue projection model is currently on hold at the request of the City, the information provided below demonstrates the methodology that could be used to construct the final model(s). As with the parking garage model, specific growth factors are not included in this report as all of the information necessary to generate these factors has not yet been obtained by DESMAN. **Table 40** provides the preliminary revenue projections for the metered parking system assuming a private parking operator. This is just a sample, and is not complete.

Growth in Parking Demand
For this analysis, future increases in parking demand were based on some factor of the projected population growth in each Council District (**Table 2**). In the model, the projected population growth figures were reduced to include only the 77% of the population that is of driving age and the 92% of the driving age population with access to a motor vehicle. This method should provide the parking meter revenue projection model with fairly accurate demand growth figures.

Parking Rate Increases and Price Elasticity of Demand
As with the future revenues of the parking garages, a portion of the projected future meter revenues would come from increases in parking rates. In the case of the meter model, the degree to which rate increases would occur would be based both on current rates and on the current and projected utilization of the parking meters in each PMZ. For example, if parking meter rates in an area are currently below market level, this area would be a candidate for an immediate rate increase. However, if this same area experiences peak hour parking meter utilization rates near 20%, raising the meter rates would likely further stifle demand and negatively impact revenues.

In the event of rate increases, the parking meter system will experience the phenomenon of Price Elasticity of Demand much as the garages would. Factors affecting the elasticity of parking meter demand within each PMZ include: the current demand for short-term parking, the level of rate increases, the availability and pricing of alternate parking options and general economic forces within each area of the City.

Revenue Enhancements from New Meter Technology

As discussed earlier in the report, the proposed replacement of all single space parking meters with Pay-and-Display units would also enhance the revenue generated by the parking meter system. Revenue growth factors related to the reduction in piggybacking, elimination of broken meters, the improvement in space geometry and the additional revenue generated by increased parking citation issuance would be included in the revenue projection model. Based on the preliminary analysis, the reduction in piggybacking would result in a 4% - 11% increase in revenue depending on the region. The elimination of broken meters would result in a 10% revenue increase for all on-street and off-street single space meters. The reduction of violation from improved enforcement equates to a 3% increase in revenue from the entire metered parking system. The improved space geometry associated with implementing an on-street Pay-and-Display meter system could contribute an additional 9% revenue growth for all on-street meters.

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Table 40
Metered Parking System Revenue Projections – Private Operator Scenario

Parking Meter Zone	Description	FY 2008 Rate (A)	New Rate 2010	New Rate 2011	New Rate 2012	New Rate 2013	New Rate 2014	Hrs/Day (B)	Days/Wk (C)	Actual Revenue 2006	Actual Revenue 2007	Actual Revenue 2008	DESMAN 2010 Potential	DESMAN 2011 Potential
		A						B	C			I		
507	HIGHLAND PARK	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 132,107.36	$ 123,579.52	$ 131,676.61	$ 560,631	$ 560,632
504	WILSHIRE - ALVARADO	$0.35	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 524,420.99	$ 528,957.95	$ 512,954.04	$ 1,783,995	$ 1,783,995
513	LINCOLN HEIGHTS	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 160,710.59	$ 166,506.15	$ 165,168.50	$ 759,775	$ 759,775
554	CHINATOWN	$1.00	$2.00	$2.00	$2.00	$2.00	$2.00	12	6	$ 510,066.36	$ 522,213.43	$ 513,780.47	$ 1,181,695	$ 1,181,695
560	WILSHIRE - UNION	$0.40	$1.00	$1.00	$1.00	$1.00	$1.00	8	6	$ 326,645.16	$ 344,081.32	$ 344,380.01	$ 901,818	$ 901,818
510	STUDIO CITY	$0.37	$1.12	$1.12	$1.12	$1.12	$1.12	12	6	$ 351,439.41	$ 366,683.87	$ 440,651.03	$ 1,534,640	$ 1,534,640
517	SHERMAN OAKS	$0.36	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 672,154.31	$ 649,759.79	$ 595,343.04	$ 1,501,787	$ 1,501,787
511	RESEDA	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	8	6	$ 89,550.28	$ 93,568.87	$ 96,691.59	$ 444,791	$ 444,791
532	CANOGA PARK	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	11	6	$ 95,034.20	$ 94,307.49	$ 98,107.85	$ 405,296	$ 405,296
575	TARZANA	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	12	6	$ 220,880.44	$ 217,020.44	$ 192,701.03	$ 443,212	$ 443,212
577	WOODLAND HILLS	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	19	7	$ 244,699.03	$ 216,193.01	$ 223,380.00	$ 1,027,548	$ 1,027,548
502	NORTH HOLLYWOOD	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	24	7	$ 173,282.66	$ 270,090.55	$ 190,597.43	$ 1,336,748	$ 1,336,748
503	SUNSET - GARDNER	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 104,642.90	$ 100,958.47	$ 110,272.37	$ 507,252	$ 507,252
505	VERMONT - HOLLYWOOD	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 125,517.85	$ 116,614.61	$ 117,211.74	$ 530,643	$ 530,643
516	SANTA MONICA - HIGHLAND	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 77,154.12	$ 76,302.67	$ 73,430.74	$ 337,781	$ 337,781
527	MIRACLE MILE	$0.43	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 383,683.82	$ 344,865.75	$ 349,516.73	$ 916,708	$ 916,708
540	LARCHMONT	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	12	6	$ 290,356.47	$ 287,076.24	$ 281,328.21	$ 648,228	$ 648,228
550	FAIRFAX - OLYMPIC	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 37,212.31	$ 34,533.40	$ 35,933.21	$ 164,833	$ 164,833
557	SANTA MONICA - VERMONT	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 140,578.75	$ 131,072.47	$ 132,111.66	$ 607,806	$ 607,806
579	UNIVERSAL CITY	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 65,975.59	$ 46,032.46	$ 59,344.71	$ 271,066	$ 272,066
520	PICO - ROBERTSON	$0.38	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 351,318.62	$ 340,533.37	$ 348,617.74	$ 1,055,058	$ 1,055,058
528	ROBERTSON - MOER	$1.00	$2.00	$2.00	$2.00	$2.00	$2.00	9	6	$ 287,618.55	$ 284,742.21	$ 290,861.67	$ 668,982	$ 668,982
533	WESTWOOD VILLAGE NORTH	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	15	6	$ 450,551.07	$ 441,148.48	$ 419,423.83	$ 964,675	$ 964,675
535	LA CIENEGA CENTER	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	12	6	$ 290,050.29	$ 291,574.77	$ 293,314.62	$ 674,426	$ 674,426
536	WESTWOOD SANTA MONICA	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	9	6	$ 401,542.64	$ 391,430.85	$ 384,159.68	$ 883,558	$ 883,558
538	PALMS	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	12	6	$ 71,473.40	$ 67,425.79	$ 70,597.45	$ 324,748	$ 324,748
547	BEVERLY FAIRFAX	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	12	6	$ 511,200.81	$ 494,420.17	$ 480,889.07	$ 1,106,043	$ 1,106,043
548	PICO WESTWOOD	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	12	6	$ 322,681.04	$ 315,986.63	$ 317,973.90	$ 731,340	$ 731,340
556	WILSHIRE - FAIRFAX	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	12	6	$ 411,361.97	$ 393,452.50	$ 380,710.82	$ 875,656	$ 875,656
558	LABREA - MELROSE	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	12	6	$ 349,978.74	$ 351,224.47	$ 341,478.03	$ 1,309,768	$ 1,309,768
559	ENCINO	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 474,022.59	$ 469,073.95	$ 466,681.85	$ 1,073,337	$ 1,073,337
566	ROBERTSON SOUTH	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 22,000.56	$ 25,109.74	$ 22,233.00	$ 102,275	$ 102,275
501	VAN NUYS	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 485,848.58	$ 463,282.26	$ 444,933.94	$ 2,046,600	$ 2,046,696
512	USC	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 307,853.78	$ 314,802.26	$ 278,356.84	$ 1,280,441	$ 1,280,441
522	VERMONT - MANCHESTER	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 31,847.93	$ 33,357.41	$ 27,753.36	$ 127,665	$ 127,665
524	CRENSHAW - SLAUSON	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 24,050.35	$ 22,109.96	$ 17,298.09	$ 79,571	$ 79,571
543	LEIMERT PARK	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 114,257.46	$ 122,792.01	$ 110,946.18	$ 510,352	$ 510,352
537	CENTRAL BUSINESS DISTRICT	$1.21	$2.42	$2.42	$2.42	$2.42	$2.42	10	6	$ 3,079,377.24	$ 3,069,445.40	$ 3,383,764.66	$ 7,782,705	$ 7,782,705
553	CIVIC CENTER	$1.19	$2.38	$2.38	$2.38	$2.38	$2.38	10	6	$ 508,115.81	$ 570,755.56	$ 615,253.10	$ 1,415,082	$ 1,415,082
555	LITTLE TOKYO	$1.00	$2.00	$2.00	$2.00	$2.00	$2.00	10	6	$ 275,533.04	$ 302,554.78	$ 429,128.69	$ 986,996	$ 986,996
565	EAST DOWNTOWN	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	9	6	$ 211,126.60	$ 220,678.27	$ 245,357.17	$ 564,371	$ 564,371
580	WASHINGTON - BROADWAY	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	9	6	$ 252,681.77	$ 239,107.05	$ 200,415.64	$ 911,912	$ 911,912
581	ALAMEDA EAST	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 126,150.14	$ 104,955.28	$ 115,885.61	$ 533,075	$ 533,075
582	BROADWAY - SLAUSON	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 22,265.25	$ 26,564.47	$ 23,577.14	$ 108,455	$ 108,455
506	WILSHIRE - WESTERN	$0.37	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 543,673.14	$ 875,756.34	$ 869,403.19	$ 3,124,436	$ 3,124,436
515	WILSHIRE - VERMONT	$0.34	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 621,731.54	$ 624,475.38	$ 610,226.34	$ 2,084,295	$ 2,084,295
551	HOLLYWOOD - WESTERN	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 107,973.30	$ 108,953.19	$ 118,879.46	$ 546,845	$ 546,845
564	PICO - CRENSHAW	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 40,939.50	$ 45,840.63	$ 42,218.05	$ 194,203	$ 194,203
571	PICO - LA BREA	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 82,452.34	$ 88,178.33	$ 86,435.60	$ 397,558	$ 397,558
525	SANTA MONICA - SAWTELLE	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 408,406.01	$ 398,804.87	$ 390,647.48	$ 898,490	$ 898,490
531	PACIFIC PALISADES	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	13	6	$ 274,810.31	$ 274,882.37	$ 279,035.34	$ 643,851	$ 643,851
539	BRENTWOOD - SAN VINCENTE	$1.00	$2.00	$2.00	$2.00	$2.00	$2.00	24	6	$ 341,785.79	$ 333,061.26	$ 309,059.83	$ 710,838	$ 710,838
541	VENICE	$0.71	$1.42	$1.42	$1.42	$1.42	$1.42	10	6	$ 262,217.70	$ 161,306.69	$ 136,727.30	$ 314,461	$ 314,461
545	BRENTWOOD VILLAGE	$1.00	$2.00	$2.00	$2.00	$2.00	$2.00	10	6	$ 170,177.02	$ 159,406.24	$ 159,486.36	$ 366,818	$ 366,818
561	WILSHIRE - SAN VICENTE	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	12	6	$ 182,285.82	$ 167,796.27	$ 164,571.05	$ 378,513	$ 378,513
562	WASHINGTON PACIFIC	$0.71	$1.42	$1.42	$1.42	$1.42	$1.42	9	5	$ 193,638.35	$ 184,778.54	$ 180,757.87	$ 415,743	$ 415,743
570	MAR VISTA	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	9	5	$ 58,033.50	$ 61,031.79	$ 56,888.02	$ 261,685	$ 261,685
574	OLYMPIC - SAWTELLE	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	9	5	$ 297,531.42	$ 293,164.71	$ 293,686.35	$ 1,350,958	$ 1,350,958
521	SUNSET - VINE	$0.50	$1.00	$1.00	$1.00	$1.00	$1.00	12	5	$ 360,537.51	$ 337,164.76	$ 358,361.52	$ 824,231	$ 824,231
514	SUNSET - ALVARADO	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	12	5	$ 157,432.00	$ 148,561.28	$ 143,931.57	$ 662,085	$ 662,085
519	GLENDALE - ATWATER	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	12	5	$ 74,163.16	$ 76,376.02	$ 85,141.16	$ 391,649	$ 391,649
546	HOLLYWOOD - VINE	$1.00	$2.00	$2.00	$2.00	$2.00	$2.00	24	7	$ 956,523.82	$ 927,799.81	$ 969,389.68	$ 2,119,596	$ 2,119,596
549	SANTA MONICA - WESTERN	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	24	7	$ 83,117.04	$ 84,301.35	$ 82,443.84	$ 379,242	$ 379,242
552	SUNSET - VERMONT	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	14	6	$ 117,179.14	$ 106,043.55	$ 103,161.19	$ 474,541	$ 474,541
573	SILVERLAKE	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	10	6	$ 58,311.99	$ 55,481.51	$ 72,124.40	$ 331,772	$ 331,772
509	YORK BOULEVARD	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	15	7	$ 40,749.50	$ 50,692.31	$ 51,729.37	$ 237,955	$ 237,955
530	EAGLE ROCK	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	15	7	$ 58,061.47	$ 62,051.58	$ 63,804.05	$ 293,499	$ 293,499
544	BOYLE HEIGHTS	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	15	7	$ 157,551.86	$ 154,850.35	$ 147,737.71	$ 679,499	$ 679,499
568	COUNTY MEDICAL CENTER	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	15	7	$ 272,167.86	$ 258,405.18	$ 285,252.44	$ 1,312,161	$ 1,312,161
518	SAN PEDRO	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	15	7	$ 285,797.94	$ 249,593.66	$ 262,813.39	$ 1,209,087	$ 1,209,082
534	WILMINGTON	$0.25	$1.00	$1.00	$1.00	$1.00	$1.00	15	7	$ 56,789.04	$ 84,855.41	$ 82,255.30	$ 378,374	$ 378,374
										$ 20,831,298	$ 20,617,822	$ 20,892,753	$ 63,587,825	$ 63,587,825

Parking Meter Zone	Geometric Increase	Number of Additional Spaces	Total Number of Spaces	Projected Revenue Enhancement	Paybach Time in Hours Per Meter/Day	Gain in Payback Revenue	Violations 15 Min. or Greater Per Meter/Day (Hours)	Lost Annual Violation Revenue Per Meter	Decrease in Violations	Increase in Violation Revenue	Total Projected Revenue Enhancement from New Meter Technology	(Pop. Growth % X % of the Pop. Ages 16 and Older) X % of Households w/ Access to a Motor Vehicle	Projected Effect on Demand Due to Price Elasticity, 2010	Projected Effect on Demand Due to Price Elasticity, 2011
507	9%	28	341	$ 43,876	0.5	$ 52,366	0.4	$ 184	65%	$ 40,760	$ 137,002	0.33%	0%	0%
504	9%	111	1,346	$ 134,017	0.5	$ 101,961	0.6	$ 184	65%	$ 260,316	$ 506,835	0.33%	0%	0%
513	9%	43	523	$ 59,461	0.5	$ 80,050	0.6	$ 184	65%	$ 62,309	$ 201,819	0.33%	0%	0%
554	9%	44	529	$ 92,480	0.3	$ 161,767	0.6	$ 367	65%	$ 126,916	$ 380,163	0.33%	0%	0%
560	9%	77	934	$ 77,621	0.5	$ 142,022	0.6	$ 184	65%	$ 112,247	$ 331,790	0.33%	0%	0%
510	9%	64	779	$ 110,102	0.4	$ 146,904	0.6	$ 206	65%	$ 103,957	$ 370,899	0.29%	0%	0%
517	9%	99	1,195	$ 148,836	0.4	$ 101,058	0.6	$ 184	65%	$ 142,277	$ 492,165	0.29%	0%	0%
511	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
532	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
575	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
577	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
502	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
503	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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579	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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547	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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512	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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524	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
543	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
537	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
553	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
555	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
565	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
580	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
581	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
582	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
506	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
515	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
551	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
564	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
571	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
525	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
531	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
539	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
541	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
545	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
561	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
562	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
570	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
574	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
521	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
514	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
519	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
546	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
549	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
552	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
573	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
509	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
530	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
544	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
568	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
518	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
534	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Parking Meter Zone	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 20	Year 30	Year 40	Year 50
507–534 (each zone)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	$ 85,837,516	$ 85,837,516	$ 85,837,516	$ 85,837,516	$ 85,837,516	$ 98,826,617	$ 131,832,663	$ 177,496,109	$ 241,407,759	$ 331,318,037

Note: The numbers in the model ARE NOT the final numbers and they will change. The factors affecting revenue will also change.
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9.2 Expense Projections

Annual operating expenses consist of payroll expenses (administrative, maintenance, enforcement, payroll, benefits, etc.) as well as office expenses. On the expense side, two financial models were to be developed to deal with the future expenses of the parking meter system. The first was to be based on the current and historical operating expenses (yet to be determined) to determine a growth factor in forecasting expenses. The second version of the model would project expenses as if a professional private parking operator were to take over the operations of the meter system. These expenses would then be projected based on simple growth factors. **Table 41** provides the preliminary expense projections for the metered parking system.

9.3 Capital Expenditures

Due to the fact that work on the meter portion of this effort was suspended, at the request of the City, very little information is currently available regarding the capital expenditures that will be necessary in order to properly maintain the parking meter system in the future. If and when the effort recommences, capital expenditure projections will be developed based on industry standard costs and assumptions about the number of Pay-and-Display units and all the associated components that will be necessary to replace the existing parking meters. What is known is that the bulk of the multi-space meter system is likely to have to be replaced every seven (7) years, based on industry standards regarding the useful life of a multi-space meter unit.

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Table 41
Metered Parking System Expense Projections

EXPENSE CALCULATIONS

PAYROLL Administrative		Positions	Hours P/W	Rate	Weeks	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7
One full time on-site Manager		1	40	$50.00	52	$ 104,000	$ 106,080	$ 108,202	$ 110,366	$ 112,573	$ 114,824	$ 117,121
One full time Assistant Manager		1	40	$35.00	52	$ 72,800	$ 74,256	$ 75,741	$ 77,256	$ 78,801	$ 80,377	$ 81,985
Bookkeeper- full time		2	40	$28.25	52	$ 117,520	$ 119,870	$ 122,268	$ 124,713	$ 127,207	$ 129,752	$ 132,347
Clerk		2	40	$24.50	52	$ 101,920	$ 103,958	$ 106,038	$ 108,158	$ 110,321	$ 112,528	$ 114,778
				Subtotal		$ 396,240	$ 404,165	$ 412,248	$ 420,493	$ 428,903	$ 437,481	$ 446,231
Maintenance & Collections												
Maintenance Supervisors		2.0	40	$19.00	52	$ 79,040	$ 80,621	$ 82,233	$ 83,878	$ 85,555	$ 87,267	$ 89,012
Maintenance Mechanics		15.0	40	$15.00	52	$ 468,000	$ 477,360	$ 486,907	$ 496,645	$ 506,578	$ 516,710	$ 527,044
Collections Supervisors		2.0	40	$19.00	52	$ 79,040	$ 80,621	$ 82,233	$ 83,878	$ 85,555	$ 87,267	$ 89,012
Collection Person		12.0	40	$13.18	52	$ 328,973	$ 335,552	$ 342,263	$ 349,109	$ 356,091	$ 363,213	$ 370,477
Coin Counters		4.0	40	$13.18	52	$ 109,658	$ 111,851	$ 114,088	$ 116,370	$ 118,697	$ 121,071	$ 123,492
				Subtotal		$ 1,064,710	$ 1,086,005	$ 1,107,725	$ 1,129,879	$ 1,152,477	$ 1,175,526	$ 1,199,037
Enforcement												
Enforcement Officers		500.0	40	$13.18	52	$ 13,707,200	$ 13,981,344	$ 14,260,971	$ 14,546,190	$ 14,837,114	$ 15,133,856	$ 15,436,534
				Subtotal		$ 13,707,200	$ 13,981,344	$ 14,260,971	$ 14,546,190	$ 14,837,114	$ 15,133,856	$ 15,436,534
Total Employees		541										
Uniformed		535.0		Sub-Total Payroll		$ 15,168,150	$ 15,471,513	$ 15,780,944	$ 16,096,563	$ 16,418,494	$ 16,746,864	$ 17,081,801
Payroll Taxes	12.08%					$ 1,832,313	$ 1,868,959	$ 1,906,338	$ 1,944,465	$ 1,983,354	$ 2,023,021	$ 2,063,482
Health	12.5%					$ 1,896,019	$ 1,933,939	$ 1,972,618	$ 2,012,070	$ 2,052,312	$ 2,093,358	$ 2,135,225
Retirement	2.00%					$ 303,363	$ 309,430	$ 315,619	$ 321,931	$ 328,370	$ 334,937	$ 341,636
Worker's Comp	4.49%					$ 681,050	$ 694,671	$ 708,564	$ 722,736	$ 737,190	$ 751,934	$ 766,973
				Payroll Benefits		$ 4,712,744	$ 4,806,999	$ 4,903,139	$ 5,001,202	$ 5,101,226	$ 5,203,251	$ 5,307,316
Other Payroll (Vacation/Sick)	4.00%					$ 795,236	$ 811,141	$ 827,363	$ 843,911	$ 860,789	$ 878,005	$ 895,565
				Total Payroll		$ 20,676,131	$ 21,089,653	$ 21,511,446	$ 21,941,675	$ 22,380,509	$ 22,828,119	$ 23,284,681
Office Expenses												
Postage						$ 2,500	$ 2,550	$ 2,601	$ 2,653	$ 2,706	$ 2,760	$ 2,815
Office Supplies						$ 12,000	$ 12,240	$ 12,485	$ 12,734	$ 12,989	$ 13,249	$ 13,514
Office Phone	8	lines @	100			$ 9,600	$ 9,792	$ 9,988	$ 10,188	$ 10,391	$ 10,599	$ 10,811
Nextel Cell Phones	541	units @	40			$ 259,680	$ 264,874	$ 270,171	$ 275,574	$ 281,086	$ 286,708	$ 292,442
Liability Insurance						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Bonding Requirement	$0			$25 per thousand		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Business License			TBD			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Uniforms	535.0	staff @	250	per uniform		$ 133,750	$ 136,425	$ 139,154	$ 141,937	$ 144,775	$ 147,671	$ 150,624
PI Services (System Integrity)	1200	Hours	@	$ 80.00		$ 96,000	$ 97,920	$ 99,878	$ 101,876	$ 103,913	$ 105,992	$ 108,112
Professional Services						$ 4,500	$ 4,590	$ 4,682	$ 4,775	$ 4,871	$ 4,968	$ 5,068
Rent (8000 sq. ft. @ $9)	8000	Sq. Ft	@	$9.50		$ 76,000	$ 77,520	$ 79,070	$ 80,652	$ 82,265	$ 83,910	$ 85,588
Utilities	$0.25	Sq. Ft				$ 24,432	$ 24,921	$ 25,419	$ 25,927	$ 26,446	$ 26,975	$ 27,514
Cellular Service	$35	per machine	per month	600		$ 21,000	$ 21,420	$ 21,848	$ 22,285	$ 22,731	$ 23,186	$ 23,649
Sign Installation & Maintenance						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pay Stations Solution	$45	per machine	per month	600		$ 27,000	$ 27,540	$ 28,091	$ 28,653	$ 29,226	$ 29,810	$ 30,406
Employee Development- Hiring						$ 5,000	$ 5,100	$ 5,202	$ 5,306	$ 5,412	$ 5,520	$ 5,631
Ticket Isssuance System	120,000	Tickets @	$0.00	(new system)		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Vehicle Repair and Maintenance		31	Vehicles @	$ 1,200	Annualy	$ 37,200	$ 37,944	$ 38,703	$ 39,477	$ 40,266	$ 41,072	$ 41,893
Fuel		31	Vehicles @	$ 5,000	Annualy	$ 155,000	$ 158,100	$ 161,262	$ 164,487	$ 167,777	$ 171,133	$ 174,555
Contingency @ 5%						$ 43,183	$ 44,047	$ 44,928	$ 43,183	$ 43,183	$ 43,183	$ 43,183
				Total Operating Expense		$ 21,582,976	$ 22,014,635	$ 22,454,928	$ 22,901,383	$ 23,358,547	$ 23,824,855	$ 24,300,488
Capital Expense Cost												
Parking & Office Equipment Amortization				Total Cap Ex								
				Total Expenses:		$ 21,582,976	$ 22,014,635	$ 22,454,928	$ 22,901,383	$ 23,358,547	$ 23,824,855	$ 24,300,488

Note: This form is strictly showing what the expense categories COULD be when the modeling is completed. The numbers DO NOT translate into the real costs of running the parking meter system; they are used as place holders only.
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ATTACHMENT 2B

Market Assessment of City-Owned Parking Garages (Desman)

Market Assessment of City-Owned Parking Garages

City of Los Angeles
Parking System Financial Analysis

Prepared by:

DESMAN
ASSOCIATES

Chicago, Illinois

November 3, 2009

DESMAN
ASSOCIATES

CITY FACILITY: # 601

14401 Friar Street
Van Nuys

Facility Location: 14401 Friar Street, located along the north side of Friar Street between Van Nuys Boulevard and Sylmar Avenue, Van Nuys Parking Meter Zone 501, City Council District 6

Facility Description: The facility is a two-level free standing parking structure with a 237-space capacity (incl. 7 ADA spaces). Ingress and egress to the facility is provided from Friar Street via one entry and one exit lane; the entrance/exit is gated when the garage is closed.

Operator: The LADOT has executed a Memorandum of Understanding (MOU) with the City's General Services Department (GSD) to provide on-site staff to control access and collect revenue at the facility and to perform routine maintenance. The facility is staffed for 82.5 hours per week by 4 parking attendants. The GSD reports that the approved 2007-08 annual operating budget for the garage was $77,894 which equates to $329 per space.

Method of Operation & Revenue Collection:
Hours of Operation – 5:30AM-7PM Monday – Friday
Access Control
- Transient Parkers - Self-Park upon entry with a time-stamp ticket. Pay-on-exit processed by a single attendant.
- Monthly Parkers – Must display Monthly Permit; permit payments collected via mail and/or online fee processing managed by LADOT.

Parking Rates and Facility Utilization: Transient (Hourly) Parking – Parking fee is $1.10/hour with a $4.40 daily maximum; the Monthly Rate is $49.50

DESMAN found that vehicle occupancy peaked around 89% during weekdays and maintained an occupancy rate above 70% through the 4PM hour; the facility is not open on the weekend.

CITY FACILITY: # 601, Friar Garage

The Van Nuys Commercial District Summary:

Land Use/Area Description

- Casual Dining
- Convenient retail along Van Nuys Boulevard
- Storefront and low-rise office and medical facilities
- Large government office and court complex located one block to the south

Neighborhood

- Single-family and multi-family residential

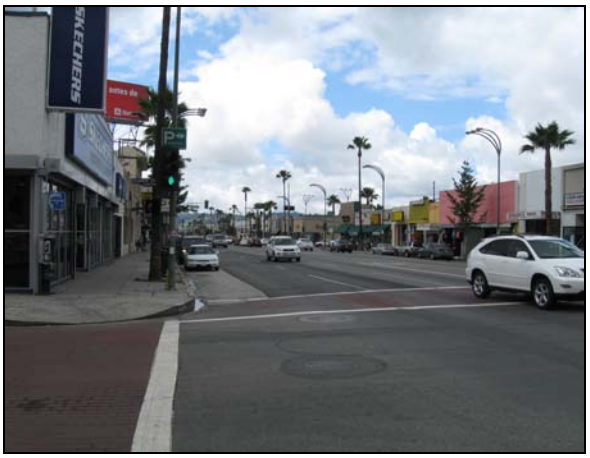
Primary Traffic Thoroughfare: Van Nuys Boulevard

- 4-lane, high traffic thoroughfare
- On-street single-space parking meters

Pedestrian Traffic

- High pedestrian traffic mostly -generated by convenient retail, service establishments and outdoor eating areas

VAN NUYS PARKING MARKET AREA



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CITY FACILITY: # 601, Friar Garage

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CITY FACILITY: # 601, Friar Garage

Existing Public Parking

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
601	**Friar Garage**	**14401 Friar St.**	**Garage**	**237**	**LADOT/ GSD**	**----**	**5:30AM-7PM M– F**	**$1.10**	**$2.20**	**$4.40**		**$49.50**		**89%**	**70%**	**-**	**-**	**Attendant/Booth Time Stamped Tkt**
609	Van Nuys Lot	14521 Friar St	Lot	76	LADOT	1.5 blocks	8AM-5PM M-Sa	$1.10	$2.20	$4.40	-	$49.50	-	High	-	Low	-	Attendent Booth
610	Van Nuys Lot	14532 Gilmore St	Lot	137	LADOT	2.5 blocks	8AM-5PM M-F	$1.10	$2.20	$4.40	-	$38.50	-	Med	-	Low	-	Attendent Booth/Pay on Foot
620	Van Nuys Lot	14607 Sylvan St	Lot	58	LADOT	2 blocks	8AM-5PM M-F	$1.10	$2.20	$4.40	-	$38.50	-	-	-	Low	-	Attendent Booth
630	Van Nuys Lot	Erwin St	Lot	137	LADOT	2.5 blocks	8AM-5PM M-F	$1.10	$2.20	$4.40	-		-	Med	-	Low	-	Attendent Booth/Pay on Foot
631	Van Nuys Lot	14402 Glimore St	Lot	67	LADOT	2 blocks	8AM-5PM M-F	$1.10	$2.20	$4.40	-	$38.50	-	Med	-	Med	-	Attendent Booth
752	Van Nuys Lot	6265 Sylmar St	Garage	302	LADOT/ GSD	2 blocks	6:30AM-6PM M-W, F 6:30AM -7PM Th	$2.00	$4.00	$8.00	-	$100.00	-	High	-	-	-	Attendent Booth
1	Pyramid Professional Bldg	6454 Van Nuys Blvd	Lot	82	Valley Exec. Suites	1 block	-	$1.50	$2.50	$2.50	$2.50	No Public Monthly	-	High	-	Low	-	Attendent Booth

Parking Operator Abbreviations

LADOT	Department of Transportation
GSD	General Services Department

CITY FACILITY: # 601, Friar Garage

Parking Market Area Assessment: There are seven (7) competing pay public parking facilities located within 2 blocks of the Broxton Garage, of which, six (6) are City-controlled facilities. Among the seven facilities there is only one other garage and it is located underneath the San Fernando Valley Civic Center. The other facilities are scattered on either side of Van Nuys Boulevard among the medical office buildings, storefronts and residences. Because the City controls nearly every facility in this area, the hourly rates charged for parking are fairly consistent from facility-to-facility; the monthly rates at the competing facilities range from $38.50 - $100.00.

Future Market Area Growth Prospects: The Van Nuys area surrounding this parking facility is fully developed with low to moderate density of commercial space. There are no significant redevelopment projects scheduled, being planned or envisioned in the immediate vicinity of the Friar Garage that would generate a substantive growth in employment and commerce from the current levels. However, higher tenancy in the retail space located along Van Nuys Boulevard could generate additional parking demand.

Friar Garage Performance Enhancement Potential: Given the characteristics of the area immediately surrounding the Friar Garage and the operational policies currently in place, it is DESMAN's opinion that the prospects for parking revenue growth tied to future land use and population changes will trend at the current low to moderate rate but that there may be some revenue growth potential in adjusting the parking rates at the facility. Because of the consistently-high occupancy of the Friar Garage, serving more customers is not a viable way to increase revenues as there is no space to accommodate them. However, it may be possible to raise the monthly and/or transient rates in order to increase the revenues generated from the current volume of parkers. Being one of only two garages in the area, parking customers may be more willing to pay higher rates for the benefit of having their vehicles in a secured parking structure as opposed to in a surface lot.

Proposed Parking Rates, Private Operator Model: Based upon the market area of this facility, current utilization rates, parking industry pricing standards, and the rates charged at the competing facilities, the following schedule of parking rate increases was developed for use in the Private Operator Revenue and Expense Projection Model:

		Current Rates (Base)	Year 1	Year 2	Year 3	Year 4	Year 5
Friar Garage #602	Hourly	**$1.10**	$1.50		$2.00		
	Daily Max.	**$4.40**	$6.00		$8.00		
	Event						
	Monthly	**$49.50**	$60.00		$70.00		$80.00

Hourly rate increases were based on both the high occupancy of the facility and on the industry practice of charging rates in increments of 25 cents. DESMAN's utilization surveys indicate that

CITY FACILITY: # 601, Friar Garage

this facility and the other City-owned and non-City-owned facilities in the area are all highly utilized meaning that a reasonable hourly rate increase should not have a significant negative impact on the demand for parking at the Friar Garage.

It was further assumed that a private operator would increase monthly permit rates due to the high demand for monthly parking (according to the LADOT, in FY 2008 an average of 323 monthly permits were sold at this facility each month) and the fact that the Friar Garage is one of only two structured parking facilities in the area (the other garage charges $100 a month for monthly parking).

The rate increase schedule was also based on the assumption that the hourly parking rates at the City-owned surface lots within the market area would be raised to the same level when the Garage rates are increased. This is not an unreasonable assumption based on the previously noted utilization levels of the facilities.

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CITY FACILITY: # 629
Dickens-Cedros Garage
Sherman Oaks

Facility Location: 14591 Dickens Street, located on the northeast corner of Cedros Avenue and Dickens Street, one block south of Ventura Blvd. Sherman Oaks Parking Meter Zone 517, City Council District 5

Facility Description: The garage is vertically integrated into a senior housing residential building which has its own exclusive parking spaces within the structure. The garage has 198 public parking spaces (incl. 7 ADA spaces) and the public parking area occupies the first and second level of the structure. Ingress and egress to the facility is provided from Cedros Avenue where one entry lane and one exit lane are located.

Operator: The LADOT has executed a Memorandum of Understanding (MOU) with the City's General Services Department (GSD) to provide on-site staff to control access and collect revenue at the facility and to perform routine maintenance. A total of 6 employee positions are used to staff the facility over 128.5 hours per week. The GSD reports that the approved 2007-08 annual operating budget for the garage was $165,516 which equates to $835 per space.

Method of Operation & Revenue Collection:
Hours of Operation - 7AM-11:30PM Daily – No Overnight Parking
Access Control
- Transient Parkers - Self-Park upon entry and pay-on-exit processed by a single attendant using a time clock to manually stamp issued parking tickets on entry and again on exit in order to calculate the duration of stay and corresponding parking fee.
- Monthly Parkers – Must display Monthly Permit to the attendant upon entry.

CITY FACILITY: # 629, Dickens-Cedros Garage

Parking Rates and Facility Utilization: Transient (Hourly) Parking - $.50 every 15 minutes, $1.50 per hour, $4.50 maximum all day, Monthly Parking - $38.50.

GSD reports that an average of number of 240 transient tickets sold daily at the garage. This breaks down to 14.5 tickets sold per hour; however approximately 75% of all tickets sold were for durations of 1 hour or less. DESMAN found that vehicle occupancy in the garage hovered around 7% during weekdays and that the vehicle volume peaked at 12% on the weekend between 2pm and 4pm.

The Sherman Oaks Commercial District Summary:

Land Use/Area Description

Ventura Blvd
- Casual Dining and Fast Food Restaurants
- Mid-Rise, Low-Rise and Commercial Buildings with some storefront Office uses
- Convenient Retail and a Car Dealership

Neighborhood
- Single Family and Multi-Family residents
- Sherman Oaks Lutheran Church: 1 block west of garage
- Temple B'Nai Hayim: 1 block southeast of garage

Primary Traffic Thoroughfare: Ventura Blvd. one block west of Van Nuys Blvd
- 4-lane, high traffic thoroughfare
- On-street Pay-by-Space Meters
- Street cleaning parking restriction on selected days during varied time periods

Pedestrian Traffic
- Moderate pedestrian traffic mostly -generated by convenient retail, service establishments and outdoor eating areas

SHERMAN OAKS PARKING MARKET AREA

View Venture Blvd at Cedros Avenue intersection


View Venture Blvd at Cedros Avenue intersection

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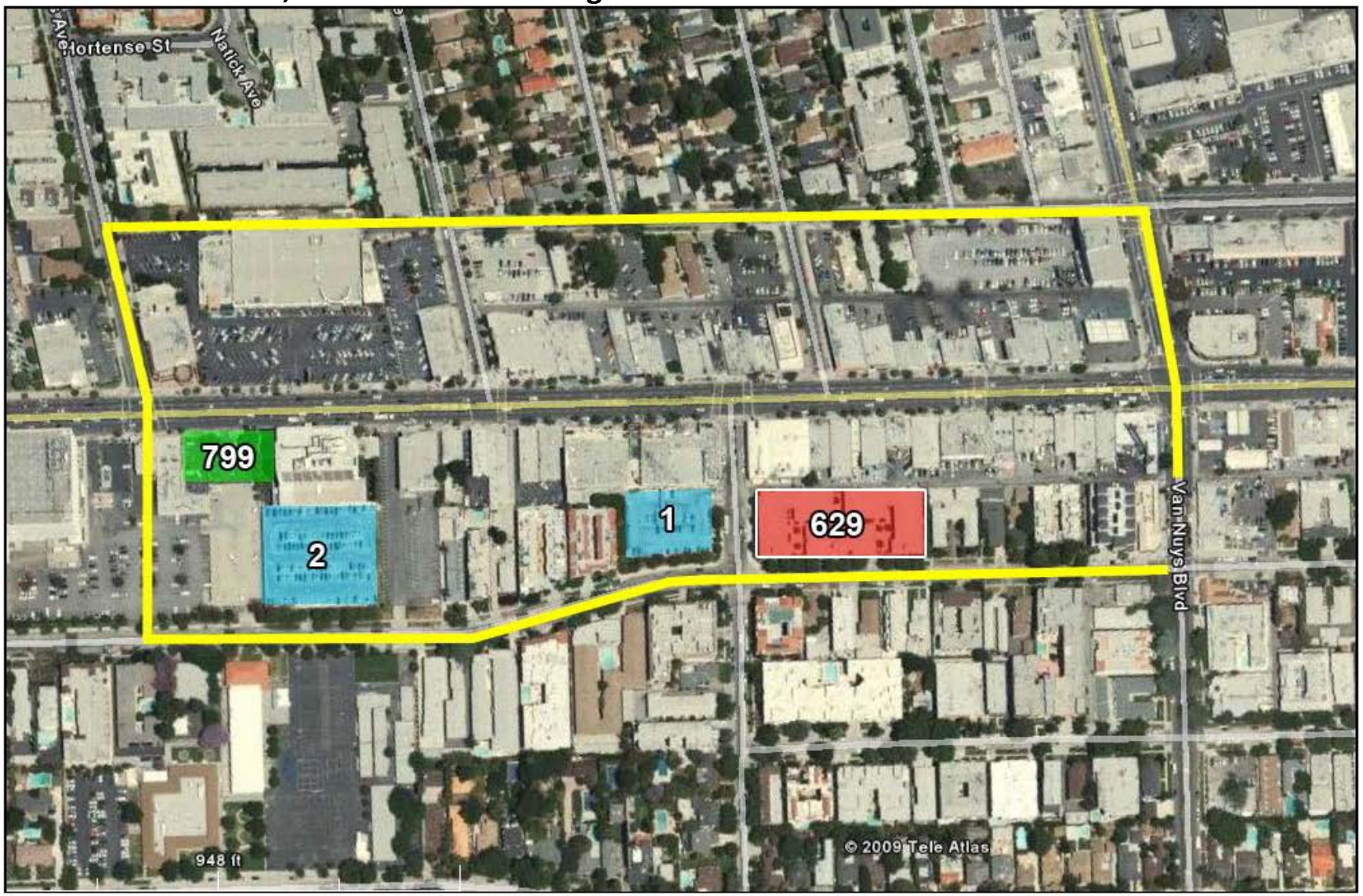
CITY FACILITY: # 629, Dickens-Cedros Garage



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CITY FACILITY: # 629, Dickens-Cedros Garage

Existing Public Parking

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
629	**Dickens-Cedros Garage**	**14591 Dickens Street**	**Garage**	**198**	**LADOT/ GSD**	**----**	7AM-11:30PM Daily	**$1.50**	**$3.00**	**$4.50**		**$38.50**			**7%**	**12%**	**4%**	**Attendant/Booth Time Stamped Tkt**
799	Sherman Oaks Lot	14758 Ventura Blvd	Lot	21	LADOT	2.5 blocks	7AM-9PM Daily	$1.00	$2.00	$2.00	-	-	-	High	-	Low	-	Unmanned/ Pay by Space
1	La Riena Fashion Plaza Garage	14622 Venura Blvd	Garage	193	MPI	2 blocks	7AM-9PM Daily	$6.00	$6.00	-	-	-	-	-	-	High	-	Attendant/Gates/ Fee Computer
2	Unknown	14724 Ventura Blvd	Garage	367	AMPCO	1 block	7AM-8PM M-F	$6.80	$13.60	$15.30	-	$120.00	-	High	-	Low	-	Attendant/Booth Time Stamped Tkt

Parking Operator Abbreviations

LADOT	Department of Transportation
GSD	General Services Department
MPI	Modern Parking Inc.
AMPCO	AMPCO System Parking

CITY FACILITY: # 629, Dickens-Cedros Garage

Parking Market Area Assessment: There are three competing pay public parking facilities located within 2 to 3 Blocks of the Dickens Garage. Two of the three are privately-owned parking garages and one small surface parking lot is owned by LADOT. The two garages are connected or vertically integrated into commercial structures, and thus capture parking demand generated by the adjoining land uses. The two private parking garages have significantly higher hourly parking rates that the Dickens Garage ($6.00 to $6.80 per hour, $15.80 maximum, monthly rates unknown).

Future Market Area Growth Prospects: The geography of the Sherman Oaks commercial district and surrounding neighborhood is linear and largely oriented to Ventura Boulevard. The density of commercial space along Ventura Avenue is low to moderate as most buildings are one and two stories tall. There are no significant redevelopment projects scheduled, being planned or envisioned in the immediate vicinity of the Dickens Parking Garage that would generate a substantive growth in employment and commerce from the current levels. Daytime parking demand is expected to generally be generated by commercial retail and service establishments along Ventura Boulevard while evening parking demand will continue to be driven by area restaurant trade.

Dickens Garage Performance Enhancement Potential: Given the characteristics of the area immediately surrounding the Dickens Parking Garage it is DESMAN is opinion that the prospects for parking revenue growth tied to future land use and population changes will trend at the current low to moderate rate. However, it is our opinion that in the short-term parking revenue gains at the Garage could be realized by increasing rates and by adopting a more aggressive approach to marketing the available supply of un-used spaces in the garage. This opinion is based on the fact that the 193-space underground garage at the La Riena Fashion Plaza located directly across the street from the Dickens Garage was found to be between 85% and 90% occupied with parking rates six times higher than those at the Dickens Garage. Is our belief that the Dickens Garage is possibly perceived by the unfamiliar public as a resident parking garage and that this perception could be overcome with better signage and marketing directed at area retailers and restaurateurs.

Proposed Parking Rates, Private Operator Model: Based upon the market area of this facility, current utilization rates, parking industry pricing standards, and the rates charged at the competing facilities, the following schedule of parking rate increases was developed for use in the Private Operator Revenue and Expense Projection Model:

		Current Rates (Base)	Year 1	Year 2	Year 3	Year 4	Year 5
Dickens-Cedros Garage #630	Hourly	**$1.50**					
	Daily Max.	**$4.50**					
	Event						
	Monthly	**$38.50**	$50.00				

CITY FACILITY: # 629, Dickens-Cedros Garage

The extremely low demand at this facility greatly limited the assumed rate increases that could be used to generate projected revenue figures. With peak occupancy of 12%, hourly rate increases would discourage current and potential parking patrons from utilizing the facility. However, in DESMAN's opinion, the monthly rate at this facility can be raised as the only other facility in the area offering monthly parking charges $120/month. In order to make this rate increase viable and to increase the overall utilization of the facility, it was assumed that a private operator would conduct a significant marketing campaign to draw patrons to the facility.

CITY FACILITY: # 670

1710 Cherokee Avenue
Hollywood

Facility Location: 1710 Cherokee Avenue, located on the east side of Cherokee Avenue between Hollywood Boulevard and Yucca Street, Hollywood – Vine Parking Meter Zone 546, City Council District 13

Facility Description: The facility is a free-standing, gated parking garage with a 386-space capacity (incl. 8 ADA spaces). Ingress and egress to the facility is provided from Cherokee Avenue via one entry and one exit lane. The facility contains four ground-level retail spaces facing Cherokee Avenue.

Operator: This facility is operated by the private parking company PCI whose contract includes several surface lots in the surrounding area as well. The contract states that PCI is responsible for controlling access to the facility, collecting parking revenue from patrons, and performing maintenance and clean-up necessary to maintain the facility's appearance. For the 2008 fiscal year, PCI was paid $297,323 to operate and maintain this facility or $770 per space.

Method of Operation & Revenue Collection:
Hours of Operation – Open 24 hours-a-day, 7 days-a-week
Access Control
- Transient Parkers - Self-Park upon entry with a time-stamp ticket. Pay-on-exit processed by a single attendant.
- Monthly Parkers – Must display Monthly Permit; permit payments collected via mail and/or online fee processing managed by LADOT.

CITY FACILITY: # 670, Cherokee Garage

Parking Rates and Facility Utilization: Transient (Hourly) Parking – Parking fee is $4.00/hour with an $8.00 daily maximum; the Monthly Rate is $100.00; Friday and Saturday after 5PM there is an $8.00 flat rate.

DESMAN found that vehicle occupancy peaked around 51% near noon on weekdays and 68% on the weekend during the evening on weekends. Over the entire length of the survey periods from 10AM – 8PM on both the weekday and weekend, occupancy levels remained above 45%.

