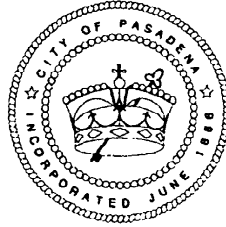


November 2005



City of Pasadena

Traffic Reduction Strategies Study



PROPOSAL

Submitted By:

Nelson|Nygaard
consulting associates

November 9, 2005

Mark Yamarone
Principal Transportation Planner
City of Pasadena
Department of Transportation
221 E. Walnut Street, Suite 210
Pasadena, CA 91101

RE: Request for Proposal: "Traffic Reduction Strategies Study"

Dear Mr. Yamarone:

Nelson\Nygaard Consulting Associates Inc. and Michael R. Kodama Planning Consultants are pleased to submit this proposal to the City of Pasadena for the Traffic Reduction Strategies Study. As a national firm, Nelson\Nygaard has a wealth of project experience in vehicle trip reduction with clients throughout California and the United States, and our international team brings remarkable experience in best practices from around the world.

Our Transportation Demand Management (TDM) work has proven effective at helping our clients:

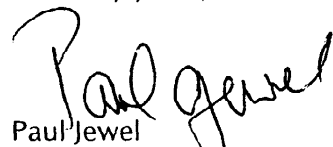
- Identify best practices in traffic reduction
- Integrate these strategies into a comprehensive TDM program that is tailored to the community's own goals and circumstances
- Implement practical, cost-effective traffic reduction programs
- Develop performance indicators to provide ongoing monitoring of the programs

Our project manager will be Patrick Siegman, Principal Associate with Nelson\Nygaard's San Francisco office. He is an expert in traffic reduction and transit-oriented development, and has developed numerous innovative trip reduction strategies for projects in and around Pasadena.

Michael R. Kodama Planning Associates, based in Burbank, CA, will join our team. Michael has over 14 years of experience in transportation demand management (TDM) and has conducted TDM studies throughout Southern California. Two pre-eminent transportation researchers also join our team: Dr. Richard Willson of California State Polytechnic University, Pomona, and Dr. Elizabeth Deakin, Director of the University of California Transportation Research Center.

Our team is confident of its ability to provide a rigorous, practical and timely review of best practices in traffic reduction strategies, and look forward to this opportunity to work again in your remarkable city. Please contact Patrick Siegman at 415-284-1544 to answer any questions you may have concerning our proposal. This offer remains valid and binding for 4 months.

Sincerely yours,



Paul Jewel
Principal and Chief Operating Officer

Specialists in Transit and Multimodal Transportation

785 Market Street, Suite 1300, San Francisco, CA 94103 (415) 284-1544 FAX (415) 284-1554

info@nelsonnygaard.com www.nelsonnygaard.com

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Submitted by:

Nelson | Nygaard
c o n s u l t i n g a s s o c i a t e s

785 Market Street, Suite 1300, San Francisco, CA 94103

415-284-1544 Phone

415-284-1554 FAX

email: psiegman@nelsonnygaard.com

CONTACT: PATRICK SIEGMAN, PROJECT MANAGER

Project Understanding

The City of Pasadena is a well-educated, diverse, and economically vibrant community with several major employers and world-renowned educational, arts, and research institutions. These assets, coupled with its strategic location, temperate climate, and natural amenities make Pasadena one of the most desirable communities in Southern California to live, work, and do business in.

For example, while the City of Pasadena has a population of approximately 141,000, it is visited by millions of people annually who are drawn to the City's vibrant downtown shopping and arts district and cultural and sporting events.