The Hollywood Commercial District Summary:

Land Use/Area Description

- Casual dining and fast food restaurants
- Large amount of store front retail along Hollywood Boulevard
- Low rise office buildings

Neighborhood

- Multi-family mid rise residential
- Hotels and theaters; tourist destination
- Selma Avenue Elementary School and a YMCA in the area

Primary Traffic Thoroughfare: Hollywood Boulevard

- 4-lane, high traffic thoroughfare
- On-street multi-space parking meters located on Hollywood Boulevard; single-space meters in use on the arterial streets

Pedestrian Traffic

- Very high pedestrian traffic

HOLLYWOOD - VINE PARKING MARKET AREA

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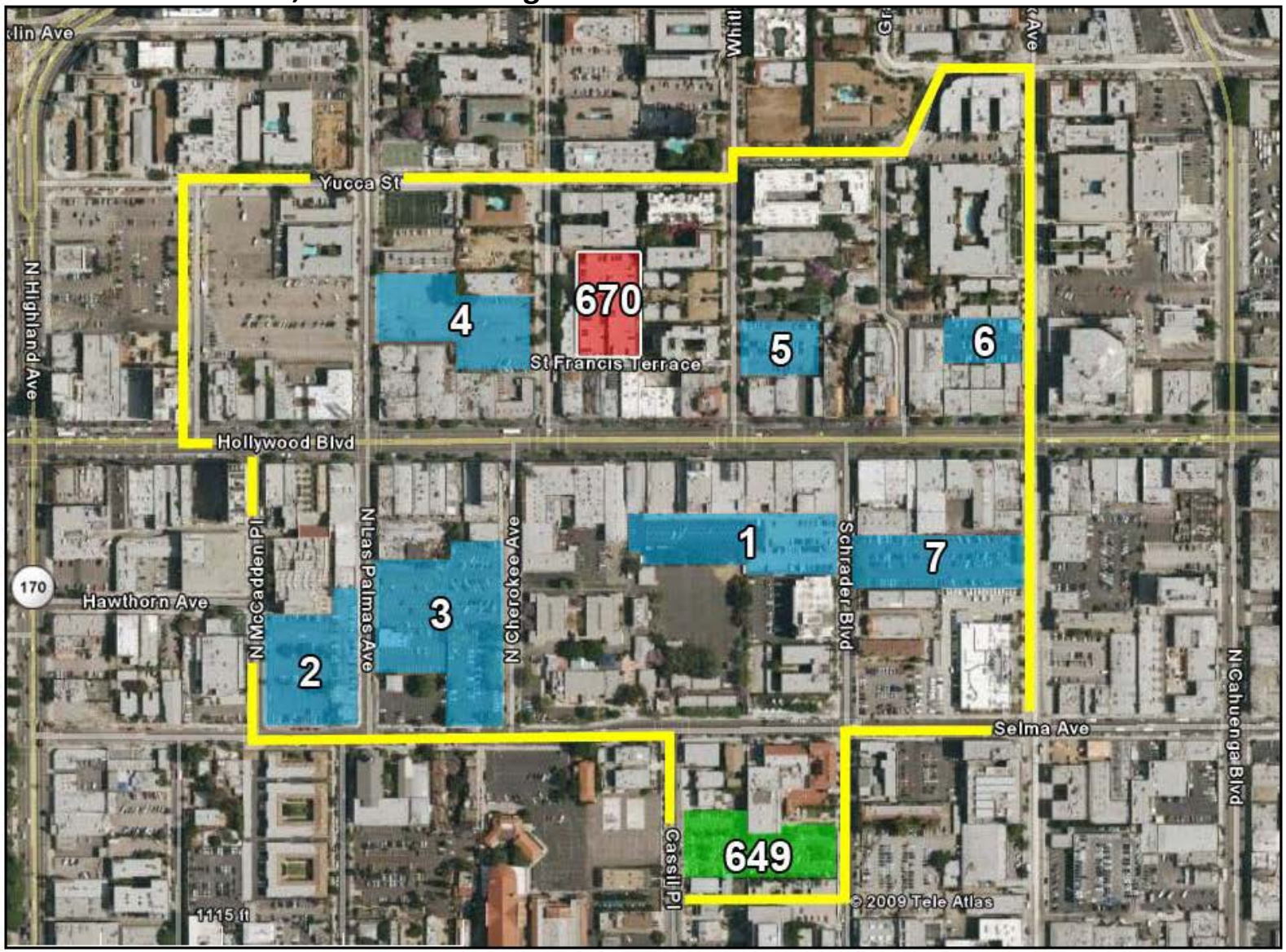
CITY FACILITY: # 670, Cherokee Garage



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CITY FACILITY: # 670, Cherokee Garage

Existing Public Parking

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
670	**Cherokee Garage**	**1710 Cherokee Ave**	**Garage**	**386**	**LADOT/ PCI**	**----**	**24-hours Daily**	**$4.00**	**$8.00**	**$8.00**	**$8.00**	**$100.00**		**51%**	**68%**	**45%**		**Attendant/Gates/ Fee Computer**
1	Unknown	1639 N. Schrader Blvd	Lot	167	LAPS	1.5 blocks	8AM-2PM Daily	$10.00	$10.00	$10.00	$10.00	$85.00	-	Med	-	-	-	Attendant/Booth Time Stamped Tkt
2	Eygptian Theatre Parking	1526 McCadden Pl	Lot	249	GP	2 blocks	24-hours Daily	$10.00	$10.00	$10.00	$10.00	$80.00	-	High	-	-	-	Valet
3	Unknown	1632 Cherokee Ave	Lot	170	CPI	1.5 blocks	24-hours Daily	$8.00	$10.00	$10.00	$15/$20	$80.00	-	-	-	-	-	Valet
4	Unknown	1719 Cherokee Ave	Lot	166	GP	<0.5 blocks	8AM-11PM Daily	$8.00	$10.00	$10.00	-	$90.00	-	Med	-	-	-	Attendant/Booth Time Stamped Tkt
5	Unknown	1714 Whitley Ave	Lot	75	COP	1 block	6AM-6PM Daily	$10.00	$10.00	$10.00	$10.00	-	-	Med	Med	-	-	Attendant/Booth Time Stamped Tkt
6	Unknown	1715 N. Wilcox Ave	Lot	76	CP	2 blocks	24-hours Daily	$6.00	$6.00	$6.00	$6.00	-	-	High	-	-	-	Attendant/Booth Time Stamped Tkt
7	Unknown	1632 N Wilcox Ave	Lot	133	CP	2 blocks	24-hours Daily	$8.00	$8.00	$8.00	$8.00	-	-	High	-	-	-	Attendant/Booth Time Stamped Tkt
649	Hollywood	1533 Schrader Blvd	Lot	55	LADOT/ PCI	2.5 blocks	4PM-12:30AM M-F 7AM-5PM Sa 8AM-4PM Su	$8.00	$8.00	$8.00	-	$100.00	-	-	-	-	-	Attendant/Booth Time Stamped Tkt

Parking Operator Abbreviations

LADOT	Department of Transportation
GSD	General Service Department
GP	Grant Parking
CPI	Classic Parking Inc
COP	Coast Parking
CP	California Parking
PCI	Parking Concepts Inc.
LAPS	LA Parking Systems

CITY FACILITY: # 670, Cherokee Garage

Parking Market Area Assessment: The area surrounding the Cherokee Garage is littered with competing parking facilities which serve the visitors to and residents of the area. Despite the fact that the Cherokee facility is the only garage in the area and that the surface lots charge higher rates, it seems as though more parking patrons choose surface parking over parking in the garage. Further limiting the demand for parking in the Cherokee Garage is the availability of on-street spaces both on Hollywood Boulevard and on the surrounding side streets. Lastly, potential parking customers drawn to the area by nightlife activities (clubs, restaurants, etc.) have the option to valet park at a majority of the establishments in the area. Because the facility is not used by the valet companies for the storage of vehicles, nighttime and weekend demand at the facility remains low compared to the surface parking lots which do store valet vehicles.

Future Market Area Growth Prospects: Increasingly, the Hollywood neighborhood is drawing more young professionals and families to the area with the building of new housing alternatives. Furthermore, the introduction of more high-end retailers and restaurants to Hollywood Boulevard and the surrounding arterial streets provides the area with real opportunities for growth. In terms of new developments that will directly affect the Cherokee garage, the only significant known development in the area will be on two former surface parking lot sites located north of Hollywood Boulevard between Highland Avenue and Las Palmas Avenue along Yucca Street. This project is programmed to include 470 high rise condominium/apartment units, 8,500 SF of ground floor retail space and approximately 500 parking spaces. The project will replace more than 300 surface parking spaces that had been available to the general public with 500 spaces that will mostly be dedicated to the long-term and overnight parking needs of the project residents.

Cherokee Garage Performance Enhancement Potential: Strong visitor and employment activity in the area means that there is the potential to enhance the performance of the Cherokee Garage. This may be achieved through more intense marketing of the facility and additional signage to direct parkers to the garage or through partnering with the area valet companies to allow vehicle storage at night and on the weekends. Due to relatively low utilization, raising rates at the facility to enhance revenues may not be a viable option at this time.

Proposed Parking Rates, Private Operator Model: Based upon the market area of this facility, current utilization rates, parking industry pricing standards, and the rates charged at the competing facilities, the following schedule of parking rate increases was developed for use in the Private Operator Revenue and Expense Projection Model:

CITY FACILITY: # 670, Cherokee Garage

		Current Rates (Base)	Year 1	Year 2	Year 3	Year 4	Year 5
Cherokee Garage #671	Hourly	**$4.00**	$6.00		$8.00		$10.00
	Daily Max.	**$8.00**			$12.00		$15.00
	Event	**$8.00**	$10.00		$12.00		$15.00
	Monthly	**$100.00**			$120.00		

The proposed rate increase schedule was developed in order to bring the Cherokee Garage rates in line with the rates of the competing facilities in its market area. Utilization at the facility is currently strong and the proposed rates are not expected to drastically affect the volume of parking demand.

CITY FACILITY: # 680

1036 Broxton Avenue
Westwood Village

Facility Location: 1036 Broxton Avenue, located on the east side of Broxton Avenue between Weyburn Avenue and Kinross Avenue, 1 block south of the UCLA Campus, Westwood Village Parking Meter Zone 533, City Council District 5

Facility Description: The facility is a free-standing garage with a 366-space capacity (incl. 8 ADA spaces). Ingress and egress to the facility is provided from Broxton Ave. via one entry lane and one exit lane. The garage also contains four retail spaces located on the Broxton side of the facility on the ground floor.

Operator: The LADOT has executed a Memorandum of Understanding (MOU) with the City's General Services Department (GSD) to provide on-site staff to control access and collect revenue at the facility and to perform routine maintenance. The facility is staffed for 225.5 hours per week by 8 parking attendants. The GSD reports that the approved 2007-08 annual operating budget for the garage was $210,676 which equates to $576 per space.

Method of Operation & Revenue Collection:
Hours of Operation - 7AM-12AM Sunday – Thursday, 7AM-2:30AM Friday & Saturday
Access Control
- Transient Parkers - Self-Park upon entry with a time-stamp ticket. Pay-on-exit processed by a single attendant.
- Monthly Parkers – Must display Monthly Permit; permit payments collected via mail and/or online fee processing managed by LADOT.

CITY FACILITY: # 680, Broxton Garage

Parking Rates and Facility Utilization: Transient (Hourly) Parking – First 2 Hours Free when entering and exiting between 8AM and 6PM, $1.50/20 minutes thereafter, and $3 flat rate after 6PM; the monthly rate is $125.

DESMAN found that vehicle occupancy peaked around 92% during weekdays and maintained an occupancy rate above 70% for the entire period from 10AM – 8PM; the weekend peak occupancy hit 89%.

The Westwood Village Commercial District Summary:

Land Use/Area Description

- Casual Dining and Fast Food Restaurants
- High-End retail shops and boutiques along Broxton Avenue and Westwood Boulevard
- Mid-rise office buildings on Westwood Boulevard
- Movie Theatre and Whole Foods Market

Neighborhood

- Multi-Family residential
- Young, friendly UCLA community

Primary Traffic Thoroughfare: Westwood Boulevard

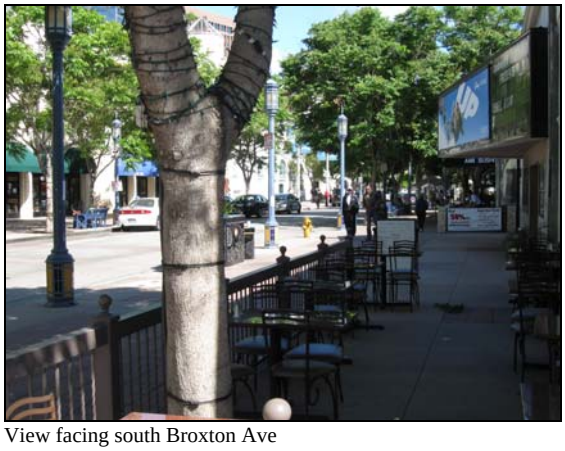
- 4-lane, high traffic thoroughfare
- On-street pay-by-space public parking along Westwood Boulevard

Pedestrian Traffic

- High pedestrian traffic mostly -generated by convenient retail, service establishments and outdoor eating areas

WESTWOOD PARKING MARKET AREA

View Broxton Ave from Weyburn Intersection



View facing south Broxton Ave

CITY FACILITY: # 680, Broxton Garage

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CITY FACILITY: # 680, Broxton Garage

Existing Public Parking

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
680	**Broxton Garage**	**1036 Broxton Ave**	**Garage**	**366**	**LADOT/ GSD**	**----**	**7AM-12AM Su–Th 7AM-2:30AM F-Sa**	**Free**	**Free**	**$8.00**	**$3.00 Nightly**	**$125.00**	**$1.50 ea 20 mins. 1st-2hrs**	**92%**	**70%**	**70%**		**Attendant/Gates/ Fee Computer**
1	Unknown	924 Westwood	Garage	296	SP	2 blocks	7AM-12AM Su-Sa	$10.00	$20.00	$20.00	$7.00	-	-	Med	-	-	-	Attendant/Booth Time Stamped Tkt
2	Unknown	980 Gayley	Lot	27	VSP	1 block	7AM-12AM Su-Sa	$7.00	$7.00	$7.00	$7.00	-	-	High	Med	Med	High	Attendant Parked
3	Unknown	1030 Gayley Ave	Garage	92	MPI	0.5 block	9AM-12AM Sa-Su	$8.00	$8.00	$8.00	$5.00 Nightly		-	High	High	Med	High	Attendant/Booth Time Stamped Tkt
4	Unknown	1031 Broxton Ave	Lot	55	MPI	<0.5 blocks	8AM-12PM Sa-Su	$4.80	$8.00	$8.00	$3.00 Nightly	-	-	High	Med	-	-	Attendant/Booth Time Stamped Tkt
5	Gayley Plaza	962 Gayley Ave	Lot	23	FAMA	1.5 blocks	8AM-11PM Su-Sa	$6.00	$6.00	$6.00	$6.00	-	-	-	High	-	-	Valet Attendant
6	Unknown	10922 Le Conte Ave	Lot	126	VSP	1.5 blocks	8AM-11PM M-W 8AM-12AM Th 8AM-1AM Sa 10AM-1AM Sa 10AM-11PM Su	$6.50	$11.75	$11.75	$5 After 4PM	-	-	High	High	-	-	Attendant/Gates/ Fee Computer
7	Westwood Village Square	10920 Lindbrook Dr	Garage	233	AMPCO	1.5 blocks	8:30AM-11PM M-F 8AM-11PM Sa 10AM-10PM Su	$9.00	$15.75	$15.75	$6 after 5PM	$140.00	-	Low	-	-	-	Attendant/Booth Time Stamped Tkt
8	Westwood Center	1100 Glendon	Garage	708	SP	2 blocks	6AM-12PM M-F 9AM-11PM Sa-Su	$11.00	$22.00	$25.00	-	-	-	High	-	-	-	Attendant/Booth Time Stamped Tkt
9	Palazzo Westwood Village	1058 Glendon Ave	Lot	27	HP	2 blocks	24-hours Daily	$8.00	$16.00	$16.00	-	-	-	-	Low	-	-	Automated Time Stamp
10	Unknown	10920 Weyburn Ave	Lot	43	VSP	<0.5 blocks	9AM-11PM M-Sa	$9.00	$10.50	$10.50	$5 After 4PM	-	-	-	High	-	-	Attendant/Booth Time Stamped Tkt

Parking Operator Abbreviations

LADOT	Department of Transportation
GSD	General Service Department
SP	Sunshine Parking
VPS	Valet Parking Services
MPI	Modern Parking Inc.
AMPCO	AMPCO System Parking

CITY FACILITY: # 680, Broxton Garage

Parking Market Area Assessment: There are 10 competing pay public parking facilities located within 2 blocks of the Broxton Garage. All of the facilities are privately-owned and are evenly divided between surface lots and garages. Four of the garages are connected or vertically integrated into commercial or residential structures, and thus capture parking demand generated by the adjoining land uses. A majority of the competing facilities, both lots and garages, charge rates that are significantly higher than those charged at the Broxton Garage; this is true of both the hourly rate and the flat rate. None of the competing facilities offer any duration of free parking time.

Future Market Area Growth Prospects: The Westwood Village area is fully developed and appears to have undergone recent redevelopment including new streetscapes and building façade upgrades. The density of commercial space along Broxton Avenue is low to moderate as most buildings are two stories tall. There are no significant redevelopment projects scheduled, being planned or envisioned in the immediate vicinity of the Broxton Parking Garage that would generate a substantive growth in employment and commerce from the current levels. However, higher tenancy in the retail space located in the Broxton Garage and along Broxton Avenue could generate additional parking demand.

Broxton Garage Performance Enhancement Potential: Given the characteristics of the area immediately surrounding the Broxton Parking Garage and the operational policies currently in place, it is DESMAN's opinion that the prospects for parking revenue growth tied to future land use and population changes will trend at the current low to moderate rate but that there is great revenue growth potential if certain operational improvements were to be made. Altering or eliminating the policy of giving users 2 free hours of parking between 8AM and 6PM would result in huge revenue gains. Furthermore, the hourly and flat rates charged at the facility could and should be raised to at least the market rates charged by the competing facilities. The consistently high occupancy of the Broxton Garage indicates that the opportunity exists to charge higher rates, and to charge at all times, in order to generate additional revenues.

Proposed Parking Rates, Private Operator Model: Based upon the market area of this facility, current utilization rates, parking industry pricing standards, and the rates charged at the competing facilities, the following schedule of parking rate increases was developed for use in the Private Operator Revenue and Expense Projection Model:

		Current Rates (Base)	Year 1	Year 2	Year 3	Year 4	Year 5
Broxton Garage #681	Hourly	**$1.50/20min. >2 hrs Free**	$3.00/hr >1 hr Free		$3.00		
	Daily Max.	**$8.00**		$10.00			
	Event	**$3.00 >6PM**	$5.00 >5PM			$8.00 >5PM	
	Monthly	**$125.00**		$140.00			$160.00

CITY FACILITY: # 680, Broxton Garage

Significant changes to the rate schedule were assumed for the Broxton Garage in the private operator model because the current rate schedule is not in line with that of its competitors. First, it was assumed that the policy of providing every customer entering the facility before 6 PM with two hours of free parking would be changed to allow one hour a free parking before 5 PM; this is a very conservative approach as most private operators would likely eliminate the policy all together. Secondly, the flat rate charged during the evenings was raised significantly due to the fact that the current $3 rate is approximately 40 – 60% of the average rate charged by the competing facilities. Lastly, because of very strong demand (the facility reach peak occupancy levels above 90%), hourly, daily, event, and monthly rates were all assumed to continue growing rapidly throughout the first five (5) years that the facility would be controlled by a private operator.

Due to the current high utilization at the facility, future revenue growth will be driven almost exclusively by increasing rates. Based on the data gathered by DESMAN during the facility utilization surveys and on the information supplied by the City, the Broxton Garage has the potential to generate significantly higher revenues if rates are increased and the free parking policy is changed.

CITY FACILITY: # 690
Ventura Garage
Studio City

Facility Location: 12225 Ventura Blvd, located on the north side of Ventura Blvd, between Vantage Ave and Laurelgrove Ave. Studio City Parking Meter Zone 510, City Council District 2

Facility Description: The facility is a 4-level parking free-standing structure. The garage has a 307-space capacity (incl. 9 ADA spaces) and is setback approximately 60 feet from Ventura Boulevard. An ornate illuminated archway placed at the edge of the sidewalk marks the entrance drive to the garage from Ventura Boulevard and a separate but parallel exit drive from the garage is situated along the west property of the land parcel.

Operator: The LADOT has executed a Memorandum of Understanding (MOU) with the City's General Services Department (GSD) to provide on-site staff to control access and collect revenue at the facility and to perform routine maintenance. A total of 6 employee positions are used to staff the facility over 169.5 hours per week. The GSD reports that the approved 2007-08 annual operating budget for the garage was $256,643 which equates to $646 per space.

Method of Operation & Revenue Collection:
Hours of Operation - 7AM-10:30PM SU-TH, 7AM – 12AM F-SA, No Overnight Parking
Access Control
- Transient Parkers – Automated ticket dispenser and access gates allow free entry and an attendant processes parking charges (some of which are discounted through a local validation program) and using fee computer from a booth at the gated exit lane.
- Monthly Parkers – Issued a parking access to open the entry and exit gates.

CITY FACILITY: # 690, Ventura Garage

Parking Rates and Facility Utilization: Transient (Hourly) Parking - all transient parkers are allowed free parking for the first 20 minutes, $.50 is the rate for the next 40 minutes, $1.00 per hour for the next tow hours and thereafter transient parkers are charged $2.00 per hour up to a maximum all day rate of $4.50. The majority of the grade level parking spaces are designated for customers of the Bank of America who are granted free parking upon the presentation of Bank validated parking ticket. Under a lease agreement, the Bank of America pays the City $24,317 annually for this validated customer parking. Additionally, local area merchants may purchase similar validations for their customers in either hourly or all-day increments at a 10% discount off the market parking rate. Monthly parking permits are $38.50.

STUDIO CITY PARKING MARKET AREA


View Ventura Blvd at Laurelgrove Ave intersection


View facing east along Ventura Blvd

The Studio City Commercial District Summary:

Land Use/Area Description

Ventura Blvd
- Casual Dining and Fast Food Restaurants
- Retail shops and boutiques along Ventura Blvd
- Low-rise and store front offices

Neighborhood
- Single family and multi-family residential
- Quiet, residential neighborhood south of Ventura Blvd.
- District 57 permit parking on residential streets. Enforced from 6PM-8AM daily

Primary Traffic Thoroughfare: Ventura Blvd. one block west of Van Nuys Blvd
- 4-lane, high traffic thoroughfare
- On-street Pay-by-Space meters enforced from 8AM -8PM

Pedestrian Traffic
- High pedestrian traffic
- Large amount of convenient retail

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CITY FACILITY: # 690, Ventura Garage

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CITY FACILITY: # 690, Ventura Garage

Existing Public Parking

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
629	**Ventura Garage**	**12225 Ventura Blvd**	**Garage**	**397**	**LADOT/ GSD**	**----**	**7PM-10:30PM Su-Th 7AM-12AM F-Sa**	**1st 20 Mins Free/ $0.50**	**$1.50**	**$4.50**		**$38.50**	**Free/ 10% off**	**17%**	**5%**	**8%**	**3%**	**Attendant/Gates/ Fee Computer**
1	California Pavilion Garage	12265 Laurel Grove Ave	Garage	86	CP	0.5 block	10AM-8 PM Daily	$3.60	$7.20	$8.00	-	-	-	Low	-	Low	-	Unmanned/ Free
3	Unknown	3970 Laurel Canyon Blvd	Lot	290	Unknown	1 block	Retail Store Hour	FREE	FREE	FREE	-	-	-	High	-	High	-	Unmanned/ Free
2	Unknown	12178 -12102 Ventura Blvd	Lot	454	Unknown	1 block	Retail Store Hour	FREE	FREE	FREE	-	-	-	High	-	High	-	Unmanned/ Free
4	Good Earth Office Garage	123 Ventura Ct	Garage	141	Unknown	1 block	10AM-8 PM Daily	-	-	-	-	No Monthly	-	High	-	Low	-	Unmanned/ Free

Parking Operator Abbreviations

LADOT	Department of Transportation
GSD	General Service Department
CP	California Parking

CITY FACILITY: # 690, Ventura Garage

Parking Market Area Assessment: There is an abundance of public and semi-public off-street parking in the Studio City neighborhood surrounding the Ventura Garage. The only pay parking location besides the Ventura Garage is located at the California Pavilion where underground parking is priced at $3.60 per hour up to an $8.00 all day maximum charge. The Ventura Garage is also situated between private properties that provide off-street parking solely for tenant employees and patrons. The City has installed $1.00 per hour on-street multi-space parking meters along Ventura Boulevard. Parking activity is predominantly short term nature as turnover of both on-street and at off-street facilities is very high. All of the off-street parking facilities have un-used parking capacity during the peak demand period. Occupancy at the Ventura Garage rarely if every surpasses 30% of the 397-space capacity of the facility even though the first 20 minutes of parking time at the Ventura Garage is free to all users.

Future Market Area Growth Prospects: The geography of the Studio City commercial district and surrounding neighborhood is linear and largely oriented to Ventura Boulevard. The density of commercial space along Ventura Avenue is low to moderate as most buildings are one and two stories tall. There are no significant redevelopment projects scheduled, being planned or envisioned in the immediate vicinity of the Ventura Parking Garage that would generate a substantive growth in employment and commerce from the current levels. Daytime parking demand is expected to generally be generated by commercial retail and service establishments along Ventura Boulevard while evening parking demand will continue to be driven by area restaurant trade.

Ventura Garage Performance Enhancement Potential: Given the characteristics of the area immediately surrounding the Ventura Parking Garage it is DESMAN is opinion that the prospects for parking revenue growth tied to future land use and population changes will trend at a low to moderate rate. Given the area wide surplus of parking during peak demand periods prospects for increasing revenue by raising rates are unlikely for the foreseeable future. However, there should be some consideration given to altering the current free parking program since slightly more than half of all the transient parkers pay no charge.

Proposed Parking Rates, Private Operator Model: Based upon the market area of this facility, current utilization rates, parking industry pricing standards, and the rates charged at the competing facilities, the following schedule of parking rate increases was developed for use in the Private Operator Revenue and Expense Projection Model:

		Current Rates (Base)	Year 1	Year 2	Year 3	Year 4	Year 5
Ventura Garage #691	Hourly	**$.50 w/ 1st 20mins. Free**	$1.00 Flat				
	Daily Max.	**$4.00**	$1.00 Flat				
	Event		$1.00 Flat				
	Monthly	**$38.50**	$25.00				

CITY FACILITY: # 690, Ventura Garage

The proposed rate schedule for the Ventura Garage was developed with the aim of drastically increasing utilization and revenue in an area where many parking options are available. In the model, it was assumed that rates for ALL patrons (including Bank of America customers) would be set at $1 per day. The current policy of giving Bank of America customers 20 minutes of free parking has resulted in high transaction volumes but very low revenues (according to the LADOT, at present, approximately 53% of the transactions processed by the facility are at no charge because of this policy). Charging a flat rate to all patrons is projected to decrease the number of transactions by approximately 35% but to increase the revenue generated by the facility significantly.

As a result of lowering the daily rate charged at the Ventura Garage, monthly rates would also have to be lowered so as not to inspire current monthly parkers to pay on a daily basis instead of buying a monthly permit. Due to the relatively small number of monthly permits sold every month (currently about 63 a month), reducing the rate will not have a significant negative impact on revenue.

Rate changes beyond the first year of private operator control could not be established because the operator's ability to increase utilization at the facility will be the determining factor of whether or not future rate increases are possible.

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CITY FACILITY: # 703

123 South Robertson Boulevard
Carthay Neighborhood

Facility Location: 123 South Robertson Boulevard, located on Robertson Boulevard between 3rd Street and Alden Street, Robertson – Alden Parking Meter Zone 528, City Council District 5

Facility Description: The garage has a 334-space capacity (incl. 8 ADA spaces). Ingress and egress to the facility is provided from South Robertson Avenue via one entry and one exit lane. The garage is located one block west of Cedars-Sinai Medical Center. The facility also contains two retail spaces located on Robertson Avenue.

Operator: The LADOT has executed a Memorandum of Understanding (MOU) with the City's General Services Department (GSD) to provide on-site staff to control access and collect revenue at the facility and to perform routine maintenance. The facility is staffed for 224 hours per week by 7 parking attendants. The GSD reports that the approved 2007-08 annual operating budget for the garage was $150,150 which equates to $450 per space.

Method of Operation & Revenue Collection:
Hours of Operation – 6AM-12:30AM Monday – Saturday, 9AM-7PM Sunday
Access Control
- Transient Parkers - Self-Park upon entry with a time-stamp ticket. Pay-on-exit processed by a single attendant.
- Monthly Parkers – Must display Monthly Permit; permit payments collected via mail and/or online fee processing managed by LADOT.

Parking Rates and Facility Utilization: Transient (Hourly) Parking – Parking fee is $2.00/hour with a $12.00 daily maximum; the Monthly Rate is $125.00

DESMAN found that vehicle occupancy peaked around 37% during weekdays and 25% on the weekend.

CITY FACILITY: # 703, Robertson Garage

The Carthay District Summary:

Land Use/Area Description

- White linen and casual dining
- High-end retail and boutiques
- Low rise office and medical buildings
- Cedars-Sinai Medical Center

Neighborhood

- Multi-family mid rise residential
- Area of young, urban professionals

Primary Traffic Thoroughfare: South Robertson Boulevard

- 2-lane, high traffic thoroughfare
- On-street single-space parking meters

Pedestrian Traffic

- Moderate pedestrian traffic mostly -generated by street retail, service establishments and outdoor eating areas

CARTHAY PARKING MARKET AREA

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CITY FACILITY: # 703, Robertson Garage

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CITY FACILITY: # 703, Robertson Garage

Existing Parking Facilities

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
703	**Robertson Garage**	**123 S. Roberston Blvd**	**Garage**	**334**	**LADOT/ GSD**	**----**	**6AM-12:30AM M-Sa 9AM-7PM Su**	**$2.00**	**$4.00**	**$12.00**		**$125.00**		**37%**		**25%**		**Attendant/Gates/ Fee Computer**
756	George Burns Garage	139 George Burns Rd	Garage	78	LADOT	1.5 blocks	9AM-10PM M-Sa	$2.00	$4.00	$8.00	-	-	-	High	-	-	-	Unmanned/ Pay-by-Space
1	Unknown	8744 Beverly Blvd	Lot	50	-	2.5 blocks	8AM-6PM M-Sa	$4.00	$8.00	$8.00				High		Med		Attendant/Booth Time Stamped Tkt
2	Pacific Theatre	116-120 N. Robertson Blvd	Garage	300	PCOA	1 block	8AM-6PM M-Sa	$9.00	$17.50	$17.50	-	$148.50 Non Res. $203 Res	-	-	-	High	-	Attendant/Booth Time Stamped Tkt
3	Cedars-Sinai Medical Center	140 George Burns Rd	Garage	409	AMP	1.5 blocks	8AM-10PM M-Sa	$7.80	$13.65	$13.65	-	-	-	High	-	-	-	Attendant/Gates/ Fee Computer
4	Unknown	8640 West 3rd Street	Lot	20	PMG	1.5 blocks	-	$8.00	$16.00	$20.00	-	-	-	Med	-	-	-	Attendant/Booth Time Stamped Tkt

Parking Operator Abbreviations

LADOT	Department of Transportation
GSD	General Service Department
AMP	Auto Mac Parking
PCOA	Parking Company of America

CITY FACILITY: # 703, Robertson Garage

Parking Market Area Assessment: Five (5) competing pay public parking facilities are located within 2 ½ blocks of the Robertson Garage, of which, only one (1) is controlled by the LADOT. City facility number 756, also called the George Burns Garage, combines public spaces on a portion of the ground floor with Cedars-Sinai employee spaces on the remainder of the ground floor and the floors above. There are 78 public spaces on the ground floor controlled by a pay-by-space machine. Two of the other public facilities, labeled 3 and 4 on the map, serve mainly hospital patrons while facilities 1 and 2 service particular buildings; facility one is located behind a low-rise office building and facility 2 is part of the Pacific Theater property.

There is an abundance of both free and metered on-street parking available on the streets surrounding the Robertson Garage. The residential streets surrounding the facility do not employ a residential permit parking program to discourage parking by non-residents.

Parking rates in the area vary widely from facility to facility with hourly rates ranging from $2 - $9 and monthly rates ranging from $125 - $203.

Future Market Area Growth Prospects: The area surrounding the Robertson Garage is fully developed with a high density of commercial, retail and residential space. The Cedars-Sinai Medical Center campus, located less than half a block from the garage, is the main parking generator in the area and is also the site of the only significant development planned for this market area. Despite the planned construction of two major medical office buildings within the market area of the garage, one proposed for the site of competing facility 4 and the other proposed to be located on the site of the hospital's surface parking lot at the corner of George Burns Road and Gracie Allen Drive, it is not expected that these projects will greatly impact future parking demand at the Robertson Garage. Despite the fact that both projects combined will add approximately 400,000 square feet of medical office to the market area and will eliminate existing parking, parking structures planned as part of both projects will likely absorb the additional demand.

Robertson Garage Performance Enhancement Potential: Taking into account the land-use characteristics of the parking market area and the proposed developments at the Cedars-Sinai Medical Center campus, it is DESMAN's opinion that parking demand growth at the Robertson Garage will continue at a low rate in the future. Given the current low occupancy of the facility, it is also unlikely that raising rates would generate any significant revenue growth. Two possible avenues for generating additional revenue could be increased marketing of the facility to current patrons of the area or some kind of arrangement with the Medical Center whereby employees could park in the Robertson Garage at a reduced rate.

Proposed Parking Rates, Private Operator Model: Based upon the market area of this facility, current utilization rates, parking industry pricing standards, and the rates charged at competing

CITY FACILITY: # 703, Robertson Garage

facilities, the following schedule of parking rate increases was developed for use in the Private Operator Revenue and Expense Projection Model:

		Current Rates (Base)	Year 1	Year 2	Year 3	Year 4	Year 5
Robertson Garage #704	Hourly	**$2.00**					$4.00
	Daily Max.	**$12.00**					$15.00
	Event						
	Monthly	**$125.00**					$140.00

Due to low levels of current utilization and to the limited prospects for demand growth within the market area, the rates charged at the Robertson Garage were assumed to remain at their current levels until Year 5 of private operator control. The current rates match well with what the facility's competitor's charge and the increases in Year 5 are assumed to be the market rates at that time. If utilization is increased through additional marketing efforts, the case can be made for additional rate increases.

CITY FACILITY: # 732
Larchmont Garage
Hancock Park

Facility Location: 218 N. Larchmont Blvd, located on the west side of Larchmont Avenue, between Beverly Blvd and W. 1st St. Larchmont Parking Meter Zone 540, City Council District 4

Facility Description: The garage is an underground structure with grade level parking and 4 below grade parking levels. The garage was developed as a public-private venture which enable approximately garage 7,500 SF of privately owned commercial tenant space atop the structure. The space capacity of the grade level is limited as some surface area is occupied by trash dumpsters or used as loading zones for the commercial tenants. The garage has 167 public parking spaces (incl. 6 ADA spaces). Ingress and egress to the facility is provided from Larchmont Boulevard, where an ornate steel archway marks the entry and exit lanes to the facility.

Operator: The LADOT has executed a Memorandum of Understanding (MOU) with the City's General Services Department (GSD) to provide on-site staff to control access and collect revenue at the facility and to perform routine maintenance. A total of 5 employee positions are used to staff the facility 99.5 hours per week. The GSD reports that the approved 2007-08 annual operating budget for the garage was $60,193 which equates to $360 per space.

Method of Operation & Revenue Collection:
Hours of Operation - 7AM-9PM M-Sat, 9AM-5PM Su – No Overnight Parking
Access Control

- Transient Parkers - Self-park upon entry and pay-on-exit processed by a single attendant using a time clock to manually stamp issued parking tickets on entry and again on exit in order to calculate the duration of stay and corresponding parking fee. Attendant also processes tickets the have been validated by tenant and manager of the commercial space atop the garage.

CITY FACILITY: # 732, Larchmont Garage

- Monthly Parkers – Must display Monthly Permit to the attendant upon entry.

Parking Rates and Facility Utilization: Transient (Hourly) Parking - $.75 every 30 minutes, $1.50 per hour, $5.25 maximum all day, Monthly Parking - $60.00. The landlord/merchants of the commercial space atop the garage have contractually which entitle then to distribute up to 13,550 (1-hour or less free) parking validation stickers to their customers. The adjacent Rite Aid (retail) drugstore also has a validation arrangement that allows for its customers to receive 1-hour of free parking in the garage and parking at the garage and on Sundays during the operations of the Farmer's Market parking is free.

GSD reports that approximately 348 transient transactions are processed at the garage on a daily basis and that currently 116 monthly permits are in circulation for the garage. DESMAN found that vehicle occupancy in the garage peaked reached a peak of 69% during weekdays and 52% on the weekend between 2pm and 4pm.

HANCOCK PARK NEIGHBORHOOD


View Larchmont Ave facing south


View Larchmont Ave facing north

The Larchmont Commercial District Summary:

Land Use/Area Description

Larchmont Blvd
- Casual Dining and Fast Food Restaurants
- Low Density convenient Retail and personal services establishments and special shops
- Low-Rise office and mid-rise medical buildings north of Beverly Boulevard

Neighborhood
- Single family residents

Primary Traffic Thoroughfare: Beverly Blvd. which intersects Larchmont Blvd
- Beverly Blvd 4-lane, high volume east-west traffic thoroughfare
- Larchmont Blvd 2-lane local access street with angled parking

CITY FACILITY: # 732, Larchmont Garage

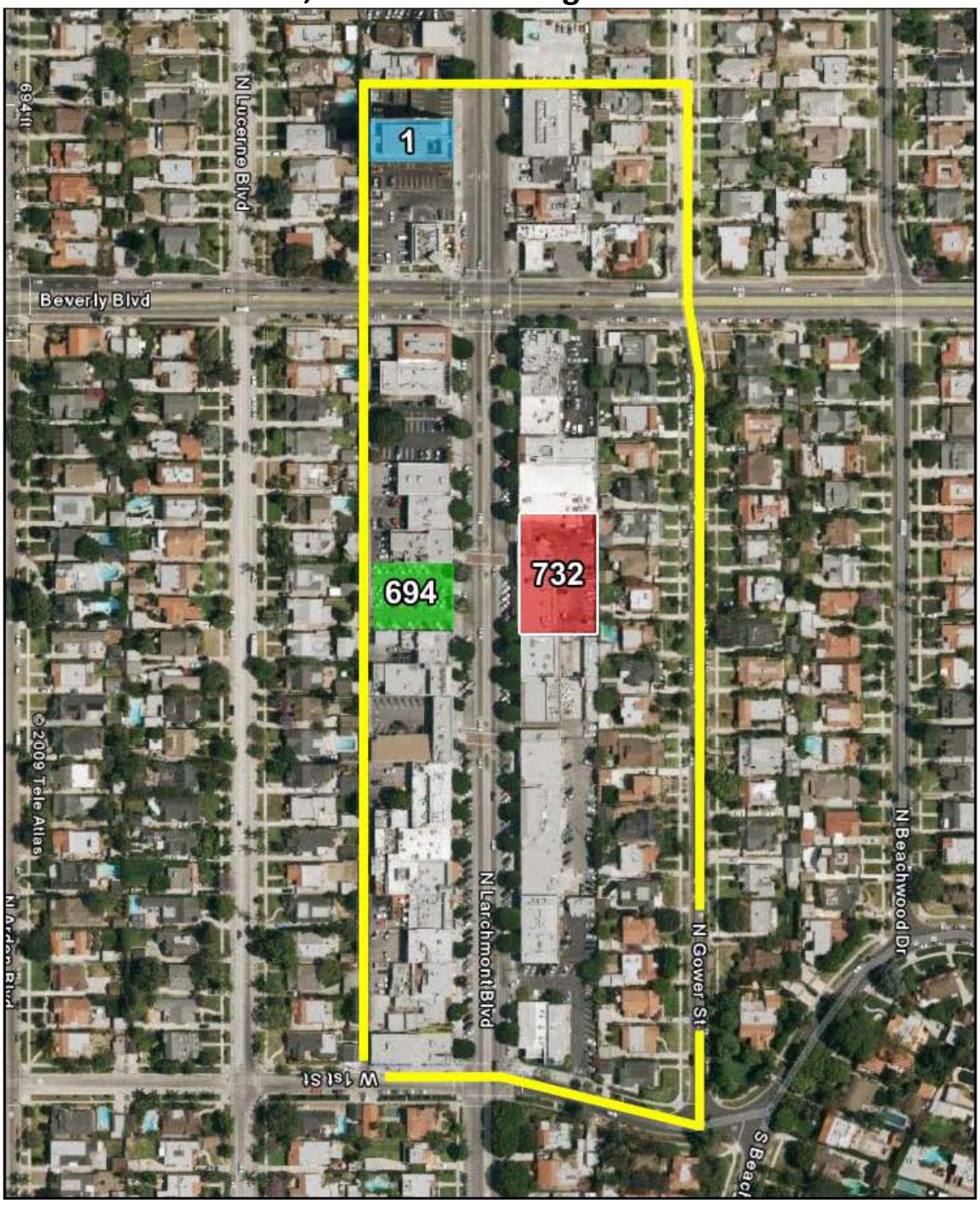
The Larchmont Commercial District Summary: continued

- On-street Pay-by-Space Meters enforced between 8AM-8PM M-Th, 8AM-10PM F-Sa, 11AM-8PM Su
- Street cleaning parking restriction on selected days during varied time periods

Pedestrian Traffic

- Moderate pedestrian traffic mostly -generated by convenient retail, service establishments and outdoor eating areas

CITY FACILITY: # 732, Larchmont Garage



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CITY FACILITY: # 732, Larchmont Garage

Existing Public Parking

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
732	**Larchmont Garage**	**218 N. Larchmont Blvd**	**Garage**	**167**	**LADOT/ GSD**	**----**	**8PM-8 M-TH 8AM-11PM F-SA 11AM-5PM Su**	**$1.50**	**$3.00**	**$5.25**	-	**$60.00**	**1-hr Free**	**69%**	**41%**	**52%**	**13%**	**Attendant/Booth Time Stamped Tkt**
694	Larchmont Lot	209 N. Larchmont Blvd	Lot	34	LADOT	<0.5 blocks	7AM-12AM Daily	$0.50	$1.00	$4.00	-	-	-	High	High	High	High	Unmanned/ Pay-by-Space
1	Unknown	314 N. Larchmont Blvd	Garage	150	AMPCO	1.5 blocks	7:30AM-7PM M-F	$2.85	$5.70	$6.65	-	-	-	Med	-	-	-	Attendent/Gates Fee Computer

Parking Operator Abbreviations

LADOT Department of Transportation
GSD General Service Department
AMPCO AMPCO System Parking

CITY FACILITY: # 732, Larchmont Garage

Parking Market Area Assessment: The mix of convenient and community oriented retail, service establishments and restaurants along Larchmont Boulevard are a magnate for short term transient parkers. The angled on-street parking layout along Larchmont Boulevard allows for a more dense concentration of spaces. Based prevailing utilization, it appears that transient parkers prefer parking on-street or at the City owned surface Parking Lot #694 over parking in the underground Larchmont Garage.

Future Market Area Growth Prospects: The Larchmont commercial district is comprised of small one and two story commercial buildings which collectively create a village town center environment that isn't likely to be dramatically changed in the future. No significant redevelopment projects are scheduled or being planned in the immediate vicinity. Therefore, parking demand in the area is not expected to grow much beyond the current levels and any increase will be the result of the changing tenancy of the small commercial buildings that line Larchmont Boulevard.

Larchmont Garage Performance Enhancement Potential: Given the characteristics of the area immediately surrounding the Larchmont Parking Garage it is DESMAN is opinion that the prospects for parking revenue growth tied to land use and population changes will be insignificant. Given the prevailing parking demand and the limited supply of convenient spaces in the Larchmont area there should be a moderate potential to slightly increased rates as a means to grow revenue.

Proposed Parking Rates, Private Operator Model: Based upon the market area of this facility, current utilization rates, parking industry pricing standards, and the rates charged at the competing facilities, the following schedule of parking rate increases was developed for use in the Private Operator Revenue and Expense Projection Model:

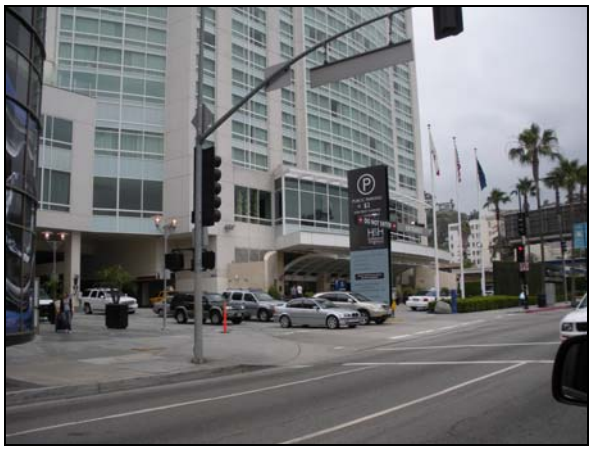
		Current Rates (Base)	Year 1	Year 2	Year 3	Year 4	Year 5
Larchmont Garage #733	Hourly	**$1.50**					$1.75
	Daily Max.	**$5.25**					$6.00
	Event						
	Monthly	**$60.00**					$70.00

Based on the availability of parking alternatives and the makeup of the market area, hourly rates at the Larchmont Garage were assumed to increase only by inflation (assumed to be 3%) until they reached the next 25 cent increment. The daily maximum and monthly rates were also increased at the same time to a level that is proportionate to the hourly rate increase.

CITY FACILITY: # 745

Hollywood Highland Garage

Hollywood



Facility Location: 6801 Hollywood Blvd, located on the northwest corner of Highland Avenue and Hollywood Blvd. Hollywood Vine Parking Meter Zone 546, City Council District 13

Facility Description: This is an underground garage with a 3,006-space capacity (incl. 41 ADA spaces) that is vertically integrated into the Kodak Theatre and retail mall complex. Ingress and egress to the facility is provided both from Highland Avenue on the east and Orange Drive on the west.

Operator: In 2007 LADOT executed a 36-month Parking Management and Operations Agreement with a private operator, New South Parking (NSP) to control access and collect revenue at the facility, provide parking valet services and perform repairs and maintenance – security services and maintenance services elevator lobbies and escalator landing are excluded responsibilities. The NSP's annual operating budget approved for 2007-08 was $2,195,136 which equates to $730 per space.

Method of Operation & Revenue Collection:

Hours of Operation – 10AM – 10PM Su-Th, 10AM -2AM F-Sa, No overnight parking except for hotel guests

Access Control

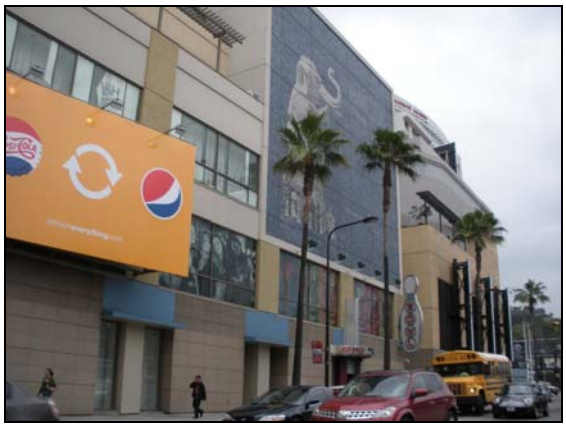
- Transient Parkers - Self-Park after receiving an automatically dispensed parking ticket upon entry and pay-on-exit is processed by an attendant using fee computer terminal that reads the encoded tickets, establishes the parking charges and calculates validation discounts.
- Monthly Parkers – Monthly permit parkers use proximity access card to gain access through the gated entry and exit lanes.

CITY FACILITY: # 745, Hollywood Highland Garage

Parking Rates and Facility Utilization: Transient (Hourly) Parking - all regular transient parkers are charged $1.00 every 20 minutes up to a maximum all day rate of $10.00. Patrons with validations from merchants and enterprises in the commercial complex receive the first 4 hours of parking for a $2.00 rate. The regular monthly parking permit rate is $95.00, however up to 100 quarterly permits may be sold at the discounted rate of $150. A cap of 1,000 monthly permits may be sold if warranted by demand and if short-term transient parking is not adversely impacted. The hotel in the complex is contractually entitled to 300 spaces for its sole and exclusive use at the fixed daily rate of $10.00, while the hotel receives all the revenue it charges hotel guest for self-park and valet operations.

DESMAN found that vehicle occupancy in the garage hovered around 24% during weekdays and parked vehicle volumes peaked at 61% on the weekends between 6pm and 8pm.

HOLLYWOOD PARKING MARKET AREA



The Hollywood Highlands Retail and Entertainment District Summary:

Land Use/Area Description

Hollywood Blvd and Highland Ave
- Casual dining and fast food restaurants
- Tourist attractions, Walk of Fame
- Cinemas, Large Special Event, Nightclubs
- 640 room/33 suite Renaissance Hotel
- Retail apparel and gift shops
- High-rise and mid-rise offices

Neighborhood
- low-rise multi-family apartments and condominiums

CITY FACILITY: # 745, Hollywood Highland Garage

Primary Traffic Thoroughfare: Hollywood Blvd. and Highland Ave

- 4-lane, high traffic thoroughfare
- On-street single space meters from 8AM -8PM

Pedestrian Traffic

- High pedestrian traffic
- Tourist destination, active night life

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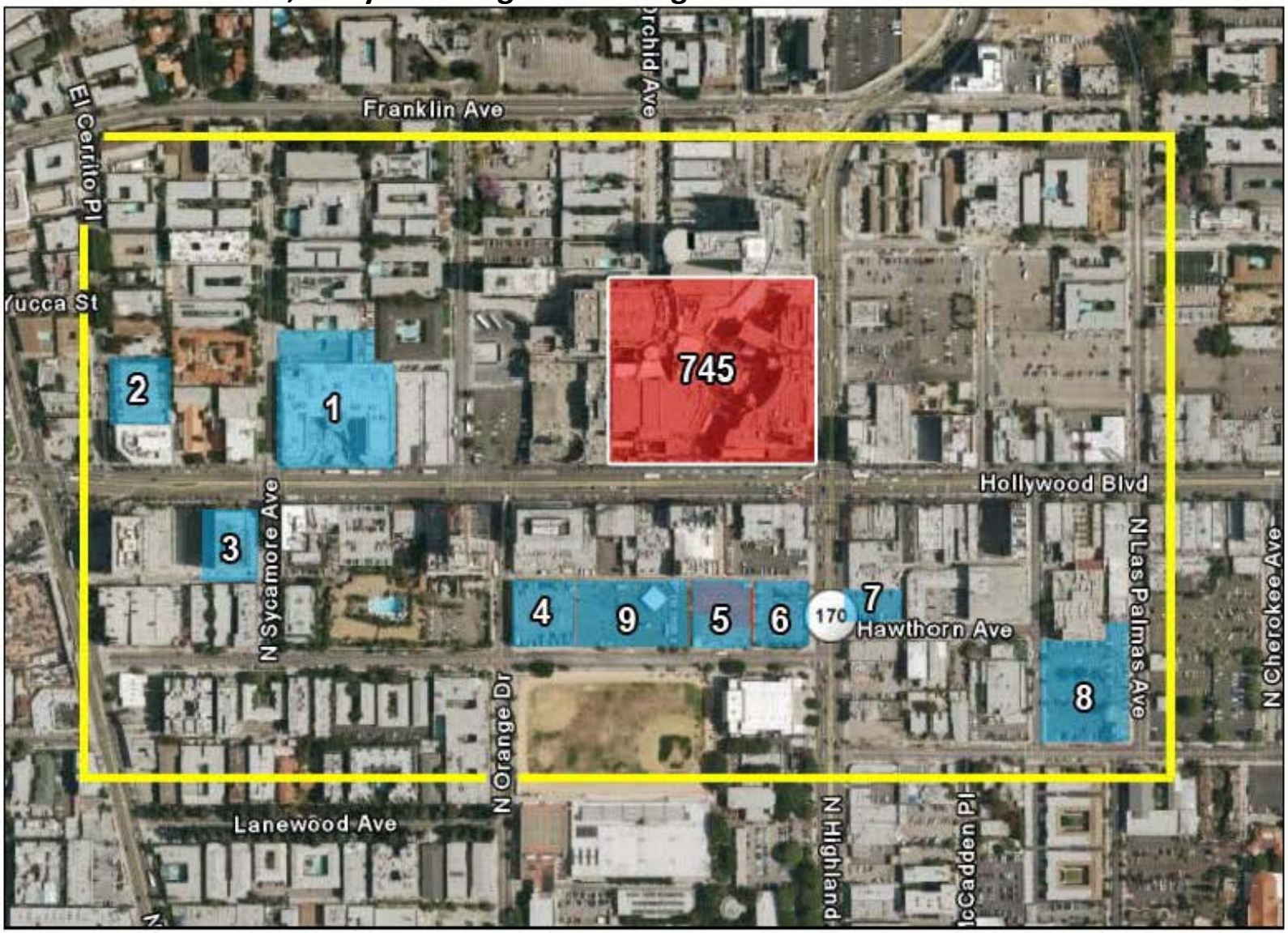
CITY FACILITY: # 745, Hollywood Highland Garage



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CITY FACILITY: # 745, Hollywood Highland Garage

Existing Public Parking

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
745	**Hollywood Highland Garage**	**6801 Hollywood Blvd**	**Garage**	**3025**	**LADOT/ NSP**	**----**	**10AM-10PM Su-Th 10AM-2AM F-Sa**	**$3.00**	**$6.00**	**$10.00**		**$95.00 $50.00 Qtr.**	**$2 - 4hrs**	**23%**	**24%**	**47%**	**61%**	**Attendant/Gates/ Fee Computer**
1	Hollywood Galaxy	7021 Hollywood Blvd	Garage	690	-	2 blocks	8AM-10PM Daily	$8.00	$8.00	$8.00	-	-	-	-	-	-	-	Auto Pay Station
2	Unknown	7083 Hollywood Blvd	Garage	189	AMPCO	2.5 blocks	7AM-8PM M-Th 8AM-2AM F 5PM-2AM Sa-Su	$8.00	$12.00	$12.00	$8 After 5PM	-	-	High	-	-	-	Attendant/Gates/ Fee Computer
3	Unknown	7060 Hollywood Blvd	Garage	163	SP	2 blocks	8AM-11PM M-W 8AM-2AM Th-Sa	-	-	-	$10<6PM $20>6PM	$100.00	-	-	-	-	-	Attendant/Gates/ Fee Computer
4	Unknown	6922 Hollywood Blvd	Garage	397	SP	1 block	8AM-11PM Su-Sa	$9.00	$18.00	-	$16.00	-	-	High	-	-	-	Attendant/Gates/ Fee Computer
5	Jimmy Kimmel Theatre	1641 Hollywood Blvd	Lot	141	CP	1.5 blocks	24-hours Daily	$10.00	$10.00	$15.00	-	-	-	High				Attendent Booth
6	Unknown	1639 N. Highland	Lot	63	QPS	1 block	24-hours Daily	$10.00	$10.00	$10.00			-	Med	-			Attendent Booth
7	Mel's Drive-In	1406 Highland Ave	Lot	32	GP	1 blocks	-	$8.00	$10.00	$10.00	-	-	-	-	-	-	-	Attendent Booth
8	Eygptian Theatre Parking	1526 McCadden Pl	Lot	249	GP	2 blocks	8AM-2AM Daily	$10.00	$10.00	$10.00	$8.00	$80.00	-	High	-	-	-	Valet
9	Hollywood Business Center	1800 Hollywood Blvd	Garage	187	AMPCO	1 block	8AM-6PM M-F 9AM-1AM Sa	$9.00	$10.00	$10.00	-	-	-	-	Low	-	-	Time Stamp Ticket

Parking Operator Abbreviations

LADOT	Department of Transportation
GSD	General Service Department
AMPCO	AMPCO System Parking
SP	Sunshine Parking
CP	California Parking
GP	Grant Parking
QPS	Quality Parking Services
NSP	New South Parking

CITY FACILITY: # 745, Hollywood Highland Garage

Parking Market Area Assessment: The Hollywood-Highland area is the primary destination for visitors and tourists arriving by tour bus, public transit, and automobile. The limits of the parking market area for the Hollywood Highland Garage represent the walking distances from this attraction that most visitors to the area would find acceptable. Residents that inhabit the low rise apartment complexes to the north lack an adequate supply of off-street parking and thus depend on on-street spaces to satisfy their overnight parking needs. Area employees that drive to work are burden by parking rates that are geared more toward to visitor parking demand.

The 3025-space capacity of the Hollywood Highland Parking Garage accounts for 61% of the 4,949 off-street parking spaces in the area. Four parking garages to the west of the Hollywood Highland Center collectively account for 29% (1,439 spaces) of the total supply and five surface lots to the south and east of the Center account for 10% of the supply. The garages in the area, which are all adjoining uses to commercial properties, are predominantly used by employees and visitors of building tenants, while the surface lots are operated in a manner to capture the high turnover transient demand.

The Hollywood Highland Garage is clearly the most secure and strategic parking location in the area. However, access to the parking facility from Orange Drive is obscure and high traffic volumes make accessing the garage from Highland Avenue difficult for most unfamiliar visitors. Parking rates at the Hollywood Highland Garage, which can be discounted with merchant validations, are slightly lower than those at the other parking structures in the area.

Future Market Area Growth Prospects: The area surrounding the Hollywood Highland Garage is a local historic district which means the majority of existing buildings will preserved and restored over time rather than be replaced by larger more dense developments. The only significant known development in the area will be on two former surface parking lot sites located north of Hollywood Boulevard between Highland Avenue and Las Palmas Avenue along Yucca Street. This project is programmed to include 470 high rise condominium/apartment units, 8,500 SF of ground floor retail space and approximately 500 parking spaces. The project will replace more than 300 surface parking spaces that had been available to the general public with 500 spaces that will mostly be dedicated to the long-term and overnight parking needs of the project residents. Therefore, the Hollywood Highland Garage and other nearby off-street parking facilities should experience some gain in demand parking transient.

Hollywood Highland Garage Performance Enhancement Potential: Visitors' attraction to the area will remain strong and quality of commercial tenants occupying the Hollywood Boulevard properties should continue to improve so the demand for parking in the area should continue to increase at a moderate rate. At the same time prospects for substantial parking supply gains will be limited by City imposed redevelopment guidelines geared toward the preservation of the existing built environment. Furthermore, the Hollywood Highlands Garage accounts for

CITY FACILITY: # 745, Hollywood Highland Garage

more than 60% of the off-street parking in the area, the parking rate schedule established for the facility will tend to set the benchmark for rates at the other off-street parking facilities in the market area. Therefore, gains in parking revenue in the future should be achievable through the adoption of higher parking rates and, to a lesser extend, more aggressively marketing the underutilized capacity the parking facility.

Proposed Parking Rates, Private Operator Model: Based upon the market area of this facility, current utilization rates, parking industry pricing standards, and the rates charged at the competing facilities, the following schedule of parking rate increases was developed for use in the Private Operator Revenue and Expense Projection Model:

		Current Rates (Base)	Year 1	Year 2	Year 3	Year 4	Year 5
Hollywood-Highland Garage #746	Hourly	**$3.00**	$4.00		$6.00		$8.00
	Daily Max.	**$10.00**			$12.00		$15.00
	Event		$15.00		$20.00		$25.00
	Monthly	**$95.00**	$100.00		$120.00		$130.00

The rate increase schedule was developed based on the rates charged at the competing facilities within the market area of the Hollywood-Highland Garage. An Event Rate was added to maximize the revenue that can be generated given the parking facility's location in relation to Hollywood tourist destinations and the Kodak Theater. Because this area of Los Angeles is expected to remain the most visited tourist destination into the foreseeable future, the rate schedule assumes steady increases over the first five (5) years of private operator control.

CITY FACILITY: ALG
Cinerama Dome Garage
Hollywood

Facility Location: 6389 De Longpre Ave, located on the northeast corner of De Longpre Avenue and Ivar Avenue, to the rear of the Cinerama Dome complex. Sunset Vine Parking Meter Zone 511, City Council District 13

Facility Description: The 7-level parking garage has a 1,725-space capacity. Ingress and egress to the facility is provided from Ivar Avenue on the west side of structure and from De Longpre Avenue on the south side of the structure. The garage access from Ivar Avenue has four intake lanes equipped with gates and ticket dispensers and four exit lanes equipped booths, gates and fee computers. The De Longpre Avenue access has three similarly equipped lanes – one inbound, one outbound and one reversible lane. The Sunset Boulevard access point has one entry and one exit lane.

Operator: In 2008 the LA Community Redevelopment Agency (CRA) executed a 36-month Parking Management and Operations Agreement with a private operator, Parking Concepts Inc. (PCI). In additional to receiving an annual management fee of $60,017, PCI is reimbursed up to an annual maximum of $1,200,000 (i.e. $695 per space) for approved operating expenses it incurs to repair, maintain and operate for the garage 24 hours a day.

Method of Operation & Revenue Collection:
Hours of Operation – 24 hours daily
Access Control
- Transient Parkers - Self-Park after receiving an automatically dispensed parking ticket upon entry and pay-on-exit is processed by an attendant using fee computer terminal that reads the encoded tickets, establishes the parking charges and calculates validation discounts.
- Monthly Parkers – Monthly permit parkers use proximity access card to gain access through the gated entry and exit lanes.

CITY FACILITY: Cinerama Dome Garage

Parking Rates and Facility Utilization: Transient (Hourly) Parking - all regular transient parkers are charged $2.00 for each 30 minutes up to a maximum all day rate of $10.00. A $5.00 flat rate is available to early bird parkers who arrive between 5am and 9pm however this user group must exit the garage by 7pm. Patrons with validations from the health Club, retail and restaurant in the Arc Light Cinema Dome complex are charged $2.00 for the first hour and $2.00 each additional 30 minutes up to a $10.00 maximum charge. Patrons with validations from the Theater health are charged $2.00 for the first four hours and $2.00 each additional 30 minutes up to a $9.50 maximum. Monthly parking permits are $100.00.

The Cinerama Dome Garage was constructed to satisfy the parking needs of the 215,197 SF Dome Entertainment Center (DEC) tenants and patrons. DESMAN found that vehicle occupancy in the garage hovered around 32% during weekdays and parked vehicle volumes peaked at 78% on the weekends between 6pm and 8pm.

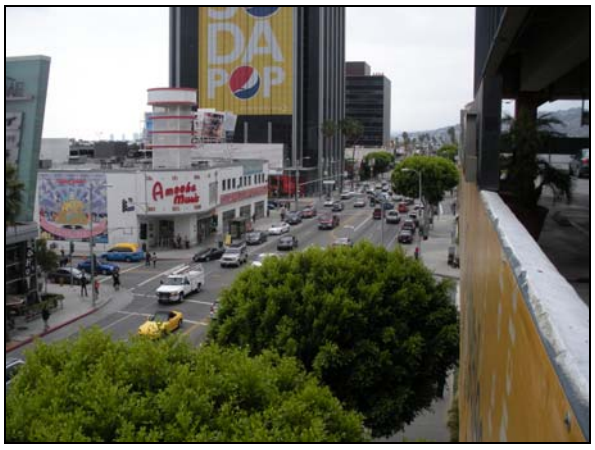
The Sunset Vine Entertainment District Summary:

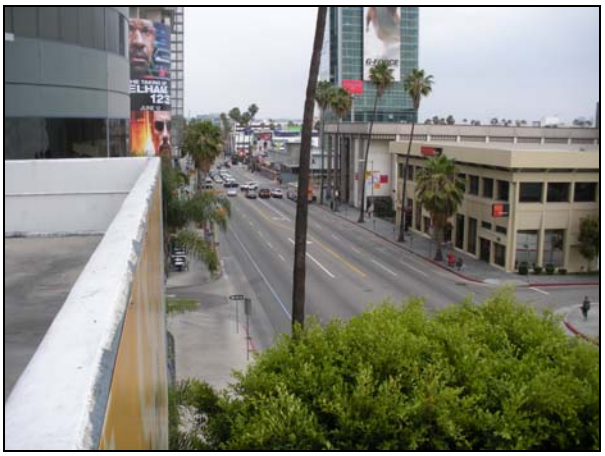
Land Use/Area Description

Sunset Blvd and Vine Blvd
- Casual dining and fast food restaurants
- Cinemas, Live Theaters, LA Film School
- Retail shops
- High-rise and mid-rise offices

Neighborhood
- High- and mid-rise multi-family apartments and condominiums
- Hollywood Community Hospital: 1 block east of garage

HOLLYWOOD PARKING MARKET AREA





CITY FACILITY: Cinerama Dome Garage

Primary Traffic Thoroughfare: Sunset Blvd. and Vine Blvd

- 4-lane, high traffic thoroughfare
- On-street single space meters from 8AM -8PM

Pedestrian Traffic

- High to moderate pedestrian traffic
- Tourist destination, active night life

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CITY FACILITY: Cinerama Dome Garage

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CITY FACILITY: Cinerama Dome Garage

Existing Public Parking

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
ALG	**Arc Light Garage**	**6389 De Longpre Ave**	**Garage**	**1725**	**CRA/PCI**	**-----**	**24-hours Daily**	**$4.00**	**$8.00**	**$10.00**	**$3 - 4hrs $10 - max**	**$100.00**	**50% -75%**	**31%**	**32%**	**52%**	**78%**	**Attendant/Gates/ Fee Computer**
1	Unknown	1555 Vine Street	Garage	443	VPS	1.5 blocks	8AM-12AM Daily	$6.00	-	$8.00	-	$100.00	1hr Free	High	Med	High	Med	Attendant/Gates/ Fee Computer
2	Unknown	6350 Selma Ave	Lot	76	JGPS	2 blocks	24-hours Daily	$8.00	$8.00	$8.00	$8.00		-		Med			Attendant/Gates/ Fee Computer
3	CNN Garage	6430 Sunset Blvd	Garage	460	STDP	1.5 blocks	24-hours Daily	$10.00	$16.00	$6.00	-	$100.00	-	High	-	-	-	Attendant/Gates/ Fee Computer
4	Unknown	6255 Sunset Garage	Garage	602	MPI	2.5 blocks	7AM-7PM M-F	$9.00	$16.00	$16.00	$7 after 5PM	$100.00	-	High	Med	-	-	Attendant/Gates/ Fee Computer
5	LA Film School Garage	6363 Sunset Blvd	Garage	139	-	2 block	-	$4.00	$8.00	$8.00	-	-	-	-	Med	-	-	Attendant/Gates/ Fee Computer
6	Unknown	1584 N. Vine St	Lot	336	GP	2.5 blocks	-	$8.00	$8.00	$10.00	-	$70.00	-	Med	Med	Low	Low	Attendant/Booth Time Stamped Tkt
7	Unknown	6304 Selma Ave	Lot	59	GP	3 blocks	-	$6.00	$10.00	$10.00	-	-	-	-	Med	-	-	Attendant/Booth Time Stamped Tkt

Parking Operator Abbreviations

CRA	Community Redevelopment Agency
GSD	General Service Department
PCI	Parking Concepts Inc.
VPS	Valet Parking Services
JGPS	J&G Parking Services
STDP	Standard Parking
MPI	Modern Parking Inc.
GP	Grant Parking

CITY FACILITY: Cinerama Dome Garage

Parking Market Area Assessment: A total of 3,691 off-street public parking spaces located in area surrounding the Cinerama Dome Garage. The 1,725-space capacity of the Cinerama Dome Garage accounts for nearly 47% of the total parking supply in the area. Six of the seven competing off-street facilities in the area are situated on or to the north of Sunset Boulevard. There four competing parking garages and three parking lots in that area. Each of the parking garages are connected to high rise office or commercial properties. Besides the DEC, most of the parking demand generators in the area are located along or to the north of Sunset Boulevard. The competing parking facilities all had high to medium occupancy levels during weekday business hours and medium to low occupancy level during evening hours. Barring special event activity, parking levels on weekends at the competing facilities were found to be low. The DEC is the main generators of typical evening and weekend parking demand, but there are a number of venues the commonly host special events.

Future Market Area Growth Prospects: Several new developments are either under construction or in the planning stages within the Cinerama Dome Garage parking market area. Within the parking market area a 125,000 SF office building with ground level retail space with accompanying underground parking will be developed in the 2010 on the northwest corner of Selma Avenue and Vine Street. Directly south of the Cinerama Dome Garage on the blocks bounded by De Longpre, Vine, Cahuenga and Fountain is where the Academy of Motion Pictures and Sciences (AMPAS) is planning to develop a 150,000 to 200,000 SF Museum of Motion Pictures that will have 80,000 SF of exhibits space, and lecture/theatre and amphitheater spaces. While fund raising and site assembly is progress for this project, the start of construction isn't likely to begin for at least two years. Also within the parking market area, there are plans pending to develop a 300-unit high rise rental housing complex with a Whole Foods Grocery at the ground level at the southeast corner of Selma Avenue and Vine Street.

Several other develops are also planned for sites just beyond the Arc Parking Market Area. To the north and east of the garage between Hollywood, Selma, Vine and Argyle will be a major mixed used development anchors be a 300 room W hotel. This project, which is under construction, will contain 520 resident units (including 150 condominiums), 43,000 SF of retail/restaurant/nightclub space and approximately 1,000 parking spaces.

There are also plans to develop the Boulevard 6200 mixed use project on the surface parking lots to the north and south of Hollywood Boulevard between and Centro Avenue. This development will encompass 7.3 acres and will contain approximately 175,000 SF of commercial office and retail space, over 1,000 rental housing units and between 500 and 600 parking spaces. This project is projected to be completed by 2011.

Additionally, the City of Los Angeles is nearing the finalization of plans to build a 475-space parking garage with 2,500 SF of ground floor retail space at midblock between Vine, Hollywood, Selma and Ivar.

CITY FACILITY: Cinerama Dome Garage

Cinerama Dome Garage Performance Enhancement Potential: Together the aforementioned develops will dramatically increase the employee, resident and visitor population of the area. The projects will also expand the hours of vitality in the area as residents will inhibit the area and entertainment destinations. Only the Museum for Motion Pictures project is being planned on the assumption that its parking needs will be satisfied in part by the un-used capacity of the Cinerama Dome Garage. However, given the prevailing cost of developing, operating, maintaining the parking component planned for most of these project, parking rates are expected to naturally increase.

In the next few years, the overall demand for parking is expected to increase but so will the supply of parking. Nevertheless, the Cinerama Dome Garage should benefit from a moderate increase in entertainment generated parking demand and upward pressures among competing parking facility to set and raise parking rates at higher levels to offset the cost of operating parking garage structures rather than surface parking lots.

Proposed Parking Rates, Private Operator Model: Based upon the market area of this facility, current utilization rates, parking industry pricing standards, and the rates charged at the competing facilities, the following schedule of parking rate increases was developed for use in the Private Operator Revenue and Expense Projection Model:

		Current Rates (Base)	Year 1	Year 2	Year 3	Year 4	Year 5
Arc Light Garage ALC	Hourly	**$4.00**	$5.00	$6.00	$7.00	$8.00	$9.00
	Daily Max.	**$10.00**		$12.00			$14.00
	Event	**$10.00**					$20.00
	Monthly	**$100.00**					$120.00

The assumed rate schedule used in the private operator model is based on the market rates charged at the competing parking facilities within the market area of the Cinerama Dome Garage. In order to limit the effects of price elasticity of demand the rate schedule assumes gradually increasing rates over the first five (5) years.

CITY FACILITY: Pershing Square Parking Garage

441 West 6th Street
Downtown

Facility Location: 441 West 6th Street, the garage is bordered by Olive Street to the northwest, South Hill Street to the southeast, 5th Street to the northeast and 6th Street to the southwest, Central Business District Parking Meter Zone 537, City Council District 9

Facility Description: The 1,590-space, three-level underground garage is located below Pershing Square Park. There are single-lane ingress and egress points provided from Olive Street, South Hill Street and 5th Street with an additional ingress located on 6th Street. An Enterprise Rent-A-Car office is located on the first floor of the structure and reserved and non-reserved spaces are allocated for the activities of this company.

Operator: The LADOT has executed a Memorandum of Understanding (MOU) with the City's General Services Department (GSD) to provide on-site staff to control access and collect revenue at the facility and to perform routine maintenance. The GSD reports that for fiscal year 2008, the operating expenses for the facility were $930,270 or $585 per space.

Method of Operation & Revenue Collection:
Hours of Operation – 24 hours-a-day, 7 days-a-week
Access Control
- Transient Parkers - Self-Park upon entry with a time-stamp ticket. Pay-on-exit processed by a single attendant.
- Monthly Parkers – Must display Monthly Permit; permit payments collected via mail and/or online fee processing managed by LADOT.

CITY FACILITY: Pershing Square Parking Garage

Parking Rates and Facility Utilization: Transient (Hourly) Parking – Parking fee is $7.72/hour, $15.40 daily maximum rate, $9.35 Early Bird rate, $6.60 flat rate after 5PM; monthly rates are $190.00 for non-reserved and $280.00 for reserved

DESMAN found that vehicle occupancy peaked around 64% during weekdays and 15% on the weekend. During the week, occupancy rates tapered off after business hours as this facility serves mainly office workers in the surrounding high-rise office buildings.

Downtown Commercial District Summary:

Land Use/Area Description

- Casual dining, white linen dining and fast food restaurants
- Low-rise, mid-rise and high-rise office buildings
- Convenient retail
- High-rise and mid-rise hotels

Neighborhood

- High-rise and mid-rise multi-family residential

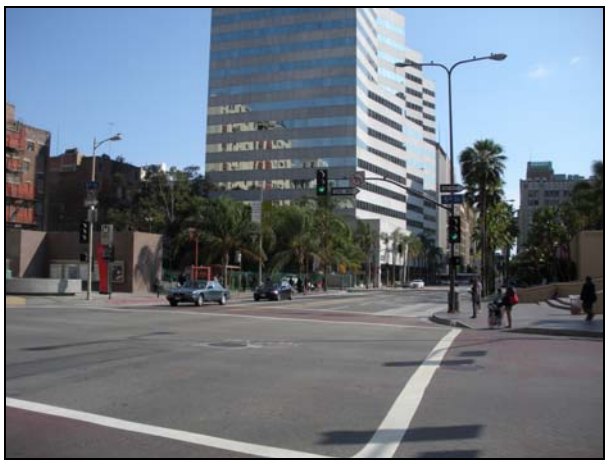
Primary Traffic Thoroughfares: Multiple

- 4-lane, high traffic thoroughfares surrounding Pershing Square
- On-street single-space parking meters and pay-by-space meters

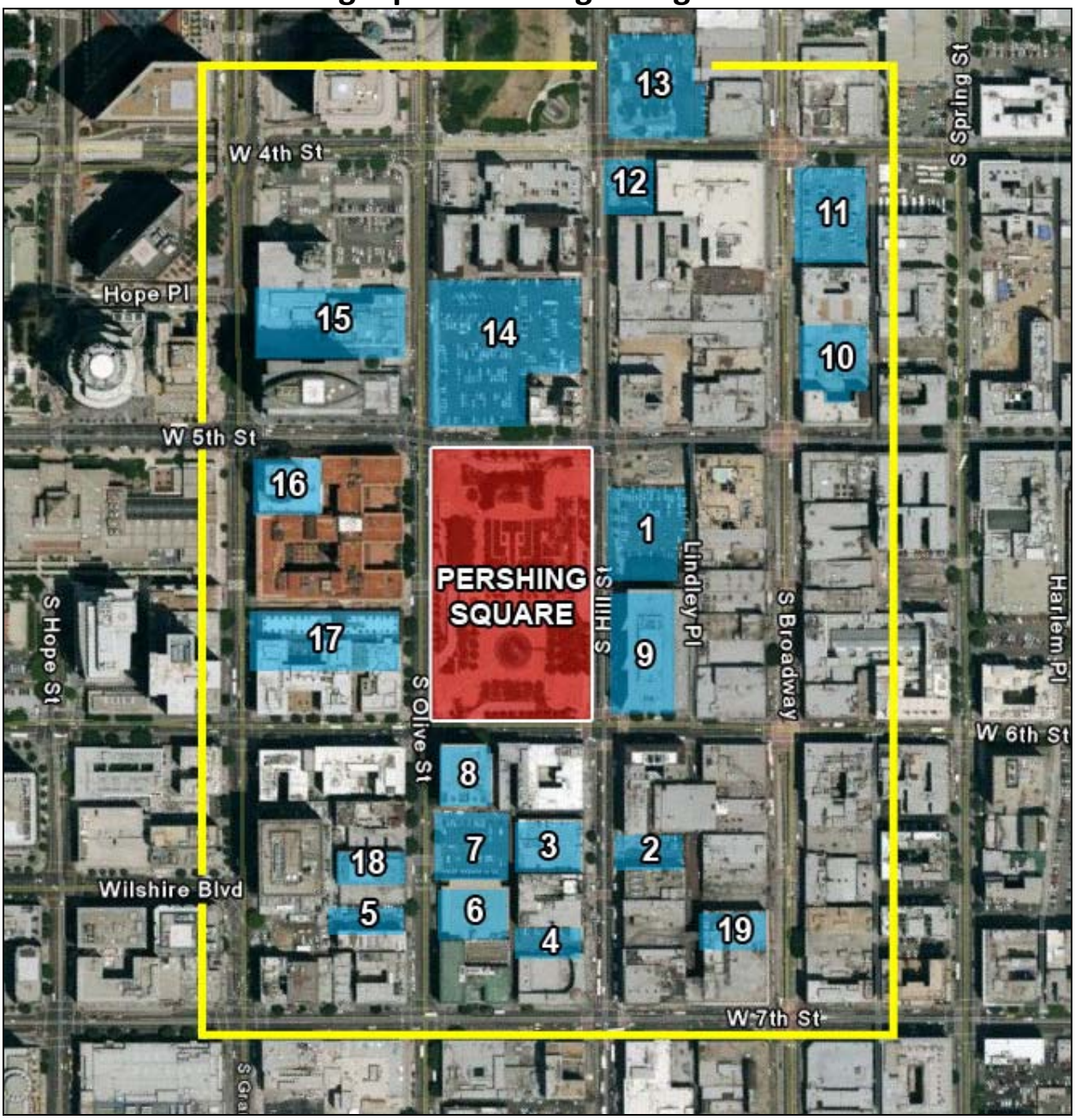
Pedestrian Traffic

- Moderate to High pedestrian traffic during business hours
- Low to Moderate pedestrian traffic during weekend hours

CENTRAL BUSINESS DISTRICT PARKING MARKET AREA



CITY FACILITY: Pershing Square Parking Garage



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CITY FACILITY: Pershing Square Parking Garage

Existing Public Parking

Map #	Facility Name	Location	Fac. Type	Spaces	Owner/ Operator	Distance From City Fac.	Hours of Operation	Parking Rates						Occupancy				Mode of Operations
								1 hour	2 Hour	Max.	Event	Monthly	Valid.	Weekday AM	Weekday PM	Weekend AM	Weekend PM	
PS	**Pershing Square Garage**	**441 West 6th St**	**Garage**	**1590**	**LADOT/ GSD**	**-----**	**24-hours Daily**	**$7.72**	**$15.40**	**$15.40**	**$9.35 E.B. $6.60 >5PM**	**$190 - Non-Res. $280 - Res.**		**64%**	**26%**	**13%**	**15%**	**Attendant/Gates Time Stamped Tkt**
1	Unknown	504 Hill St	Lot	111	JOE	<0.5 blocks	8AM-11PM Daily	$12.00	$15.00	$15.00	$5 >4PM and Wknds	-	-	High	-	Low	-	Attendant/Booth/ Time Stamped Tkt
2	Unknown	630 Hill St	Lot	28	PAR	.5 blocks	8AM-6PM Daily	$16.00	$18.00	$18.00	$5 Su	$200.00	-	High	High	-	-	Attendant/Booth/ Time Stamped Tkt
3	Jeweler's Mall Garage	625 Hill St	Garage	256	CENT	.5 blocks	7AM-8PM M-Sa	$15.00	-	$15.00	$10 E.B. $4 >4PM	$208 Non-Res $250 Res.	-	High	-	-	-	Attendant/Booth/ Time Stamped Tkt
4	Unknown	645 Hill St	Lot	28	PAR	1 block	7AM-8PM M-Sa	$12.00	$18.00	$18.00	-	-	-	High	High	-	-	Attendant/Booth/ Time Stamped Tkt
5	Unknown	637 S. Olive St	Lot	41	PP	1 block	7AM-6PM M-Sa	$10.00	-	$10.00	$5 >4PM and Sa	-	-	High	-	-	-	Attendant/Booth/ Time Stamped Tkt
6	LA Athletic Club Olive Park	646 S. Olive St	Garage	424	AMPCO	1 block	24-hours Daily	$5.25	$10.50	$12.25			$4.50/hr LA Ath.	-	High	-	-	Attendant/Booth/ Time Stamped Tkt
7	LA Athletic Club	618 S. Olive St	Lot	120	AMPCO	.5 blocks	8AM-6PM M-Sa	$10.80	$18.00	$18.00	$5 >5PM M-F and Sa	-	-	-	Med	-	-	Attendant/Booth/ Time Stamped Tkt
8	City National Bank Garage	606 6th St	Garage	220	QPS	<0.5 blocks	5:30AM-7PM M-Sa	$7.28	-	-	$10 E.B. $5 Sa	-	-	-	-	-	-	Automated Pay-on-Exit
9	Unknown	550 Hill St	Garage	160	AMP	<0.5 blocks	6AM - 8PM Daily	$8.00	$15.00	$15.00	$10 E.B. $3 Su	-	-	-	High	-	-	Automated Pay-on-Exit
10	Broadway Mall	440 S. Broadway St	Garage	138	JOE	1.5 blocks	6AM-9PM Daily	$6.00	$8.00	$8.00	$6 Sa-Su	$110.00	-	-	Med	-	-	Attendant/Booth/ Time Stamped Tkt
11	Unknown	420 S. Broadway St	Garage	127	STDP	2 blocks	6AM-8PM M-F 8AM-8PM Sa-Su	$10.00	-	$10.00	$8 E.B. $7 Sa-Su	$110 Non-Res $165 Res.	-	-	High	-	-	Automated Pay-on-Exit
12	Unknown	400 Hill St	Lot	40	ATH	1 block	6AM-8PM M-Sa	$12.00	$14.00	$14.00	$5 >4PM and Su	-	-	High	High	-	-	Attendant/Booth/ Time Stamped Tkt
13	Unknown	354 Hill St	Lot	109	JOE	1.5 blocks	6:30AM-6PM Daily	$12.00	$14.00	$14.00	$5 >4PM and Sa	-	-	-	High	-	-	Attendant/Booth/ Time Stamped Tkt
14	Unknown	437 Hill St	Lot	317	JOE	<0.5 blocks	6:30AM-6PM Daily	$12.00	-	$12.00	-	$160.00	-	High	High	-	-	Attendant/Booth/ Time Stamped Tkt
15	Gas Company Tower Garage	555 West 5th St	Garage	-	-	<0.5 blocks	6:30AM-6PM Daily	$24.60	-	$37.35	$5 >4PM	-	-	-	-	-	-	All Valet
16	Unknown	611 West 5th St	Garage	515	STDP	1 block	24-hours Daily	$11.25	$22.50	$29.25	$10 >4PM	-	-	-	High	-	-	All Valet
17	Pacific Center Garage	523 West 6th St	Garage	400±	PNI	1 block	6AM-12AM M-Sa 7AM-12AM Su	$17.50	-	$30.00	$10 >4PM	-	65%	-	Med	-	-	All Valet
18	Crown Plaza Garage	631 S. Olive Street	Garage	119	CENT	1 block	7AM-8PM M-Sa 8AM-4:30PM Su	$12.00	-	$12.00	$8 E.B. $4 Sa	$120 Non-Res. $260 Res.	-	-	High	-	-	All Valet/Monthly Permit
19	St. Vincent's Jewelry Center	639-659 Broadway St	Garage	254	FSP	1.5 blocks	8AM-6PM M-F 7AM-7PM Sa-Su	$12.00	$15.00	$15.00	$5 >2PM $8 Sa $6 Su	$180 Non-Res. $300-Res.	-	-	High	-	-	Attendant/Booth/ Time Stamped Tkt

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CITY FACILITY: Pershing Square Parking Garage

Parking Operator Abbreviations

AMPCO	AMPCO System Parking
AMP	Auto Mac Parking
CENT	Central Parking
COP	Coast Parking
CP	California Parking
CPI	Classic Parking Inc.
GAS	Gas Company Parking
GP	Grant Parking
Va	
FSP	Five Star Parking
HP	Hodes Parking
JGPS	J&G Parking Services
JOE	Joe's Parking
JC	Jamar Corporation
LAPS	LA Parking Systems
MPI	Modern Parking Inc.
NSP	New South Parking
PAR	Paragon Parking
PCI	Parking Concepts Inc.
PCOA	Parking Company of America
PNI	Parking Network, Inc.
PP	Prestige Parking
QPS	Quality Parking Services
STDP	Standard Parking
VPS	Valet Parking Services

CITY FACILITY: Pershing Square Parking Garage

Parking Market Area Assessment: The Downtown Los Angeles area surrounding Pershing Square is a bustling commercial and retail center that is densely packed with high- and mid-rise office buildings and hotels as well as mid- and low-rise retail buildings. Within one (1) block of the Pershing Square Garage is the Los Angeles Jewelry District: the largest jewelry district in the United States made up of more than 3,000 wholesale jewelers. The market area consists almost entirely of commercial and retail uses with little residential land use to speak of.

The 1,590-space Pershing Square Garage accounts for approximately 32% of the public parking available within the area studied. The competing facilities in the study area are a fairly even mix of both garages and surface lots that are priced competitively with the Pershing Square Garage. On-street metered parking is available on nearly every surrounding street and there are also a number of public transit alternatives in the area including several bus routes and underground rail lines.

Although the Pershing Square Garage is the largest and one of the most centrally located parking facilities in the area, the indistinct access points to that facility, its lack of signage, and the high traffic volumes on the surrounding roadways make finding and accessing the garage difficult for those who are unfamiliar with the facility. In addition, parking patrons generally have an aversion to parking in an underground garage when there are alternative facilities above ground.

Future Market Area Growth Prospects: Several development and redevelopment plans are in the works for the area surrounding the Pershing Square Garage. Most notably among these developments is the Park Fifth project proposed for the site of competing facility 14. This is a large mixed-use development set to contain 790 residential housing units, 212 hotel rooms and 32,000 square feet of leasable ground-level retail space. Because of the location of this development across 5th Street from Pershing Square, it is anticipated that demand at the Pershing Square Garage will be impacted by the project. While the project will include 1,155 onsite parking spaces for residents, hotel guests and retail store owners/employees, it will also eliminate 300+ public parking spaces that currently exist on the site.

Based on this and other proposed developments set to occur on various surface parking lots in the area and the planned redevelopment of the historic Broadway Theater District, future market area growth could provide a significant boost to demand at the Pershing Square Garage.

Pershing Square Garage Performance Enhancement Potential: Of the facilities examined during this work effort, the Pershing Square Garage has the greatest potential for future growth. Because of the abundance of development slated for Downtown Los Angeles, the location of the parking facility and the amount of excess capacity in the garage, the prospects for revenue growth from an increase in parking demand are very bright. Furthermore, as

CITY FACILITY: Pershing Square Parking Garage

demand in the area grows and the number of competing facilities shrinks, rate increases will provide another avenue for future revenue growth. This growth will all depend on the actual amount of development that takes place in the market area and on how well the facility can be marketed to new and existing employees, residents and patrons of Downtown Los Angeles.

Proposed Parking Rates, Private Operator Model: Based upon the market area of this facility, current utilization rates, parking industry pricing standards, and the rates charged at the competing facilities, the following schedule of parking rate increases was developed for use in the Private Operator Revenue and Expense Projection Model:

		Current Rates (Base)	Year 1	Year 2	Year 3	Year 4	Year 5
Pershing Square Garage PSG	Hourly	**$7.72**	$8.00		$9.00		$10.00
	Daily Max.	**$15.40**	$16.00		$18.00		$20.00
	Event	**$9.35 E.B/ $6.60 >5PM**	$10.00 E.B/ $6.00 >5PM		$12.00 E.B/ $8.00 >5PM		$15.00 E.B/ $10.00 >5PM
	Monthly	**$180/ $280**					$220/ $320

The assumed rate schedule used in the private operator model is based on the market rates charged at the competing parking facilities within the market area of the Pershing Square Garage. An additional goal was to bring the rates into compliance with the parking industry standard of pricing in 25 cent increments. In order to limit the effects of price elasticity of demand the rate schedule assumes gradually increasing rates over the first five (5) years.

ATTACHMENT 2C

On-Street Meter Survey Areas - Market Descriptions

Financial Analysis of Los Angeles Parking System

On-Street Meter Survey Areas - Market Descriptions

Financial Analysis of Los Angeles Parking System

Prepared by:

DESMAN
ASSOCIATES

Chicago, Illinois

November 3, 2009

DESMAN

A S S O C I A T E S

Date: 6/409

Time: 6:00 PM

Area: Wilshire - Alvarado

District: 1 PMZ: 508

Survey Location: Park View St., (West side), between 6th St. and Wilshire Blvd.

Hourly Rate: $1.00/hr Revenue Control: Single Space Meters

Hours of Enforcement: 2 Hour Parking, 8 AM – 6 PM, except Sunday- listed on street signs.
8AM- 8PM, Monday – Saturday, 11AM – 8PM, Sunday – listed on meter

Pictures:

Neighborhood Characteristics

Land Uses:

- Sole-Proprietorship Retail Businesses, Discount Stores, Restaurants, Residential, Park

Area description:

- Small, sole-proprietorship, street-front retail stores along Wilshire Blvd
- Adjacent to MacArthur Park and Westlake Theatre
- Variety of businesses include restaurants, hotels and retail businesses
- The Department of Public Social Services
- Primarily a Hispanic community
- Low-income neighborhood

- Mid-rise, multi-family residential buildings

Parking Characteristics

On-Street Parking:

- High utilization of on-street meters along MacArthur Park.
- Low utilization of on-street meters along side streets
- Street parking signs state 2 hour parking from 8AM – 6PM, Monday – Saturday, but meters state parking 8 AM – 8 PM, Monday –Saturday, 11 AM – 8 PM Sundays. Discrepancy in regards to meter enforcement.

Off-Street Parking:

- Public Parking Garage with tenant parking for The American Cement Building
    - 2404 Wilshire Blvd - $4 per hour or $5 Flat Rate

DESMAN

ASSOCIATES

Date: 6/5/09

Time: 1:30 PM

Area: Studio City

District: 2 PMZ: 510

Survey Location: Ventura Blvd. (South side), between Vantage Ave. and Laurelgrove Ave.

Hourly Rate: $1.50/hr Revenue Control: Pay-by-Space

Hours of enforcement: 2 Hour Parking, 8 AM – 8 PM, Except Sunday

Pictures:

Neighborhood Characteristics

Land uses:

- Retail, Residential, Restaurants, Boutiques, Banks

Area description:

- One-story, high-end street front retail stores and boutiques along Ventura Boulevard
- Mix of chains and sole-proprietorship businesses
- Residential homes, apartments and condominiums along side streets
- Affluent neighborhood that has a successful variety of retail and restaurants

Parking Characteristics

On-Street Parking:

- Some free on-street parking is permitted along side streets.
- Pay-by-Space meters are located along Venture Boulevard, west of Laurel Canyon Boulevard.
- Most single space meters are located east of Ventura Boulevard and on side streets.
- Mix of short-term (15 minute) meters and loading zones along Ventura Boulevard

Off-Street Parking:

- Studio City Public Parking Structure (690) is located off Ventura Boulevard
  - Rates: 1st 20 minutes free, $0.50 for 40 min, $1 per hour for 2 hours, $2 per hour after 2 hours of parking, $4.50 daily max
  - Hours of Operation: 7 AM – 10:30 PM (Sunday – Thursday) and 7 AM – 12 AM (Friday and Saturday)
  - Validated parking provided for bank customers
- Wells Fargo Bank Lot is located off Ventura Boulevard
  - $2 per hour, $10 max

DESMAN

A S S O C I A T E S

Date: 6/5/09

Time: 11:50 AM

Area: Woodland Hills

District: 3 PMZ: 577

Survey Location: Ventura Blvd. (South side), between Don Pio Dr. and Topanga Canyon Blvd.

Hourly Rate: $1.00/hr Revenue Control: Single Space Meters

Hours of enforcement: 2 Hour Parking, 9 AM – 8 PM, Except Sunday

Pictures:

Neighborhood Characteristics

Land Uses:

- Retail, Wholesale Outlets, Residential, Restaurants, Grocery, Strip Mall, Office

Area description:

- One-story, street front retail stores along Ventura Boulevard with some on-site parking lots
- Mix of chains, big-box retail and small sole-proprietorship businesses
- Residential homes along side streets
- Middle income neighborhood with some pedestrian activity and few vacant properties
- Office buildings, which provide on-site parking

- High activity area of the district is adjacent to the intersection of Ventura Blvd. and Topanga Canyon Blvd.

Parking Characteristics

On-Street Parking:

- Some free, unrestricted on-street parking is permitted along side streets and Canoga Avenue.
- Single space meters are located along Venture Boulevard and Topanga Canyon Boulevard.
- Due to parking lots provided for much of the retail stores, the on-street parking utilization is low.

Off-Street Parking:

- Free off-street parking lots provided for much of the retail and especially for big-box retail stores.
- No competing pay public parking facilities in area.

DESMAN

ASSOCIATES

Date: 6/5/09

Time: 4:00 PM

Area: Larchmont

District: 4 PMZ: 540

Survey Location: Larchmont Boulevard (East side), between 1st Street and Beverly Boulevard

Hourly Rate: $1.00/hr Revenue Control: Pay-by-Space and Single Space Meters

Hours of enforcement: 2 Hour Parking, 8 AM – 8 PM (Mon. – Thurs.), 8 AM – 10 PM (Fri. & Sat.), 11 AM – 8 PM (Sunday)

Pictures:

Neighborhood Characteristics

Land Uses:

- Retail, Boutiques, Office Buildings, Restaurants, Medical Buildings, Coffee Shops, Bakery

Area description:

- Between Beverly Blvd. and 1st Street are high-end shops, boutiques, One-story, street front retail stores along Ventura Boulevard with some on-site parking lots
- Mix of chains, big-box retail and small sole-proprietorship businesses
- Residential homes along side streets
- Middle income neighborhood with some pedestrian activity and few vacant properties
- Office buildings, which provide on-site parking

- High activity area of the district is adjacent to the intersection of Ventura Blvd. and Topanga Canyon Blvd.

Parking Characteristics

On-Street Parking:

- Some free, unrestricted on-street parking is permitted along side streets and Canoga Avenue.
- Single space meters are located along Venture Boulevard and Topanga Canyon Boulevard.
- Due to parking lots provided for much of the retail stores, the on-street parking utilization is low.

Off-Street Parking:

- Free off-street parking lots provided for much of the retail and especially for big-box retail stores.
- No competing pay public parking facilities in area.

DESMAN

A S S O C I A T E S

Date: 6/5/09

Time: 3:00 PM

Area: Wilshire-Fairfax

District: 5 PMZ: 556

Survey Location: Wilshire Blvd. (South side), between San Vincente Blvd. and La Jolia Ave.

Hourly Rate: $1.00/hr Revenue Control: Single Space Meters

Hours of enforcement: 1 Hour Parking, 9 AM – 4 PM, except Saturday and Sunday along Wilshire Blvd.

Pictures:

Neighborhood Characteristics

Land Uses:

- High-Rise Office Buildings, Retail, Restaurants, Medical Office Buildings, Museums, Mall

Area description:

- High employment area along Wilshire Blvd. with a number of high-rise office buildings
- Street front retail along major streets (San Vincente Blvd., Wilshire Blvd., 3rd St., etc.)
- Mix of sole proprietorship retail businesses and chain stores
- Various museums in area, which include: LACMA, LA Museum of Modern Art, Petersen Automotive Museum
- The Beverly Center (retail mall) with on-site parking garage provided is in area

Parking Characteristics

On-Street Parking:

- Some free, unrestricted on-street parking is permitted along side streets
- Parking meters along main streets and a few spaces down side streets
- High density of meters and parking utilization along Wilshire Blvd. and Fairfax Ave.
- Due to high traffic along Wilshire Blvd., parking is not permitted during peak traffic hours

Off-Street Parking:

- Free off-street parking lots provided for certain retail stores and office high-rise buildings
- Parking provided on-site for some of the museums
- Few public parking lots dispersed along Wilshire Blvd.
    - $2 each 15 minutes (Aamco Lot)
    - $1.35 per 15 min., $10.80 max, $2 flat rate after 5pm (I.P.I. Lot)

Date: 6/5/09

Time: 12:30 PM

Area: Van Nuys

District: 6 PMZ: 501

Survey Location: Van Nuys Blvd. (East side), between Sylvan St. and Friar St.

Hourly Rate: $1.00/hr Revenue Control: Single Space Meters

Hours of enforcement: 1 Hour Parking, 8 AM – 6 PM, except Sunday along Van Nuys Blvd.

Pictures:

Neighborhood Characteristics

Land Uses:

- State and Local Government Buildings, Public Service Buildings, Mid-Rise Office Buildings, Retail, Restaurants, Car Dealerships, Residential

Area description:

- High vehicle and pedestrian traffic, especially along Van Nuys Blvd., which is the major thoroughfare
- Assortment of government buildings, including: Courthouse, Valley Municipal Building, Post Office, Civic Center, Police Department, Library, Fire Station, and Parking Violation Bureau
- High density of street front retail, medical office buildings and car dealerships
- Mix of chains and single proprietorship businesses

- Residential areas along side streets, consisting of mostly mid-sized homes

Parking Characteristics

On-Street Parking:

- Some free, unrestricted on-street parking is permitted along side streets
- Variety of parking enforcement regulations to help accompany the multitude of users visiting area
- Mix of 30 minute (short-term) meters, 10 hour (long-term) meters and 1 hour parking meters
- Some angled parking along side streets adjacent to high activity government buildings
- High parking utilization of meters adjacent to government buildings
- Observed high number of meters vandalized by placing an excessive number of coins in coin slot

Off-Street Parking:

- Permit parking garages provided for government employees
- Some free on-site parking provided at retail stores
- Only one public parking facility observed, which is an underground public parking garage (Lot 752) located off Sylvan Street
    - $2 per hour, $8 max

DESMAN

ASSOCIATES

Date: 6/4/09

Time: 5:10 PM

Area: USC

District: 8 PMZ: 512

Survey Location: Figueroa St. (East side), between Exposition Blvd. and USC McCarthy Way

Hourly Rate: $1.00/hr Revenue Control: Single Space and Pay-by-Space Meters

Hours of Enforcement: Along Figueroa Street: 4 Hour Parking, 9 AM – 6 PM, except Sunday

Pictures:

Neighborhood Characteristics

Land Uses:

- USC Campus Buildings, Hotel, Sports Activity Venues, Campus Facilities, Student Housing, Natural History Museum, Restaurants

Area description:

- USC campus and facility buildings dominate the area
- Student housing and some new residential development
- High pedestrian activity of students and faculty of USC
- Some retail development with a mix of restaurants

Parking Characteristics

On-Street Parking:

- No free on-street parking observed in area
- Utilization of both Pay-by-Space and Single Space Meters
- Meters permit 4 hour parking due to longer parking by patrons for USC related visits
- On-street parking is highly utilized while school is in session

Off-Street Parking:

- Permit parking garages provided for USC students and faculty
- No public parking garages were observed
- Permit parking lots provided at student housing complexes

Date: 6/4/09

Time: 4:40 PM

Area: Washington-Broadway

District: 9 PMZ: 580

Survey Location: Hill Street (East side), between 22nd Street and 23rd Street

Hourly Rate: $1.00/hr Revenue Control: Single Space Meters

Hours of Enforcement: Along Hill Street, 2 Hour Parking, 8 AM – 6 PM, except Sunday

Pictures:

Neighborhood Characteristics

Land Uses:

- Retail, Residential, School, Industrial Buildings, Museum, Whole Sale Trade Building (L.A. Mart)

Area description:

- Few retail stores and many vacant lots
- Dispersed buildings, not high density and not a very walkable neighborhood
- Major attractions include L.A. Mart and the L.A. Sports Museum
- Los Angeles Trade Tech College
- Some industrial buildings in area
- Low income neighborhood and low-end retail stores
- Mix of low-rise residential apartment buildings and houses

Parking Characteristics

On-Street Parking:

- Some free on-street parking provided at retail establishments and school
- Meter parking is located along most streets which do not have a large residential element
- Low utilization of on-street parking

Off-Street Parking:

- Public parking lots provided at LA Mart
  - $8 flat rate, $5 after 4pm (on-site lot)
  - $7 flat rate, $5 after 4pm (lot across the street)

- No other public parking lots observed in area, other than the public lots for LA Mart

Date: 6/4/09

Time: 6:40 PM

Area: Washington-Broadway

District: 10 PMZ: 506

Survey Location: Serrano Street (West side), between 7th Street and Wilshire Blvd.

Hourly Rate: $1.00/hr Revenue Control: Single Space Meters

Hours of Enforcement: Along Serrano Street, 1 Hour Parking, 8 AM – 6 PM, except Saturday and Sunday

Pictures:

Neighborhood Characteristics

Land Uses:

- Commercial, High-Rise Office Buildings, Retail, Residential, Banks

Area description:

- Many high-rise office buildings
- Street level retail businesses and restaurants focused on servicing office workers
- High Asian population, adjacent to Koreatown
- High volume traffic along Western Avenue, which is the major thoroughfare
- Some new residential development, apartment buildings and condominiums
- Mix of apartments, condominiums and houses

Parking Characteristics

On-Street Parking:

- Parking meters located along Western Avenue and many side streets
- On-street parking is well utilized since it is substantially less expensive than off-street parking

Off-Street Parking:

- Public parking garage at 3680 Wilshire Blvd.
  - $4 per hour, $8 max rate, 3 hours free with validation
- Public parking garage at 3700 Wilshire Blvd.
  - $7 per hour, $14 max rate

Date: 6/6/09

Time: 12:00 PM

Area: Olympic-Sawtelle

District: 11 PMZ: 571

Survey Location: Olympic Blvd. (South side), between Butler Ave. and Colby Ave.