In order to meet the diverse mobility needs of residents, commuters, and visitors, the City has developed proactive policy goals and innovative programs to encourage the most efficient use of the city's existing transportation infrastructure through a balanced multimodal approach. Examples of these successful efforts include:

- The recently-adopted Mobility Element adopted as part of the 2004 General Plan, which establishes a transportation vision for Pasadena as a "community where people can circulate without cars".
- The Neighborhood Traffic Management Program Community program to help reduce impacts of auto traffic in residential neighborhoods.
- Ongoing expansions of the Pasadena Area Rapid Transit System (ARTS) and adoption of innovative operational strategies including user-friendly vehicle design and amenities.
- An extensive bicycle network and bike-friendly policies, resulting in the City of Pasadena being awarded the "Most Bike Friendly City for 2004" by the Los Angeles County Bicycle Coalition.
- A mature pedestrian network and ongoing implementation of pedestrian safety improvements such as recent grant-funded projects that will help students walk safely to and from school.
- Implementation of innovative parking demand management strategies using new technologies—including the pioneering implementation of parking benefit districts in 1993 that are now being adopted throughout the country— to help the City serve

the diverse parking needs of different user groups including residents, merchants, and commuters.

In order to build on and complement these successful multi-modal transportation initiatives, and to accommodate future residential and employment growth without increasing vehicle traffic on city streets, the City of Pasadena now strives to analyze best practices in traffic reduction strategies.

Specifically, the City desires a comprehensive analysis of international best practices in traffic reduction strategies and development of a two-tiered package of policies and programs that would reduce vehicle trips on city streets in the PM peak period by 10% and 25%. Furthermore, the City wishes to understand what the impacts on economic development and overall mobility and access would be for each traffic reduction strategy.

Nelson\Nygaard has helped communities throughout the United States analyze and successfully implement traffic reduction strategies through the development of innovative Transportation Demand Management policies and programs. We have assembled a team that is uniquely qualified to undertake a comprehensive analysis of the traffic reduction impacts of proven TDM strategies appropriate for the City of Pasadena. Our approach will be to:

- Identify best practices in traffic reduction that balance the diverse needs of all modes of transportation and user groups.
- Integrate these strategies into a two-tiered TDM program tailored to Pasadena's unique community characteristics and goals.
- Develop performance indicators to help the City conduct ongoing monitoring of the proposed TDM scenarios and prioritize future transportation investments.

Some of the traffic reduction strategies we will evaluate that respond to the unique needs and characteristics of the City of Pasadena include the following:

- Strategies to get people out of cars and into transit and/or other modes of transportation (rail, bicycle, walking), including significant increases to local transit service.
- Strategies to reduce regional trips passing through Pasadena on City streets, including diverting traffic around the city on existing highways.
- Strategies to serve existing mobility needs and accommodate future residential and employment growth without increasing auto traffic.

Nelson\Nygaard and our team looks forward to partnering with the City of Pasadena to expand on its existing innovative transportation policies and practices by:

- a) analyzing a broad array of tools to assist the City in prioritizing future transportation investments, and
- b) evaluating their impacts on local economic development and mobility in order to achieve community goals and improve Pasadena's quality of life.

Team Overview

Nelson\Nygaard Consulting Associates, Inc. and Michael R. Kodama Planning Consultants have joined together to submit this proposal for the Pasadena Traffic Reduction Study to develop and analyze strategies to reduce PM peak period traffic on Pasadena streets. The project includes review of existing conditions and traffic reduction strategies in Pasadena, an international review of best practices in traffic reduction, and the development of specific packages of strategies to reduce peak hour traffic in Pasadena by 10 percent or 25 percent. An analysis of the mobility and economic impacts resulting from the implementation will also be conducted.

Our team brings to this project a thorough knowledge of the best and most innovative traffic reduction strategies used throughout the United States and abroad. Our team's specialists are based in San Francisco, Burbank, Berkeley and Los Angeles, and will share with you the wealth of experience gained from working in hundreds of different urban environments, including the San Francisco Bay Area, Los Angeles, Santa Monica, Seattle, Portland, and other metropolitan areas.

Nelson\Nygaard Consulting Associates, Inc. is a San Francisco based national transportation planning firm dedicated to planning transportation systems that build and support vibrant, sustainable communities. We specialize in developing strategies, programs and policy solutions for multimodal transportation systems involving rail and fixed route transit, parking and transportation demand management, and bicycle and pedestrian networks.

Nelson\Nygaard is a financially stable firm on a path of managed growth. Since its founding as a partnership in 1987, the firm has grown to a staff of 45 people throughout the company's six operation centers. In 2001, we became a California-based "S" Corporation and are WBE/DBE certified with numerous state and municipal agencies throughout the country including California.