Hourly Rate: $1.00/hr Revenue Control: Single Space Meters

Hours of Enforcement: Along Olympic Blvd., 1 Hour Parking, 8 AM – 6 PM, except Sunday

Pictures:

Neighborhood Characteristics

Land Uses:

- Commercial, High-Rise Office Buildings, Big-Box Retail, Apartments, Fighting Training Centers, Storage Businesses

Area description:

- High-rise and mid-rise office buildings located along Olympic Blvd.
- Big-box retail stores and a retail mall in area
- Not densely developed area, few walking patrons observed
- Sparse residential areas with a mix of middle and low-income apartments and houses
- Sole proprietorship businesses primarily located along Pico Boulevard
- High quantity of gyms and storage businesses

Parking Characteristics

On-Street Parking:

- Non-metered on-street parking permitted along various side streets in area, which were observed to be well utilized
- Some non-metered on-street parking areas have a 2 hour parking restriction

Off-Street Parking:

- Monthly public parking garages in area
- Free parking provided on-site at big-box retail stores
- Public parking lot off Olympic Blvd., which closes at 6pm
  - $4 per hour, $6 max rate

Date: 6/6/09

Time: 11:00 AM

Area: Sunset-Alvarado

District: 13 PMZ: 514

Survey Location: Sunset Blvd. (South side), between Hyperion Ave. and Sanborn Ave.

Hourly Rate: $1.00/hr Revenue Control: Single Space and Pay-by-Space Meters

Hours of Enforcement: Along Sunset Blvd., 2 Hour Parking, 8 AM – 8 PM, except Sunday

Pictures:

Neighborhood Characteristics

Land Uses:

- Sole-Proprietorship Retail Businesses, Restaurants, Residential

Area description:

- Small, sole-proprietorship, street-front retail stores along Sunset Boulavard
- Variety of businesses include restaurants, retail and service businesses
- Apartments and homes along side streets
- Primarily a Hispanic community
- Located in close proximity to Dodger Stadium
- Some chain businesses, which are set back from street and provide parking on-site
- Young, urban up-and-coming neighborhood located just east of Santa Monica Blvd.

- Just east of Santa Monica Blvd. along Sunset Blvd. there are boutiques and a coffee shop

Parking Characteristics

On-Street Parking:

- Non-metered on-street parking permitted along various side streets in area, which were observed to be fairly well utilized
- Some non-metered parking areas have a 2 hour restriction
- All of Sunset Boulevard is lined with either single space or pay-by-space parking meters
- Pay-by-space meters are located in area of Sunset which generates greater activity
- Some 10 hour parking meters along Sunset Boulevard

Off-Street Parking:

- Some retail stores in area provide free parking lots
- Three City of L.A. Pay Public Parking Lots located on east end of parking meter zone
    - Lot #643 – pay-by-space, 2hr max, 7am-9am, Monday to Sunday
    - Lot #663 – meter spaces
    - Lot #662 – meter spaces

Date: 6/4/09

Time: 4:00 PM

Area: Boyle Heights

District: 14 PMZ: 544

Survey Location: Cesar Chavez Ave. (North side), between Soto St. and Mathews St.

Hourly Rate: $1.00/hr Revenue Control: Single Space Meters

Hours of Enforcement: Along Cesar Chavez Ave., 1 Hour Parking, 8 AM – 8 PM, except Sunday

Pictures:

Neighborhood Characteristics

Land Uses:

- Sole-Proprietorship Retail Businesses, Restaurants, Residential

Area description:

- Small, sole-proprietorship, street-front retail stores along Cesar Chavez Ave. and Soto St.
- Variety of businesses include restaurants, retail and service businesses
- Apartments and homes along side streets
- Primarily a Hispanic community
- Low-income neighborhood
- High pedestrian traffic
- Some chain businesses, which are set back from street and provide parking on-site

Parking Characteristics

On-Street Parking:

- Non-metered on-street parking permitted along various side streets in area
- Some non-metered parking areas have a 2 hour restriction

Off-Street Parking:

- Major grocery store in neighborhood provides free parking lot
- Most businesses rely on street parking for customers
- Two LADOT Pay Public Parking Lots located in area
    - Lot #682 – pay-by-space, $1 per hour and $4 for 10 hours
    - Lot #713 – attended lot, $1 per hour and $4 for 10 hours

DESMAN

A S S O C I A T E S

Date: 6/6/09

Time: 1:30 PM

Area: Wilmington

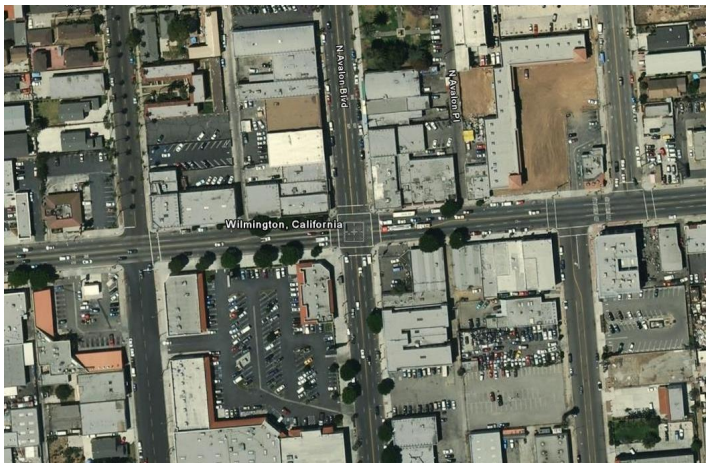
District: 15 PMZ: 534

Survey Location: Avalon Blvd. (West side), between 1st Street and Anaheim Street

Hourly Rate: $1.00/hr Revenue Control: Single Space Meters

Hours of Enforcement: Along Avalon Blvd., 1 Hour Parking, 8 AM – 6 PM, except Sunday

Pictures:



Neighborhood Characteristics

Land Uses:

- Sole-Proprietorship Retail Businesses, Discount Stores, Restaurants, Residential

Area description:

- Small, sole-proprietorship, street-front retail stores along Anaheim St. and Avalon Blvd.
- Variety of businesses include restaurants, retail and service businesses
- Apartments and homes along side streets
- Primarily a Hispanic community
- Low-income neighborhood
- High pedestrian traffic
- Moderate development density

- Some chain stores or larger businesses in area are set back from street and provide free parking

Parking Characteristics

On-Street Parking:

- Non-metered on-street parking permitted along various side streets in area
- Some non-metered parking areas have a 2 hour or 1 hour restriction
- Free 1 hour on-street parking located south of parking meter zone

Off-Street Parking:

- Major grocery store and chain stores in neighborhood provide free on-site parking
- Most businesses rely on street parking for customers
- One LADOT Public Parking Lot located in area
    - Lot #696 – free 2 hour parking permitted 8am to 6pm, except Sunday

ATTACHMENT 2D

Parking Revenue Control Technology (Desman)

Parking Revenue Control Technology

Financial Analysis of Los Angeles Parking System

Prepared by:

DESMAN
ASSOCIATES

Chicago, Illinois

November 3, 2009

1.0 Introduction

PARCS or Parking Access and Revenue Control Systems refers to systems that collects parking fees and control vehicles within a parking operation, both of which are key components to the success of a parking program. Major access and revenue control components include parking meters, pay-in-lane systems, pay-on-foot stations, fee computers, and management/reporting software. These systems not only provide efficient means to accept payment and allow access, but they also provide other functions such as real-time revenue reporting and utilization information and state of the art theft prevention measures. The parking industry has historically been cash driven, employee theft has always been a concern. However, with strict accountability measures now being built directly into these systems, the rate of theft has been minimized. The vehicle control functions of these systems come in the form of space utilization monitoring, assistance with parking enforcement and access control.

The proper utilization of PARCS can make the difference between success and failure for a parking operation, whether it be on-street, off-street, or a combination of both. The following analysis will look at different types of systems depending on their function and application as well as technology trends in the parking industry.

Parking access and revenue control systems come in several forms that can be tailored to best suit different types of parking operations. For the purposes of this discussion, the systems are divided into one of two categories: on-street systems and off-street systems. Off-street systems refer to systems that are used in parking lots or parking garages. These can be anything from a gated system which utilizes cashiers and attendants to newer, automated systems that do not require human interaction in order to access or exit a parking facility. On-street systems refer to revenue control systems that work in conjunction with on-street parking such as parking meters and supporting systems that have recently begun to gain popularity.

2.0 Off-Street Systems

A recent trend in the parking industry with regards to off-street parking operations has been the replacement of labor with new technologies. In order to reduce labor costs and remove the human element from parking facility operations, many facilities are beginning to fully automate their operations using a variety of technologies including: pay-in-lane or pay-on-foot machines and card in/card out systems. These systems significantly reduce labor expenses which historically have accounted for about 60% of the cost of running an off-street parking facility. In addition to reducing labor costs, modern off-street PARC systems provide the following benefits:

- Fewer or no cash transactions
- No human manipulation of individual transactions
- Better revenue reporting capabilities
- Real-time reporting capabilities
- Remote troubleshooting

- Equipment has the ability to notify personnel of problems by phone, pager or computer in real-time

The type of system incorporated into an off-street facility depends on the requirements of the parking operators and customers and on the functional requirements of the system.

2.1 Payment Systems

2.1.1 Cashiers

While cashiered parking has been in existence as long as motorists have paid to park, new technologies have been introduced to make these systems more reliable and more resistant to employee manipulation and theft. The way a cashiered system traditionally functioned is: the customer was issued a time stamped or encoded ticket upon entering a parking facility; upon exiting the customer presented the ticket to a cashier who manually calculated the amount owed based on the amount of time the customer was parked.

These systems relied on a time stamp that marked the ticket when it was issued and on manual calculation of parking fees, if the mechanical clock creating the stamp was not set to the correct time or if it did not correspond to the time being used by the cashier, the amount owed upon exit may have been incorrect.

More modern systems print a bar code onto the ticket or encode a magnetic stripe when the ticket is dispensed. Upon exiting, the cashier inserts the ticket into the fee-computer to calculate the time and amount owed. Because the ticket dispenser and cashier's fee computer are networked, the time and ticket information is accurate. Furthermore, because the tickets are encoded and the payment amounts are calculated automatically rather than manually, the possibility of employee manipulation is virtually eliminated.

2.1.2 Pay-In-Lane

Pay-in-lane systems, as shown in **Figure 1,** require a customer to be issued a ticket from a ticket dispenser upon entry. Upon exiting, the ticket is fed by the customer into a reader that calculates the amount owed. The customer then feeds cash into the machine (if allowed) or swipes a credit card on the same unit to make payment. Once payment is received the exit gate raises and the customer is allowed to exit. **Attachment A** provides additional information about this type of system.

Figure 1 – Pay-In-Lane Station

2.1.3 Pay-On-Foot

Pay-on-foot technology, like the pay-in-lane system, requires a customer to be issued a ticket from a ticket dispenser upon entry. When the customer is ready to leave the facility they take their ticket to a centrally located pay station. Once the ticket is inserted into the machine, the pay-station (an example is shown in **Figure 2**) calculates the fee and accepts the payment. The customer then takes the ticket to their vehicle and inserts the ticket into a reader in the exit lane upon leaving the facility. The reader verifies that the fee is satisfied and then raises the exit gate. **Attachment B** provides additional information about this type of system.

Figure 2 – Pay-On-Foot Station

2.1.4 Card In/Card Out

A credit card in/credit card out system, as shown in **Figure 3**, is a ticketless and cashless system that only requires a customer's credit card for parking time verification and payment. With this type of system, the customer inserts their credit card into a machine at the entrance of the facility which records the credit card data and stores it in an internal database. This process opens the entry gate and grants the car access to the garage. Upon exiting, the credit card is inserted into a similar machine that retrieves the original card data from the database, including the entry time, charges the appropriate fee, produces a receipt, and raises the exit gate. **Attachment C** provides detailed information about this type of system.

Figure 3 – Exit Reader of a Card In/Card Out System

Because of the availability of a variety of parking access systems and the varying features that each system offers, many factors must be considered by a parking operator when determining which system is best for a given application. In off-street applications issues such as facility layout, vehicle and pedestrian flow patterns, traffic flow and user types must all be taken into

consideration when deciding on the correct system. **Table 1** shows a comparison of the characteristics of the off-street parking access and revenue control systems described above.

Table 1
Off-Street Payment Systems Comparison

	Cashiers	Pay-in-Lane	Pay-on-Foot	Card In/Out
Can accept coins	✓	✓	✓	✓
Can accept cash	✓	✓	✓	✓
Can accept credit cards	✓	✓	✓	✓
Can accept smart cards		✓	✓	✓
Capable of accepting validations	✓	✓	✓	
Issues receipts	✓	✓	✓	✓
Subject to employee manipulation	✓			
Reporting capabilities	✓	✓	✓	✓
Auditing capabilities	✓	✓	✓	✓

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One shortcoming identified with these automated systems is that two of these devices require the occasional user to become familiar with a new technology while parked in an active exit lane. If the user encounters a payment problem that does not allow them to exit, the user has to back up to resolve the issue or remains in the lane until the situation is resolved. This could result in the creation of a large exit queue leading to frustration on the part of other users waiting to exit. Other parking systems have solved this problem by adding recirculation lanes to their facilities which allow a user to move out of the exit lane and back into the facility if they encounter a problem.

2.2 Recommended Off-Street Applications

A major concern in parking garages is congestion, particularly as cars exit a faculty. This is most evident in facilities with high transient turnover, such as those serving retail and restaurant environments. Congestion is only intensified when people have to pay a cashier or pay station at the exit gate. For this reason, pay-on-foot stations are the technology most often recommended for automating a facility. Because a customer pays on foot before they reach their car, the time spent paying for parking is done in a way that won't impede traffic flow. Upon exiting the facility, customers simply feed a ticket into a reader which allows the exit gate to open. A critical component of these systems is good instructions and signage so that first-time customers know where and how to pay. Those who do not know how the payment system works may assume that payment is made upon exiting.

Today's parking management companies have embraced this automated technology and understand the benefits of these systems. Of particular importance is the significant reduction in

labor costs. Automated systems have the ability to pay for themselves in a relatively short period of time, whereas staffing a facility with cashiers is a great expense that will never be fully recuperated. A single pay-on-foot station currently costs between $35,000 and $55,000, depending on the features, brand, and model. Machines can accept payments 24 hours per day, 7 days per week. The labor costs associated with this system include preventative maintenance, revenue collection, replenishing ticket and receipt stock, collecting tickets and replacing components that may fail. One employee can oversee several parking facilities with automated revenue control systems, thereby spreading out and minimizing labor costs.

Conversely, unless it is staffed at all times, a cashiered facility may experience a loss of revenue that would otherwise be captured by the use of a pay-on-foot system. A cashiered facility must run several shifts depending on how many hours per day it is operated. If, for example, a facility with one cashier booth is staffed from 7:00am to 7:00pm, Monday through Friday, one full time shift (8 hours per day) and one half-time shift (4 hours per day) would be required to staff the facility for 12 hours per day. If these employees are paid $10 per hour, the annual labor cost would be approximately $39,000, after factoring in payroll tax, workers compensation insurance, and employee benefits. If it were staffed 24 hours per day, 7 days per week in order to capture the same potential revenue as a pay-on-foot station, the labor cost would increase to approximately $110,000 annually. This shows that a pay-on-foot system has the ability to capture more revenue at a lower cost.

Lastly, parking management companies understand the financial security offered by these systems. Aside from unparallel auditing capabilities, these systems offer features that secure the cash and coins in locked canisters that can only be opened by cash-room or banking personnel. This creates less financial liability for the management company and more security for the individuals servicing the equipment.

Pay-on-foot stations are manufactured by several companies. The most popular are:

Federal APD
42775 Nine Mile Rd.,
Novi, Michigan 48375

SKIDATA
One Harvard Way, Suite 5
Hillsborough, NJ 08844

Amano McGann
651 Taft Street NE
Minneapolis, MN 55412

ZEAG
9555 James Avenue South
Suite 260
Bloomington, MN 55431

Secom International
9610 Bellanca Avenue
Los Angeles, CA 90045

It should be noted that the City of Los Angeles also operates numerous off-street, metered surface parking lots. The same principals and applications as above should be utilized in these lots. For on-street parking pay-and-display works well, however, for off-street lots, pay-by-space is the preferred option because parking spaces must be marked regardless. Also, it is easier for the parking customer to pay for a numbered parking stall rather than having to return to their vehicle to put a receipt on the dashboard, as is the case with pay-and-display. Enforcement

is also made easier because enforcement personnel can run a report from the pay-station informing them which spaces are unpaid, allowing easy identification of violators without having to check each vehicle.

2.3 Access Control Systems

For parking customers who frequently park at a particular facility, card access systems provide a viable alternative to paying on a daily basis. Even in parking facilities where paying for parking is not required, gated access systems add a level of security by denying parking access to those who are not authorized. Most card reader access systems are comprised of entry and exit card readers and barrier gates. When the reader detects a valid card, it raises the gate to allow entry or exit. More complex layouts may have more than one gate system, allowing for "nested" parking within a facility, which helps designate the specific areas in which certain groups of parking customers must park. A typical feature of card access system is the Anti-Passback feature, which eliminates card sharing by requiring cards to be used on an in-out-in-out sequence in order to remain valid. For example, if a parking customer enters a parking facility then gives their access card to a friend so they may park there as well, the card will not allow the friend access because it is used in an in-in sequence.

The two most common types of access cards used today are proximity card systems and radio frequency identification (RFID) systems.

2.3.1 Proximity Card

As the name implies, proximity cards must be held within the proximity of a card reader to activate the gate and allow parking access. The size of the reader depends on how close the card must be held. Generally, proximity cards are about the size of a credit card and contain an imbedded wire coil and capacitor. An electrical field emitted by the card reader is detected by the coil which charges the capacitor, which then transmits the card number and its access parameters to the card reader. The reader can either contain the access information itself or it can communicate with a central parking management system in order to verify the validity of the access card.

Proximity cards are individually numbered with a unique facility code and card number in order to avoid duplication. When a card needs to be activated for a customer, the access parameters (valid times, location(s), etc.) are entered into the database of the parking management system, which then transmits the card information to the card readers. The system can detect in real time when a card is used and, if access is denied, parking management can see why by looking at that card's history report.

With security becoming a major issue in the workplace, on college campuses and other areas, many ID badges now have proximity features built into them which eliminate the need to carry multiple cards. Proximity devices in the form of key fobs are also available. These are less desirable in a parking application however, because the fob is usually attached to a customer's

keys, meaning the keys would most likely have to be removed from the ignition in order to use the card reader.

2.3.2 Radio Frequency Identification (RFID) system

From a user's perspective, an RFID system works much like a proximity card, only it offers more convenience. Using Automatic Vehicle Identification (AVI), the system is able to automatically identify a vehicle when it enters a parking facility, allowing the parking system to authorize access and open the barrier gate without the driver having to stop or open their window, essentially eliminating queuing. They are most commonly associated with toll roads and are often referred to as a "transponder".

RFID cards contain an embed radio transmitter that can be either "active", which require a small battery, or "passive", which relies on the radio receiver for power. When the transponder, usually located near the front of the vehicle inside the windshield, is within a certain distance from the radio receiver, the parking access system confirms the signal being transmitted and allows access.

AVI cards can also be used as short-term permits that are programmed when a specific value of parking is prepaid by the user. Each time the card is used, the access control system deducts one prepaid day worth of parking. If the parking operator desires, this system has the ability to allow a customer access multiple times per day at no additional charge.

2.3.3 Facility Management Systems

A facility management system is designed to serve as the central management system for a parking operation and includes the software and hardware necessary to perform the functions of enforcement, access and revenue control, permit sales, account management, and event parking. From this system, all functions can be managed. Online systems have the ability to manage all of these functions, including the monitoring of numerous individual facilities from a central location.

For access and revenue control, a facility management system can keep track of ticket data in real time including the number tickets issued, the amount of tickets remaining in a ticket dispenser, the amount collected, and the amount still outstanding; revenue figures can be tied into these numbers as well. The system can also monitor equipment for failures and even track maintenance issues in order to determine preventative maintenance schedules.

2.3.4 Parking Guidance Systems/Single Space Detection Systems

While not a direct component of access and revenue control, way-finding is a key component in large parking operations. Parking guidance systems use LED signs (as shown in **Figure 4**) to direct parking customers to available parking spaces and to report the occupancy status of a parking facility.

Simple parking guidance systems employ sensors on each level of a parking facility which count the number of cars that enter and exit that level in order to determine the number of available parking spaces per level. This information is displayed on signs to let parking customers know which levels to go to in order to find available parking.

Figure 5 shows an example of a Single Space Detection System which uses a sensor over each parking space to determine if a space is occupied. This information is relayed to signs throughout the facility which display the number of available spaces per level. The sensor will display a red light if the space is occupied and a green light if it available so that customers can easily find the available parking spaces. Because vehicles are directed to open spaces, time spent searching for an available parking space is reduced, resulting in a reduction of harmful vehicle emissions and the congestion created by drivers searching for open spaces.

Figure 4 – LED parking sign

Figure 5 – Single Space Detectors Displaying Occupied and Vacant Spaces

2.4 Technological Trends / Future Technologies

Parking operators are very aware that no one enjoys paying to park, so their goal is to make the customers' parking experience as easy as possible. In order to do so, utilizing technology is critical. The following are technologies that are currently being developed and implemented in order to make the customer experience of parking as efficient and hassle-free as possible:

2.4.1 GPS/Space Sensor Technology – These systems utilize parking meters that have the ability to sense if a parking space is occupied by detecting the mass of a vehicle using magnetic waves. The meters then report the availability of open parking spaces using wireless communication which provides the GPS coordinates of each parking meter. Customers can find available parking via the internet or an in-car internet/GPS unit. This information can also be displayed on parking guidance signs.

2.4.2 Smart Meters – These parking meters have the ability to increase and decrease parking rates based on demand. During off-peak hours, the rates can be lowered because there is little parking demand. During peak times, rates can be automatically increased in order to decrease demand to a point where a reasonable amount of parking is available at all times. When incorporated with a space monitoring system, these meters can adjust the parking rates depending on the average area or system-wide occupancy.

2.4.3 Smartchip Coins – Serving the same function as machine-readable tickets, Smartchip Coins are plastic, coin-sized chips that are electronically encoded as they are dispensed. Upon exiting a parking facility, the Smartchip coin is deposited into the pay-station where the coin is read and the amount owed is calculated. Smart chips also have the ability to be used as validations as they can be encoded by a merchant to offer discounted or free parking to their customers. The main advantages of a Smartchip coin are that it is reusable and not easily damaged or mutilated.

2.4.4 Automated Parking Systems – Sometimes called robotic garages, these parking garages are designed to maximize the amount of parkable space by eliminating access ramps and lanes. Instead, as vehicles enter the garage and the drivers exit, the cars are lifted to a storage space using a computerized racking system. Designers claim that these parking garages can hold up to twice as many cars as a conventional garage and are not subject to vandalism or damage when stacked. When they customer is ready to leave, they enter the correct information and payment (if necessary) into the computerized system and their car is automatically retrieved for them. These parking garages are best implemented in dense urban areas where space is very expensive, such as Manhattan and Tokyo. A rendering of a robotic garage is depicted in **Figure 6.**

Figure 6 – Rendering of an Automated Parking Garage

3.0 On-Street Systems

Parking meters were first introduced in 1935 as a way to collect parking revenue for on-street parking in Oklahoma City, Oklahoma. Since then, parking meters have become a familiar sight on curbs around the world. It's only been in the last 20 years or so that technology has begun to play a significant roll in their design and use. Technology has allowed meters to become more reliable, offer more options and features, and above all, to be more user-friendly for the parking customer and operator alike. Along with new and improved parking meter technology has come other systems that can work in conjunction with parking meters to enhance the entire system and allow it to become more streamlined and functional, not only for the user but for the operator as well. Modern parking meters have the ability to communicate remotely to management databases which can display real time revenue amounts, equipment problems and enforcement information. These databases can subsequently provide detailed reports and auditing information that were previously difficult to obtain.

On-street parking is generally the most desirable parking alternative in any municipality. Parking meters, when used in conjunction with proper parking rates and regulations, offer the following benefits:

- They encourage turnover of spaces for use by business patrons and visitors.
- They discourage employees/business owners from monopolizing convenient curbside parking.
- They reduce but do not eliminate the role that parking enforcement plays in encouraging effective utilization and turnover. Generally speaking, parking systems that are dependent solely on parking enforcement, violations, and fines tend to be viewed more negatively then parking systems that employ fee-based incentives.

3.1 Single-Space Meters

Single space meters, like the one shown in **Figure 7**, are the most common type of parking meters used for pay parking. While newer electronic versions of these meters are now capable of accepting credit cards and rechargeable smart cards, the majority still accept only coins as payment. Single space meters can be mounted as a single-head meter on a single pole, or as a double-head meter on a single pole. A double-head meter is placed between two parking spaces with each meter serving the adjacent space.

Unlike older mechanical meters, electronic meters are very easy to service. They require periodic battery changes (annual in most cases) and instead of repairing mechanical parts, meter maintenance is performed by merely replacing modular plug and play parts kept in inventory. Many users of electronic parking meters enter into service contracts whereby defective inserts are routinely exchanged for repaired ones. Unlike mechanical parking meters, the electronic parking meter's internal clock is highly accurate and is not likely to incorrectly display time.

Figure 7 – Modern Single-Space Parking Meter with Smart Card Slot

3.1.2 Basic Functions and Capabilities

From the user's perspective, single space meters operate the same way they did when they were first introduced almost 75 years ago. Parking customers estimate the amount of time their vehicle will be parked and pre-pay for that amount of time. The parking meter displays the amount of time remaining before the paid amount of time expires. Some electronic meters have the ability to track when payment is made, meaning that if a parking customer receives a parking citation, the parking meter can provide exact information about when the meter was paid, how much was paid, and the duration of time in which the payment was valid. This information can be downloaded to a handheld unit and compared to the time the citation was issued in order to determine if the parking was paid for at the time in question.

3.1.3 Payment Options

New payment options are quickly gaining prominence as coins are becoming less popular. As new technologies emerge and gain public acceptance, the parking industry is moving away from being a cash industry. Customer service is improved as more payment options are available, while also reducing the potential for employee theft.

Pre-paid smart cards or cash keys are an alternate form of payment that is offered on most new electronic single-space meters. These devices are inserted at the parking meter and as time is added to the meter, the cash value on the card or key is deducted. When the value has been used in its entirety, the card or key can be recharged at the location where it was originally purchased, which is usually a city office or local merchant. Smart Card systems are in place in dozens of cities across the country including Buffalo, New York, Boulder, Colorado, Philadelphia, Pennsylvania, and West Palm Beach, Florida.

With some brands of parking meters, when customers pay using a smart card, the estimated time the customer will be parked is paid using the card and, when ready to leave, the card may be reinserted into the parking meter which then refunds the unused portion of the fee. This concept allows for a more customer-friendly experience as parkers do not have to pay with coins and because they only pay for the actual time they are parked.

IPS Group, a manufacturer of single-space parking meters is now offering credit card acceptance (shown in **Figure 8**) which works very much like a smart card in that as time is added to the meter, the credit card is charged the appropriate amount. These meters require wireless communications in order to process the credit card payments. These parking meters can be retrofitted to be used with the housings of other single space parking meters such as Duncan meters, thereby simplifying and reducing the cost of implementing the system. The current approximate cost of retrofitting existing parking meters to the IPS meters starts at $495 per meter, which includes the internal components and a new meter top (hood). When using this system, it is imperative to know how much the credit card provider will charge the parking operator as a processing fee per transaction. This is usually a flat fee plus a percentage of the parking fee. If, for example, the processing fee is 20 cents per transaction (flat fee only) and the

minimum payment allowed on the parking meter is 25 cents, the operator will only make 5 cents from those who pay the minimum.

Credit card payments are processed in real time using wireless telephone, wireless internet (WiFi) technology or mesh networking. Wireless telephone systems use cellular phone systems and require recurring payments to a third-party service provider, which in the case of the City of Los Angeles would mean a substantial monthly cost due to the number of parking meters it operates. WiFi requires that the parking meters be part of a wireless network, which means numerous routers would be necessary. With mesh networking, the system uses wireless technology that communicates between connection points – in this case "hopping" from parking meter to parking meter via routers in each meter – until the destination point is reached. In the event a router goes off line, that router is automatically bypassed in order to keep the communication alive. These wireless processing methods allow for credit cards to be processed remotely without the need to physically download credit card transaction data from each parking meter, thereby saving a tremendous amount in labor costs.

The City of Denver, Colorado has recently incorporated many of these parking meters into its downtown parking system.

3.1.4 Smart Card Hacking

In July 2009, researchers announced that they were able to hack the prepaid smart cards used by the San Francisco, California parking meter system. The researchers bought a blank smart card and used an electronic smart card shim to duplicate the electrical contact points by which the card is read. This is in contrast to a credit/debit card which uses a magnetic strip to transfer data. As shown in **Figure 1**, the researchers placed a value of $999.99 on their card and set it to never deduct the value on the card when used. While the San Francisco system was not hacked by individuals seeking to defraud the system, the researchers did prove that this particular smart card system is vulnerable to outside manipulation.

Figure 1: "Hacked" parking meter showing $999.99 balance on smart card

The parking meters are not the primary source of the vulnerability of the parking meter system. Instead, the vulnerability is due to the type of smart cards and the encoded security features on the cards.

Smart Card Technology

A smart card is an electronic recording device which stores user-specific information. Smart cards are used in many industries and can range from a user's personal information to monetary values. In the case of parking, a monetary value is assigned to each card at the point of sale which is then incrementally deducted when used at a parking meter.

There are two types of smart cards: memory cards and microprocessor cards. Memory cards contain only passive memory storage components and therefore contain minimal security features. Most memory cards are embedded with security features at the point of manufacture, such as a password that is hard-coded into the card's microprocessor. When the card is inserted into a parking meter, it is given the password by the parking meter and verifies if the password is correct. If the password is correct, the card is debited and parking time is added to the meter.

Because these features are embedded by the manufacturer and are not unique to each card, cards can be easily duplicated by hackers. In the San Francisco case, the researchers programmed a blank smart card to authenticate the password and allow user privileges to be granted. Memory cards are much less expensive than microprocessor cards and, therefore, they are often the choice for many organizations wishing to implement a smart card system at the lowest cost. Depending on the amount of memory desired, memory cards typically cost between $1.50 and $3.00 per card.

Microprocessor cards are much more secure than memory cards, because they incorporate 3DES (Triple Data Encryption Standard) e-Purse systems. These encryption systems have currently never been hacked. These systems require a secure access module (SAM) chip to be installed in the payment device, which contains security keys to ensure the authenticity of all transactions. The card and parking meter must authenticate each other every time a card is inserted. When inserted into a parking meter, the smart card generates a random number and sends it to the card accepting device (CAD) which then encrypts the number with a shared encryption and sends it back to the card. The card then compares the encryptions in order to establish authenticity. Because microprocessor cards contain more memory and use an active rather than passive system, they are more expensive than memory cards. The typical cost for each card is between $7.00 and $10.00.

The use of administrative software is now available from the manufacturers of parking meters. This software allows the monitoring and auditing of each individual smart card transaction. Since each microprocessor smart card has a unique identifier, it is not difficult for a system operator to detect discrepancies in smart card usage. This allows for immediate action to be taken in the event an anomaly is discovered that jeopardizes the integrity of a smart card system.

Both JJ MacKay (the manufacturer of San Francisco's parking meters) and POM parking meters are set-up to accommodate SAM chips. These manufacturers accommodate the more secure microprocessor smart cards. Duncan parking meters, which are solely used in Los Angeles for their parking meter system, are not currently set up to accommodate SAM chips and therefore rely on memory cards for their smart card applications.

Most attacks by hackers are either very expensive (for equipment and other associated costs) or time consuming for the affected metropolitan area. The researchers who hacked the San Francisco smart card system claim to have done so only to educate cities about making their systems more secure. These researchers were able to hack the smart cards in as little as three days. With more parking operations deploying smart card systems, it is imperative that parking operators and officials understand the cards vulnerabilities and employ methods to prevent security breaches. It is up to the parking operator to update their systems as new technologies become available in order to reduce revenue loss. We recommend that the microprocessor smart cards and debit/credit card compatable parking meters be used to lessen the chances of another security breach.

3.1.5 Reliability

Because modern electronic parking meters contain very few moving parts, reliability over mechanical meters has been improved dramatically. Coin and card slots still remain susceptible to being jammed or clogged by foreign substances, however, sensor technology now has the capability to sense and reject unwanted objects or foreign coins.

Modern single-space electronic parking meters have been designed to allow for very easy serviceability and upgrades. By removing the top of the meter-head using an access key (no special tools required), the single-piece internal electronic component which includes everything but the coin hopper (where coins are stored) can be removed and exchanged in seconds. **Table 2** provides the pros and cons of single-space parking meters.

Figure 8 – Solar Powered Single-Space Meters Capable of Credit Card Acceptance

Front

Back

Table 2
Pros and Cons of Single-Space Parking Meters

Single Space	
Pros	**Cons**
• Unit cost • Very easy to maintain • New electronic components and features can be installed in the housings of older meters • Can be incorporated with pay-by-phone payment options	• Do not issue receipts • Less payment options than multi-space meters • One meter is required for each parking stall • If a meter is off-line, parking for the stall it serves can not be paid • More expensive to manage than multi-space meters • Requires a separate hand-held computer to change parking rates or fee increments • Cars can "piggyback" on others because remaining valid time is displayed on the meter

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3.2 Multi-Space Meters

Multi-space parking meters, as shown in **Figure 9,** have some distinct advantages over single-space meters. Aside from the payment options such as cash, credit cards, smart cards and tokens, the primary advantage is that a single multi-space parking meter can be used in place of 10 to 20 traditional single-space parking meters and are more aesthetically appealing since fewer devices are required. Additionally, they provide a full audit trail of all transactions. In some more sophisticated installations, multi-space parking meters can even send messages to a host computer that performs diagnostics of each device and displays its financial and supply status in real time. The operating components are modular and interchangeable, meaning maintenance efforts are minimized and most major manufacturers offer solar powered units which require no more effort to be installed than the unit being bolted to the ground.

Due to their larger size, multi-space parking meters have the ability to offer more payment options than single-space parking meters, the most noticeable being cash. Those that accept cash also have the added ability to give change, usually in dollar coins. Like single-space parking meters, they also have the ability to accept coins, tokens (for validations), smart cards and credit cards. It is not unusual for a multi-space parking meter to accept all of these forms of payment.

Figure 9 – Solar Powered Multi Space Meter

3.2.1 Pay-and-Display

Pay-and-display systems are used in numerous on-street parking operations throughout the world with great success. With these systems, the user can insert cash, coins, tokens, smart cards or credit cards for payment. The user obtains a receipt from the unit that displays the date, amount paid, and expiration time which is then placed on the vehicle's dashboard. The advantage of the pay-and-display application is that parking spaces do not need to be identified as with single-space meters, conceivably allowing more cars to be parked in a given area. Pay-an-display parking is utilized in on-street parking applications in numerous municipal parking programs including the cities of Buffalo, New York, Chicago, Illinois, Key West, Florida, Aspen, Colorado, Truckee, California and Houston, Texas, just to name a few.

The pros and cons of multi-space parking meters are provided in **Table 3.**

3.2.2 Pay-by-Space

As its name implies, pay-by-space is a system where a customer parks in a numbered space and pays for that space. The customer enters their space number and the desired amount of time and then pays the appropriate amount. The pay station issues the customer a receipt, but unlike pay-and-display, the customer is not required to display the receipt on the dashboard of their vehicle. Instead, the parking meter keeps track of which parking spaces are paid for and for how long. Unlike single space parking meters, the remaining time is not displayed on the meter itself, which helps reduce "piggybacking", where someone will pull into an empty parking stall with time remaining and not have to pay. While not as common in on-street applications as pay-and-

display, pay-by-space meters are currently used by the cities of Los Angeles, California, Las Vegas, Nevada and Ann Arbor, Michigan.

Table 3
Pros and Cons of Pay-and-Display Parking Meters

Pay-and-Display	
Pros	**Cons**
• One meter can serve 10 to 20 parking spaces • More aesthetically pleasing • Issues receipts • Fewer or no cash transactions • Capable of accepting multiple forms of payment • More payment options makes customers more likely to pay • Easy to change parking rates • Real-time reporting capabilities • Easy to install – no hardwiring required • Modular components • Less citation appeals • Requires no street markings • Potential to fit more cars into an area • Customer may move vehicle to different location and not repay if receipt has not expired • Reduces "piggybacking" as customer takes proof of payment with them • If a meter goes off-line, customers may pay using other meters	• Unit cost • Wireless function requires monthly fee • Customer must place receipt on dashboard as proof of payment • Enforcement personnel need to check every car for a valid receipt • Customers can share receipts

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In converting from single-space parking meters to a multi-space pay-by-space system the City of Ann Arbor utilized the existing meter poles to identify the parking stall number that people must enter to pay, as is shown in **Figure 10**.

Figure 10 – Parking Space Number Sign

The pros and cons of pay-by-space parking meters are shown in **Table 4**.

Table 4
Pros and Cons of Pay-by-Space Parking Meters

Pay-by-Space	
Pros	**Cons**
• One meter can serve 10 to 20 parking spaces • More aesthetically pleasing • Issues receipts • Less or no cash transactions • Capable of accepting multiple forms of payment • More payment options makes customers more likely to pay • Easy to change parking rates • Customer does not need to return to vehicle after paying • Real-time reporting capabilities • Easy to install – no hardwiring required • Modular components • Ability to be networked • When units are networked, customers may pay or add time at any paystation • Less citation appeals • Enforcement personnel can be notified as to which spaces are paid for without having to check every car • Can be integrated with a pay-by-phone system • Reduces "piggybacking" as remaining time is not displayed • If a meter goes off-line, customers may pay other meters	• Unit cost • Wireless function requires monthly fee • Street markings and/or signs required to identify space number

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3.2.3Networking

Using wireless communication, modern parking meters can be networked to allow for better customer convenience, enforcement and management. In pay-by-space systems, this allows customers to pay for their parking at any available meter. This means that time can be added to a parking space from a meter that is blocks away from the space itself. Also, if a parking meter is not functioning, customers still have the ability to pay at another, functioning meter.
From an operator's standpoint, networked parking meters allow for more efficient enforcement and system management. For pay-by-space systems, this allows enforcement personnel to collect payment data for an entire block or parking system off of a single parking meter rather than from individual meters, which means less time spent collecting payment information and more time doing actual parking enforcement.

3.2.4 Reliability

Multi-space parking meters have the capability to perform internal self-diagnostic tests on their components. When a problem is found, alarm messages are communicated to the parking operator through a centralized management system. Because alarms are generated in real time, down time is greatly reduced. Instead of equipment problems being discovered in the field, repair personnel can be dispatched with the correct components in order to make the parking meter fully functional as quickly as possible. Because the components are modular, a meter will only shut down completely if it can no longer serve its intended purpose of selling parking.

If a multi-space meter does go offline, customers can still pay other parking meters (with pay-by-space they must be networked), unlike single-space meters. Because a single-space meter serves only one parking space, if it goes off-line, parking fees cannot be collected for the use of that parking stall, resulting in lost revenue.

As noted before, coin and card slots remain susceptible to being jammed or clogged by foreign substances, however sensor technology now has the capability to sense and reject unwanted objects or foreign coins.

The parking operator must determine which parking meter system will work best for their application and select the system that will provide the best results for their desired goals. **Table 5** compares the three above mentioned systems.

3.2.5 Pay-by-Phone

Pay-by-phone technology is quickly becoming a popular payment option for parking customers, particularly in large municipalities. When paying by phone, customers call the pay-by-phone service number and then enter their location (space number) and the amount of time they wish to park. After being parked, they may also wish to receive text message reminders a few minutes before their time expires and in order to add more time via their telephone.

To use the service, customers must first register with the service provider and provide their vehicle and credit card information. While using the service, account information, maps and receipts can be obtained from a personal account on the service provider's website.

The main benefits of this service are that customers need to do nothing more than dial their phone to pay for parking and, in situations where a driver is disabled or when the weather is bad, people have the added convenience of paying from inside their vehicle. Cities such as San Francisco, California, Vancouver, British Columbia, Anchorage, Alaska and Coral Gables, Florida have successfully implemented pay-by-phone programs.

Table 5
Parking Meter Technology Comparison

	Single Space	Pay-and-Display	Pay-by-Space
Can accept coins	✓	✓	✓
Can accept cash		✓	✓
Can accept credit cards	✓	✓	✓
Can accept smart cards	✓	✓	✓
Capable of accepting validations		✓	✓
Issues receipts		✓	✓
Reporting capabilities	✓	✓	✓
Auditing capabilities	✓	✓	✓
Displays remaining time	✓		
Can be intergraded with space monitoring system	✓	✓	✓
Can be intergraded with pay by phone	✓		✓
Does NOT require enforcement of every parking space			✓
Meter serves more than one parking space		✓	✓
Customers can pay any meter		✓	✓
Modular components	✓	✓	✓

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3.2.6 In-Car Meters

As implied by their name, in-car meters are devices that serve the same purpose as parking meters, only they are small, portable devices that are left in a customer's vehicle. A customer obtains the device from a municipality or parking operator by purchasing or paying deposit. At that time, the customer prepays for a certain amount of parking which is loaded onto the device. When parking, the customer simply turns on the unit and if rates vary from area to area, they

may have to select the zone they are in to ensure they are paying the proper amount. After being activated, the device counts the time while parked and deducts the appropriate funds from the prepaid amount. The time and zone are displayed on a screen so that enforcement personnel can confirm that vehicles are legitimately parked. When the customer returns, they turn off the device. This way, the customer only pays for the exact amount of time they were parked rather than guessing the appropriate amount as with other systems. Like pay by phone, the customer has the convenience of not needing to exit their vehicle to pay.

In-car meters are currently being used in cities such as Miami Beach, Florida, Fort Lauderdale, Florida and Manchester, New Hampshire. From the parking operator's standpoint, in-car meters mean that less or even no on-street parking meters are required, which translates into less maintenance and labor costs. **Figure 11** shows two examples of in-car meters.

Figure 11 – In Car Meters

3.2.7 Space Monitoring/Control Management

In recent years, on-street vehicle detection technology has been introduced which monitors individual metered parking spaces. Through the use of in-ground detection sensors, the system is linked to the single- or multi-space parking meter serving the space, allowing it to provide critical information to parking management. This allows for real time communication of important information such as which spaces are occupied, which are occupied and unpaid, maintenance issues, and when money collection is required. This information can be transmitted to the parking management's office and directly to the enforcement personnel's handheld computer or PDA. This directs personnel precisely to where an issue is occurring, such as an unpaid vehicle or equipment problem. As a result, parking customers are more inclined to pay, (because they know each space is monitored in real time) enforcement productivity is increased and meter downtime is reduced. With detailed reporting capabilities, these systems can provide accurate space occupancy and revenue data, turnover rates, and violation and revenue information. This new technology has been implemented in the cities of Decatur, Georgia and Reading, Pennsylvania and has been tested through pilot programs in cities such as Los Angeles, California, New Haven, Connecticut and Pasadena, California.

3.2.8 Recommended On-Street Applications

As the City of Los Angeles moves towards modernizing its parking operations, it must consider how revenue control equipment will impact future operations. Parking management companies and the parking industry as a whole are rapidly embracing high-tech solutions in order to make parking operations more efficient, cost effective and user friendly. The equipment must be easy to understand for both the customer and operator, be easy to maintain, have the ability to report malfunctions, have auditing capabilities and offer multiple payment options.
In areas where parking demand is greater and parking rates are higher, multi-space pay-and-display parking meters are best suited for several reasons:

- **Multiple forms of payment can be accepted** – By accepting credit cards and smart cards in addition to coins, some municipalities have reported up to a 40% increase in revenue per space. This can be attributed to the fact that people are more likely to pay a meter when they have more payment options and when paying with a credit or debit card customers tend to overpay for their estimated length of stay, rather than underpay. In areas with higher parking rates, customers enjoy the convenience of being able to use a credit card or smart card rather than having to feed numerous coins into a meter. In some cases, credit card transactions account for more than 85% of all transactions, meaning that coin collection and processing costs are greatly reduced.
- **More available parking–** Because pay-and-display does not require numbered parking spaces there is no need to stripe or otherwise designate individual on-street parking stalls. This means that more cars can park in a given area, which translates into more available parking, less traffic congestion and increased parking revenue.
- **Customers may pay any parking meter –** In the event a meter goes off-line, unlike single space meters, customers may still utilize all available parking spaces by having the ability to pay at any parking meter, meaning no lost revenue.
- **Customer provided with proof of payment –** Because pay-and-display requires a receipt to be displayed, the number of appealed parking citations is greatly reduced, which means a reduction in administrative and other associated costs.

The best known manufacturers of multi-space meters are:

Digital Payment Technologies
4105 Grandview Highway
Burnaby, BC
Canada V5C 6B4
Phone: 888.687.6822

Duncan Solutions
633 W. Wisconsin Avenue
Suite 1600
Milwaukee, WI 53203
Phone: 877.577.3632

Cale Meters
21925 Highway 19N
Clearwater, FL 33765
Phone: 727.724.1800

Parkeon
40 Towsome Drive, Suite 7
Moorestown, NJ 08057
Phone: 856.235.7801

4.0 Summary of Recommended Technology Upgrades

Table 6 below provides a facility-by-facility summary of the presumed technology changes which a private operator would make if they were to run the off-street parking systems in the City of Los Angeles. The same technology assumptions were made when developing the hybrid operating model under which the City would retain management of the system.

Table 6
Recommended Technologies for the Los Angeles Parking System

Facility Name	Facility Number	Current PARCS Technology	Ideal (Private Operator) PARCS Technology
Pershing Square	N/A	Attendant Booth	Pay-on-Foot/Proximity Card
Arc Light	N/A	Attendant Booth/Pay-on-Foot/Pay-in-Lane/Central Cashier	Attendant Booth/Pay-on-Foot/Pay-in-Lane/Central Cashier
Friar	601	Attendant Booth	Pay-in-Lane/Proximity Card
Dickens	629	Attendant Booth	Pay-in-Lane/Proximity Card
Cherokee	670	Attendant Booth	Pay-on-Foot/Proximity Card
Broxton	680	Attendant Booth	Pay-on-Foot/Proximity Card
Ventura	690	Attendant Booth	Pay-in-Lane/Proximity Card
Robertson	703	Attendant Booth	Pay-on-Foot/Proximity Card
Larchmont	732	Attendant Booth	Attendant Booth
Hollywood-Highland	745	Attendant Booth	Pay-on-Foot/Proximity Card

DESMAN Associates

On-street, it is assumed that a private operator would install pay-and-display stations on street to replace the current system of single-space and pay-by-space meters. This is the ideal technology for a system of this size and level of demand for on-street parking.

4.0 Conclusion

Parking Access and Revenue Control Systems are an integral part of modern parking operations. As technology continues to improve, these systems will provide improved service and solutions for parking customers and operators. As the name implies, PARCS are in place to provide control and accountability of parking operations. Modern systems have the ability to self-audit, provide detailed user and revenue reports, accept multiple forms of payment and efficiently and cost-effectively operate multiple parking facilities from a single parking system. Automating systems and incorporating computerized and GPS technologies decreases the human-factor,

effectively reducing long-term costs and improving accuracy and efficiency. Providing more options for the customer improves their ability to find and pay-for available parking and provides a more enjoyable parking experience. When using smart cards for parking meters, we recommend the microprocessor cards. The Duncan parking meters which are used in Los Angeles are not compatible with this type of smart card, so we would recommend the use of credit/debit card transactions instead of using memory smart cards. This will eliminate the potential security breaches of the memory smart cards entirely.

ATTACHMENT 2E

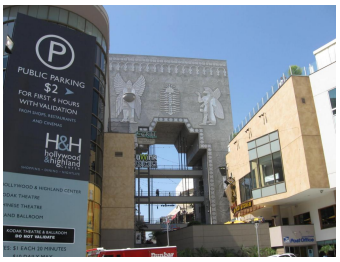
Physical Due Diligence Review and Evaluation (Desman)

PHYSICAL DUE DILIGENCE REVIEW AND EVALUATION

CITY OF LOS ANGELES PARKING FACILITIES
LOS ANGELES, CALIFORNIA

NOVEMBER 2009





PREPARED BY:

DESMAN
ASSOCIATES

PREPARED FOR:
SCOTT BALICE STRATEGIES

PHYSICAL DUE DILIGENCE REVIEW AND EVALUATION

CITY OF LOS ANGELES PARKING FACILITIES

TABLE OF CONTENTS

1. INTRODUCTION

Desman Associates (architectural and structural) and Heapy Engineering LLC (mechanical, electrical, plumbing, fire protection and elevators) has completed a physical due diligence review of the City of Los Angeles Parking Facilities, which consists of 10 parking garages. Our walk-through evaluations of the facilities were performed the week of July 20, 2009.

1.1 Authorization

Authorization to perform an engineering assessment and other professional services associated with a physical due diligence review of the City of Los Angeles Parking Facilities was provided by the executed contract between Scott Balice Strategies and Desman Associates dated May 29, 2009. The work was performed in accordance with DESMAN's 'Scope of Services' as outlined in our proposal dated April 13, 2009.

1.2 Objective

This report is intended to summarize our findings on the current condition and provide recommendations with regard to expected, future maintenance of the facilities. Our scope of services for this project provided for the evaluation of the current condition of the facilities, preparation of probable construction costs based on our opinion of appropriate restoration procedures and presentation of our findings to document observations and recommendations.

The evaluation of the current condition of the structures was accomplished through several means. During our field survey, copies of limited design drawings and other construction related documents were made available for our use. The structural and waterproofing field survey consisted of visual observation and photographic documentation of all accessible areas of the parking facilities as well as sounding of the various concrete surfaces to locate delaminated areas. An assessment of vertical transportation, mechanical, electrical, plumbing, and fire protection systems servicing the facilities was included in this scope of services and was performed by Heapy Engineering, LLC working as a sub-consultant to DESMAN.

We have attempted to establish a 50 year budget projection based on our field observations, our historical experience with similar structures and recommended materials as well as published data relating to the expected service life cycles of products. See the cost tables in each facility's respective section for our opinions of short and long term costs based on current existing conditions and expected future repairs. The probable construction costs presented are based on expected and/or prevailing 2009 prices for labor, materials and equipment in the Los Angeles.

1.3 Definitions

Unless noted otherwise, condition appraisals are based, in part, upon visual observations and sounding of the floor and other concrete surfaces made at the time of the condition survey. The following terms shall apply in the evaluation of the facility's components:

Excellent	Component is in a "like new" state, and is performing its function as intended.
Good	Component exhibits little deterioration, and is performing its function as intended.
Fair	Component exhibits minor deterioration, and is performing its function as intended, but the component's rate of deterioration has begun to accelerate.
Poor	Component has significantly deteriorated and/or is no longer functioning as intended.
Obsolete	Component has completely deteriorated, and its state represents a potential hazard to the overall condition of the facility.

2. LOT 680 - BROXTON AVENUE PARKING STRUCTURE

2.1 Executive Summary

Currently, the Broxton Avenue Parking Structure was found to be in *'Good'* condition. The mixed-use facility consists of six levels and provides approximately 366 vehicle spaces. The structural system consists of a combination of precast, pre-stressed concrete double tee members and cast-in-place concrete columns, beams, and slab infill areas. Lateral loads are resisted by shear walls.

Isolated locations of concrete deterioration in the form of cracking, spalling, and delamination were observed during our review. Most of this deterioration was noted in or directly adjacent to the cast-in-place slab infill areas between the double tee members. Caulking was found to be in *'Fair'* condition, with locations of deterioration observed.

A traffic bearing waterproofing membrane has been installed at the entrance and exit lanes, on Level 2 above the retail space, and on the roof level. In general, the membrane was found to be in *'Poor'* condition, showing significant signs of wear and tear, particularly on the roof level.

Overall, fire protection, plumbing, HVAC, and electrical systems were found to be in *'Good'* condition during our review. However, the roof level light poles were observed to be in *'Poor'* condition, with the finish peeling and/or flaking off at many locations.

A modest effort aimed at addressing concrete repairs and cracks as they may be needed and maintaining the condition of the waterproofing membrane system (especially in high wear areas and over the occupied/retail space) should keep this structure in very good condition for an extended period of time.

2.2 General Information

2.2.1 Facility Name: City Lot 680 - Broxton Avenue Parking Structure

2.2.2 Address: 1036 Broxton Avenue; Los Angeles, California

2.2.3 Vehicle Capacity: 366 cars

2.2.4 Facility Type: Mixed-use parking facility, with retail space provided on Level 1 along Broxton Avenue. Levels B1 and B2 are classified as 'enclosed,' and Levels 1 through 4 are classified as 'open' for building code purposes

2.2.5 Year Built: 1997

2.2.6 Number of Levels: Six

2.2.7 Number of Entrances: One entrance lane off Broxton Avenue

2.2.8 Number of Exits: One exit lane off Broxton Avenue

2.2.9 Overall Dimensions: Trapezoidal in shape, with dimensions of approximately 300 feet (maximum) and 90 feet (minimum) in the north-south direction and 125 feet in the east-west direction

2.2.10 Functional Layout: Single helix with two-way traffic and 90-degree parking.

2.2.11 Structural System: Combination of precast double tee members and cast-in-place, conventionally reinforced concrete slab infill areas, beams, and columns. Lateral loads are resisted by shear walls.

2.2.12 Existing Surface Treatments or Coatings: A thin, traffic bearing waterproofing membrane has been installed at the entrance and exit lanes, on Level 2 above the retail space, and on the roof level.

2.2.13 Design Criteria: City of Los Angeles Building Code (Edition date not specified on design drawings)

2.2.14 Retail Space: Level 1 along Broxton Avenue

2.2.15 Zoning Review: Not performed

2.2.16 Documents Provided for Review: A complete set of architectural and structural drawings dated August 1996 was provided for our use.

2.3 Findings and Recommendations

Structural and Waterproofing Components

A visual examination of accessible structural components of the parking structure was performed, noted on drawings, and documented with representative photographs. Some of these photographs have been included in Appendix A of this report. The work was performed during early morning hours when occupancy was at a minimum. Additionally, top surfaces of the structurally supported floor slabs were selectively sounded in areas using the 'chain drag' procedure to detect potential concrete delaminations not otherwise visible. Also, accessible surfaces of the undersides of the supported level slabs (soffit), beams, columns, and walls were selectively sounded with a hand held hammer where possible or where conditions were suspect.

Minimal cracking, delamination, and spalling of floor slabs was observed in the garage, with the majority of the deterioration located in or directly adjacent to the cast-in-place slab infill areas between the double tee members; see photos 1 through 3 in Appendix A. Some of the slab cracks appear to have been previously injected with epoxy. Isolated deterioration of the beams and columns was also observed during our review; see photo 4. We recommend that slab cracks be routed and caulked and the delaminated and/or spalled concrete be removed and replaced with a quality repair mortar.

A thin, traffic bearing waterproofing membrane has been installed (likely during original construction) at the entrance and exit lanes, on Level 2 above the retail space, and on the roof level. In general, the existing membrane was found to be in *'Poor'* condition. We observed numerous locations of membrane de-bonding, wear and tear, and a lack of flashing at vertical terminations; see photo 5 through 7. We recommend that the existing membrane be re-coated, which will involve removal of damaged and/or de-bonded membrane, solvent cleaning of the existing well-bonded membrane, and reapplication of membrane system with proper flashing at vertical terminations.

Existing control and cove joint caulking was found to be in *'Good to Fair'* condition. A few locations of failed caulking were noted, along with signs of leakage beneath some of the joints; see photo 8. We recommend the caulking is replaced at failed locations and the remainder of the caulking is replaced as it reaches the end of its useful service life.

In the basement levels, a few locations of leaking foundation wall cracks were also observed during our review. We recommend the leaking cracks be chemical grout injected to minimize future water infiltration and subsequent deterioration.

Shear walls were found to be in *'Excellent to Good'* condition.

Architectural Components

There are two stair towers along the west side of the garage that provide access to each level and Broxton Avenue. Minor deterioration in the form of localized tread and riser delamination and/or spalling, peeling handrail paint, and a few loose nosing strips; see photos 9 and 10.

The exterior façade of the facility consists of a combination of precast wall panels and cast-in-place concrete. Portions of the façade were observed to be dirty and should be power washed clean, but no significant deterioration was observed during our review.

Way-finding signage in the garage was considered adequate, with each level appropriately marked and identifiable. Striping was also found to be in adequate condition, but it is expected that the striping will need to be re-applied periodically.

Fire Protection

The structure is fully sprinklered, and main standpipe is located at the north end of the building. Fire hose cabinets are not provided. The fire protection piping is painted and in *'Good'* condition.

Fire extinguisher cabinets are located throughout the garage, along with a fire alarm system consisting of audible/visual alarm signaling devices and manual pull stations at the stairwells.

Plumbing

Trench drains were provided at Levels 3 and 4 near the south stairs, and an emergency drain and sump pump were provided at the lowest level. The storm drainage piping is in *'Good'* condition.

HVAC

The two basement levels and street level are mechanically ventilated. Three exhaust fans are located along the outside wall in mechanical rooms at the Level 2 and the supply fan is located on the Level 3. All of the fans are connected to the lower floors thru vertical shafts. Because mechanical drawings were not made available, we are unable to determine ventilation rates without taking field measurements.

A carbon monoxide system is present in the two basement levels and first level of the garage. Each sensor covers approximately 5,000 square feet, which is typically recommended by the sensor manufacturers.

Electrical

The main electric room was not accessible during our review. However, the drawings provided for our review indicated the service to be an 800 amp, 480 volt, 3-phase service. In addition, a 100 KW emergency generator backs up the emergency lighting and some minimal power requirements.

Lighting on all levels except the roof level is provided with 175 watt HID fixtures, which are generally in *'Good'* condition. The average lighting level in the garage is 10 foot candles, with typical levels of 25 foot candles under a fixture and 2 foot candles away from fixtures.

The roof level is illuminated with twenty foot pole lights with four shoe box style heads. In addition to the shoe box style fixtures, four adjustable aim flood lights are provided at approximately 15 feet up the poles. These lights are in *'Poor'* condition, with the finish peeling and/or flaking off at many locations.

2.4 Opinion of Construction Costs

Based on our current findings, experience with similar structures, and published data related to the expected service life cycles of the facility's components, we have projected the costs associated with our recommended repair and preventative maintenance program over the next 50 years. The applicable table in Appendix B presents our opinion of the construction costs for the next 50 years.

In developing our opinion of probable construction costs we have assumed that a contractor would have to perform repairs such that normal parking operations are not unduly affected by the work. The area allocated for repairs during a single phase would be large enough to permit efficient construction operations, but not so large to unnecessarily restrict garage operations.

The enclosed tables present the probable costs for implementation of the recommendations noted above and include the following:

- An allowance of 10% of the base contract work for mobilization, general conditions and miscellaneous work not otherwise specified.
- An allowance of 10% of the base contract work for a project contingency to account for unanticipated or unknown items that may arise prior to the work taking place.
- An allowance of 8% of the base contract work for engineering and testing fees associated with the work.

The following are not included:

- Costs for ADA modifications to the facility, if any
- Costs to obtain alternative parking for the duration of the project
- Costs for improvements or replacement of signage
- Costs for the remediation of any hazardous materials

3. ARC LIGHT PARKING STRUCTURE (CINERAMA DOME)

3.1 Executive Summary

The Arc Light, or Cinerama Dome, Parking Structure was found to be in *'Excellent to Good'* condition. The mixed-use facility consists of seven levels and provides approximately 1,717 vehicle spaces. The structural system consists of a cast-in-place post-tensioned concrete slabs and beams supported by cast-in-place conventionally reinforced concrete columns. Lateral loads are resisted by shear walls in the east-west direction and a moment frame in the north-south direction.

Very isolated locations of concrete deterioration in the form of cracking, spalling, and delaminations were observed during our review. Most of this deterioration was noted along construction joints, pour strips, or directly above the beams where the reinforcing steel and post-tensioning components are closest to the slab surface. Caulking was found to be in *'Good to Fair'* condition, with a few locations of deterioration observed.

A traffic bearing waterproofing membrane was previously installed on Level 2 above the occupied spaces and over the pour strips on the roof level. In general, the membrane was found to be in *'Fair'* condition, showing signs of wear and tear, particularly in the drive aisles and turning lanes.

Fire protection, plumbing, HVAC, and electrical systems were found to be in *'Good'* condition at the time of our review.

A modest effort aimed at addressing concrete repairs as they may be needed, maintaining the condition of the waterproofing membrane system over the occupied/retail space, and proper surface protection of critical post-tensioning component locations should keep this structure in very good condition for an extended period of time.

3.2 General Information

3.2.1 Facility Name: Arc Light Parking Structure

3.2.2 Address: 6389 De Longpre Avenue; Hollywood, California

3.2.3 Vehicle Capacity: 1717 vehicles

3.2.4 Facility Type: Mixed-use parking facility, with retail space provided in the southeast corner of Level 1. All levels are classified as 'open' for building code purposes.

3.2.5 Year Built: 2002

3.2.6 Number of Levels: Seven

3.2.7 Number of Entrances: Two entrance lanes off De Longpre Avenue and two entrance lanes off Ivar Avenue

3.2.8 Number of Exits: One exit lane off De Longpre Avenue and two exit lanes off Ivar Avenue

3.2.9 Overall Dimensions: Approximately 440 feet in the east-west direction and 220 feet in the north-south direction

3.2.10 Functional Layout: Two-way traffic and 90-degree parking on relatively flat bays, with the levels connected by speed ramps

3.2.11 Structural System: Cast-in-place post-tensioned slabs and beams supported by cast-in-place conventionally reinforced columns. Lateral forces are resisted by shear walls in the east-west direction and a moment frame in the north-south direction.

3.2.12 Existing Surface Treatments or Coatings: A thin, traffic bearing waterproofing membrane has be previously installed on Level 2 over the occupied space.

3.2.13 Design Criteria: Unknown

3.2.14 Retail Space: Southeast corner of Level 1

3.2.15 Zoning Review: Not performed

3.2.16 Documents Provided for Review: A partial set of architectural drawings dated December 2000 was provided for our use.

3.3 Findings and Recommendations

Structural and Waterproofing Components

A visual examination of accessible structural components of the parking structure was performed, noted on drawings, and documented with representative photographs. Some of these photographs have been included in Appendix A of this report. The work was performed during early morning hours when occupancy was at a minimum. Additionally, top surfaces of the structurally supported floor slabs were selectively sounded in areas using the 'chain drag' procedure to detect potential concrete delaminations not otherwise visible. Also, accessible surfaces of the undersides of the supported level slabs (soffit), beams, columns, and walls were selectively sounded with a hand held hammer where possible or where conditions were suspect.

Very minimal deterioration on the top surface of the floor slabs was observed in the garage. The deterioration observed was in the form of concrete cracking, delamination, and spalling and was mainly observed along the construction joints, pour strips, or over the beams where the reinforcing steel and post tensioning components are closest to the slab surface; see photos 11 and 12.

Additionally, a few locations of soffit and beam spalling were observed in the garage. At a few of these locations, it appears that the damage is due to oversized vehicles entering the garage and hitting the bottom portion of the beams; see photo 19. We recommend that the delaminated and/or spalled concrete be removed and replaced with a quality repair mortar.

We also recommend that the cracking noted in the garage be routed and caulked on a priority basis. The largest number of cracks was observed on the roof level and should be addressed first because they are directly exposed to the elements. After cracks have been repaired on the roof level, the remainder of the cracks in the garage should be routed and caulked.

Shear walls in the east-west direction and the moment frame in the north-south direction were found to be in *'Excellent to Good'* condition.

At the interface between the garage and plaza to the north on Level 2, spalling was observed; see photos 13 and 14. It appears that this deterioration is likely due to the lack of an expansion joint seal to accommodate the differential movement between the garage and plaza structures. We recommend that the deteriorated concrete is removed and replaced, and expansion joint seals are installed at the interface between the two structures.

A thin, traffic bearing waterproofing membrane was previously installed (likely during original construction) on the pour strips on the roof level and Level 2 above the occupied spaces. In general, the existing membrane was found to be in *'Fair'* condition. Locations of membrane de-bonding, wear and tear, and damage were observed; see photo 15 and 16. We recommend the existing membrane in the drive aisles on Level 2 and the roof level pour strips be re-coated. Re-coating of the membrane will include removal of damaged and/or de-bonded membrane, solvent cleaning of the existing well-bonded membrane, and reapplication of membrane system.

Existing construction joint, pour strip, and cove joint caulking was found to be in *'Good'* condition, with a few locations of failed caulking were noted; see photo 17. However, post-tensioning components are typically most susceptible to corrosion related deterioration at these locations due to the removal of the protective sheathing during original construction to accommodate stressing operations. To protect the critical post tensioning components, we recommend waterproofing membrane strips are installed over the joints and strips.

A few barrier cables were observed to be slack during our review and should be re-tensioned.

Architectural Components

Pedestrian access between levels is provided via three stair towers located in the southwest corner, south end, and north end of the garage. Overall, the stair towers were found to be in *'Good'* condition, with minor cracking noted in the concrete tread infill and a few locations of peeling paint and/or slight steel corrosion; see photos 18 and 19.

The exterior façade of the facility consists of a combination of cast-in-place concrete and metal screening. No significant deterioration to the façade elements was observed during our review.

Way-finding signage in the garage was considered adequate, with each level appropriately marked and identifiable. Striping was also found to be in adequate condition, but it is expected that the striping will need to be re-applied periodically.

Fire Protection

The garage is fully sprinklered, and four stand pipes are provided with a hose connection at each level. In addition, multiple fire hose cabinets are provided on the roof level. The fire protection piping is in *'Good'* condition.

Fire extinguishers are provided at various locations on each level.

Plumbing

Large roof drains are provided at six locations on the roof. The other levels also have six drain locations that repeat down thru the structure. The storm drainage piping is in *'Good'* condition.

HVAC

Since the garage is an open structure, it is not mechanically ventilated. The elevator machine room at the roof level appears to be ventilated, but was not accessible during our review.

Electrical

The majority of the lighting fixtures, other than the roof, are 4' long twin tube T8 fluorescent fixtures. In most cases, two of these fixtures are mounted end to end and do not have a cover of any type. Overall, the fixtures are in *'Good'* condition. The average lighting level in the garage is 10 foot candles, with typical levels of 25 foot candles under a fixture and 1.5 foot candles

away from fixtures. The roof is illuminated with twin shoe box style fixtures on twenty foot poles. The poles and fixtures are in *'Good'* condition.

3.4 Opinion of Construction Costs

Based on our current findings, experience with similar structures, and published data related to the expected service life cycles of the facility's components, we have projected the costs associated with our recommended repair and preventative maintenance program over the next 50 years. The applicable table in Appendix B presents our opinion of the construction costs for the next 50 years.

In developing our opinion of probable construction costs we have assumed that a contractor would have to perform repairs such that normal parking operations are not unduly affected by the work. The area allocated for repairs during a single phase would be large enough to permit efficient construction operations, but not so large to unnecessarily restrict garage operations.

The enclosed tables present the probable costs for implementation of the recommendations noted above and include the following:

- An allowance of 10% of the base contract work for mobilization, general conditions and miscellaneous work not otherwise specified.
- An allowance of 10% of the base contract work for a project contingency to account for unanticipated or unknown items that may arise prior to the work taking place.
- An allowance of 8% of the base contract work for engineering and testing fees associated with the work.

The following are not included:

- Costs for ADA modifications to the facility, if any
- Costs to obtain alternative parking for the duration of the project
- Costs for improvements or replacement of signage
- Costs for the remediation of any hazardous materials

4. PERSHING SQUARE PARKING STRUCTURE

4.1 Executive Summary

The Pershing Square Parking Structure was found to be in *'Good to Fair'* condition. The underground parking facility consists of three levels, provides approximately 2500 vehicle spaces, and is integrated with the park and plaza areas above. The structural system consists of a cast-in-place conventionally reinforced two-way slab supported by cast-in-place conventionally reinforced concrete columns with drop panels. Lateral loads are resisted by a combination of the foundation walls, shear walls, and lateral bracing.

Locations of concrete deterioration to the slab, soffit, and columns in the form of spalling and delaminations were observed during our review. The majority of the deterioration was observed on or near the entrance, exit, or helix ramps and along the construction joints. No caulking was observed in the construction joints, and signs of water leakage were noted beneath many of the joints. In addition, many locations of leaking foundation wall cracks were observed, in particular along the Level 3 north foundation wall.

A traffic bearing waterproofing membrane has been previously installed on the entrance and exit ramps to/from the street level. In general, the membrane was found to be in *'Fair'* condition, showing signs of wear and tear and a lack of flashing at vertical terminations. Steel expansion joint assemblies on the helix ramps appear to be from original construction and were found to be in *'Fair to Poor'* condition. Signs of water leakage and deterioration of the slabs and beams beneath the joints was observed in many locations.

Overall, the fire protection, plumbing, HVAC, and electrical systems were found to be in *'Fair'* condition. Locations of corrosion were observed on the fire protection and storm drainage piping, along with many damaged intake/exhaust grilles. Exhaust fans and electrical distribution equipment are old and show signs of wear and tear. In addition, carbon monoxide detectors cover too areas significantly larger than industry standards and may not be operating effectively.

In order to extend the service life of the facility, we recommend a repair program including concrete repairs to the deterioration observed, installation of caulking at construction joints, maintaining waterproofing membrane on the entrance and exit lanes, and repairs and/or upgrades to the MEP/FP systems as needed.

4.2 General Information

4.2.1 Facility Name: Pershing Square Parking Structure

4.2.2 Address: 441 W. 6th Street; Los Angeles, California

4.2.3 Vehicle Capacity: 2550 vehicles

4.2.4 Facility Type: Underground parking facility with integral park and plaza areas above. All levels are classified as 'enclosed' for building code purposes.

4.2.5 Year Built: Unknown, appears to be approximately 50 years old

4.2.6 Number of Levels: Three

4.2.7 Number of Entrances: One entrance lane along Olive Street, South Hill Street, 5th Street, and 6th Street

4.2.8 Number of Exits: One entrance lane along Olive Street, South Hill Street, and 5th Street

4.2.9 Overall Dimensions: Approximately 595 feet in the north-south direction and 355 feet in the east-west direction

4.2.10 Functional Layout: Two-way traffic and 90-degree parking on relatively flat bays, with the levels connected by helix ramps

4.2.11 Structural System: Cast-in-place conventionally reinforced two-way slabs supported by cast-in-place conventionally reinforced columns with drop panels. Lateral forces are resisted by a combination of the foundation walls, shear walls, and lateral bracing.

4.2.12 Existing Surface Treatments or Coatings: A thin, traffic bearing waterproofing membrane has be previously installed on entrance and exit ramps.

4.2.13 Design Criteria: Unknown

4.2.14 Retail Space: None

4.2.15 Zoning Review: Not performed

4.2.16 Documents Provided for Review: A partial set of re-striping drawings dated March 1992 was provided for our use.

4.3 Findings and Recommendations

Structural and Waterproofing Components

A visual examination of accessible structural components of the parking structure was performed, noted on drawings, and documented with representative photographs. Some of these photographs have been included in Appendix A of this report. The work was performed during early morning hours when occupancy was at a minimum. Additionally, top surfaces of the structurally supported floor slabs were selectively sounded in areas using the 'chain drag' procedure to detect potential concrete delaminations not otherwise visible. Also, accessible surfaces of the undersides of the supported level slabs (soffit), beams, columns, and walls were selectively sounded with a hand held hammer where possible or where conditions were suspect.

Due to the structural behavior and distribution of loads in a two-way structural system, slab cracking is common. As expected, we noted cracking of the slab, mainly near the columns were the applied loads produce the greatest stresses in the concrete. While the cracking appears to be widespread in some areas, deterioration of the slab adjacent to the cracks and signs of leakage on the slab soffit were minimal. It is possible that much of this cracking occurred within the first few years after the facility was constructed and does not appear to require repairs at this time.

Locations of slab spalling and delaminations were observed in the garage, and no caulking was noted in the construction joints; see photos 20 through 23 The majority of the spalling and/or delamination was noted on Level 1 on or near the entrance, exit, and helix ramps and along the construction joints. The deterioration is likely due to the moisture carried into the garage from user vehicles and the lack of construction joint caulking. We recommend that the delaminated and/or spalled concrete be removed and replaced with a quality repair mortar.

Spalling and/or delamination of the slab soffit and columns were also observed during our review; see photos 24 and 25. Again, the majority of this deterioration was noted beneath the entrance, exit, and helix ramps and directly beneath the construction joints. We recommend that the delaminated and/or spalled concrete be removed and replaced with a quality repair mortar.

Additionally, we recommend that caulking be installed in construction joints to minimize future slab and soffit deterioration at these locations.

The underside of the roof slab appeared to be in *'Good'* condition. No significant areas of concrete delamination or spalling were noted, and a minimal number of leaking cracks were noted. However, many locations of water leakage were observed at through-slab penetrations. We recommend that the leaking is mitigated through chemical grout injection from the underside of the roof slab and/or caulking around the penetrations in the plaza/park area above.

The shear walls and lateral bracing were found to be in *'Good'* condition.

Numerous locations of leaking foundation wall cracks were noted during our review; see photos 26 and 27. The majority of the leaking wall cracks were noted on the lower levels and along the north and south foundation walls. Some of these cracks appear to have been previously repaired, but the repairs appear to be in *'Poor'* condition. We recommend the cracks are chemical grout injected to minimize future water infiltration and deterioration.

The steel expansion joint assemblies appear to be from original construction and do not provide a water tight seal. Signs of water leakage and deterioration of the slab soffit and beams directly beneath the expansion joints were observed in many locations; see photos 28 and 29. We recommend the steel assemblies are removed and new watertight expansion joint seals are installed in conjunction with the repairs to the soffit and beams.

A thin, traffic bearing waterproofing membrane has been installed on all entrance and exit ramps, except for the southwest ramp. In general, the existing membrane was found to be in *'Fair'* condition. Locations of wear and tear damage and de-bonding of the membrane were observed, along a lack of flashing at the vertical terminations. Signs of water leakage were observed beneath many of the ramps, which have contributed to the soffit deterioration previously noted. We recommend the existing membrane be re-coated and a waterproofing membrane is installed on the southwest ramp. Re-coating of the membrane will include removal of damaged and/or de-

bonded membrane, solvent cleaning of the existing well-bonded membrane, and reapplication of membrane system with proper flashing at vertical terminations.

Architectural Components

Pedestrian access between parking levels and the park/plaza areas above is provided via seven stairwells. Overall, the stair towers were found to be in *'Fair'* condition, but were found to be dirty, uninviting, and steep. In addition, locations of steel stair component corrosion and peeling paint were noted; see photos 33 and 34. We recommend that enhancements and/or upgrades to the stairwells' appearance be performed in the near future and stairwell steel components be cleaned and painted as necessary.

Way-finding signage in the garage was considered adequate, with each level appropriately marked and identifiable. Striping was also found to be in adequate condition, but it is expected that the striping will need to be re-applied periodically.

Fire Protection

The garage is divided into at least six fire sprinkler zones and is fully sprinklered using a wet sprinkler system. The piping is not painted, and corrosion was observed on some of the piping.

Plumbing

A limited amount of storm drainage is present in the garage, with most of the piping typically cast iron hub and spigot showing signs of corrosion in many locations. Repairs were noted in multiple locations using banded no-hub fittings.

Sump pumps are located at the lowest level and have been replaced previously during the life of the structure.

HVAC

The garage is mechanically ventilated with four large exhaust fans connected by tunnels underneath the lowest parking level. The tunnels are connected to vertical ducts that rise into the parking structure at multiple column locations. These ducts are provided with grilles that allow the exhaust air to enter the duct, be pulled down thru the duct into the tunnel system, and be exhausted to the outside through shafts at the street level.

In many locations, the grilles and ducts are damaged, with some of the damaged ducts being used as trash receptacles. The fans are old and were found to be in *'Fair'* condition for their age. Because mechanical drawings were not made available, we are unable to determine ventilation rates without taking field measurements.

A carbon monoxide detection system was recently installed in the garage, with the sensors divided in four zones that control the four exhaust fans. The system sensors cover areas up to 17,500 square feet, which is above the industry standard of 5,000 square foot per sensor. With the sensors covering such large areas, it is unclear how effective the system is.

Electrical

Power is distributed to multiple transformers that are located in the garage, typically found close to a column, that serve local lighting power panels. Both the transformers and panels are showing their age and are in *'Fair'* condition.

Lighting in the garage has been previously upgraded at some point to 8'-long fluorescent fixtures with two 4' long 25 watt T8 tubes. No covers are provided over the lamps, but the fixtures were generally found to be in *'Good'* condition. The average lighting level in the garage is 10 to 12 foot candles, with typical levels of 20 foot candles under a fixture and 1.5 foot candles away from fixtures. Emergency lighting is provided with battery back-up flood lights, which are in *'Fair'* condition.

4.4 Opinion of Construction Costs

Based on our current findings, experience with similar structures, and published data related to the expected service life cycles of the facility's components, we have projected the costs associated with our recommended repair and preventative maintenance program over the next 50 years. The applicable table in Appendix B presents our opinion of the construction costs for the next 50 years.

In developing our opinion of probable construction costs we have assumed that a contractor would have to perform repairs such that normal parking operations are not unduly affected by the work. The area allocated for repairs during a single phase would be large enough to permit efficient construction operations, but not so large to unnecessarily restrict garage operations.

The enclosed tables present the probable costs for implementation of the recommendations noted above and include the following:

- An allowance of 10% of the base contract work for mobilization, general conditions and miscellaneous work not otherwise specified.
- An allowance of 10% of the base contract work for a project contingency to account for unanticipated or unknown items that may arise prior to the work taking place.
- An allowance of 8% of the base contract work for engineering and testing fees associated with the work.

The following are not included:

- Costs for repairs and/or upgrades to plaza areas, retail spaces, and roadways above the parking structure.
- Costs for ADA modifications to the facility, if any
- Costs to obtain alternative parking for the duration of the project
- Costs for improvements or replacement of signage
- Costs for the remediation of any hazardous materials

5. LOT 745 - HOLLYWOOD & HIGHLAND PARKING STRUCTURE

5.1 Executive Summary

The Hollywood & Highland Parking Structure was found to be in *'Excellent to Good'* condition. The underground parking facility consists of six levels, provides approximately 3006 vehicle spaces, and is integrated with the plaza, retail, and office areas above. The structural system consists of a precast, pre-stressed concrete double tee members and beams supported by precast conventionally reinforced concrete columns and cast-in-place foundation walls. Lateral loads are resisted by a combination of the foundation walls, shear walls, and moment frames.

The most significant deterioration observed in the garage was cracking in the north-south direction near the mid-point of the garage. This cracking occurs at the same location on all supported levels and varies in width from ¼" to over 1." It is likely that this cracking is due to the lack of expansion joint seals to alleviate stresses due to concrete shrinkage, creep, and temperature variations over the large footprint of the garage.

In addition, locations of concrete deterioration in the form of spalling and delamination of the slab, soffit, beams, and columns were observed during our review. Much of this deterioration is relatively minor in extent, but should be addressed as part of a repair program.

A traffic bearing waterproofing membrane has been installed on the Highland Avenue entrance ramps into the facility. In general, the membrane was found to be in *'Fair'* condition, showing signs of wear and tear, along with a lack of flashing at vertical terminations.

Fire protection, plumbing, HVAC, and electrical systems were found to be in '*Excellent to Good'* condition at the time of our review.

A repair effort aimed at addressing the cracking at the center of the garage with the installation of an expansion joint seal, concrete repairs, maintaining the condition of the ramp waterproofing

membrane system, and surface protection at critical locations should keep this structure in very good condition for an extended period of time.

5.2 General Information

5.2.1 Facility Name: Hollywood & Highland Parking Structure

5.2.2 Address: 6801 Hollywood Boulevard; Los Angeles, California

5.2.3 Vehicle Capacity: 3006 vehicles

5.2.4 Facility Type: Underground parking facility with plaza, retail, and office space above. For building code purposes, all levels are classifies as 'enclosed.'

5.2.5 Year Built: 2001

5.2.6 Number of Levels: Six

5.2.7 Number of Entrances: Two entrance lanes along Highland Avenue and two entrance lanes along Orange Avenue

5.2.8 Number of Exits: Two exit lanes along Highland Avenue and two exit lanes along Orange Avenue

5.2.9 Overall Dimensions: Approximately 370 feet in the north-south direction and 506 feet in the east-west direction

5.2.10 Functional Layout: Two-way traffic and 90-degree parking on relatively flat bays, with the levels connected by ramps at east and west ends of the garage.

5.2.11 Structural System: Precast, pre-stressed concrete double tee members and beams supported by precast conventionally reinforced concrete columns and cast-in-place foundation walls. Lateral loads are resisted by a combination of the foundation walls, shear walls, and moment frames.

5.2.12 Existing Surface Treatments or Coatings: A thin, traffic bearing waterproofing membrane has be previously installed on entrance ramp.

5.2.13 Design Criteria: 1994 Uniform Building Code, Volume 1 with City of Los Angeles 1996 Amendments

5.2.14 Retail Space: Above parking levels

5.2.15 Zoning Review: Not performed

5.2.16 Documents Provided for Review: A complete set of architectural drawings dated February 2001 was provided for our use.

5.3 Findings and Recommendations

Structural and Waterproofing Components

A visual examination of accessible structural components of the parking structure was performed, noted on drawings, and documented with representative photographs. Some of these photographs have been included in Appendix A of this report. The work was performed during early morning hours when occupancy was at a minimum. Additionally, top surfaces of the structurally supported floor slabs were selectively sounded in areas using the 'chain drag' procedure to detect potential concrete delaminations not otherwise visible. Also, accessible surfaces of the undersides of the supported level slabs (soffit), beams, columns, and walls were selectively sounded with a hand held hammer where possible or where conditions were suspect.

The most significant deterioration observed in the garage was cracking along column line 5 in the north-south direction. This cracking occurs on all structurally supported levels at approximately the mid-point of the garage's largest dimension. The cracking varies in width from ¼" to greater than 1," and numerous areas of slab and soffit spalling were noted directly adjacent to the cracking; see photos 35 through 38. Due to the large overall dimensions of the facility, it is likely that this deterioration is due to a lack of expansion joint seals to alleviate the stresses associated with concrete shrinkage/creep and temperature variations. We recommend that an expansion joint seal is installed and the deteriorated concrete is removed and replaced with a quality repair mortar.

In the remaining areas of the garage, minimal spalling and/or delamination of the slab, soffit, beams, and columns was observed. The deterioration was mainly noted above the precast beams and/or along double tee control joints; see photos 39 through 41. We recommend that the delaminated and/or spalled concrete be removed and replaced with a quality repair mortar.

Shear walls and moment frames were found to be in *'Excellent to Good'* condition.

Existing control joints were observed to be sawcut, but have not been caulked. However, signs of water leakage through the joint were noted at only a few locations. Because the garage is underground and exposed to a minimum amount of moisture, caulking of the joints does not appear necessary at this time. Similarly, routing and caulking of slab cracking does not appear to be necessary at this time.

Locations of leaking foundation wall cracks were also noted during our review, with an increasing number of cracks in the lower levels of the garage; see photos 42 and 43. We recommend the cracks are chemical grout injected to minimize future water infiltration and deterioration of the walls.

A thin, traffic bearing waterproofing membrane has been installed (likely during original construction) along the Highland Avenue entrance lanes. In general, the existing membrane was found to be in *'Fair'* condition. Locations of wear and tear damage, de-bonding of the membrane, a lack of flashing at the vertical terminations, and signs of water leakage below were observed; see photos 44 and 45. We recommend the existing membrane re-coated, which will include removal of all damaged and/or de-bonded membrane, solvent cleaning of the existing well-bonded membrane, and reapplication of membrane system with proper flashing at vertical terminations.

A waterproofing membrane has not been installed on the supported portion of the two Highland Avenue exit lanes, and signs of leakage were noted in the area directly beneath the exit lanes. To prevent future water ingress and subsequent deterioration, we recommend a waterproofing membrane be installed.

At the time of our review, a portion of the south end of Level 5 was cordoned off due to a recent car fire. Our visual inspection of the area showed no apparent signs of structural deterioration due to the car fire.

Architectural Components

Pedestrian access between parking levels and the park/plaza areas above is provided via seven stairwells. Overall, the stair towers were found to be in *'Excellent to Good'* condition, with some minor corrosion of steel stair components and handrails; see photos 46 and 47.

Way-finding signage in the garage was considered adequate, with each level appropriately marked and identifiable. Striping was also found to be in adequate condition, but it is expected that the striping will need to be re-applied periodically.

Fire Protection

The garage is fully sprinklered, and the piping is in *'Excellent'* condition. In addition, fire extinguisher cabinets are scattered throughout each level of the garage, along with a fire alarm system consisting of audible/visual alarm signaling devices and manual pull stations at the stairwells is present in the structure.

Plumbing

Trench drains are located at the exit and entrance ramps, and the lowest level is provided with an emergency drain and sump pump. The visible storm piping is in *'Good'* condition.

HVAC

The garage is mechanically ventilated, with the supply fans and shafts generally located on the west side of the structure and the exhaust fans and shafts generally located on the east side. Supply air is blown out of the shaft thru louvers except at the lowest level where a duct was extended from the shaft to better distribute the air. Because mechanical drawings were not made available, we are unable to determine ventilation rates without taking field measurements.

A carbon monoxide detection system is used to control the fans. Each sensor covers approximately 5,000 square feet, which is typically recommended by the sensor manufacturers.

Electrical

The majority of the garage's lighting fixtures are end-to-end 8' long each fluorescent fixtures containing four 4' long T8 fluorescent lamps. Each fixture has a plug in type connection, and the bulbs are covered with a wrap-around lens. At the stairs and center escalator core, additional wall mounted fluorescent lighting is present. All fixtures are in '*Excellent*' condition. The lighting levels in the garage vary between 45 foot candles under fixtures and 2 foot candles away from fixtures.

Emergency call-in intercom stations are located throughout the structure.

5.4 Opinion of Construction Costs

Based on our current findings, experience with similar structures, and published data related to the expected service life cycles of the facility's components, we have projected the costs associated with our recommended repair and preventative maintenance program over the next 50 years. The applicable table in Appendix B presents our opinion of the construction costs for the next 50 years.

In developing our opinion of probable construction costs we have assumed that a contractor would have to perform repairs such that normal parking operations are not unduly affected by the work. The area allocated for repairs during a single phase would be large enough to permit efficient construction operations, but not so large to unnecessarily restrict garage operations.

The enclosed tables present the probable costs for implementation of the recommendations noted above and include the following:

- An allowance of 10% of the base contract work for mobilization, general conditions and miscellaneous work not otherwise specified.
- An allowance of 10% of the base contract work for a project contingency to account for unanticipated or unknown items that may arise prior to the work taking place.

- An allowance of 8% of the base contract work for engineering and testing fees associated with the work.

The following are not included:

- Costs for repairs and/or upgrades to plaza areas, retail spaces, and roadways above the parking structure.
- Costs for ADA modifications to the facility, if any
- Costs to obtain alternative parking for the duration of the project
- Costs for improvements or replacement of signage
- Costs for the remediation of any hazardous materials

6. LOT 690 – STUDIO CITY PARKING STRUCTURE

6.1 Executive Summary

The Studio City Parking Structure was found to be in *'Excellent'* condition. The stand alone facility provides public parking for customers and employees of the Ventura Boulevard retail and business district in Studio City. The facility is set back from Ventura Blvd. and is bordered on its east, south and west sides by commercial buildings and surface parking lots. It is bordered on the north side by the LA River. The structure consists of four levels and provides parking for 397 vehicles. The structural system consists of a concrete slab supported on the ground for Level 1 and cast-in-place, structurally supported, post-tensioned concrete slabs and beams for Levels 2-4. Lateral loads are resisted by shear walls in both north-south and east-west directions.

Our review consisted of visual observations and sounding of the floor slabs in areas containing top slab reinforcing steel to detect locations of concrete deterioration. Sounding was also performed along crack locations and at locations where it appeared that corrective efforts were made to slab surfaces. Only a few, isolated delaminations were noted, primarily along the slab construction joints, most likely due to embedded steel with very shallow concrete cover.

A more common observation consisted of slab cracking in various locations. At the roof, visible cracking has been previously treated by application of a thin, slurry strip of an unidentified mortar, or similar material. However, similar cracks on the two intermediate floors have not been treated.

Caulking was found to be in *'Good'* overall condition.

A traffic bearing waterproofing membrane was originally installed at the roof level in front of the elevator and on Level 2 over the elevator machine room, employee's rest room and equipment room on Level 1. In general, the membrane was found to be in *'Good'* condition, showing very little signs of wear and tear.

Fire protection, plumbing, HVAC, and electrical systems were found to be in *'Excellent to Good'* condition at the time of our review.

A modest effort aimed at addressing concrete repairs as they may be needed and surface protection treatments at selected areas should keep this structure in very good condition for an extended period of time.

6.2 General Information

6.2.1 *Facility Name:* Lot 690 – Studio City Parking Structure

6.2.2 *Address:* 12225 Ventura Boulevard; Los Angeles, California

6.2.3 *Vehicle Capacity:* 397 cars.

6.2.4 *Facility Type:* Stand alone parking facility, Levels 1-4 are all above ground and classified as 'open.'

6.2.5 *Year Built:* 2004

6.2.6 *Number of Levels:* Four

6.2.7 *Number of Entrances:* One entrance lane approximately 200 feet long off Ventura Blvd. to set back location of structure.

6.2.8 *Number of Exits:* One exit lane approximately 200 feet long off Ventura Blvd. to set back location of structure.

6.2.9 *Overall Dimensions:* 216 feet in the north-south direction and 202 feet in the east-west direction

6.2.10 *Functional Layout:* Single helix arrangement with one way traffic aisles, one-way 'up' and 'down' traffic speed ramps at the west side interconnecting the flat parking floors and angled parking.

6.2.11 *Structural System:* Cast-in-place, post-tensioned concrete slab and beam arrangement. Lateral loads are resisted by shear walls in north-south and east-west directions. There are no expansion joints in the structure.

6.2.12 *Existing Surface Treatments or Coatings:* A thin, traffic bearing waterproofing membrane is installed in areas on Level 2 above the elevator equipment room, restroom and electrical equipment room and on the roof over the elevator entrance.

6.2.13 *Design Criteria:* 1999 City of Los Angeles Building Code

6.2.14 Retail Space: none

6.2.15 Elevators: One, located on the south elevation.

6.2.16 Zoning Review: Not performed

6.2.17 Documents Provided for Review: A complete set of drawings dated March 2002 was provided for our use.

6.3 Findings and Recommendations

A visual examination of accessible structural components of the parking structure was performed, noted on drawings, and documented with representative photographs. Some of these photographs have been included in Appendix A of this report. The work was performed during early morning hours when occupancy was at a minimum. Additionally, top surfaces of the structurally supported floor slabs were selectively sounded in areas using the 'chain drag' procedure to detect potential concrete delaminations not otherwise visible. Also, accessible surfaces of the undersides of the supported level slabs (soffit), beams, columns, and walls were selectively sounded with a hand held hammer where possible or where conditions were suspect.

Structural, Waterproofing, and Architectural Components

The lowest level of the structure (Level 1) is a concrete slab supported on the ground at street level. This level serves as the entrance and exit level as well. As the structure is set back from Ventura Boulevard behind two existing buildings, there is a long entrance and exit lane linking the street to the parking structure. The entrance lane is illustrated in photos 48 and 49. The condition of the grade slabs was 'excellent'.

In general, there were few findings related to the condition of the structure. These are noted below in no particular order:

- Level 1 is a concrete slab supported on the ground and contained an amount of shrinkage cracking consistent with similar grade slabs. At this time, crack widths are sufficiently narrow and there is no settlement observed, thus we see no action that needs to be taken for this cracking.

- The exterior facade consists of concrete shear wall, parapet or spandrel panels with architectural metal handrails, glazing on the elevator shaft and a steel frame covered with an open mesh planting screen on the LA River elevation. See photos 49 through 53. All elements were observed to be in 'excellent' condition.
- Levels 2, 3 and 4 are structurally supported floor slabs. There are two construction joints on each floor running east-west, indicating that each floor was constructed in three concrete placements. See photo 59. The only floor slab delaminations (deteriorated) areas noted in the structure were at a few isolated locations near these joints. See photos 60 and 61. The chain drag device used to check for delaminations is visible in one of these photos. Level 2 includes a traffic bearing, waterproofing membrane located over the elevator machine room, restroom and storage/equipment room located on Level 1. The condition of the membrane was good. We recommend that delaminated areas near the construction joints be repaired before they can become a tripping hazard. Also, application of a membrane strip over these construction joints can be a cost effective step, as it will preclude future concrete repairs in these areas. We found no exposed rebar or post-tensioning strands at the floor slab surfaces. We noted perhaps 300 feet of miscellaneous cracking on this floor. The cracks should have no significant effect on the structural performance of the floor, but it is recommended that the cracks be routed and caulked for the purpose of minimizing future moisture infiltration. Vertical and overhead surfaces were in excellent condition.
- Level 3 was similar to Level 2 except that we noted approximately 500 feet of miscellaneous cracking on this floor. Again, it is recommended that the cracks be routed and caulked to minimize future moisture infiltration. We found no exposed rebar or post-tensioning strands at the floor slab surfaces. Vertical and overhead surfaces were in excellent condition.
- On Level 4, the magnitude of slab cracking appears to be greater than what was observed on Levels 2 or 3. However, many of the cracks appear to have been treated, or 'filled'. See photos 56 and 57. Typically, crack 'filling' will be performed with a low viscosity epoxy or other similar polymer product that is injected or pumped into the crack under pressure. The product is designed to re-adhere the concrete across the face of the crack. Since we believe many of the cracks are due to restraint stresses caused by normal

volume shrinkage of the structural system, 'filling' these cracks can restore a degree of the restraint. Thus, it is not unusual to see *additional* cracking taking place after the original cracking occurs. We do not know the chronology of events, but suspect that is the case here. Again, it is recommended that approximately 500 feet of miscellaneous cracking on this floor be routed and caulked to minimize future moisture infiltration. We found no exposed rebar or post-tensioning strands at the floor slab surfaces. There is an area of traffic membrane in front of the elevator door on this level. It was in good condition. Some concrete leveling work had been performed at a low point near the elevator on Level 4 due to suspected water ponding that likely occurred. The leveling material was found to be delaminated. It is suggested that this material be removed and a urethane leveling course and membrane application take place in this area. Vertical and overhead surfaces were in excellent condition.

- The lateral (seismic) load resistance system is provided by shear walls in each principal direction in the structure. These appeared to be in 'like new' condition.
- Miscellaneous metals are present in the structure as fall protection (photo 64), handrails (photos 50 and 65) and planting screen supports (photo 53). The metals are painted with a high performance coating system that should perform adequately for many years to come. Eventually, there will be some degradation due to exposure to UV and normal wear and tear. It is suggested that re-painting of these surfaces be included in a long-term maintenence program.
- There are no expansion joints/expansion joint seals in the structure.
- Perimeter vehicular barriers (crash restraint) consist of concrete parapet walls, shear walls and barrier cables along the ramps interconnecting the floors. See photo 55. These are considered to be life safety systems in a parking structure and appeared to be in excellent condition.
- There are two sets of stairs in the structure. They consist of steel framing with concrete in-fill. The condition of both stairs was excellent and like new.
- Miscellaneous areas such as the open elevator vestibules, staff restroom, cashier booth, metal doors, security fencing and signage all appeared to be in excellent condition.

While the data from our physical evaluation of the parking structures indicates no life safety repairs appear to be needed, a modest effort should be followed to maintain the integrity, safety, appearance and long-term durability for the structure. These factors not only have cost implications, but can affect user's attitudes and parking habits.

To summarize, the recommended 'near' term repairs include:

- Isolated concrete slab repairs to delaminated areas along the construction joints on Levels 2, 3 and 4. No post-tensioning repairs are anticipated.
- Waterproofing protection of construction joints with a 3 foot wide strip applied along each joint length to minimize future water leakage and concrete deterioration.
- Rout and caulk slab cracking on Levels 2, 3 and 4.
- Remove and replace de-bonded concrete leveling repairs with a urethane leveling course and waterproofing membrane system.

The recommended 'long' term repairs include:

- Rout and caulk future slab cracking on Levels 2, 3 and 4 as it may occur.
- Re-coat waterproofing membrane areas due to normal wear and tear in the future.
- Properly clean and re-paint miscellaneous metals due to exposure to the elements.
- Re-striping of parking stalls, arrows, etc. due to normal wear and tear.
- Repair barrier cables due to damage and/or normal wear and tear.
- Replace operating equipment such as doors, restroom fixtures, etc. due to damage and/or normal wear and tear.

Fire Protection

The garage is fully sprinklered, and a standpipe is provided in each of the stairwells with a fire hose connection available at each floor. In addition, there are three combination hose cabinets and fire extinguishers at the roof level and three fire extinguisher cabinets on the other levels.

The sprinkler system is a wet system, with a post indicator valve and pumper connector located near the street. All fire protection piping is painted and is in *'Excellent'* condition.

A fire alarm system consisting of audible/visual alarm signaling devices and manual pull stations at the stairwells is present in the structure.

Plumbing

The floors are sloped to two locations that serve as the primary deck drains. In addition, there are trench drains on the ramps. All drains appear to flow into a garage interceptor located outside the structure's footprint. A set of overflow drains discharge directly out the rear of the structure at grade. The piping and structures are in *'Good'* condition.

One restroom is located inside the garage for use by the attendants. Hot water is provided to the sink by an instantaneous heater, and the fixtures are in *'Good'* condition.

HVAC

Since the garage is an open structure, it is not mechanically ventilated. However, exhaust fans were provided to ventilate the staff toilet, elevator machine room, and electrical room. These fans appeared to be in *'Good'* condition. The exit booth is cooled with a smaller 'Trailer' roof mounted AC unit.

Electrical

The buildings electrical service is located in an electrical room under the ramp and consists of a 120/208 volt 600 amp service. Emergency power is provided to emergency and egress lighting by a UPS system, which is not backed up by a generator. The electrical service was found to be in *'Excellent'* condition.

Lighting on the roof level is provided by both single and double shoe box style metal halide pole fixtures. The remaining levels of the garage are lighted using square 100 watt metal halide fixtures, which are in *'Excellent'* condition. At the time of our visit, approximately half of the lighting was turned off. Even with half the lighting turned off, the lighting level was 1.5 to 2.0 foot candles away from a fixture and 25 foot candles under a fixture.