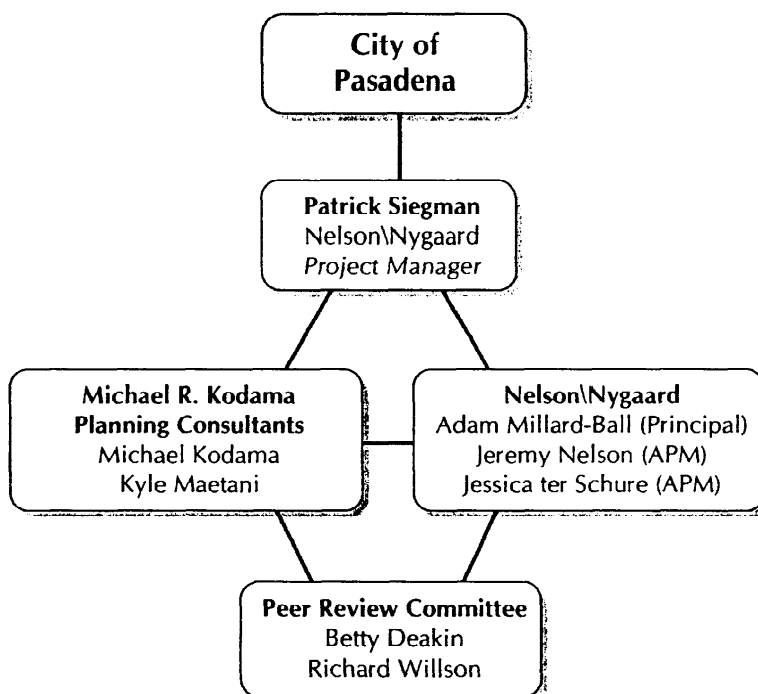
A fully multimodal approach is a hallmark of Nelson\Nygaard's work. We have extensive experience in transit, bicycle and pedestrian planning and transportation demand management — not just in isolation but also as an integral part of strategic plans and specific site proposals. We realize that transportation is not an end in itself, but rather a means toward achieving larger community goals.

Creating great places requires an understanding and appreciation of diversity. Every neighborhood, every community, every site and every transportation system is different. We have therefore developed innovative tools to engage local citizens and elected officials, helping them to articulate their particular values and objectives, and leading them through the inevitable tradeoffs between the different goals.

Project Team Organization

Our proposed team members have developed trip reduction strategies and transportation master plans for cities such as Seattle, WA, Palo Alto and Ventura, CA. Patrick Siegman will serve as project manager, supported by Adam Millard-Ball, Jeremy Nelson and Jessica ter Schure. The diversity of experience within our team is demonstrated by the participation of Jessica and Adam, who bring an international perspective to the project based on their active work experience and transportation research in Europe. Jessica ter Schure developed pedestrian and bicycle performance measures in Sweden and evaluated the City of Lund’s mobility program, while Adam Millard-Ball has written extensively on sustainable transportation policies throughout Great Britain and the European Union.

Joining the Nelson\Nygaard team is Michael Kodama, who adds extensive TDM expertise and local knowledge to the team. In addition, two pre-eminent transportation researchers, Dr. Richard Willson and Dr. Elizabeth Deakin, will serve as advisors and peer reviewers throughout the entire project.



Patrick Siegman, Principal, will serve as **Project Manager** for this project. He is an expert in both town planning and transportation planning, with an emphasis on community participation. His work has focused on four areas: the reduction of traffic and parking demand, New Urbanist developments, transit-oriented development and pedestrian-friendly street design. He has led the development of successful transportation plans for center city districts, transit-oriented developments, and university campuses in some of the most challenging and complex communities in the United States, including Seattle, Palo Alto,

Ventura and Pasadena. All of these plans combine innovative traffic reduction strategies and parking management techniques, resulting in built projects that have delivered greater economic vitality, with less traffic and pollution.