The stairs are illuminated with both metal halide fixtures and fluorescent fixtures, which were also found to be in *'Excellent'* condition. Exit signage is not illuminated and is made from a reflected material.

6.4 Opinion of Construction Costs

Based on our current findings, experience with similar structures, and published data related to the expected service life cycles of the facility's components, we have projected the costs associated with our recommended repair and preventative maintenance program over the next 50 years. The applicable table in Appendix B presents our opinion of the construction costs for the next 50 years.

In developing our opinion of probable construction costs we have assumed that a contractor would have to perform repairs such that normal parking operations are not unduly affected by the work. The area allocated for repairs during a single phase would be large enough to permit efficient construction operations, but not so large to unnecessarily restrict garage operations.

The enclosed tables present the probable costs for implementation of the recommendations noted above and include the following:

- An allowance of 10% of the base contract work for mobilization, general conditions and miscellaneous work not otherwise specified.
- An allowance of 10% of the base contract work for a project contingency to account for unanticipated or unknown items that may arise prior to the work taking place.
- An allowance of 8% of the base contract work for engineering and testing fees associated with the work.

The following are not included:

- Costs for ADA modifications to the facility, if any
- Costs to obtain alternative parking for the duration of the project
- Costs for improvements or replacement of signage
- Costs for the remediation of any hazardous materials

7. LOT 601 – FRIAR STREET PARKING STRUCTURE

7.1 Executive Summary

The Friar Street Parking Structure was found to be in *'Excellent to Good'* condition. The stand alone facility provides public parking for customers in the local Van Nuys retail district as well as employees of the nearby government buildings. The structure consists of two levels and provides parking for 225 vehicles. The facility is bordered on the south side by Friar Street, on its west and north sides by public alleyways and on the east side by Sylmar Avenue. The structural system consists of an asphaltic concrete slab supported on the ground for Level 1 and (it is assumed) precast, prestressed hollow core floor planks covered with a cast-in-place concrete topping for Level 2. The floor plank and topping system is supported by a long span structural steel frame.

Our review consisted of visual observations and a complete sounding of the floor slab topping and waterproofing system to detect for potential locations of de-bonded membrane as well as deteriorated or debonded concrete topping. Overall, the slab and membrane system appeared to be in 'Excellent to Good' condition.

The steel framing system and exterior facade appear to be in 'Excellent' condition.

Some on-going repairs and re-coating of the waterproofing membrane system can be anticipated due to normal wear and use.

The asphalt slab on grade was in 'Good' condition.

Plumbing and electrical systems were found to be in *'Good'* condition at the time of our review.

A modest effort aimed at addressing concrete repairs as they may be needed and maintaining the condition of the waterproofing membrane system (especially in high wear areas such as turning

aisles and the ramps) should keep this structure in very good condition for an extended period of time.

7.2 General Information

7.2.1 Facility Name: Lot 601 – Friar Street Parking Structure

7.2.2 Address: 14401 Friar Street; Los Angeles, California

7.2.3 Vehicle Capacity: 225 cars.

7.2.4 Facility Type: Stand alone parking facility, Levels 1 and 2 are above ground and classified as 'open.'

7.2.5 Year Built: Unknown, but structure is estimated to be between 30 and 40 years old based on drawing details and observations.

7.2.6 Number of Levels: Two

7.2.7 Number of Entrances: One entrance lane from Friar Street.

7.2.8 Number of Exits: One exit lane to Friar Street.

7.2.9 Overall Dimensions: Approximately 114 feet in the north-south direction and 392 feet in the east-west direction

7.2.10 Functional Layout: One way traffic aisles with angled parking, one-way 'up' and 'down' traffic speed ramps at the east side interconnecting the first and second parking floors.

7.2.11 Structural System: Presumed to be precast, prestressed hollow core floor plank members with a cast in place concrete topping supported on a structural steel frame. Lateral loads are resisted by diagonal steel bracing in north-south and east-west directions. There are no expansion joints in the structure.

7.2.12 Existing Surface Treatments or Coatings: A thin, traffic bearing waterproofing membrane is installed on the entire Level 2 floor slab.

7.2.13 Design Criteria: Unknown

7.2.14 Retail Space: none

7.2.15 Elevators: none

7.2.16 Zoning Review: Not performed

7.2.17 Documents Provided for Review: 3 drawing sheets of a preliminary nature showing exterior elevations and a parking stall layout for the two levels of parking.

7.3 Findings and Recommendations

A visual examination of accessible structural components of the parking structure was performed, noted on drawings, and documented with representative photographs. Some of these photographs have been included in Appendix A of this report. The work was performed during early morning hours when occupancy was at a minimum. Additionally, Level 2 was sounded in all accessible areas (unless occupied by a vehicle) using the 'chain drag' procedure to detect potential concrete topping or precast delaminations and/or de-bonding of the traffic bearing membrane not otherwise visible. Also, accessible surfaces of the undersides of the supported level slabs (soffit) were selectively sounded with a hand held hammer where possible or where conditions were suspect.

Structural, Waterproofing, and Architectural Components

Level 1 is an asphalt paving slab supported on the ground. This level serves as the entrance and exit level as well. The entrance/exit lane is illustrated in photo 68. The condition of the grade slab was judged to be 'good' and no repairs are anticipated in the near future.

In general, there were a few findings related to the condition of the structure. These are noted below in no particular order:

- The lower level asphalt slab contained some cracking consistent with similar asphalt slabs. At this time, there is no significant cracking or settlement observed, thus we see no action that needs to be taken for this cracking. At some point in the future, routing and filling cracks with a rubberized sealant will be appropriate to minimize edge deterioration adjacent to cracks. It is our opinion that seal-coating does not extend the life of the asphalt pavement.
- The exterior facade consists of a combination of precast concrete panels at the Friar Street stair locations, metal parapet panels, security screening and the structural steel framing. Photos 69 through 75 include views along all four elevations. All elements were observed to be in 'good' condition. It is believed that these panels may have

replaced the original facade treatment as part of a major renovation project reportedly undertaken in the mid 1990's.

- The upper level is a structurally supported floor slab. It appears that precast floor planks in units approximately 9'-6" wide by 43'-8" or 21'-10" long make up the majority of the floor level. General views of the upper level are noted in photos 78 and 79. The traffic pattern consists of one way aisles with angled parking. The striping is generally in 'poor' condition and difficult to see. We recommend the upper level be re-striped. Currently, there is a turn aisle within the center parking rows similar to the lower level. However, while this aisle aids in traffic leaving the structure on the lower level, it serves no real purpose on the upper level. If it is desired to increase the parking count by 5 or 6 spaces on the upper level, we would recommend omitting this during re-striping.
- Access to and from the upper level is by a pair of single lane width ramps at the east end. These are shown in photo 80. The ramps are in 'good' condition, with some normal wear to the membrane system noted. Photos 82 and 83 illustrate some concrete spalling and cracking below the membrane that has reflected through the deck coating. Appropriate repairs to the concrete subsurface followed by re-coating of the membrane system should be performed. Near the top of the 'up' traffic ramp, a handrail surrounding the north stairwell has been damaged by a vehicle. This condition is illustrated in photos 84 and 85. The handrail should be repaired and then protected in the future from damage by installation of a pipe bollard at the southeast corner. Similar handrail mounted on curb surfaces is used to provide fall protection along the perimeter of the ramps as shown in photo 80. While there is no question that the handrail meets pedestrian fall protection requirements, its sufficiency as a vehicular restraint (life safety system) is questionable. Concrete tire stops and structural channel members connected to the column framing shown in photo 81 serve as perimeter vehicular restraint for the upper level. This system appears to be much more sufficient than the handrail surrounding the ramps.
- It is believed that the thin membrane system installed on the upper level was part of a major renovation project reportedly undertaken in the mid 1990's. The overall condition of the membrane is 'good'. Sounding of all accessible surfaces indicated good bond to the concrete substrate. However, these systems tend to need re-coating in the heavy traffic aisles due to normal wear and tear every 7 to 10 years. Photos 86 and 87 show

examples of wear and tear. In photo 87, a construction joint in the concrete surface below is visible through the membrane system. We also noted some signs of transverse (shrinkage) cracking in the floor topping that should be addressed with sealant application. We recommend that the drive aisles should be re-coated within the next few years. Then, at additional 7 to 10 year intervals, the entire system including parking stalls may typically need to be re-coated.

- There are three sets of stairs in the structure. They consist of steel framing with raised diamond pattern at the tread location as seen in photos 88 and 89. The condition of all stairs was judged to be 'good'.
- The structural support system for the upper parking level consists of structural steel framing as seen in photos 92 through 97. The typical long span girders are trapezoidal shaped, varying from 41 inches deep at mid span tapering up to 19 inches deep at the column connections. Joist members supporting the floor planks between girders are located on 9'-6" centers and generally consist of W14 beams. Virtually all connections between beam, girder and column members are standard shear connections. It appears the metal surfaces were painted with a high performance coating system as part of the major renovation project undertaken in the mid 1990's. It is in 'excellent' condition and should continue to perform well for many years to come. Eventually, there will be some degradation due to exposure to UV and normal wear and tear. It is suggested that re-painting of these surfaces be included in a long-term maintenance program.
- The lateral (seismic) load resistance system is provided by diagonal steel bracing at various locations in each principal direction in the structure. These appeared to be in 'excellent' condition.
- There are no expansion joints/expansion joint seals in the structure.
- Miscellaneous areas such as cashier booth, security fencing and signage all appeared to be in 'good' condition.

While the data from our physical evaluation of the parking structures indicates no immediate repairs appear to be needed, a modest effort should be followed to maintain the integrity, safety, appearance and long-term durability for the structure. These factors not only have cost implications, but can affect user's attitudes and parking habits.

To summarize, the recommended 'near' term repairs include:

- Isolated concrete topping crack repairs on Level 2. No structural repairs are anticipated at this time.
- Waterproofing repairs at cracks and worn areas.
- Re-stripe Level 2.
- Repair damaged stairwell handrail. Install one or more steel pipe bollards to minimize future damage.
- Review suitability of railing around ramps as acceptable vehicular restraint.

The recommended 'long' term repairs include:

- Rout and caulk current and future asphalt slab cracking on Level 1 as it may occur.
- Perform isolated concrete repairs and re-coat waterproofing membrane areas due to normal wear and tear in the future.
- Properly clean and re-paint structural steel framing due to exposure to the elements.
- Re-striping of parking stalls, arrows, etc. due to normal wear and tear.

Fire Protection

A fire sprinkler system is not provided in the garage. However, fire extinguisher cabinets have been provided at multiple locations on both levels.

Plumbing

No interior storm drainage piping was observed. It appears that the floor is sloped to drain to the perimeter of the building, with gutters provided to divert water at the stair and entrance and exit lanes.

A single toilet is located in the garage for use by the attendant, which is in *'Fair'* condition. A sprinkler system has been provided for the landscaping.

HVAC

The only HVAC provided in the garage is a small fan for the staff restroom. No air conditioning is provided for the ticket booth.

Electrical

The garage electrical service is located at the lower level at the back of the garage. The main service, disconnect, and lighting panels are mounted on a unistrut and located under an open stair. Panels show minimal signs of corrosion and are in '*Good*' condition.

Lighting on Level 1 is high pressure sodium fixtures mounted to the soffit of roof deck. The fixtures are in '*Good*' condition for their age and are controlled by a timer according to the attendant.

Lighting for the roof deck is provided by 2 four head shoe box style pole lights controlled with a photocell. The fixtures appear to be high pressure sodium and are in '*Good*' condition.

7.4 Opinion of Construction Costs

Based on our current findings, experience with similar structures, and published data related to the expected service life cycles of the facility's components, we have projected the costs associated with our recommended repair and preventative maintenance program over the next 50 years.

In developing our opinion of probable construction costs we have assumed that a contractor would have to perform repairs such that normal parking operations are not unduly affected by the work. The area allocated for repairs during a single phase would be large enough to permit efficient construction operations, but not so large to unnecessarily restrict garage operations.

The enclosed tables present the probable costs for implementation of the recommendations noted above and include the following:

- An allowance of 10% of the base contract work for mobilization, general conditions and miscellaneous work not otherwise specified.
- An allowance of 10% of the base contract work for a project contingency to account for unanticipated or unknown items that may arise prior to the work taking place.
- An allowance of 8% of the base contract work for engineering and testing fees associated with the work.

The following are not included:

- Costs for ADA modifications to the facility, if any
- Costs to obtain alternative parking for the duration of the project
- Costs for improvements or replacement of signage
- Costs for the remediation of any hazardous materials

8. LOT 629 – DICKENS STREET PARKING STRUCTURE

8.1 Executive Summary

The Dickens Street Parking Structure was found to be in *'Excellent'* condition. The mixed use facility provides public parking for customers in the Sherman Oaks retail district as well as residential parking in a separate, secured area on Level 1 for residents occupying Levels 3 and 4 of the building. The structure consists of two levels and provides public parking for 198 vehicles. The facility is bordered on the south side by Dickens Street, on its west side by Cedros Avenue, on the north side by a public alleyway and on the east side by an adjacent residential building. The structural system consists of a concrete slab supported on the ground for Level 1 and a cast in place, conventionally reinforced concrete slab for Level 2.

The Level 1 concrete slab on grade was in 'Excellent' condition.

Our review consisted of visual observations and sounding of the Level 2 floor slab to detect for potential locations of concrete deterioration. Currently, the slab system appears to be in 'Excellent' condition. However, as a conventionally reinforced slab, it contains a multitude of cracking (many visible, many not visible). The cracking is normal and expected, but since this slab is potentially exposed to moisture brought in by cars on rainy days or during wash downs, water leakage through the cracks can be expected. At a minimum, caulking of the cracks is suggested to minimize future leakage and for a higher level of service for an extended period of time, consideration should be given to installation of a waterproofing membrane system.

Fire protection, plumbing, and electrical systems were found to be in *'Good'* condition at the time of our review.

8.2 General Information

8.2.1 Facility Name: Lot 629 – Dickens Street Parking Structure

8.2.2 Address: 14591 Dickens Street; Los Angeles, California

8.2.3 Vehicle Capacity (Public Parking area): 198 cars.

8.2.4 Facility Type: Mixed use facility, includes public and residential parking on Levels 1 and 2 with Levels 3 and 4 residential units.

8.2.5 Year Built: estimated to be 1993 based on date of drawings provided.

8.2.6 Number of Levels: Two

8.2.7 Number of Entrances: One public parking entrance lane from Cedros Avenue and one residential entrance lane from Dickens Street.

8.2.8 Number of Exits: One public parking exit lane to Cedros Avenue and one residential exit lane to Dickens Street.

8.2.9 Overall Dimensions: Approximately 124 feet in the north-south direction and 320 feet in the east-west direction.

8.2.10 Functional Layout: Two way traffic aisles with 90 degree parking.

8.2.11 Structural System: Cast in place, conventionally reinforced concrete floor slab members supported on concrete columns and walls. Lateral loads are resisted by cast in place, concrete shear walls in north-south and east-west directions. There are no expansion joints in the structure.

8.2.12 Existing Surface Treatments or Coatings: none visible.

8.2.13 Design Criteria: City of LA Building Code 1990

8.2.14 Retail Space: none

8.2.15 Elevators: none in public parking area

8.2.16 Zoning Review: Not performed

8.2.17 Documents Provided for Review: A partial set of architectural and structural drawing sheets prepared by Loewenberg Fitch Architects and John Martin Structural Engineers.

8.3 Findings and Recommendations

A visual examination of accessible structural components of the parking structure was performed, noted on drawings, and documented with representative photographs. Some of these photographs have been included in Appendix A of this report. The work was performed during early morning hours when occupancy was at a minimum. Additionally, Level 2 was sounded in all accessible areas (no vehicles were present) using the 'chain drag' procedure to detect potential concrete delaminations and/or de-bonding of thin cementitious overlay areas not

otherwise visible. Also, accessible surfaces of the undersides of the supported level slabs (soffit) were selectively sounded with a hand held hammer where possible or where conditions were suspect.

Structural, Waterproofing, and Architectural Components

Level 1 is a concrete slab supported on the ground. Vehicles enter and exit the facility on this level as well. The entrance/exit lane is illustrated in photos 98 (exterior) and 112 (interior). The condition of the grade slabs was 'excellent'. A portion of the Level 1 slab is located within the secured residential parking area and was not observed.

In general, there were a few findings related to the condition of the structure. These are noted below in no particular order:

- Level 1 is a concrete slab supported on the ground and contained some cracking consistent with similar slab on grades. At this time, there is no significant cracking or settlement observed, thus we see no action that needs to be taken on the public parking portion of this floor.
- The exterior facade consists of an exterior grade plaster in a 'stucco' type finish and security fencing in-fill for the first floor openings in the parking structure. The second floor openings are left unobstructed as can be seen in photos 98 through 101. All elements appeared to be in 'excellent' condition.
- Level 2 is a structurally supported floor slab. The structural system is classified as a two way, flat slab system. Photos 102 and 103 illustrate the typical Level 2 appearance. In this system, the slab is designed to transmit structural loads in two principal directions to nearby supporting columns or walls. At the column locations, the slab is often thickened due to the high concentration of loading. This type of system is not considered desirable for parking due to the need to maneuver vehicles between columns and/or walls. Thus, it is classified as a short span system. Long span systems are typically more desirable as supporting elements such as columns and walls are clear of driver's paths. The short span system used here (and in the case of other similar parking structures) is usually

dictated because of what is located above the parking floors. In this case, it is two floors of residential units. Short span systems such as these tend to develop significant cracking, originating at the columns and extending out in the direction of adjacent columns or walls on all sides. The Dickens Street Garage is no exception to this condition. Photos 104, 105 and 110 illustrate this finding. Some of the cracks are partial depth while others are full depth 'thru' cracks. On the residential floors, the cracking is not visible nor an issue since the floors are covered with finish materials. However, in the case of parking floors, the cracks are exposed to the weather and become a conduit for moisture ingress. If they are 'thru' cracks, moisture will leach out soluble calcium hydroxide in the cement paste and deposit this efflorescence on the underside of the crack as well as onto parked vehicles below if the crack is located over a parking stall. See photos 113 and 114. The moisture intrusion can also initiate corrosion deterioration of the embedded reinforcing steel. Fortunately, in this case, the climate in Southern California minimizes this occurrence. In any case, appropriate surface protection treatments should be taken for the extensive magnitude of cracking observed. Normally, there are two approaches. In one case, the great majority of visible cracks are routed and caulked to minimize moisture ingress and a clear, penetrating sealer is applied over the remainder of the surfaces. The alternative approach is to apply a waterproofing membrane to all floor surfaces, as this addresses all cracking in the slab. As a comparative analysis, all supported floors of the Robertson Blvd. Garage are currently protected with a waterproofing membrane system. However, if this structure did <u>not</u> have a waterproofing system on its supported floors and we were asked to recommend which *one* garage of these two should have its supported floors waterproofed; Desman would recommend the Dickens Garage.

- Between column lines 9 and 10 near the east end of Level 2, the original slab finish was reworked with a thin set topping. See photos 106, 107 and 108. Sounding has indicated a portion of this topping is debonded and photo 107 shows it is visually deteriorated. If a waterproofing system were installed, we would recommend that a majority of this material be removed and a better quality leveling course be installed if needed.
- Sounding indicated only a few isolated areas of delaminated concrete. One area adjacent to a shear wall in photo 109 is shown.

- There are no elevators in this structure and two sets of stairs at the north end are available for pedestrian use. One of these stairs can be seen in photos 115 and 116. The stairs are in 'excellent' condition.
- The residential parking area on Level 1 is separated from the public parking area by a security fence as seen in photo 117. This portion of the Level 1 slab and the corresponding ceiling area above was not specifically included in our observations. Based on limited observations through the security fencing, no notable issues were found.
- Vertical and overhead surfaces were in 'excellent' condition with the exception of leaking cracks where there is visible efflorescence staining.
- The lateral (seismic) load resistance system is provided by shear walls in each principal direction in the structure that are visible in photos 103 and 111. These appeared to be in excellent condition.
- There are no expansion joints/expansion joint seals in the structure.
- Vehicular barriers (crash restraint) consists of concrete shear walls, columns and car stops on the exterior and barrier cables along the interior lines of the ramps interconnecting the floors. These are considered to be life safety systems in a parking structure and appeared to be in 'excellent' condition.
- Miscellaneous areas such as cashier booth, security fencing and signage all appeared to be in good condition.

The data from our physical evaluation of the parking structures indicates no life safety or priority repairs appear to be needed and the garage usage to date is modest. Therefore, a program to maintain the structure for the future could likely be instituted in the short term or at a later date to be proposed.

To summarize, the recommended 'near' term repairs include:

- Isolated concrete slab repairs to delaminated areas.
- Rout and caulk 'thru' slab cracking and other selected cracks on Level 2.

The recommended ‘long’ term repairs include:

- Continue to repair any isolated concrete delaminated areas as they may occur.
- Install a waterproofing membrane on Level 2 to stop future water intrusion into slab system and cracks.
- Properly clean and re-paint miscellaneous metals due to exposure to the elements.
- Re-striping of parking stalls, arrows, etc. due to normal wear and tear.

Fire Protection

The garage is fully sprinklered, and three standpipes with fire hose connections are provided. Two of the standpipes are located at the stairs, and the other is located near the center of the building. In general, the fire protection piping is in *‘Good’* condition.

Fire extinguisher cabinets are located throughout the structure, along with a fire alarm system consisting of audible/visual alarm signaling devices and manual pull stations at the stairwells is present in the structure.

Plumbing

No interior storm drainage is provided for the garage. It appears that the drainage is designed to flow out of the building to the street level and/or the lower level tenant parking. The drainage within the tenant parking may be pumped back to the storm system, but this area was not included in our review.

No public restrooms were present in the garage.

HVAC

Since the garage is an open structure, no mechanical ventilation is present. The electrical room is ventilated, but it appears to be part of the tenant portion of the building.

Electrical

The lighting consists of two-tube 1' x 4' fluorescent fixtures. The tubes are covered with a wrap-around prismatic lens and are in '*Excellent'* condition. The average lighting level in the garage is over 12 foot candles, with typical levels of 25 foot candles under a fixture and 8 foot candles away from fixtures. Exit lighting is illuminated and generally in '*Good*' condition except for some vandalism.

8.4 Opinion of Construction Costs

Based on our current findings, experience with similar structures, and published data related to the expected service life cycles of the facility's components, we have projected the costs associated with our recommended repair and preventative maintenance program over the next 50 years. The applicable table in Appendix B presents our opinion of the construction costs for the next 50 years.

In developing our opinion of probable construction costs we have assumed that a contractor would have to perform repairs such that normal parking operations are not unduly affected by the work. The area allocated for repairs during a single phase would be large enough to permit efficient construction operations, but not so large to unnecessarily restrict garage operations.

The enclosed tables present the probable costs for implementation of the recommendations noted above and include the following:

- An allowance of 10% of the base contract work for mobilization, general conditions and miscellaneous work not otherwise specified.
- An allowance of 10% of the base contract work for a project contingency to account for unanticipated or unknown items that may arise prior to the work taking place.
- An allowance of 8% of the base contract work for engineering and testing fees associated with the work.

The following are not included:

- Costs for ADA modifications to the facility, if any

- Costs to obtain alternative parking for the duration of the project
- Costs for improvements or replacement of signage
- Costs for the remediation of any hazardous materials

9. LOT 732 – LARCHMONT BLVD PARKING STRUCTURE

9.1 Executive Summary

The Larchmont Blvd. Parking Structure was found to be in *'Good'* condition. The mixed use facility provides public parking for customers in the Hancock Park retail district. The structure consists of one level open to the sky and three underground levels and provides public parking for 167 vehicles. The facility is bordered on the west side by Larchmont Blvd., on its north and south sides by adjacent commercial buildings and on the east side by adjacent residential homes. The structural system consists of a concrete slab supported on the ground for Level P3 and a cast in place, post-tensioned or conventionally reinforced concrete slab for Levels P2, P1 and street level.

Our review consisted of visual observations and sounding of the outside (street) level, P1 and P2 level floor slabs to detect for potential locations of concrete deterioration and in the case of the street level, de-bonded waterproofing membrane. Overall, the slabs appear to be in 'Good' condition, although there was extensive cracking observed.

Some on-going concrete repairs, crack treatment and maintenance of the waterproofing system can be anticipated due to normal wear and tear.

The P3 concrete slab on grade was in 'Good' condition. Again, there was extensive cracking observed and some of the cracks have been previously treated with an unknown type of crack filler material.

The foundation walls appeared to be in 'excellent' condition and no signs of water leakage were noted.

Fire protection, plumbing, HVAC, and electrical systems were found to be in *'Good'* condition at the time of our review.

An effort aimed at addressing concrete repairs, crack treatment and maintenance of the membrane as needed should keep this structure in very good condition for an extended period of time.

9.2 General Information

9.2.1 Facility Name: Lot 732 – Larchmont Blvd. Parking Structure

9.2.2 Address: 218 N. Larchmont Blvd.; Los Angeles, California

9.2.3 Vehicle Capacity: 167 cars.

9.2.4 Facility Type: Mixed use facility, includes retail space and parking at street level and public parking on Levels P1 through P3.

9.2.5 Year Built: Unknown, may be about 2000 based on date of drawing provided.

9.2.6 Number of Levels: Four

9.2.7 Number of Entrances: One parking entrance lane from Larchmont Blvd.

9.2.8 Number of Exits: One parking exit lane to Larchmont Blvd.

9.2.9 Overall Dimensions: Approximately 160 feet in the north-south direction and 118 feet in the east-west direction.

9.2.10 Functional Layout: One way traffic aisles with angled parking on Levels P1, P2 and P3. A two-way traffic speed ramp located in the center of the structure interconnects the parking floors.

9.2.11 Structural System: Cast in place, conventionally reinforced or post-tensioned concrete floor slab and beam system supported on concrete columns and walls. Lateral loads are resisted by cast in place, concrete shear walls in north-south and east-west directions and/or the beam frames. There are no expansion joints in the structure.

9.2.12 Existing Surface Treatments or Coatings: A thin, traffic bearing membrane system is installed on the street level slab. Levels P1, P2 and P3 are bare concrete.

9.2.13 Design Criteria: Unknown

9.2.14 Retail Space: Commercial building fronting Larchmont Blvd. contains Crumbs Bake Shop, Starbucks, Picket Fences, Hans Custom Optik and Larchmont Beauty Center.

9.2.15 Elevators: one

9.2.16 Zoning Review: Not performed

9.2.17 Documents Provided for Review: One preliminary drawing showing a section through the center of the garage to identify the extent of the parcel. No other information was provided.

9.3 Findings and Recommendations

A visual examination of accessible structural components of the parking structure was performed, noted and documented with representative photographs. Some of these photographs have been included in Appendix A of this report. The work was performed during early morning hours when occupancy was at a minimum. Additionally, the street level and Levels P1 and P2 were sounded in all accessible areas (unless occupied by a vehicle) using the 'chain drag' procedure to detect potential concrete delaminations and/or de-bonding of the traffic bearing membrane not otherwise visible. Also, accessible surfaces of the undersides of the supported level slabs (soffit) were selectively sounded with a hand held hammer where possible or where conditions were suspect.

Structural, Waterproofing, and Architectural Components

In general, there were a few findings related to the condition of the structure. These are noted below in no particular order:

- At the outside (street) level, the commercial buildings are contained within a one story masonry structure that fronts Larchmont Blvd. A steel trellis or canopy spans the entrance and exit lanes for the parking portion of the development that make up the remaining west elevation. Photo 118 illustrates the steel trellis. It appeared to be in 'excellent' condition. Portions of photos 119, 120, 124 and 125 illustrate the commercial building. A cursory review of the building indicates it appears to be in 'excellent' condition. However, no review of the interior spaces or roof was performed. The remaining portion of the street level consists of about 20 parking spaces and the ingress/egress ramp for traffic to Levels P1 through P3. Photos 119 and 121 through 127 illustrate the street level areas. The driving surfaces of this level were protected with a thin, traffic bearing membrane system that appears to date back to the original

construction. The membrane is exhibiting significant wear in the traffic lane areas along the entrance and exit lanes. See photos 122 and 123. We recommend that the membrane be re-coated within the next 2-4 years to maintain the waterproofing integrity on this level. There is a masonry wall along the east elevation that appeared to be in 'good' condition.

- The ramp from street level leads down to Levels P1 and P2 below grade. These parking floors are structurally supported and occupy the entire property footprint, including the area below the commercial building. Sounding of these floor slabs indicates only a few isolated slab delaminations. Photos 134 and 136 illustrate typical locations of concrete deterioration. The more common observation was a ***significant*** amount of slab cracking on both floors. Photos 130, 131, 137 and 138 illustrate this finding. We suspect that the cracking is due to stresses created by a combination of drying shrinkage (volume reduction) in the concrete slabs and restraint provided by the walls, beams and girders as seen in photos 128, 129, 132 and 142. A few of the cracks show signs of leakage full depth to the underside of the slab as illustrated by photos 140, 141, 143, 148 and 149. With the proper installation of the expected slab and beam reinforcing steel, we do not believe the cracks are a structural concern. We found no exposed rebar or post-tensioning strands at the floor slab surfaces. We noted perhaps as much as 2000 feet of miscellaneous cracking on each floor. The cracks should have no significant effect on the structural performance of the floor, but it is recommended that the cracks be routed and caulked for the purpose of minimizing future moisture infiltration. Vertical and overhead surfaces were in excellent condition. In nearly all cases, we recommend the course of action is to rout and caulk the cracks to minimize additional moisture intrusion.
- Level P3 is a concrete slab on grade. There is typical slab cracking throughout the floor and it appears that a repair effort was made to 'fill' the cracks. This is characterized by the dark appearance of the cracking as seen in photo 145. No evidence of water leakage through the cracks due to hydrostatic or soil pressure was noted. There appears to be no repairs needed on this floor at this time.
- The lateral (seismic) load resistance system is provided by the concrete framing system and perimeter walls of the structure. These appeared to be in excellent condition.

- Miscellaneous metals are present in the structure primarily at stairwell and metal doors and frames (photo 150). The paint system should perform adequately for many years to come. There is little to no UV exposure and no re-painting of these surfaces is currently included in a long-term maintenance program. Striping was in good condition on the enclosed levels. Re-striping on the outside (street) level will need to be performed in conjunction with re-coating of the waterproofing membrane.
- There are no expansion joints/expansion joint seals in the structure.
- Perimeter vehicular barriers (crash restraint) on the street level consist of the walls along the perimeter of the property and a knee wall with handrail at the edge of the ramp leading into the enclosed parking area. These are considered to be in excellent condition. At the lower levels, the perimeter and interior walls comprise the vehicle restraint.

While the data from our physical evaluation of the parking structures indicates no life safety repairs appear to be needed, a modest effort should be followed to maintain the integrity, safety, appearance and long-term durability for the structure.

To summarize, the recommended 'near' term repairs include:

- Isolated concrete slab repairs to delaminated areas on street level, Levels P1 and P2. No post-tensioning repairs are anticipated.
- Re-coat waterproofing membrane areas due to normal wear and tear on street level.
- Rout and caulk slab cracking on Levels P1 and P2.

The recommended 'long' term repairs include:

- Rout and caulk future slab cracking on Levels P1 and P2 as it may occur.
- Properly clean and re-paint miscellaneous metals due to exposure to the elements.
- Re-striping of parking stalls, arrows, etc. due to normal wear and tear.
- Maintain condition of membrane on outside (street) level.

Fire Protection

The garage is fully sprinklered, except for the north stair. One standpipe is located in the south stair, but fire hose cabinets are not provided. The fire protection piping is in *'Excellent'* condition.

Fire extinguisher cabinets are located throughout the garage. No fire alarm system is present in the garage, except that a flow monitoring device is present to monitor and alarm flow for the sprinkler system.

Plumbing

A trench drain was provided for at the bottom of the entrance/exit ramp, and a sump pump was provided at the lowest level. Storm piping was found to be in *'Good'* condition.

HVAC

The three lower underground levels of the parking structure are mechanically ventilated with one supply fan and one exhaust fan. The exhaust fan is located on Level 1 and discharges through the street level parking in a vertical shaft that has side discharge louvers approximately 10'-0" above the level. Air is forced into the garage by a supply fan set on the roof of the retail space and discharges through grilles next to the elevator shaft. The exhaust fan is ducted to multiple inlet grilles along the outside walls of the garage. Because mechanical drawings were not made available, we are unable to determine ventilation rates without taking field measurements.

There is not a carbon monoxide detection system in the garage, and the attendant believes that the fans run continuously.

Electrical

The main electrical service is located behind the retail space at the street level, and this room was locked during our review.

The street level lighting is provided by pole lights at the property line and wall pack fixtures mounted on the back of the retail spaces. Lighting fixtures within the garage consist of a combination of 8'long and 4'foot long single tube fluorescent fixtures with T8 lamps. The fixtures are only covered with a wire guard, but are in *'Good'* condition. The average lighting level in the garage is 9 foot candles, with typical levels of 18 foot candles under a fixture and 5 foot candles away from fixtures.

9.4 Opinion of Construction Costs

Based on our current findings, experience with similar structures, and published data related to the expected service life cycles of the facility's components, we have projected the costs associated with our recommended repair and preventative maintenance program over the next 50 years. The applicable table in Appendix B presents our opinion of the construction costs for the next 50 years.

In developing our opinion of probable construction costs we have assumed that a contractor would have to perform repairs such that normal parking operations are not unduly affected by the work. The area allocated for repairs during a single phase would be large enough to permit efficient construction operations, but not so large to unnecessarily restrict garage operations.

The enclosed tables present the probable costs for implementation of the recommendations noted above and include the following:

- An allowance of 10% of the base contract work for mobilization, general conditions and miscellaneous work not otherwise specified.
- An allowance of 10% of the base contract work for a project contingency to account for unanticipated or unknown items that may arise prior to the work taking place.

- An allowance of 8% of the base contract work for engineering and testing fees associated with the work.

The following are not included:

- Costs for ADA modifications to the facility, if any
- Costs to obtain alternative parking for the duration of the project
- Costs for improvements or replacement of signage
- Costs for the remediation of any hazardous materials

10. LOT 703 – ROBERTSON BLVD. PARKING STRUCTURE

10.1 Executive Summary

The Robertson Blvd. Parking Structure was found to be in *'Excellent'* condition. The mixed use facility provides public parking for customers in the local Carthay retail district. The structure also includes retail space on street level currently divided into two tenants; Lisa Kline Kids and Eyewear @ Optx. The structure consists of six levels and provides parking for 335 vehicles. The facility is bordered on the east side by Robertson Blvd., on its north and south sides by adjacent commercial buildings and on the west side by a public alleyway. The structural system consists of a combination of nominal 8 foot wide, precast, prestressed double tee floor planks for the 'flat' parking floors and cast-in-place, reinforced concrete beam and slab system for the ramps at either end of the structure interconnecting the floors.

Our review consisted of visual observations and selective sounding of the floor slab topping, cast in place concrete ramp slabs and the waterproofing system to detect for potential locations of concrete delaminations and de-bonded membrane. Overall, the slab and membrane systems appeared to be in 'Excellent to Good' condition.

The stucco exterior facade appeared to be in 'Excellent' condition although a proper cleaning is needed.

Some very limited concrete repairs, caulking at the tee to tee joints and regularly scheduled re-coating of the waterproofing membrane system in heavy traffic areas and at the tee to tee joints can be anticipated due to normal wear and use.

The B2 level concrete slab on grade was in 'Excellent' condition.

Fire protection, plumbing, HVAC, and electrical systems were found to be in *'Excellent to Good'* condition at the time of our review.

An effort aimed at addressing concrete repairs as they may be needed and maintaining the condition of the waterproofing membrane system (especially in high wear areas such as turning aisles and the ramps at the ends) should keep this structure in very good condition for an extended period of time.

10.2 General Information

10.2.1 Facility Name: Lot 703 – Robertson Blvd. Parking Structure

10.2.2 Address: 123 S. Robertson Blvd.; Los Angeles, California

10.2.3 Vehicle Capacity: 335 cars.

10.2.4 Facility Type: Mixed use facility, includes retail space at street level and public parking on Levels B2, B1 L1 through L3 and roof. Garage is 'enclosed', requiring mech. ventilation on all floors except for roof level.

10.2.5 Year Built: Completed in 1998.

10.2.6 Number of Levels: Six

10.2.7 Number of Entrances: One entrance lane from Robertson Blvd.

10.2.8 Number of Exits: One exit lane to Robertson Blvd.

10.2.9 Overall Dimensions: Approximately 195 feet in the north-south direction and 120 feet in the east-west direction

10.2.10 Functional Layout: Split level arrangement with two way traffic aisles, 90 degree parking, two-way 'up' and 'down' traffic speed ramps at the north and south ends interconnecting the parking floors.

10.2.11 Structural System: Precast, prestressed 8 foot wide double tee floor planks with a cast in place concrete topping supported on a cast in place shear wall in the inboard portion of the garage and on precast spandrel beams on the outboard portion. End ramps are a cast in place, beam and slab system. Lateral loads are resisted by cast in place concrete shear walls along the center spine and at the ends of the structure in north-south and east-west directions respectively. There are no expansion joints in the structure.

10.2.12 Existing Surface Treatments or Coatings: A thin, traffic bearing waterproofing membrane is installed on all supported floor slabs (B1, L1 through L3, roof).

10.2.13 Design Criteria: Unknown

10.2.14 Retail Space: Lisa Kline Kids and Eyewear @ Optx

10.2.15Elevators: Two, serving all floors

10.2.16Zoning Review: Not performed

10.2.17Documents Provided for Review: Original architectural drawings A-9 through A-22 (no floor plans included) prepared by the City of Los Angeles Bureau of Engineering.

10.3 Findings and Recommendations

A visual examination of accessible structural components of the parking structure was performed and documented with representative photographs. Some of these photographs have been included in Appendix A of this report. The work was performed during morning hours when occupancy was at a minimum. Additionally, all levels except for B2 (sub-basement on grade) was selectively sounded using the 'chain drag' procedure to detect potential concrete slab or double tee topping delaminations and/or de-bonding of the traffic bearing membrane not otherwise visible. Also, accessible surfaces of the undersides of the supported level slabs (soffit) were selectively sounded with a hand held hammer where possible or where conditions were suspect.

Structural, Waterproofing, and Architectural Components

In general, there were few findings related to the condition of the structure. These are noted below in no particular order:

- Level B2 is a concrete slab supported on the ground and contained cracking consistent with similar slab on grades. The slab on grade is easily identified as it is the only portion of the floors in this structure that do not contain the tan colored, waterproofing coating. See photo 160. Photos 157 through 159 illustrate the 'excellent' condition of this slab. The foundation walls did not exhibit any signs of significant cracking or water leakage. At this time, we see no corrective action required.
- The exterior facade consists of a stucco finish system with punched window openings to mimic a building and disguise the property as primarily a parking structure. These openings contain glass block or security screening. See photos 151 and 155. The north and south walls are solid concrete surfaces as shown in photos 154 and 156. The garage

elevators open directly to the sidewalk on Robertson Blvd. as illustrated in photo 153. All elements appeared to be in 'excellent' condition, although the stucco could use a proper cleaning.

- Levels B1 and L1 through L3 are interior, structurally supported floor slabs. The structural system combines the economy of long span, precast double tee floor members with the flexibility of cast in place concrete for columns, beams, slab infill areas and shear walls (seismic resistance). The result is a 'hybrid' structural system. Photos 161 through 164 and 167 and 168 depict the double tee portions of the structure, while photos 165 and 166 illustrate some of the cast in place areas. The double tee members are typically 8 feet wide, although a few locations exist at 6 feet 6 inches. Overall, the structural system is in 'excellent' condition with no deterioration currently observed. Level L4 is exposed to the sky and was similarly found to be in 'excellent' condition.
- As noted elsewhere in this report, all supported floor surfaces are protected with a thin, traffic bearing waterproofing membrane system. This tan colored, surface protection treatment is designed to resist all moisture intrusion into the slab. It appears that this membrane product was installed at the time of original construction, based on the 10 year age of the structure and the level of wear observed. The decision to include this feature in a structure located in the mild climate of Southern California is somewhat curious. Double tee systems are touted in the industry as being very durable. They have a high level of factory quality control since they are produced in a remote factory and are shipped to the jobsite. They also typically contain less reinforcing steel that is capable of corroding compared to similar cast in place systems. Normally, if double tees have a weak link, it occurs along the multitude of joints present in these systems. When a membrane is installed on these systems, it is desired that the membrane covers all cracks, joints, etc, creating a near seamless appearance. Photo 169 illustrates this desired appearance at a typical tee to tee joint in the precast portion. However, this is the exception and not the rule. More commonly, especially in the drive aisles, the membrane has worn, peeled or debonded at the tee joints. It appears that the membrane did not properly adhere to the sealant placed in the tee to tee joints. See photos 164, 170, 171, 172, 174 and 175. This could have occurred for a few different reasons, including surface preparation deficiencies, incompatible materials or workmanship. In a few high

traffic areas, the membrane is worn down to the concrete, as seen in photo 173 and 182. It is suggested that the membrane and sealants be replaced on a scheduled basis. Typically, the areas exposed to the greatest wear and tear are the drive aisles and corners and these areas may need re-coating every 6 to 8 years, depending on usage. Parking stall areas may last 20 years, again depending on usage. Areas exposed to the sky (UV), will not last as long as intermediate floors.

- There are two sets of stairs in the structure. They consist of cast in place concrete stair treads, risers and landings as seen in photo 180. The condition of the stairs was judged to be 'excellent'.
- The lateral (seismic) load resistance system is provided by cast in place concrete shear walls in each principal direction in the structure. These appeared to be in 'excellent' condition.
- There are no expansion joints/expansion joint seals in the structure.
- Perimeter vehicular barriers (crash restraint) consist of concrete parapet walls and shear walls along the ramps interconnecting the floors. These are considered to be life safety systems in a parking structure and appeared to be in 'excellent' condition.
- Miscellaneous areas such as cashier booth, security fencing and signage all appeared to be in 'good' condition. Charging stations for alternative energy vehicles are present and not used at this time. This is shown in photo 183. A review of the equipment was not performed.

While the data from our physical evaluation of the parking structures indicates no immediate repairs appear to be needed, a modest effort should be followed to maintain the integrity, safety, appearance and long-term durability for the structure. These factors not only have cost implications, but can affect user's attitudes and parking habits.

To summarize, the recommended 'near' term repairs include:

- Re-caulk tee to tee joints on the roof level.
- Re-waterproof roof level and entrance/exit lane on Level L1.
- Re-stripe roof level.

Note: No concrete or other structural related repairs are anticipated at this time, but a nominal amount is included in case the need arises.

The recommended 'long' term repairs include:

- Re-caulk tee to tee joints on the intermediate floors.
- Re-waterproof intermediate level drive lanes and ramps.
- Re-stripe as needed.
- Perform isolated concrete repairs due to normal wear and tear in the future.
- Properly clean and re-paint misc. metal handrail, doors and frames, etc. due to exposure to the elements.

Fire Protection

The structure is fully sprinklered, and standpipes are located in the stairs. However, no fire hose cabinets are provided. The fire protection piping is in *'Excellent'* condition.

Fire extinguisher cabinets are located throughout the garage, along with a fire alarm system consisting of audible/visual alarm signaling devices and manual pull stations at the stairwells is present in the structure.

Plumbing

Trench drains were provided at the low point of the main ramps inside the garage. In addition, an emergency drain and sump pump were provided at the lowest level. The storm drainage piping and structures are in *'Good'* condition. Two restrooms were provided at the retail/street level for the retail spaces but were not included in our review.

HVAC

The two lowest levels are ventilated by a supply fan located on the Basement Level 1 connected through a shaft to an intake grille at the roof. Exhaust from these levels is provided by a fan located on Basement Level 1 that discharges vertically through a shaft to a roof grate. Exhaust for the Levels 1 and 2 are provided by an exhaust fan located on the Level 3. This fan also discharges to the roof level through a vertical shaft. Make-up air for Levels 1 and 2 is provided through openings in the exterior walls. Because mechanical drawings were not made available, we are unable to determine ventilation rates without taking field measurements.

A carbon monoxide detection system is present in the basement levels and the Levels 1 and 2. Each sensor covers approximately 5,000 square feet, which is typically recommended by the sensor manufacturers. The day we visited the garage the garage was lightly loaded, but the fans were running continuously. This may indicate that some adjustments need to be made or possibly the sensors need calibration or replacement.

Electrical

The main electrical room was inaccessible during our review.

Lighting on all levels, except the roof level, is provided with high pressure sodium fixtures. In addition to these fixtures, 2/4 pendent mounted fluorescent fixtures are used at the elevator entrance and exit lanes. All fixtures were found to be in *'Good'* condition. The average lighting level in the garage is 6 foot candles, with typical levels of 12 foot candles under a fixture and 2 foot candles away from fixtures.

The roof level lighting is provided by wall pack fixtures mounted on the parapet wall and twin shoe box style pole fixtures, which are approximately 12 feet high.

10.4 Opinion of Construction Costs

Based on our current findings, experience with similar structures, and published data related to the expected service life cycles of the facility's components, we have projected the costs

associated with our recommended repair and preventative maintenance program over the next 50 years.

In developing our opinion of probable construction costs we have assumed that a contractor would have to perform repairs such that normal parking operations are not unduly affected by the work. The area allocated for repairs during a single phase would be large enough to permit efficient construction operations, but not so large to unnecessarily restrict garage operations.

The enclosed tables present the probable costs for implementation of the recommendations noted above and include the following:

- An allowance of 10% of the base contract work for mobilization, general conditions and miscellaneous work not otherwise specified.
- An allowance of 10% of the base contract work for a project contingency to account for unanticipated or unknown items that may arise prior to the work taking place.
- An allowance of 8% of the base contract work for engineering and testing fees associated with the work.

The following are not included:

- Costs for ADA modifications to the facility, if any
- Costs to obtain alternative parking for the duration of the project
- Costs for improvements or replacement of signage
- Costs for the remediation of any hazardous materials

11. LOT 670 – CHEROKEE AVENUE PARKING STRUCTURE

11.1 Executive Summary

The Cherokee Avenue Parking Structure was found to be in *'Good'* condition. The mixed use facility provides public parking for the Hollywood retail and entertainment district as well as parking in a separate, secured area on Level 1 for an adjacent residential housing development. The facility is set back about 50 feet from Cherokee Avenue with an entrance/exit lane drive connecting the structure to Cherokee Ave. The remainder of the street frontage is occupied by a 1 story commercial building located between the street and the parking structure. There is a separate entrance/exit lane for the reserved parking area connecting to Whitley Ave. to the east. The structure is also bordered on its north and east sides by residential buildings and on its south side by commercial buildings that front Hollywood Boulevard. The structure consists of four levels and provides parking for 397 vehicles. The structural system consists of a concrete slab supported on the ground for Level 1 and cast-in-place, structurally supported, post-tensioned concrete slabs and beams for Levels 2-4. Lateral loads are resisted by concrete shear walls in both north-south and east-west directions along the perimeter.

Our review consisted of visual observations and sounding of the floor slabs in areas containing top slab reinforcing steel to detect for possible locations of concrete deterioration. The slabs, beams and columns were all found to be in 'excellent' condition. Some slab cracking in various locations was noted, but is not considered unusual. Also, some areas exhibited water ponding due to inadequate slopes to existing drains. An effort to correct this condition is suggested.

A traffic bearing waterproofing membrane was installed during original construction at the roof level. This membrane exhibited significant wear in the drive aisles and should be re-coated. A membrane was also installed on the floor area over the parking offices. This membrane was found to be in 'good' condition.

Fire protection, plumbing, and electrical systems were found to be in *'Good'* condition at the time of our review.

A modest effort aimed at addressing concrete repairs as they may be needed and surface protection treatments at selected areas should keep this structure in very good condition for an extended period of time.

11.2 General Information

11.2.1 Facility Name: Lot 670 – Cherokee Avenue Parking Structure

11.2.2 Address: 1710 Cherokee Avenue; Los Angeles, California

11.2.3 Vehicle Capacity: 397 cars.

11.2.4 Facility Type: Stand alone parking facility, Levels 1-4 are at or above ground and classified as 'open.'

11.2.5 Year Built: Unknown, estimated to be about 10 to 20 years old based on appearance.

11.2.6 Number of Levels: Four

11.2.7 Number of Entrances: One entrance lane in from Cherokee Ave. connecting to set back location of structure. There is an entrance lane to Level 1 reserved parking area only from Whitley Ave. to the east.

11.2.8 Number of Exits: One exit lane out to Cherokee Ave. from set back location of structure. There is an exit lane from Level 1 reserved parking area only to Whitley Ave. to the east.

11.2.9 Overall Dimensions: 245 feet in the north-south direction and 128 feet in the east-west direction. Structure is set back about 50 feet from Cherokee Ave.

11.2.10 Functional Layout: Single helix arrangement with two way traffic aisles and 90 degree parking.

11.2.11 Structural System: Cast-in-place, post-tensioned concrete slab and beam arrangement. Lateral loads are resisted by perimeter shear walls in north-south and east-west directions. There are no expansion joints in the structure.

11.2.12 Existing Surface Treatments or Coatings: A thin, traffic bearing waterproofing membrane is installed on roof levels 4A and 4B that are exposed to the sky. A similar membrane is installed on Level 2A over the parking office spaces below.

11.2.13 Design Criteria: Unknown

11.2.14 Retail Space: Approx. 5,000 sq. ft. of commercial space outside of the garage footprint on street level fronting Cherokee Ave. was built in conjunction with the structure.

11.2.15Elevators: One, located on the west elevation in the set back area.

11.2.16Zoning Review: Not performed

11.2.17Documents Provided for Review: A partial set of architectural floor plans with no dates or other pertinent information pertaining to the design team was provided for our use.

11.3 Findings and Recommendations

A visual examination of accessible structural components of the parking structure was performed, noted on drawings, and documented with representative photographs. Some of these photographs have been included in Appendix A of this report. The work was performed during afternoon hours when occupancy was assumed to be at its typical mid day level. Additionally, top surfaces of the structurally supported floor slabs were selectively sounded in areas using the 'chain drag' procedure to detect potential concrete delaminations not otherwise visible. Accessible surfaces of the undersides of the supported level slabs (soffit), beams, columns, and walls were selectively sounded with a hand held hammer where possible or where conditions were suspect.

Structural, Waterproofing and Architectural Components

In general, there were few findings related to the condition of the structure. These are noted below in no particular order:

- The exterior facade consists of plain or stucco covered concrete shear walls, cast in place concrete parapet or spandrel panels with architectural metal handrails, glazing on the elevator shaft and masonry walls. The two stairs are steel pan treads, risers and landings filled with concrete. These components are illustrated in photos 184 through 189. The components were in 'good' condition. Some of the painted metal surfaces are showing signs of age and should be re-painted in the near future. At a few locations, grout plugs covering post-tensioning stressing anchors have become loose and could fall out. See photos 190 and 191. These should be replaced as needed.
- There is a 50 foot wide setback between the public sidewalk on Cherokee Ave. and the parking structure. Within this area is the entrance/exit lane for the structure, pedestrian

access way to the primary set of stairs and adjacent elevator and 1 story commercial office space containing approx. 5,000 sq. ft. Photos 196 and 198 illustrate the pedestrian area and vehicular drive lanes. The commercial space was not accessible and it was assumed to be excluded from the scope of our review. See photos 192 and 193 of the exterior of this space.

- Level G and 1A is a concrete slab supported on the ground and consists of two areas. The east side is accessed by a driveway from Whitley Ave. and is an enclosed, reserved parking area. See photos 194 and 195. We did not access the area, but did not see any areas of concern. A majority of the west side is a reserved area for HLAB city trucks (photo 197) and the remaining area provides access to the upper floors (photo 199). The condition of the slabs is 'good' and we see no corrective action that needs to be taken at this time.
- Levels 1B and 2, 3 and 4 (A and B) are structurally supported floor slabs. The slabs are nominally 6 inches thick and span about 18 feet between adjacent, 60 foot long, post-tensioned beams. There is one construction joint on each floor side, indicating that each floor was constructed in two concrete placements. The framing system can be seen in photos 200 and 201 and is similar to the Studio City Structure. Our sounding did not reveal any floor slab delaminations. However, there were a fair number of vehicles in the structure at the time of our survey, and we did not access areas under these vehicles. However, we did visually review the areas for any larger scale problem areas and none were found. It would be unusual not to find a few small delaminations in a structure of this size and age. We recommend that any delaminated areas be identified and repaired before they can become a tripping hazard. Also, application of a membrane strip over the construction joints can be a cost effective step, as it will preclude future concrete repairs in an area of frequent delamination findings. We found no exposed rebar or post-tensioning strands at the floor slab surfaces. We noted some slab cracking on these floors. The cracks should have no significant effect on the structural performance of the floor, but it is recommended that the cracks be routed and caulked for the purpose of minimizing future moisture infiltration. Vertical and overhead surfaces were in 'excellent' condition.

- Level 2 includes a traffic bearing, waterproofing membrane located over the parking offices, restroom and storage/equipment room located on Level 1. The condition of the membrane was 'good'. Re-coating will eventually need to be performed as the structure ages.
- Ponding was noted in several corner areas due to lack of proper slopes to floor drains. As the water evaporates, it leaves a dirty residue as seen in photos 202 through 205. Although the ponded water will not freeze in the winter, it can eventually seep into the concrete and leak through and onto cars below. Note in a couple of the photos that a hole was cored in the wall to allow the water to drain out. Its effect is unknown. We normally recommend either the addition of a drain, or installing a waterproofing membrane to keep the water from being absorbed into the slab. In either case, the operator should be more diligent in power washing the area on a periodic basis to improve the appearance of the area.
- A comprehensive sounding of Level 4 was possible due to the absence of vehicles on this floor. On Level 4, a thin, traffic bearing membrane system was installed on all areas exposed to the sky. We know this was done in conjunction with the original construction because the concrete finish was not swirled on this level as it was on the lower levels. The swirling creates some amplitude in the concrete that is not desirable prior to a membrane application. The overall condition of the membrane is 'fair'. Sounding of all accessible surfaces indicated good bond to the concrete substrate, but it is extensively worn in the traffic aisles as seen in photos 206 and 207. We recommend that the membrane should be re-coated on this level within the next few years. Then, at additional 7 to 10 year intervals, the system in busy drive aisles may typically need to be re-coated. We observed a broken barrier cable on the interior line at the roof level (photo 205) that should be repaired.
- The lateral (seismic) load resistance system is provided by shear walls in each principal direction on the perimeter of the structure. These appeared to be in 'like new' condition.
- Miscellaneous metals are present in the structure primarily as handrails (photo 208), fall protection (photo 209), and stair treads and risers (photo 210). The metals are painted with a high performance coating system, but are showing signs of wear, tear and UV

degradation. It is suggested that re-painting of these surfaces be included in a long-term maintenance program.

- There are no expansion joints/expansion joint seals in the structure.
- Perimeter vehicular barriers (crash restraint) consist of concrete parapet walls, shear walls and barrier cables along the interior column line. These are considered to be life safety systems in a parking structure and appeared to be in excellent condition.
- There are two sets of stairs in the structure. They consist of steel framing with concrete in-fill. The condition of both stairs was good.
- Miscellaneous areas such as the open elevator vestibules, staff restroom, cashier booth, metal doors, security fencing and signage all appeared to be in good condition.
- Overall, the cleanliness level was only 'fair' and it appears that the structure would benefit from a comprehensive cleaning effort. It appears that the parking clientele necessitates a high level of cleaning effort in this structure, compared to many others.

While the data from our physical evaluation of the parking structures indicates no life safety repairs appear to be needed, a modest effort should be followed to maintain the integrity, safety, appearance and long-term durability for the structure. These factors not only have cost implications, but can affect user's attitudes and parking habits.

To summarize, the recommended 'near' term repairs include:

- Isolated concrete slab repairs to delaminated areas (if any) on Levels 2, 3 and 4. No post-tensioning repairs are anticipated.
- Waterproofing protection of construction joints with a 3 foot wide strip applied along each joint length on Levels 1B, 2 and 3 to minimize future water leakage and concrete deterioration.
- Rout and caulk slab cracking on Levels 2 and 3.
- Replace worn out waterproofing membrane system on Level 4.

The recommended 'long' term repairs include:

- Rout and caulk future slab cracking on Levels 2 and 3 as it may occur.
- Re-coat waterproofing membrane areas due to normal wear and tear in the future.
- Properly clean and re-paint miscellaneous metals due to exposure to the elements.
- Re-striping of parking stalls, arrows, etc. due to normal wear and tear.
- Repair barrier cables due to damage and/or normal wear and tear.
- Replace operating equipment such as doors, restroom fixtures, etc. due to damage and/or normal wear and tear.

Fire Protection

The garage is fully sprinklered, and one standpipe is located in the building next to the elevator. In addition to the main standpipe, two additional fire hose cabinets are provided at each level, and a third fire hose cabinet is provided at the corner of the highest point of the roof level. Overall, fire protection piping is in *'Good'* condition.

Fire extinguisher cabinets are provided throughout the garage, typically four per floor.

Plumbing

Very little storm drainage is in the garage, and it appears that storm drainage was designed to sheet drain back thru the structure. French drains are provided at the entrance/exit lanes into the garage. Some form of drainage may be present in the lowest level of parking, but this area was inaccessible during our review.

One restroom is present in the garage for use by staff, and is in *'Fair'* condition.

HVAC

Since the garage is an open structure, it is not mechanically ventilated. The existing elevator machine room and electrical room appear to be ventilated, but were not accessible during our review.

Electrical

Lighting in the garage has been previously upgraded. The original lighting system utilized metal halide or sodium pendent mounted fixtures on the lower levels. These fixtures have been replaced with 8'long by 6" wide single tube fluorescent fixtures with two T8 lamps. The fixtures do not have a lens but were provided with a wire cover, and are in *'Good'* condition. The average lighting level in the garage is 10 foot candles, with typical levels of 20 foot candles under a fixture and 5 foot candles away from fixtures.

The roof deck is illuminated with multiple twin shoe box type pole fixtures on 20 foot poles, which are in *'Fair'* condition.

11.4 Opinion of Construction Costs

Based on our current findings, experience with similar structures, and published data related to the expected service life cycles of the facility's components, we have projected the costs associated with our recommended repair and preventative maintenance program over the next 50 years. The applicable table in Appendix B presents our opinion of the construction costs for the next 50 years.

In developing our opinion of probable construction costs we have assumed that a contractor would have to perform repairs such that normal parking operations are not unduly affected by the work. The area allocated for repairs during a single phase would be large enough to permit efficient construction operations, but not so large to unnecessarily restrict garage operations.

The enclosed tables present the probable costs for implementation of the recommendations noted above and include the following:

- An allowance of 10% of the base contract work for mobilization, general conditions and miscellaneous work not otherwise specified.
- An allowance of 10% of the base contract work for a project contingency to account for unanticipated or unknown items that may arise prior to the work taking place.

- An allowance of 8% of the base contract work for engineering and testing fees associated with the work.

The following are not included:

- Costs for ADA modifications to the facility, if any
- Costs to obtain alternative parking for the duration of the project
- Costs for improvements or replacement of signage
- Costs for the remediation of any hazardous materials

12. QUALIFICATIONS

DESMAN Associates was retained to perform an assessment of the City of Los Angeles Parking Facilities. The conclusions, recommendations and opinion of costs presented in this report are based on discussions with personnel familiar with the property, our field observations, and our experience on similar projects.

It was not the intent of this survey to perform an exhaustive study to locate every existing defect. "Walk-through" observations were made by a trained professional but there may be defects at the facility that were not readily accessible, not visible or which were inadvertently overlooked. Other problems may develop with time that was not evident at the time of this survey.

Opinions of cost for repairs are approximations only and should not be interpreted as bids or offers to perform work. Actual costs can be affected by the extent of work done as one project, the quality of contractors used, the quality of materials chosen, and specific work conditions. These conditions are based on repair design criteria, which will not be known at the time of this report. Any opinions of cost originate from published data, historical experience on similar projects and/or conceptual estimates from contractors, as appropriate. More detailed proposals or bids should be obtained for actual construction budgets.

The following are **not** included in the cost tables of this report:

1. Costs for inflation and escalation.
2. Costs for operational items such light bulb replacement, janitorial services, equipment maintenance contracts, etc.
3. Costs for equipment maintenance contracts for vertical transportation.
4. Costs for revenue control system and security equipment changes.
5. Costs for abatement of hazardous material, if any.

Cost of an additional 10-15% if a single work item is divided over multiple years

APPENDIX A - PHOTOGRAPHIC DOCUMENTATION

DESMAN
ASSOCIATES

Lot 680 - Broxton Avenue Parking Structure

Photo 1 - Arrow denotes typical slab spall in cast-in-place concrete slab infill area

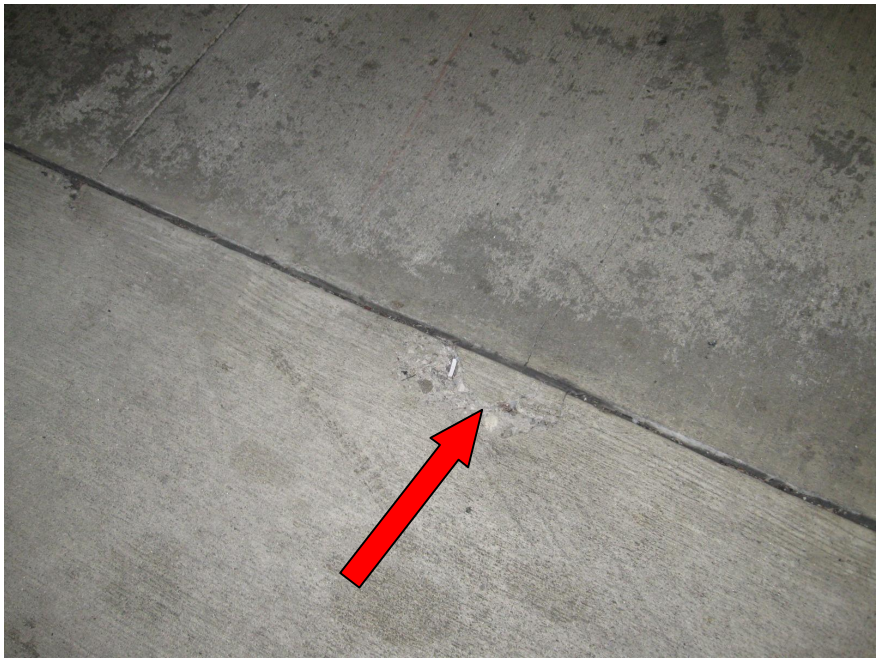


Photo 2 - Arrow denotes typical slab spall in cast-in-place concrete slab infill area

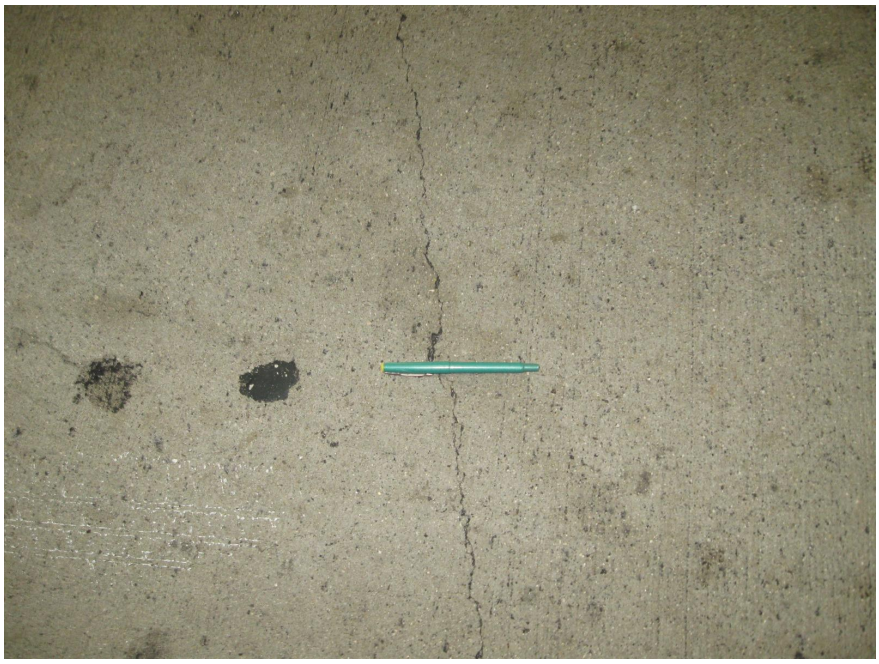


Photo 3 - Typical slab crack

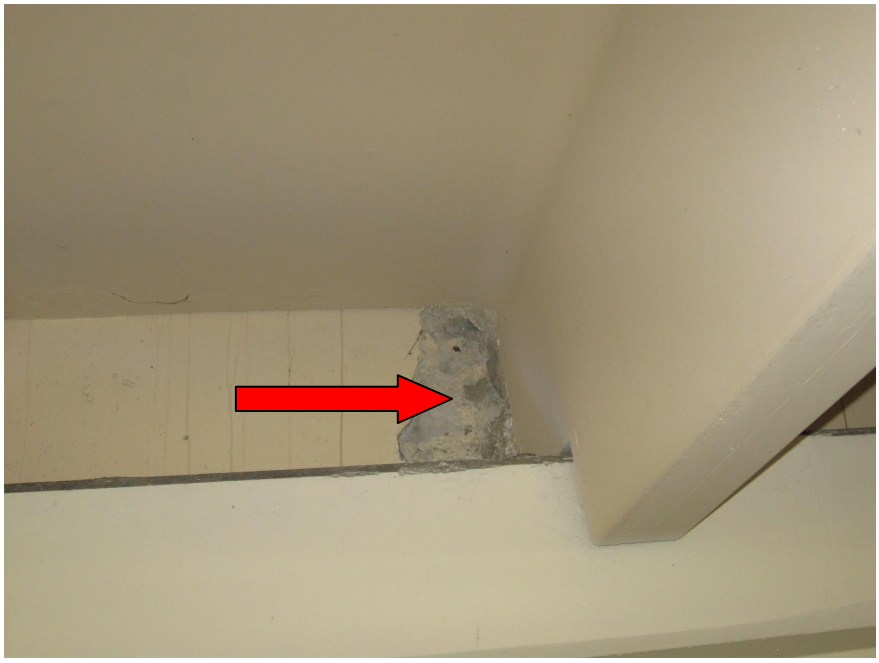


Photo 4 - Arrow denotes typical beam spall

Photo 5 - Typical wear and tear of waterproofing membrane at entrance and exit lanes

Photo 6 - Typical wear and tear of waterproofing membrane on Level 2 over retail space

Photo 7 - Typical poor condition of roof level waterproofing membrane

Photo 8 - Typical caulking conditions

Photo 9 - Arrow denotes stair tread and riser spalling

Photo 10 - Arrow denotes loosing nosing strip in stairwells

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Arc Light Parking Structure

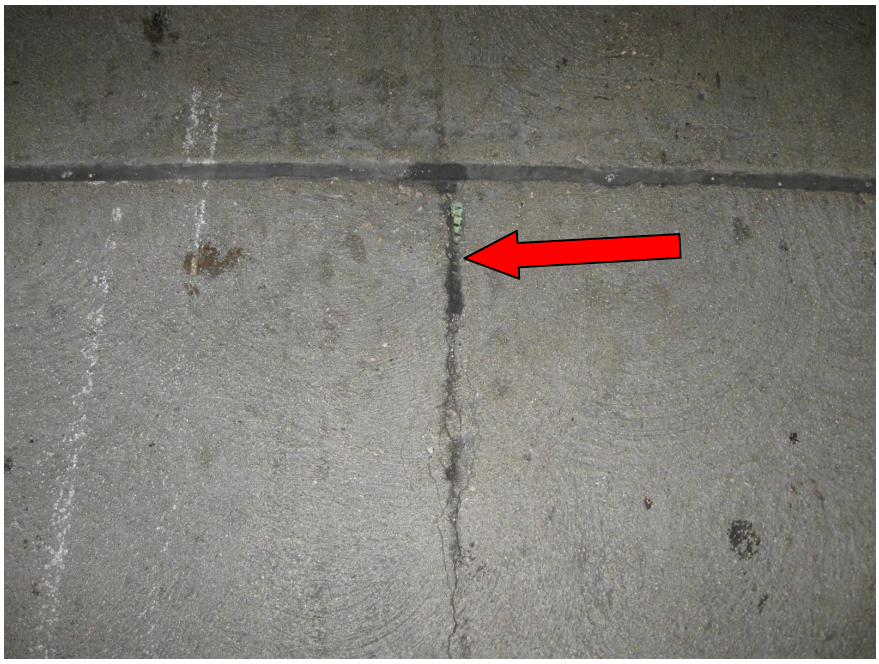

Photo 11 - Arrow denotes slab spall/delamination; not exposed reinforcing steel

Photo 12 - Typical slab cracking on roof level

Photo 13 - Spalling at interface between garage and plaza on Level 2

Photo 14 - Spalling at interface between garage and plaza on Level 2

Photo 15 - Typical condition of roof level pour strip waterproofing membrane

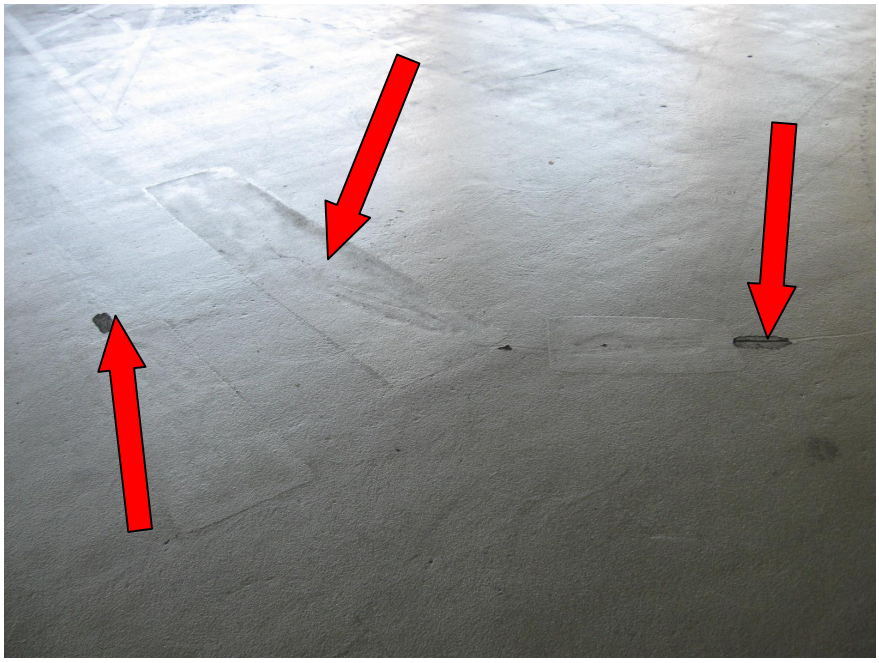

Photo 16 - Typical condition of Level 2 waterproofing membrane over occupied space; arrows denote de-bonded membrane

Photo 17 - Typical construction joint caulking condition

Photo 18 - Typical condition of stairwell cast-in-place treads; note random cracking

Photo 19 - Arrow denotes beam spalling at locations of apparent damage caused by oversized vehicles

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Pershing Square Parking Structure

Photo 20 - Arrow denotes typical slab spalling

Photo 2 - Arrow denotes slab spalling/delamination

Photo 22 - Typical slab spalling/delamination

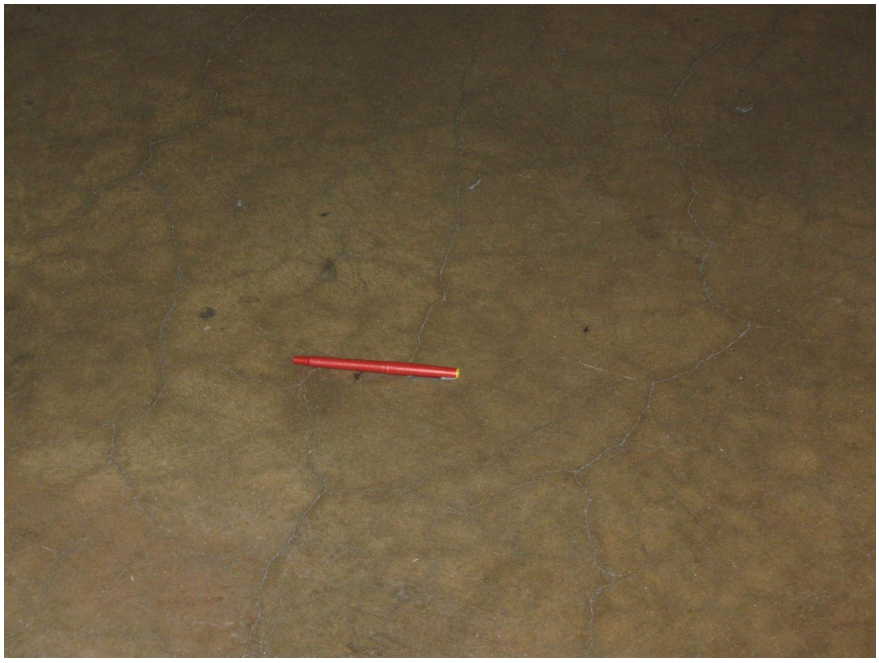

Photo 23 - Typical slab cracking

Photo 24 - Soffit spalling along construction joint

Photo 25 - Water leakage beneath entrance/exit ramps; arrow denotes beam spalling

Photo 26 - Typical leaking foundation wall cracking

Photo 27 - Typical leaking foundation wall cracking; note previous repairs in *'Poor'* condition

Photo 28 - Typical steel expansion joint assembly

Photo 29 - Signs of leakage and beam spalling directly beneath expansion joint assemblies

Photo 30 - Waterproofing membrane condition at entrance/exit ramps

Photo 31 - Lack of flashing of waterproofing membrane at vertical terminations

Photo 32 - Water leakage beneath entrance/exit ramps

Photo 33 - Typical condition of stairs; note minor corrosion and steepness of stairs

Photo 34 - Corrosion of stairwell steel components

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Lot 745 - Hollywood & Highland Parking Structure

Photo 35 - Arrow denotes typical cracking along column line 5

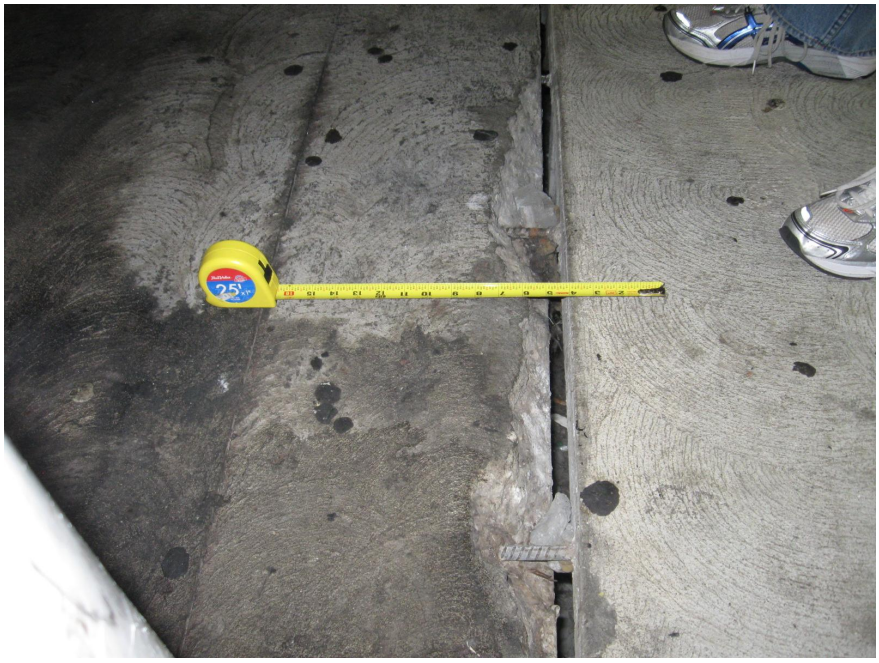

Photo 36 - Cracking along column line 5

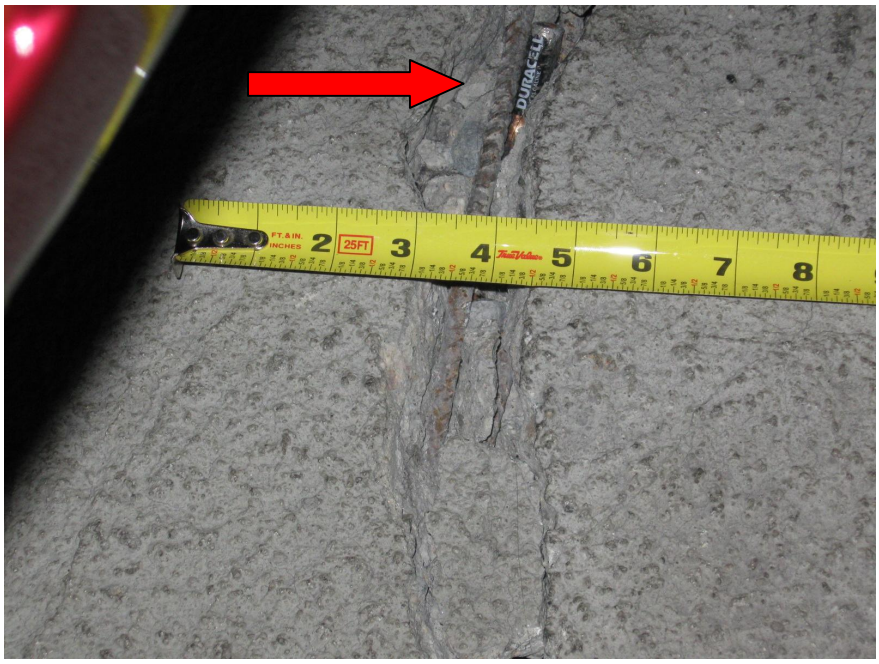

Photo 37 - Close-up of cracking along column line 5; arrow denotes spalling

Photo 38 - Cracking along column line 5; arrow denotes spalling

Photo 39 - Arrow denotes typical slab delamination

Photo 40 - Arrow denotes column spalling

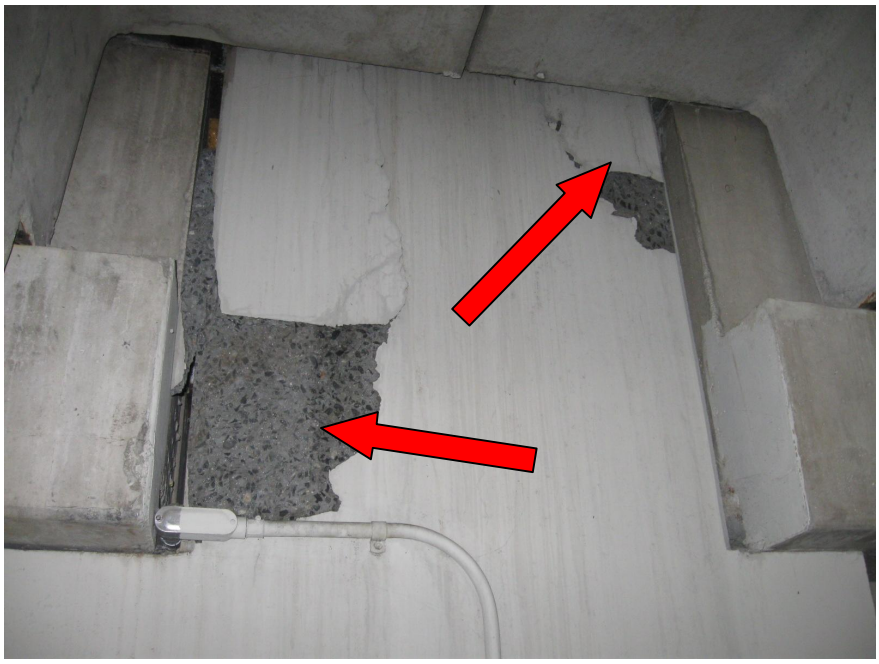

Photo 41 - Arrows denote column spalling

Photo 42 - Typical leaking foundation wall cracks

Photo 43 - Typical leaking foundation wall cracks

Photo 44 - Typical entrance ramp waterproofing membrane condition

Photo 45 - Typical entrance ramp waterproofing membrane condition

Photo 46 - Stairwell steel component corrosion

Photo 47 - Stairwell steel component corrosion

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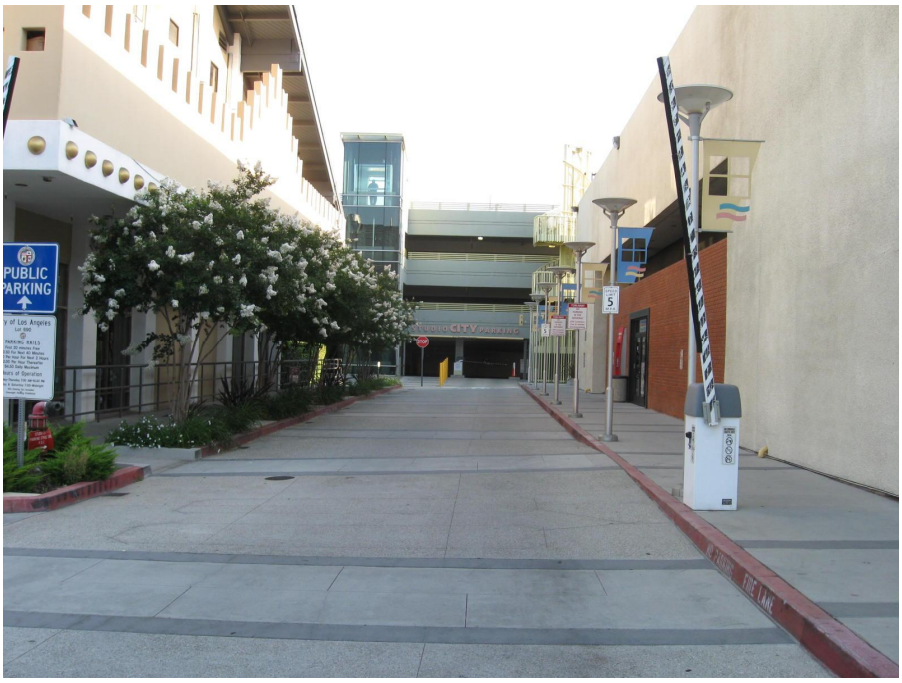
Lot 690 – Studio City Parking Structure



Photos 48 through 53 – Exterior views

Photo 49

Photo 50

Photo 51

Photo 52

Photo 53

Photo 54 – Level 4

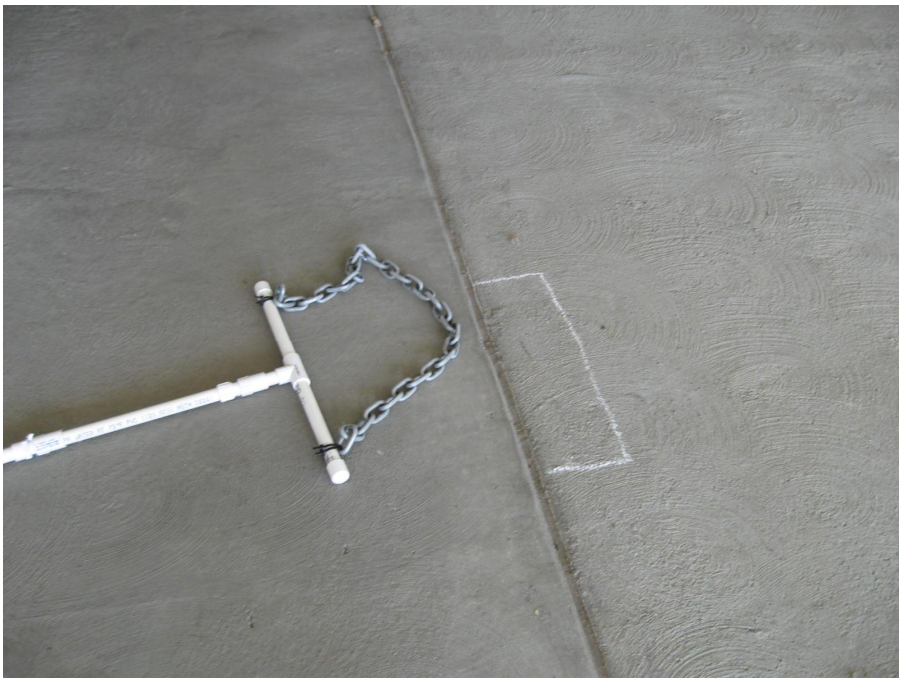
Photo 55 – Typical ramp configuration

Photo 56 – Level 4 cracks previously 'filled'

Photo 57

Photo 58 – Delaminated area found by chain drag

Photo 59



Photos 60 and 61 – Delaminated areas marked in field

Photo 61

Photo 62

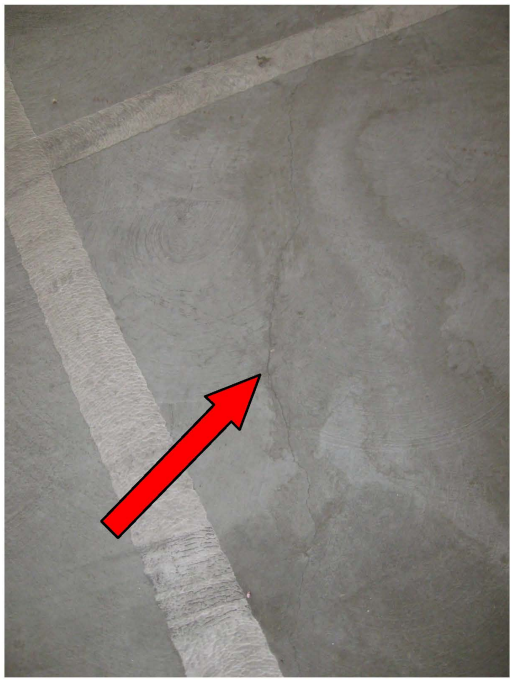


Photo 63 – Slab cracking

Photo 64 – Fall protection barriers

Photo 65

Photo 66 – Storage area under lower ramp

Photo 67 – Typical elevator vestibule

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Lot 601 – Friar Street Parking Structure

Photos 68 through 77 – Exterior views

Photo 69

Photo 70

Photo 71

Photo 72

Photo 73

Photo 74

Photo 75

Photo 76

Photo 77

Photo 78 – Typical upper level vehicle barriers

Photo 79 – Upper level

Photo 80 – Ramps interconnecting upper and lower levels

Photo 81 – Vehicular restraints

Photo 82 – Damaged curb

Photo 83 – Typical cracking at joints in upper level

Photos 84 and 85 – Damaged handrail

Photo 85

Photo 86 – Worn membrane

Photo 87 – Joint in concrete topping below membrane

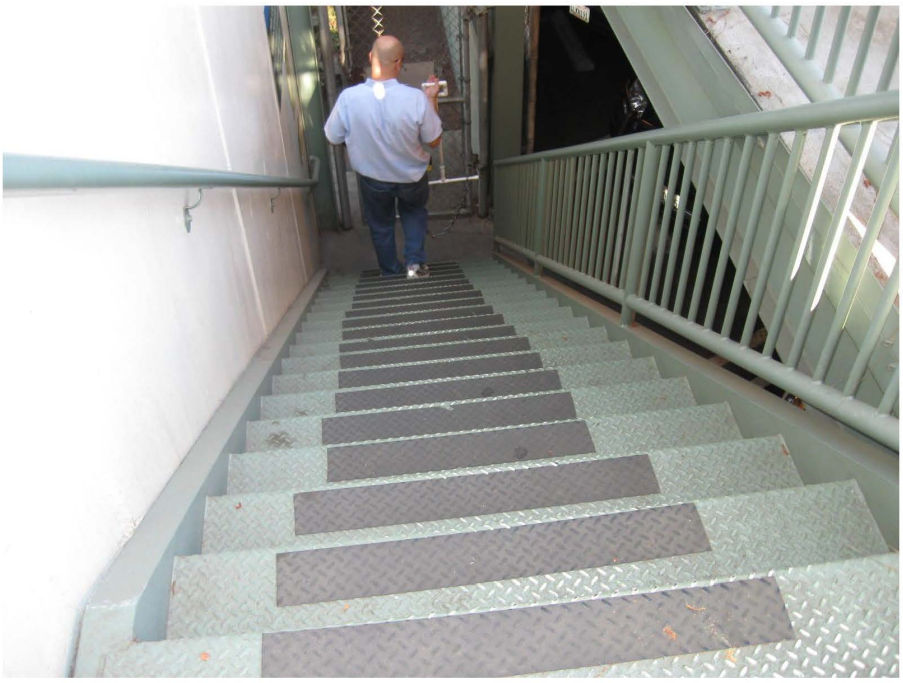

Photo 88

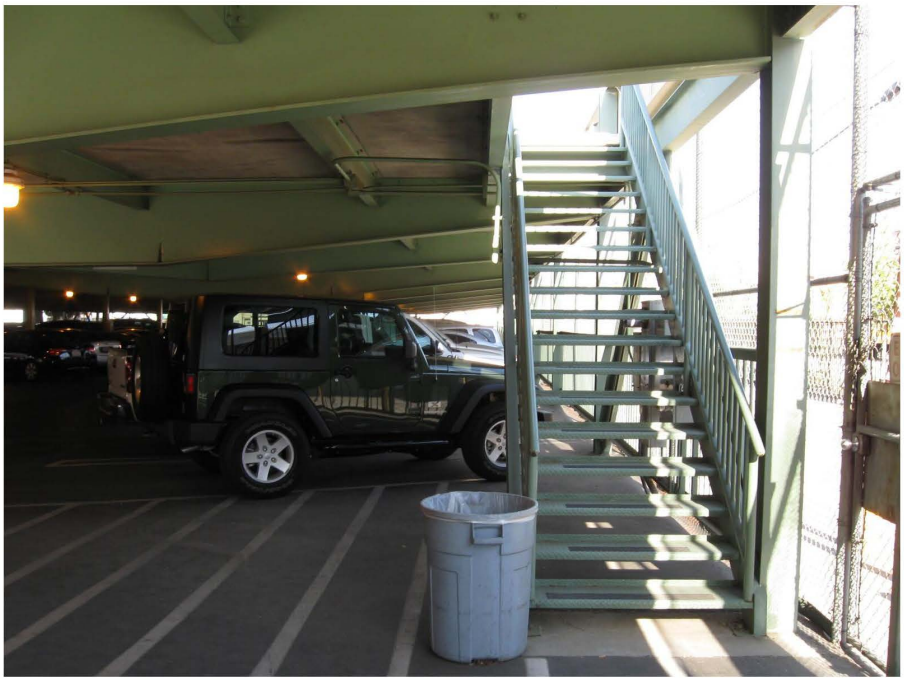

Photo 89

Photo 90 – View of underside of upper level

Photo 91

Photo 92 through 97 - Structural steel framing

Photo 93

Photo 94

Photo 95

Photo 96

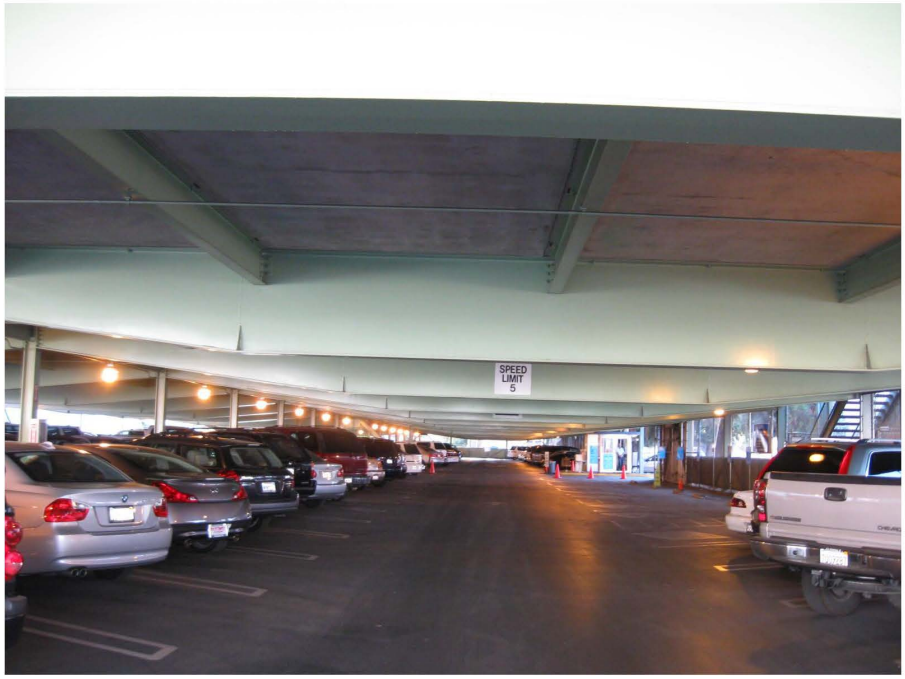

Photo 97

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Lot 629 – Dickens Street Parking Structure

Photo 98 through 101 – Exterior views

Photo 99

Photo 100

Photo 101

Photo 102 – Looking at Level 2 public parking area from uppermost portion

Photo 103 – Typical public parking floor

Photos 104 and 105 – Floor cracking

Photo 105

Photos 106 through 108 – thin overlay material

Photo 107

Photo 108

Photo 109 – Delaminated area adjacent to shear wall

Photo 110 – Slab cracking

Photo 111

Photo 112 – Lower level public entrance/exit

Photos 113 and 114 – Leaking slab cracks

Photo 114

Photo 115 – Typical stairwell

Photo 116

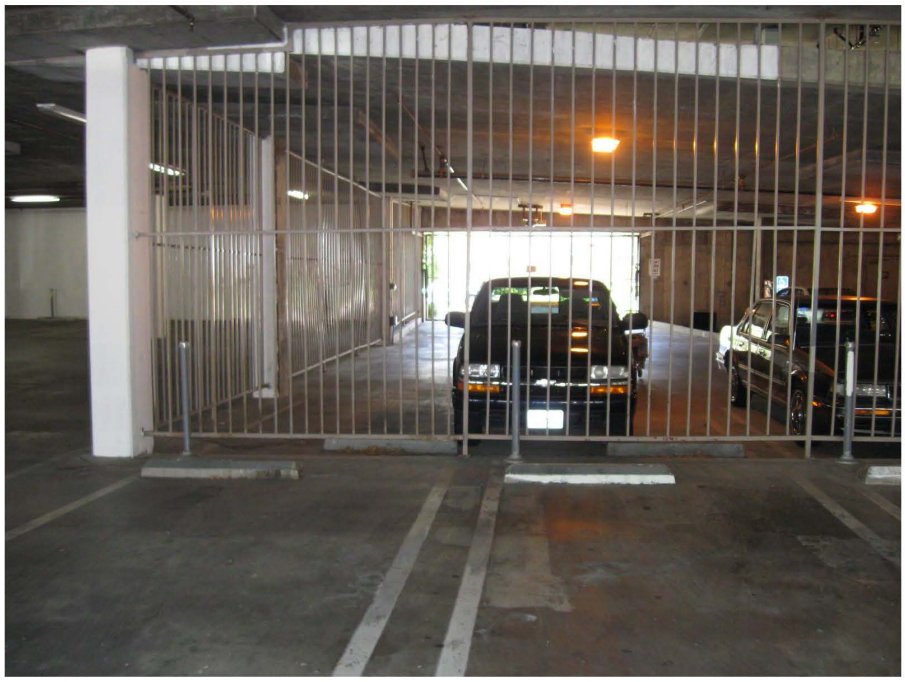

Photo 117 – Residents reserved parking area behind screen

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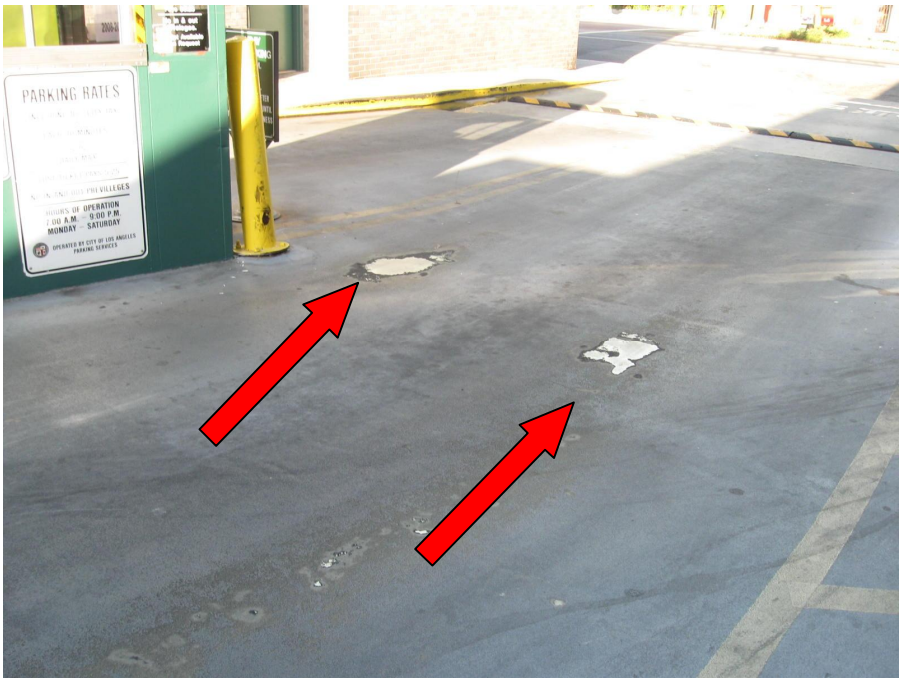
Lot 732 – Larchmont Blvd. Parking Structure