Mr. Siegman has established an strong knowledge of Pasadena’s transportation system and TDM programs through his work in and around Pasadena. His recent experience in the area includes traffic reduction plans for several campuses, such as the Fuller Seminary Residential Master Plan and the Polytechnic School Master Plan in Pasadena, as well as transportation plans for Pomona College and Occidental College. He has also specialized

in developing innovative transportation strategies for transit-oriented developments, such as Mission Meridian Station in South Pasadena, the North Montclair Specific Plan, the Downtown Newhall Specific Plan in Santa Clarita, and the downtown Ventura Mobility Plan. All of these plans proposed extensive transportation demand management strategies, funded by savings on costly parking structures.

Before joining Nelson\Nygaard, Mr. Siegman served as Transportation Planner for Stanford University. There, he co-authored the University's long-range transportation strategy, developing and managing an innovative set of parking, ridesharing, bicycling and transit programs that allowed the university to grow by 25% – over two million square feet of campus growth – with no increase in automobile commute trips. Building on his studies in transportation economics, he authored the University's "parking cash-out" program, which pays cash to commuters and students who do not buy a parking permit. His cost/benefit analyses demonstrated to University management that in addition to helping the University accomplish its trip reduction goals, these programs resulted in net savings, since they allowed the campus to avoid building additional parking structures.

More recently, his work on updating the California Air Resources Board's URBEMIS model led him to comprehensively review the effectiveness of trip reduction strategies throughout the United States, resulting in the development of a powerful model for predicting the effect of these strategies on trip generation. A frequent lecturer and public speaker, he has developed and taught short courses and workshops on parking, transportation demand management and transportation planning for a range of clients, including the American Planning Association, the Federal Highway Administration and the Local Government Commission.

Adam Millard-Ball, Principal, brings international expertise on implementing Transportation Demand Management and parking management strategies on behalf of both developers and local jurisdictions. His work includes research for the Transportation Research Board and US Environmental Protection Agency; implementation through citywide policies and individual development plans in California, Pennsylvania and Virginia; and international work in London, Paris and Africa.

Adam is currently leading an evaluation of the potential of ridesharing and transit improvements to reduce vehicle trips, on behalf of the Bay Area Air Quality Management District. Other recent, relevant experience includes managing a national research study on the impacts of car-sharing on travel behavior; and updating the California Air Resources Board's URBEMIS model to incorporate the results of the latest research on trip reduction strategies. He is also evaluating the potential to incorporate trip reduction strategies in local station area plans, as part of a Transit Oriented Development study in the San Francisco Bay Area.

Jeremy Nelson, Associate Project Manager, has nearly 8 years of experience as a land use and transportation planner and public policy analyst in the public-, private-, and non-profit sectors. Mr. Nelson has extensive TDM knowledge of the relationship between land use and development patterns, transportation systems, and public health outcomes. His recent

experience includes developing a comprehensive package of parking reform and transportation demand management strategies for downtown Ventura, CA.

As co-author of *Access Now!: A Resource Guide to Winning Transportation Your Community Needs*, Jeremy analyzed challenges and opportunities for improving transportation choices and funding for low-income communities, including existing state and federal revenue sources. As co-author of the *Instant Advocate Toolkit: Transportation and Land Use Reforms for Positive Neighborhood Change*, Jeremy developed expertise in analyzing innovative programs and policy reforms being implemented in communities across the country, and evaluating the relative effectiveness of these high-impact, low-cost “best practices” to improve community safety and livability.

Mr. Nelson is on the advisory boards of Transportation and Land Use Coalition as well as Transportation for a Livable City, two San Francisco Bay Area policy research and advocacy organizations to which he provides technical advice. Jeremy is also a member of the American Planning Association, Progressive Planners Network, and Urban Land Institute, and a frequent participant at professional conferences and seminars.

Jessica ter Schure, Associate Project Manager, works with transportation master planning and transportation demand management for communities, universities, developers and private sector clients. She has developed several TDM and parking management plans, including mixed-use development plans in Sacramento, Napa and Santa Clarita, California. Mrs. ter Schure specializes in assisting developers to reduce both transportation and parking demand by encouraging a mix of parking management techniques and TDM, such as parking pricing, shared parking strategies, parking cash-out and more traditional TDM measures. She is currently developing a parking and TDM plan for the New Urbanist neighborhood of Meriam Park in Chico, California.