Photos 118 through 127 – Exterior views

Photo 119

Photo 120 – Commercial buildings along Larchmont

Photo 121



Photos 122 and 123 – Worn membrane

Photo 123

Photo 124

Photo 125

Photo 126 – Delaminated area is marked

Photo 127 – Ramp down to enclosed levels

Photo 128 – Typical underground levels

Photo 129

Photo 130 – Extensive slab cracking

Photo 131

Photo 132 – Beam framing

Photo 133

Photo 134 – Delaminated areas

Photo 135

Photo 136 – Delaminated area marked

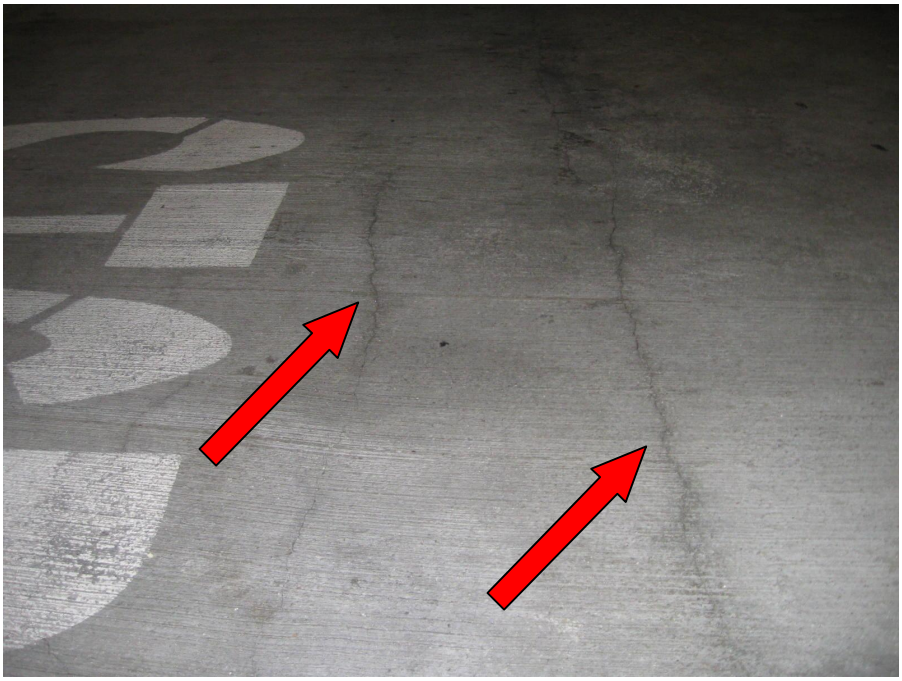


Photo 137 – Slab cracking

Photo 138

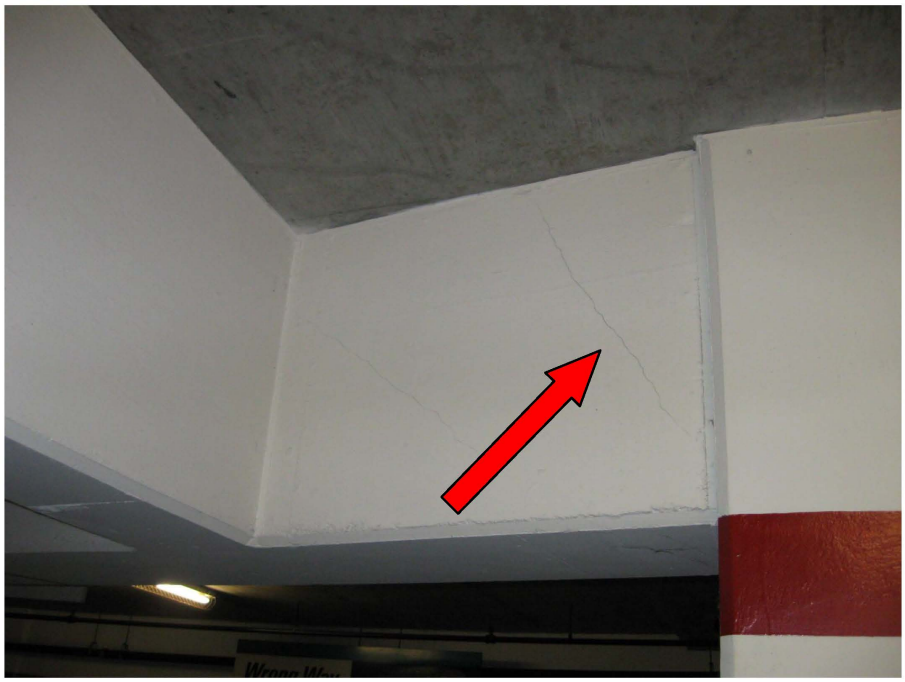


Photo 139 – Diagonal beam cracking

Photos 140 and 141 – Leaking cracks thru slab

Photo 141

Photo 142 – Slab cracking is highlighted in chalk

Photo 143 – Restraint cracking at corner

Photo 144 – Slab on grade level

Photo 145 – Note dark, ‘filled’ cracks

Photo 146 – Thru-slab cracking

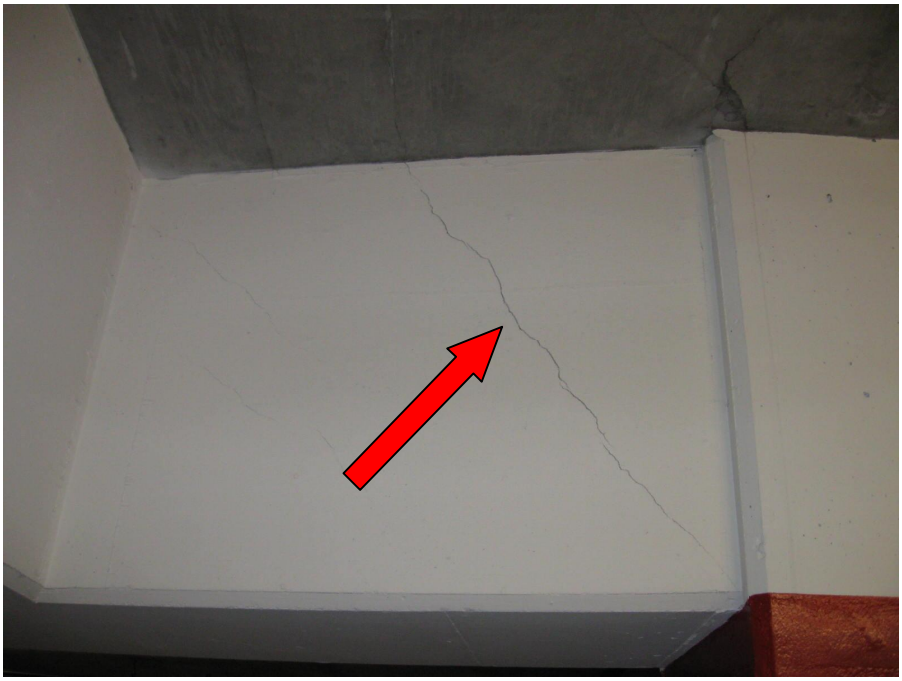


Photo 147 – Beam cracking

Photo 148 – Thru slab cracking

Photo 149 – Thru slab cracking

Photo 150 – Stairwell up to street

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Lot 703 – Robertson Blvd. Parking Structure

Photos 151 through 156 – Exterior views

Photo 152

Photo 153 – Elevators at street level

Photo 154

Photo 155

Photo 156

Photo 157 – Slab on grade

Photo 158

Photo 159 – Cleanliness of B2 level

Photo 160 – Termination of waterproofing membrane system

Photos 161 through 164 – Double tee component of struct. system

Photo 162

Photo 163

Photo 164

Photo 165 – Cast in place portion at end ramps

Photo 166 – same as photo above

Photo 167 – Typical floor layout

Photo 168 – same as above

Photo 169 – Excellent condition of membrane over tee joint

Photo 170 through 172 – Poor condition of membrane over tee joint

Photo 171

Photo 172

Photo 173 – Worn membrane at entrance

Photo 174 through 178 - Poor condition of membrane over tee joint

Photo 175

Photo 176

Photo 177

Photo 178

Photo 179 - Stairwell

Photo 180 – Excellent condition of stairwell

Photo 181

Photo 182

Photo 183 – Electric car charging station

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Lot 670 – Cherokee Ave Parking Structure

Photos 184 through 191 – Exterior views

Photo 185

Photo 186

Photo 187

Photo 188

Photo 189

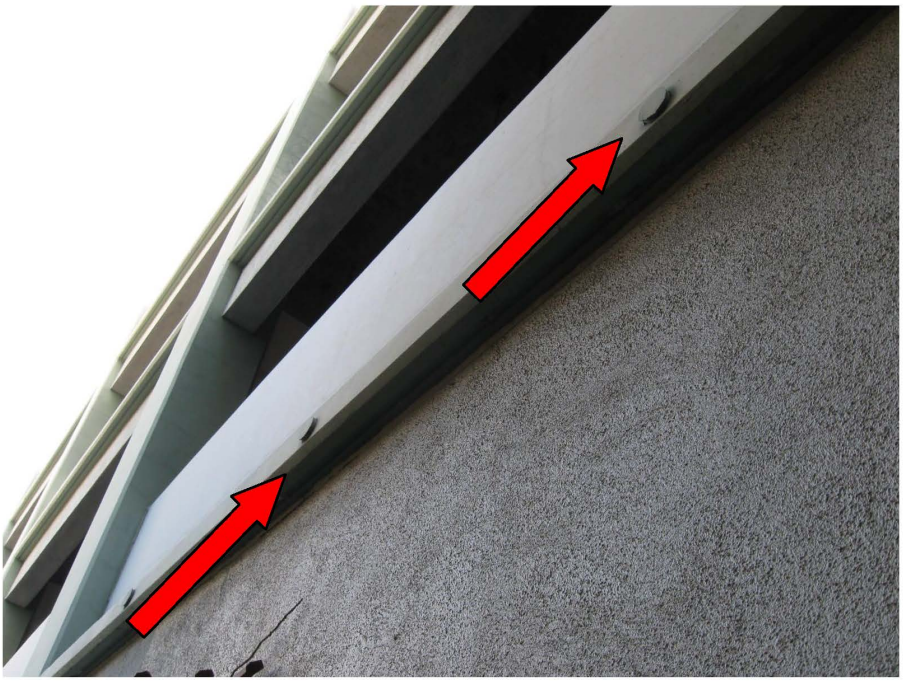

Photo 190

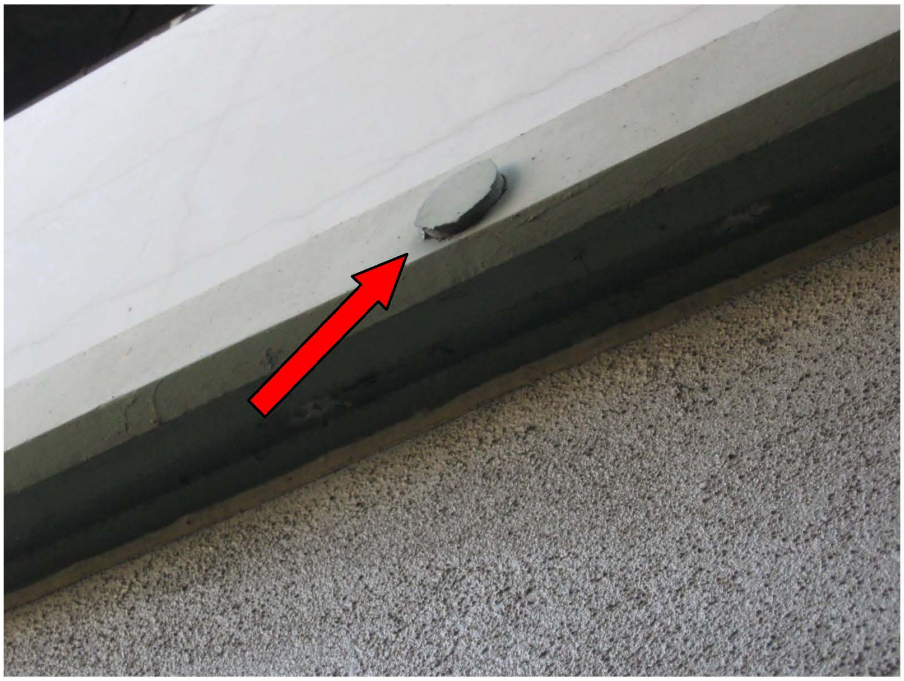

Photo 191

Photo 192 – Commercial space

Photo 193

Photo 194 – Entrance/exit lane to reserved area

Photo 195 – Reserved parking area

Photo 196 – Elevator vestibule

Photo 197 – City trucks parked on Level 1

Photo 198 – Main entrance/exit lanes

Photos 199 through 201 – Typical structural framing

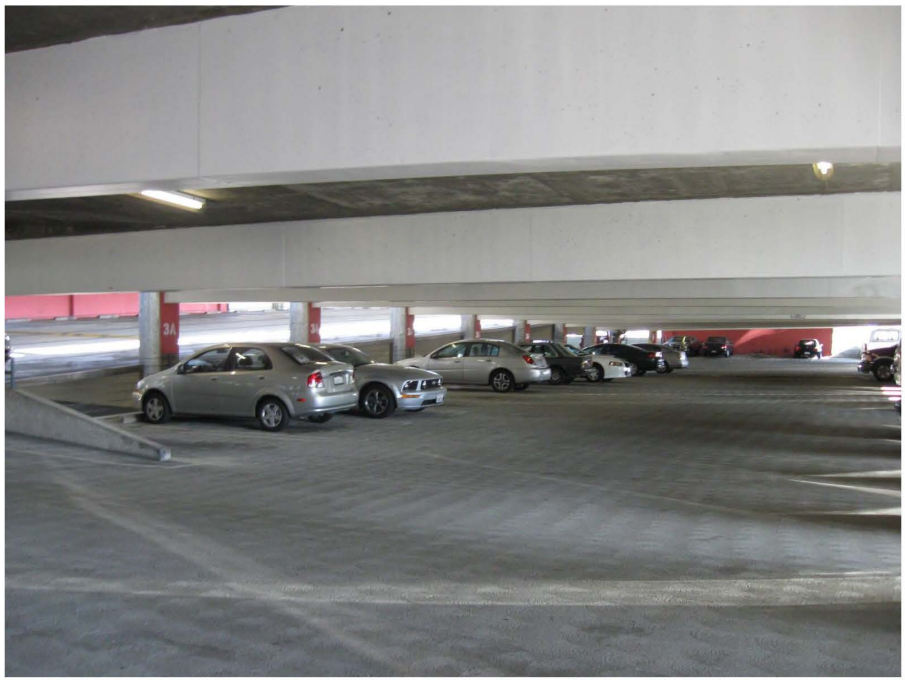

Photo 200

Photo 201

Photo 202 through 204 – Typical water ponding areas

Photo 203

Photo 204

Photo 205 – Broken barrier cable

Photo 206 – Worn membrane on roof

Photo 207 – Worn membrane on roof

Photo 208 – Misc. metals

Photo 209 – Misc. metals

Photo 210 – Stairwell to be painted

Photo 211 – Elevator vestibule

APPENDIX B - OPINION OF CONSTRUCTION COSTS

DESMAN
ASSOCIATES

Lot 680 - Broxton Avenue Parking Structure

Los Angeles, California

OPINION OF EXPECTED CONSTRUCTION COST - NOVEMBER 2009

ITEM	DESCRIPTION	YEARS 1 TO 5	YEARS 6 TO 10	YEARS 11-20	YEARS 21-30	YEARS 31- 50
	Structural/Waterproofing	**$265,000**	**$63,000**	**$78,000**	**$250,000**	**$145,000**
1	Partial Depth Slab Repairs	$20,000	$5,000	$8,000	$10,000	$20,000
2	Partial Depth Vertical/Overhead Concrete Repairs	$5,000	$3,000	$5,000	$5,000	$15,000
3	Control Joint Caulking Replacement and Rout and Caulk Slab Cracking	$50,000	$50,000	$10,000	$50,000	$50,000
4	Re-Coat Existing Waterproofing Membrane	$175,000	$0	$50,000	$175,000	$50,000
5	Foundation Wall Leak Mitigation	$15,000	$5,000	$5,000	$10,000	$10,000
	Architectural	**$30,000**	**$25,000**	**$55,000**	**$235,000**	**$80,000**
6	Replace Operating Equipment (Overhead Doors, Restroom Fixtures, etc.)	$20,000	$20,000	$40,000	$80,000	$50,000
7	Miscellaneous Painting and Striping	$10,000	$5,000	$15,000	$15,000	$30,000
8	Repair/Replace Elevators	$0	$0	$0	$140,000	$0
	Mechanical	**$10,000**	**$0**	**$188,000**	**$0**	**$195,000**
9	Replace/Repair Ventilation Fans	$0	$0	$175,000	$0	$175,000
10	Replace/Repair Condensing Units	$5,000	$0	$5,000	$0	$10,000
11	Replace/Repair Plumbing Fixtures	$0	$0	$3,000	$0	$0
12	Replace/Repair Sump Pumps	$5,000	$0	$5,000	$0	$10,000
	Electrical	**$0**	**$0**	**$330,000**	**$0**	**$195,000**
13	Replace/Repair Lighting Fixtures	$0	$0	$120,000	$0	$120,000
14	Replace/Repair Exit & Egress Fixtures	$0	$0	$150,000	$0	$15,000
15	Replace/Repair Distribution Equipment	$0	$0	$60,000	$0	$60,000
	Fire Protection	**$0**	**$0**	**$18,000**	**$0**	**$18,000**
16	Replace/Repair Fire Alarm System	$0	$0	$18,000	$0	$18,000
	SUB-TOTAL	**$305,000**	**$88,000**	**$669,000**	**$485,000**	**$633,000**
	Mobilization, General Conditions, & Miscellaneous Work @ 10%	$31,000	$9,000	$67,000	$49,000	$63,000
	Contingencies @ 10%	$31,000	$9,000	$67,000	$49,000	$63,000
	Allowance for Engineering and Testing Fees @ 8%	$24,000	$7,000	$54,000	$39,000	$51,000
	GRAND TOTAL	**$391,000**	**$113,000**	**$857,000**	**$622,000**	**$810,000**

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Notes

1) Costs are expressed in 2009 dollars. Inflation and escalation have not been included in the cost estimates.

2) The figures are exclusive of annual budgets for operational issues such as light bulb replacement, janitorial services, equipment maintenance contracts, etc.

3) The figures are exclusive of revenue control system and security equipment changes, and any abatement of hazardous materials.

4) We estimate an additional cost of 10% to 15% if a single work item is divided over multiple years (Not included in the above cost estimate table).

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ASSOCIATES

Arc Light Parking Structure (Cinerama Dome)

Los Angeles, California

OPINION OF EXPECTED CONSTRUCTION COST - NOVEMBER 2009

ITEM	DESCRIPTION	YEARS 1 TO 5	YEARS 6 TO 10	YEARS 11-20	YEARS 21-30	YEARS 31- 50
	Structural/Waterproofing	**$120,000**	**$185,000**	**$146,000**	**$260,000**	**$200,000**
1	Partial Depth Slab Repairs	$15,000	$5,000	$10,000	$15,000	$25,000
2	Partial Depth Vertical/Overhead Concrete Repairs	$5,000	$5,000	$8,000	$10,000	$15,000
3	Rout and Caulk Slab Cracking	$30,000	$30,000	$10,000	$10,000	$25,000
4	Re-Coat Existing Waterproofing Membrane	$60,000	$0	$100,000	$200,000	$100,000
5	New Waterproofing Membrane Installation at Construction Joints and Pour Strips	$0	$135,000	$0	$0	$0
6	Expansion Joint Seal Installation/Repairs/Replacement	$10,000	$0	$3,000	$10,000	$5,000
7	Allowance for Post-Tensioning Repairs	$0	$10,000	$15,000	$15,000	$30,000
	Architectural	**$20,000**	**$20,000**	**$80,000**	**$680,000**	**$110,000**
8	Replace Operating Equipment (Overhead Doors, Restroom Fixtures, etc.)	$10,000	$10,000	$50,000	$100,000	$50,000
9	Miscellaneous Painting and Striping	$10,000	$10,000	$30,000	$30,000	$60,000
10	Repair/Replace Elevators	$0	$0	$0	$550,000	$0
	Mechanical	**$0**	**$13,000**	**$20,000**	**$13,000**	**$23,000**
11	Replace/Repair Ventilation Fans	$0	$0	$10,000	$0	$10,000
12	Replace/Repair Condensing Units	$0	$13,000	$0	$13,000	$13,000
13	Replace/Repair Plumbing Fixtures	$0	$0	$10,000	$0	$0
	Electrical	**$0**	**$0**	**$0**	**$870,000**	**$0**
14	Replace/Repair Lighting Fixtures	$0	$0	$0	$760,000	$0
15	Replace/Repair Exit & Egress Fixtures	$0	$0	$0	$10,000	$0
16	Replace/Repair Distribution Equipment	$0	$0	$0	$100,000	$0
	Fire Protection	**$0**	**$0**	**$0**	**$20,000**	**$0**
17	Replace/Repair Fire Alarm System	$0	$0	$0	$20,000	$0
	SUB-TOTAL	**$140,000**	**$218,000**	**$246,000**	**$1,843,000**	**$333,000**
	Mobilization, General Conditions, & Miscellaneous Work @ 10%	$14,000	$22,000	$25,000	$184,000	$33,000
	Contingencies @ 10%	$14,000	$22,000	$25,000	$184,000	$33,000
	Allowance for Engineering and Testing Fees @ 8%	$11,000	$17,000	$20,000	$147,000	$27,000
	GRAND TOTAL	**$179,000**	**$279,000**	**$316,000**	**$2,358,000**	**$426,000**

Notes

1) Costs are expressed in 2009 dollars. Inflation and escalation have not been included in the cost estimates.

2) The figures are exclusive of annual budgets for operational issues such as light bulb replacement, janitorial services, equipment maintenance contracts, etc.

3) The figures are exclusive of revenue control system and security equipment changes, and any abatement of hazardous materials.

4) We estimate an additional cost of 10% to 15% if a single work item is divided over multiple years (Not included in the above cost estimate table).

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ASSOCIATES

Pershing Square Parking Structure

Los Angeles, California

OPINION OF EXPECTED CONSTRUCTION COST - NOVEMBER 2009

ITEM	DESCRIPTION	YEARS 1 TO 5	YEARS 6 TO 10	YEARS 11-20	YEARS 21-30	YEARS 31- 50
	Structural/Waterproofing	**$575,000**	**$75,000**	**$270,000**	**$440,000**	**$455,000**
1	Partial Depth Slab Repairs	$100,000	$30,000	$40,000	$50,000	$100,000
2	Partial Depth Vertical/Overhead Concrete Repairs	$75,000	$20,000	$30,000	$40,000	$80,000
3	Construction Joint Caulking Replacement	$50,000	$0	$50,000	$50,000	$100,000
4	Re-Coat Existing Waterproofing Membrane	$200,000	$0	$100,000	$200,000	$100,000
5	Expansion Joint Seal Repairs/Replacement	$75,000	$0	$25,000	$75,000	$25,000
6	Foundation Wall Leak Mitigation	$75,000	$25,000	$25,000	$25,000	$50,000
	Architectural	**$105,000**	**$105,000**	**$1,790,000**	**$300,000**	**$250,000**
7	Replace Operating Equipment (Overhead Doors, Restroom Fixtures, etc.)	$75,000	$75,000	$100,000	$200,000	$100,000
8	Miscellaneous Painting and Striping	$30,000	$30,000	$60,000	$100,000	$150,000
9	Repair/Replace Escalators	$0	$0	$1,500,000	$0	$0
10	Repair/Replace Elevators	$0	$0	$130,000	$0	$0
	Mechanical	**$0**	**$483,000**	**$475,000**	**$23,000**	**$483,000**
11	Replace/Repair Ventilation Fans	$0	$460,000	$0	$0	$460,000
12	Replace/Repair Condensing Units	$0	$8,000	$0	$8,000	$8,000
13	Replace/Repair Storm Piping & Plumbing Fixtures	$0	$0	$475,000	$0	$0
14	Replace/Repair Sump Pumps	$0	$15,000	$0	$15,000	$15,000
	Electrical	**$0**	**$65,000**	**$100,000**	**$595,000**	**$65,000**
15	Replace/Repair Lighting Fixtures	$0	$0	$0	$560,000	$0
16	Replace/Repair Exit & Egress Fixtures	$0	$0	$0	$35,000	$0
17	Replace/Repair Distribution Equipment	$0	$65,000	$100,000	$0	$65,000
	Fire Protection	**$0**	**$45,000**	**$765,000**	**$0**	**$45,000**
18	Replace/Repair Fire Alarm System	$0	$45,000	$0	$0	$45,000
19	Replace/Repair Fire Sprinkler System	$0	$0	$765,000	$0	$0
	SUB-TOTAL	**$680,000**	**$773,000**	**$3,400,000**	**$1,358,000**	**$1,298,000**
	Mobilization, General Conditions, & Miscellaneous Work @ 10%	$68,000	$77,000	$340,000	$136,000	$130,000
	Contingencies @ 10%	$68,000	$77,000	$340,000	$136,000	$130,000
	Allowance for Engineering and Testing Fees @ 8%	$54,000	$62,000	$272,000	$109,000	$104,000
	GRAND TOTAL	**$870,000**	**$989,000**	**$4,352,000**	**$1,739,000**	**$1,662,000**

Notes

1) Costs are expressed in 2009 dollars. Inflation and escalation have not been included in the cost estimates.

2) The figures are exclusive of annual budgets for operational issues such as light bulb replacement, janitorial services, equipment maintenance contracts, etc.

3) The figures are exclusive of revenue control system and security equipment changes,and any abatement of hazardous materials.

4) We estimate an additional cost of 10% to 15% if a single work item is divided over multiple years (Not included in the above cost estimate table).

5) The figures are exclusive of repairs and/or upgrades to plaza areas, park areas, and roadways above the parking structure.

DESMAN
ASSOCIATES

Lot 745 - Hollywood and Highland Parking Structure

Los Angeles, California

OPINION OF EXPECTED CONSTRUCTION COST - NOVEMBER 2009

ITEM	DESCRIPTION	YEARS 1 TO 5	YEARS 6 TO 10	YEARS 11-20	YEARS 21-30	YEARS 31- 50
	Structural/Waterproofing	**$760,000**	**$25,000**	**$135,000**	**$360,000**	**$205,000**
1	Full Depth Concrete Topping Slab Repairs	$350,000[6]	$10,000	$15,000	$20,000	$50,000
2	Partial Depth Vertical/Overhead Concrete Repairs	$50,000	$5,000	$10,000	$15,000	$25,000
3	New Waterproofing Membrane Installation	$50,000	$0	$0	$0	$0
4	Re-Coat Existing Waterproofing Membrane	$60,000	$0	$50,000	$110,000	$50,000
5	Expansion Joint Seal Installation/Repairs	$200,000	$0	$50,000	$200,000	$50,000
6	Foundation Wall Leak Mitigation	$50,000	$10,000	$10,000	$15,000	$30,000
	Architectural	**$55,000**	**$55,000**	**$140,000**	**$5,225,000**	**$225,000**
7	Replace Operating Equipment (Overhead Doors, Restroom Fixtures, etc.)	$30,000	$30,000	$80,000	$200,000	$150,000
8	Miscellaneous Painting and Striping	$25,000	$25,000	$60,000	$100,000	$75,000
9	Repair/Replace Escalators	$0	$0	$0	$4,500,000	$0
10	Repair/Replace Elevators	$0	$0	$0	$425,000	$0
	Mechanical	**$0**	**$75,000**	**$10,000**	**$475,000**	**$85,000**
11	Replace/Repair Ventilation Fans	$0	$0	$0	$400,000	$0
12	Replace/Repair Condensing Units	$0	$15,000	$0	$15,000	$15,000
13	Replace/Repair Plumbing Fixtures	$0	$0	$10,000	$0	$10,000
14	Replace/Repair Sump Pumps	$0	$60,000	$0	$60,000	$60,000
	Electrical	**$0**	**$0**	**$0**	**$1,220,000**	**$0**
15	Replace/Repair Lighting Fixtures	$0	$0	$0	$900,000	$0
16	Replace/Repair Exit & Egress Fixtures	$0	$0	$0	$45,000	$0
17	Replace/Repair Duress Stations	$0	$0	$0	$75,000	$0
18	Replace/Repair Distribution Equipment	$0	$0	$0	$200,000	$0
	Fire Protection	**$0**	**$0**	**$0**	**$95,000**	**$0**
19	Replace/Repair Fire Alarm System	$0	$0	$0	$95,000	$0
	SUB-TOTAL	**$815,000**	**$155,000**	**$285,000**	**$7,375,000**	**$515,000**
	Mobilization, General Conditions, & Miscellaneous Work @ 10%	$82,000	$16,000	$29,000	$738,000	$52,000
	Contingencies @ 10%	$82,000	$16,000	$29,000	$738,000	$52,000
	Allowance for Engineering and Testing Fees @ 8%	$65,000	$12,000	$23,000	$590,000	$41,000
	GRAND TOTAL	**$1,044,000**	**$199,000**	**$366,000**	**$9,441,000**	**$660,000**

Notes

1) Costs are expressed in 2009 dollars. Inflation and escalation have not been included in the cost estimates.

2) The figures are exclusive of annual budgets for operational issues such as light bulb replacement, janitorial services, equipment maintenance contracts, etc.

3) The figures are exclusive of revenue control system and security equipment changes, and any abatement of hazardous materials.

4) We estimate an additional cost of 10% to 15% if a single work item is divided over multiple years (Not included in the above cost estimate table).

5) The figures are exclusive of repairs and/or upgrades to plaza areas, retail spaces, and roadways above the parking structure.

6) Includes repairs to topping slab and creation of block-out along expansion joint seal location.

DESMAN
ASSOCIATES

Lot 690 - Studio City Parking Structure

Los Angeles, California

OPINION OF EXPECTED CONSTRUCTION COST - NOVEMBER 2009

ITEM	DESCRIPTION	YEARS 1 TO 5	YEARS 6 TO 10	YEARS 11-20	YEARS 21-30	YEARS 31- 50
	Structural/Waterproofing	**$22,000**	**$10,000**	**$15,000**	**$30,000**	**$46,000**
1	Partial Depth Slab Repairs	$1,500	$1,000	$1,000	$1,000	$2,000
2	Partial Depth Vertical/Overhead Concrete Repairs	$0	$1,500	$1,500	$1,500	$3,000
3	Rout and Caulk Slab Cracking	$5,500	$2,500	$2,500	$2,500	$6,000
4	Install Waterproofing Membrane over Construction Joints	$15,000	$0	$0	$15,000	$15,000
5	Re-Coat Worn Waterproofing Membrane	$0	$5,000	$5,000	$5,000	$10,000
6	Allowance for Post-Tensioning Repairs	$0	$0	$5,000	$5,000	$10,000
	Architectural	**$0**	**$5,000**	**$117,000**	**$188,000**	**$120,000**
7	Miscellaneous Metal Painting and Striping	$0	$3,000	$105,000	$3,000	$100,000
8	Replace Operating Equip. (Overhead Doors, restroom fixtures, etc.) as needed	$0	$0	$10,000	$50,000	$10,000
9	Barrier Cable Repairs	$0	$2,000	$2,000	$5,000	$10,000
10	Repair/Replace Elevators	$0	$0	$0	$130,000	$0
	Mechanical	**$0**	**$3,000**	**$3,000**	**$6,000**	**$9,000**
11	Replace/Repair Ventilation Fans	$0	$0	$0	$3,000	$3,000
12	Replace/Repair Condensing Units	$0	$3,000	$0	$3,000	$3,000
13	Replace/Repair Plumbing Fixtures	$0	$0	$3,000	$0	$3,000
	Electrical	**$0**	**$0**	**$60,000**	**$100,000**	**$100,000**
14	Replace/Repair Lighting Fixtures	$0	$0	$0	$100,000	$100,000
15	Replace/Repair Distribution Equipment	$0	$0	$60,000	$0	$0
	Fire Protection	**$0**	**$0**	**$0**	**$15,000**	**$15,000**
16	Replace/Repair Fire Alarm System	$0	$0	$0	$15,000	$15,000
	SUB-TOTAL	**$22,000**	**$18,000**	**$195,000**	**$339,000**	**$290,000**
	Mobilization, General Conditions, & Miscellaneous Work @ 10%	$2,000	$2,000	$20,000	$34,000	$29,000
	Contingencies @ 10%	$2,000	$2,000	$20,000	$34,000	$29,000
	Allowance for Engineering and Testing Fees @ 8%	$2,000	$1,000	$16,000	$27,000	$23,000
	GRAND TOTAL	**$28,000**	**$23,000**	**$251,000**	**$434,000**	**$371,000**

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Notes

1) Costs are expressed in 2009 dollars. Inflation and escalation have not been included in the cost estimates.

2) The figures are exclusive of annual budgets for operational issues such as light bulb replacement, janitorial services, equipment maintenance contracts, etc.

3) The figures are exclusive of revenue control system and security equipment changes, and any abatement of hazardous materials.

4) We estimate an additional cost of 10% to 15% if a single work item is divided over multiple years (Not included in the above cost estimate table).

DESMAN
ASSOCIATES

Lot 601 - Friar Street Parking Structure

Los Angeles, California

OPINION OF EXPECTED CONSTRUCTION COST - NOVEMBER 2009

ITEM	DESCRIPTION	YEARS 1 TO 5	YEARS 6 TO 10	YEARS 11-20	YEARS 21-30	YEARS 31- 50
	Structural/Waterproofing	**$8,000**	**$53,000**	**$178,000**	**$253,500**	**$168,000**
1	Partial Depth Slab/Curb Repairs	$1,000	$2,000	$2,000	$2,000	$5,000
2	Partial Depth Vertical/Overhead Concrete Repairs	$0	$1,000	$1,000	$1,500	$3,000
3	Rout and Fill Asphalt Cracking	$0	$2,000	$2,000	$2,000	$5,000
4	Re-Pave Lower Level	$0	$0	$20,000	$200,000	$0
5	Rout and Caulk Slab Cracking	$5,000	$3,000	$3,000	$3,000	$5,000
6	Re-Coat Worn Waterproofing Membrane	$2,000	$45,000	$150,000	$45,000	$150,000
	Architectural	**$6,000**	**$7,000**	**$111,000**	**$19,000**	**$126,000**
7	Line Striping	$2,000	$0	$2,000	$2,000	$4,000
8	Replace Operating Equip. (Overhead Doors, restroom fixtures, etc.) as needed	$0	$5,000	$5,000	$10,000	$10,000
9	Handrail Repairs	$2,000	$2,000	$2,000	$5,000	$10,000
10	Install Pipe Bollards	$2,000	$0	$2,000	$2,000	$2,000
11	Structural Steel Painting	$0	$0	$100,000	$0	$100,000
	Mechanical	**$0**	**$1,000**	**$3,000**	**$1,000**	**$1,000**
12	Replace/Repair Ventilation Fans	$0	$1,000	$0	$1,000	$1,000
13	Replace/Repair Plumbing Fixtures	$0	$0	$3,000	$0	$0
	Electrical	**$0**	**$57,000**	**$0**	**$0**	**$57,000**
14	Replace/Repair Lighting Fixtures	$0	$42,000	$0	$0	$42,000
15	Replace/Repair Distribution Equipment	$0	$15,000	$0	$0	$15,000
	Fire Protection	**$0**	**$5,000**	**$0**	**$0**	**$5,000**
16	Replace/Repair Fire Alarm System	$0	$5,000	$0	$0	$5,000
	SUB-TOTAL	**$14,000**	**$123,000**	**$292,000**	**$273,500**	**$357,000**
	Mobilization, General Conditions, & Miscellaneous Work @ 10%	$1,000	$12,000	$29,000	$27,000	$36,000
	Contingencies @ 10%	$1,000	$12,000	$29,000	$27,000	$36,000
	Allowance for Engineering and Testing Fees @ 8%	$1,000	$10,000	$23,000	$22,000	$29,000
	GRAND TOTAL	**$17,000**	**$157,000**	**$373,000**	**$349,500**	**$458,000**

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Notes

1) Costs are expressed in 2009 dollars. Inflation and escalation have not been included in the cost estimates.

2) The figures are exclusive of annual budgets for operational issues such as light bulb replacement, janitorial services, equipment maintenance contracts, etc.

3) The figures are exclusive of revenue control system and security equipment changes, and any abatement of hazardous materials.

4) We estimate an additional cost of 10% to 15% if a single work item is divided over multiple years (Not included in the above cost estimate table).

DESMAN
ASSOCIATES

Lot 629 - Dickens Street Parking Structure

Los Angeles, California

OPINION OF EXPECTED CONSTRUCTION COST - NOVEMBER 2009

ITEM	DESCRIPTION	YEARS 1 TO 5	YEARS 6 TO 10	YEARS 11-20	YEARS 21-30	YEARS 31- 50
	Structural/Waterproofing	**$4,000**	**$153,000**	**$9,000**	**$36,500**	**$168,000**
1	Partial Depth Slab Repairs	$1,000	$2,000	$3,000	$5,000	$5,000
2	Partial Depth Vertical/Overhead Concrete Repairs	$0	$1,000	$1,000	$1,500	$3,000
3	Rout and Caulk Slab Cracking Level 2	$3,000	$0	$0	$0	$0
4	Install Waterproofing Membrane on Level 2	$0	$150,000	$0	$0	$150,000
5	Re-Coat Worn Waterproofing Membrane	$0	$0	$5,000	$30,000	$10,000
	Architectural	**$0**	**$5,000**	**$15,000**	**$58,000**	**$26,000**
6	Miscellaneous Metal Painting and Striping	$0	$3,000	$3,000	$3,000	$6,000
7	Replace Operating Equip. (Overhead Doors, restroom fixtures, etc.) as needed	$0	$0	$10,000	$50,000	$10,000
8	Barrier Cable Repairs	$0	$2,000	$2,000	$5,000	$10,000
	Mechanical	**$3,000**	**$0**	**$3,000**	**$3,000**	**$3,000**
9	Replace/Repair Air Conditioning Systems	$3,000	$0	$3,000	$3,000	$3,000
	Electrical	**$0**	**$0**	**$33,000**	**$0**	**$33,000**
10	Replace/Repair Lighting Fixtures	$0	$0	$30,000	$0	$30,000
11	Replace/Repair Exit & Egress Fixtures	$0	$0	$3,000	$0	$3,000
	Fire Protection	**$0**	**$0**	**$12,000**	**$0**	**$12,000**
12	Replace/Repair Fire Alarm System	$0	$0	$12,000	$0	$12,000
	SUB-TOTAL	**$7,000**	**$158,000**	**$72,000**	**$97,500**	**$242,000**
	Mobilization, General Conditions, & Miscellaneous Work @ 10%	$1,000	$16,000	$7,000	$10,000	$24,000
	Contingencies @ 10%	$1,000	$16,000	$7,000	$10,000	$24,000
	Allowance for Engineering and Testing Fees @ 8%	$1,000	$13,000	$6,000	$8,000	$19,000
	GRAND TOTAL	**$10,000**	**$203,000**	**$92,000**	**$125,500**	**$309,000**

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Notes

1) Costs are expressed in 2009 dollars. Inflation and escalation have not been included in the cost estimates.

2) The figures are exclusive of annual budgets for operational issues such as light bulb replacement, janitorial services, equipment maintenance contracts, etc.

3) The figures are exclusive of revenue control system and security equipment changes, and any abatement of hazardous materials.

4) We estimate an additional cost of 10% to 15% if a single work item is divided over multiple years (Not included in the above cost estimate table).

DESMAN
ASSOCIATES

Lot 732 - Larchmont Blvd. Parking Structure

Los Angeles, California

OPINION OF EXPECTED CONSTRUCTION COST - NOVEMBER 2009

ITEM	DESCRIPTION	YEARS 1 TO 5	YEARS 6 TO 10	YEARS 11-20	YEARS 21-30	YEARS 31- 50
	Structural/Waterproofing	**$73,500**	**$9,000**	**$51,500**	**$104,500**	**$134,000**
1	Partial Depth Slab Repairs	$3,000	$3,000	$3,000	$5,000	$5,000
2	Partial Depth Vertical/Overhead Concrete Repairs	$0	$1,000	$1,000	$2,000	$4,000
3	Rout and Caulk Slab Cracking on Levels P1 and P2	$20,000	$5,000	$10,000	$20,000	$20,000
4	Re-coat Waterproofing Membrane on Outside (Street) Level	$50,000	$0	$10,000	$50,000	$50,000
5	Re-Striping Outside (Street) level, interior levels as required	$500	$0	$2,500	$2,500	$5,000
6	Foundation wall crack repairs	$0	$0	$25,000	$25,000	$50,000
	Architectural	**$0**	**$7,000**	**$7,000**	**$152,000**	**$24,000**
6	Miscellaneous Metal Painting and Striping	$0	$2,000	$2,000	$2,000	$4,000
7	Replace Operating Equip. (Overhead Doors, restroom fixtures, etc.) as needed	$0	$5,000	$5,000	$20,000	$20,000
8	Elevator Repairs	$0	$0	$0	$130,000	$0
	Mechanical	**$1,000**	**$4,000**	**$5,000**	**$74,000**	**$6,000**
9	Replace/Repair Ventilation Fans	$0	$0	$0	$70,000	$0
10	Replace/Repair Condensing Units	$1,000	$0	$1,000	$0	$2,000
11	Replace/Repair Sump Pumps	$0	$4,000	$4,000	$4,000	$4,000
	Electrical	**$0**	**$0**	**$99,000**	**$0**	**$99,000**
12	Replace/Repair Lighting Fixtures	$0	$0	$65,000	$0	$65,000
13	Replace/Repair Exit & Egress Fixtures	$0	$0	$4,000	$0	$4,000
14	Replace/Repair Distribution Equipment	$0	$0	$30,000	$0	$30,000
	Fire Protection	**$0**	**$0**	**$15,000**	**$0**	**$15,000**
15	Replace/Repair Fire Alarm System	$0	$0	$15,000	$0	$15,000
	SUB-TOTAL	**$74,500**	**$20,000**	**$177,500**	**$330,500**	**$278,000**
	Mobilization, General Conditions, & Miscellaneous Work @ 10%	$7,000	$2,000	$18,000	$33,000	$28,000
	Contingencies @ 10%	$7,000	$2,000	$18,000	$33,000	$28,000
	Allowance for Engineering and Testing Fees @ 8%	$6,000	$2,000	$14,000	$26,000	$22,000
	GRAND TOTAL	**$94,500**	**$26,000**	**$227,500**	**$422,500**	**$356,000**

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Notes

1) Costs are expressed in 2009 dollars. Inflation and escalation have not been included in the cost estimates.

2) The figures are exclusive of annual budgets for operational issues such as light bulb replacement, janitorial services, equipment maintenance contracts, etc.

3) The figures are exclusive of revenue control system and security equipment changes, and any abatement of hazardous materials.

4) We estimate an additional cost of 10% to 15% if a single work item is divided over multiple years (Not included in the above cost estimate table).

DESMAN
ASSOCIATES

Lot 703 - Robertson Blvd Parking Structure

Los Angeles, California

OPINION OF EXPECTED CONSTRUCTION COST - NOVEMBER 2009

ITEM	DESCRIPTION	YEARS 1 TO 5	YEARS 6 TO 10	YEARS 11-20	YEARS 21-30	YEARS 31- 50
	Structural/Waterproofing	**$105,000**	**$104,000**	**$28,000**	**$513,000**	**$197,000**
1	Partial Depth Slab/Curb/Tee Connection Repairs	$1,000	$2,000	$10,000	$20,000	$50,000
2	Partial Depth Vertical/Overhead Concrete Repairs	$1,000	$2,000	$2,000	$5,000	$10,000
3	Re-Caulk Tee to Tee Joints on Roof Level	$21,000	$0	$0	$21,000	$21,000
4	Re-Caulk Tee to Tee Joints on Intermediate Levels	$0	$35,000	$0	$85,000	$35,000
5	Re-Coat Worn Waterproofing Membrane on Roof Level	$82,000	$0	$0	$82,000	$0
6	Re-Coat Worn Waterproofing Membrane on Roof Level drive lanes only	$0	$0	$16,000	$0	$16,000
7	Re-Coat Worn Waterproofing Membrane @ Intermediate Levels	$0	$0	$0	$300,000	$0
8	Re-Coat Worn Waterproofing Membrane in Drive Aisles @ Intermediate Levels	$0	$65,000	$0	$0	$65,000
	Architectural	**$2,000**	**$7,000**	**$9,000**	**$332,000**	**$17,000**
9	Line Striping	$2,000	$0	$2,000	$5,000	$5,000
10	Replace Operating Equip. (Overhead Doors, restroom fixtures, etc.) as needed	$0	$5,000	$5,000	$50,000	$10,000
11	Paint Miscellaneous Metals	$0	$2,000	$2,000	$2,000	$2,000
12	Repair/Replace Elevators	$0	$0	$0	$275,000	$0
	Mechanical	**$8,000**	**$0**	**$93,000**	**$5,000**	**$135,000**
13	Replace/Repair Ventilation Fans	$0	$0	$80,000	$0	$80,000
14	Replace/Repair Condensing Units	$3,000	$0	$3,000	$0	$50,000
15	Replace/Repair Plumbing Fixtures	$0	$0	$5,000	$0	$0
16	Replace/Repair Sump Pumps	$5,000	$0	$5,000	$5,000	$5,000
	Electrical	**$0**	**$0**	**$160,000**	**$0**	**$160,000**
17	Replace/Repair Lighting Fixtures	$0	$0	$95,000	$0	$95,000
18	Replace/Repair Exit & Egress Fixtures	$0	$0	$15,000	$0	$15,000
19	Replace/Repair Distribution Equipment	$0	$0	$50,000	$0	$50,000
	Fire Protection	**$0**	**$0**	**$28,000**	**$0**	**$28,000**
20	Replace/Repair Fire Alarm System	$0	$0	$28,000	$0	$28,000
	SUB-TOTAL	**$115,000**	**$111,000**	**$318,000**	**$850,000**	**$537,000**
	Mobilization, General Conditions, & Miscellaneous Work @ 10%	$12,000	$11,000	$32,000	$85,000	$54,000
	Contingencies @ 10%	$12,000	$11,000	$32,000	$85,000	$54,000
	Allowance for Engineering and Testing Fees @ 8%	$9,000	$9,000	$25,000	$68,000	$43,000
	GRAND TOTAL	**$148,000**	**$142,000**	**$407,000**	**$1,088,000**	**$688,000**

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Notes

1) Costs are expressed in 2009 dollars. Inflation and escalation have not been included in the cost estimates.

2) The figures are exclusive of annual budgets for operational issues such as light bulb replacement, janitorial services, equipment maintenance contracts, etc.

3) The figures are exclusive of revenue control system and security equipment changes, and any abatement of hazardous materials.

4) We estimate an additional cost of 10% to 15% if a single work item is divided over multiple years (Not included in the above cost estimate table).

DESMAN
ASSOCIATES

Lot 670 - Cherokee Ave. Parking Structure

Los Angeles, California

OPINION OF EXPECTED CONSTRUCTION COST - NOVEMBER 2009

ITEM	DESCRIPTION	YEARS 1 TO 5	YEARS 6 TO 10	YEARS 11-20	YEARS 21-30	YEARS 31- 50
	Structural/Waterproofing	**$132,000**	**$10,000**	**$52,000**	**$127,000**	**$44,000**
1	Partial Depth Slab Repairs	$1,000	$1,000	$5,000	$5,000	$10,000
2	Partial Depth Vertical/Overhead Concrete Repairs	$1,000	$1,000	$2,000	$2,000	$4,000
3	Rout and Caulk Slab Cracking	$5,000	$5,000	$5,000	$5,000	$10,000
4	Install Waterproofing Membrane over Construction Joints	$5,000	$0	$5,000	$0	$5,000
5	Re-Coat Worn Waterproofing Membrane	$110,000	$0	$30,000	$110,000	$5,000
6	Address water ponding areas	$10,000	$0	$0	$0	$0
7	Allowance for Post-Tensioning Repairs	$0	$3,000	$5,000	$5,000	$10,000
	Architectural	**$7,000**	**$55,000**	**$19,000**	**$192,000**	**$85,000**
8	Miscellaneous Metal Painting and Striping	$2,000	$50,000	$2,000	$5,000	$55,000
9	Replace Operating Equip. (Overhead Doors, restroom fixtures, etc.) as needed	$0	$0	$10,000	$50,000	$10,000
10	Barrier Cable Repairs	$3,000	$3,000	$5,000	$5,000	$10,000
11	Exterior Grout Plug Repairs	$2,000	$2,000	$2,000	$2,000	$10,000
12	Repair/Replace Elevators	$0	$0	$0	$130,000	$0
	Mechanical	**$0**	**$4,000**	**$3,000**	**$4,000**	**$7,000**
13	Replace/Repair Ventilation Fans	$0	$1,000	$0	$1,000	$1,000
14	Replace/Repair Condensing Units	$0	$3,000	$0	$3,000	$3,000
15	Replace/Repair Plumbing Fixtures	$0	$0	$3,000	$0	$3,000
	Electrical	**$0**	**$0**	**$170,000**	**$40,000**	**$170,000**
16	Replace/Repair Lighting Fixtures	$0	$0	$170,000	$0	$170,000
17	Replace/Repair Distribution Equipment	$0	$0	$0	$40,000	$0
	Fire Protection	**$0**	**$0**	**$0**	**$10,000**	**$0**
18	Replace/Repair Fire Alarm System	$0	$0	$0	$10,000	$0
	SUB-TOTAL	**$139,000**	**$69,000**	**$244,000**	**$373,000**	**$306,000**
	Mobilization, General Conditions, & Miscellaneous Work @ 10%	$14,000	$7,000	$24,000	$37,000	$31,000
	Contingencies @ 10%	$14,000	$7,000	$24,000	$37,000	$31,000
	Allowance for Engineering and Testing Fees @ 8%	$11,000	$6,000	$20,000	$30,000	$24,000
	GRAND TOTAL	**$178,000**	**$89,000**	**$312,000**	**$477,000**	**$392,000**

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Notes

1) Costs are expressed in 2009 dollars. Inflation and escalation have not been included in the cost estimates.

2) The figures are exclusive of annual budgets for operational issues such as light bulb replacement, janitorial services, equipment maintenance contracts, etc.

3) The figures are exclusive of revenue control system and security equipment changes, and any abatement of hazardous materials.

4) We estimate an additional cost of 10% to 15% if a single work item is divided over multiple years (Not included in the above cost estimate table).