Jessica ter Schure has also been involved in several pedestrian/bicycle TDM related projects, both at Nelson\Nygaard and her former position at Trivector Traffic in Sweden. She has used GIS to perform accessibility studies on how competitive biking and transit riding are to car riding in different Swedish cities. She managed a research project in 2003 on accessibility and traffic safety where collected data was used to map children’s safe routes to schools, recreation and functionally impaired peoples’ routes to the closest grocery store and city center. Mrs. ter Schure has, during her four years at Trivector Traffic, built up extensive knowledge about various traffic reduction best practices in Scandinavia, the Netherlands and other parts of Europe through a number of EU and government funded projects.

Resumes for all our team personnel are included in the Appendix.

Nelson\Nygaard Relevant Project Experience

The following is a sample of recent and relevant projects completed by Nelson\Nygaard. We have included client contacts and encourage you to contact any or all of our references to confirm the quality of our work.

Genentech Parking and Transportation Plan **1/2005 - current**

Genentech

1 DNA Way

South San Francisco, CA 94080-4990

Contact: Nathan Byerly, Strategic Facilities Planner, (650) 225-8285

Nelson\Nygaard is currently working with Genentech to create a 10-year transportation master plan for their South San Francisco campus. The resulting plan will recommend the optimal mix of new parking structures, transit improvements and transportation demand management measures such as a parking cash-out program. A detailed shuttle transit implementation plan will also be developed, including intra-campus service as well as connections to Caltrain, BART and a future ferry terminal. Fehr & Peers is conducting the traffic analysis for the plan.

NASA Ames Research Park TDM Plan **10/2000 – 9/2002**

NASA Ames Research Center

Mail Stop: 204-2

Moffett Field, CA 94035

Contact: Trish Morrissey, (650) 604-1168

Nelson\Nygaard developed a vehicle trip mitigation package for this 3.5 million square foot development that features university partner campuses, museums, office space, retail space and a conference and training center. Nelson\Nygaard's plan aimed to reduce peak-hour vehicle trips by 40% beyond countywide employment site average trip generation rates. As one of the most ambitious Transportation Demand Management programs in the country, the plan has a strong land use focus in addition to employing all traditional TDM techniques and presents strategies to develop a shared-use, paid-parking supply. As part of this project, Nelson\Nygaard researched the trip reduction impact of TDM programs at the community-level and employment-site level. This extensive TDM program has not been a deterrent for larger employers; Google Inc has recently signed a contract to move in.

Seattle UVTN/Performance Measures **12/2003 - 9/2004**

City of Seattle, WA

700 Fifth Avenue, Suite 3900

Seattle, CA 98104

Contact: Jeff Bender, Seattle Department of Transportation, (206) 684-8837

Nelson\Nygaard led the Seattle DOT's groundbreaking effort to define a long-term network of high-frequency, reliable local transit services, along with ambitious but achievable standards for service quality. The purpose of the network is to be a common authority for land use planning, transit system development, and street design and management, insuring that all of these functions assume the same transit network and plan for its efficient

and reliable operation. Nelson\Nygaard's report develops the case for such a network, defines and justifies principles of its design, and presents the network itself with its rough impacts and cost. Our staff worked extensively with the Seattle DOT and King County Metro staff to build consensus around the network, and also to develop strategies for implementation, both "on the ground" and at the level of policy.

San Joaquin Air Pollution Fee

2/2004 - 9/2004

San Joaquin Valley Air Pollution Control District
1990 E Gettysburg Avenue
Fresno, CA 93726

Contact: Terry Parker, Senior Planner – Caltrans Community Planning, (916) 654-5547

One of the key deficiencies of most traffic impact studies is their use of standard vehicle trip generation rates, which do not take into account a development's context, the availability of transit and other trip reduction measures. This leaves developers of New Urbanist, TOD and infill projects at a serious disadvantage, as their projects are analyzed as if they would generate as much traffic as a typical suburban development.

Working with Jones & Stokes, Nelson\Nygaard developed a tool to grant credit for higher density, mixed-use projects that have good transit, pedestrian and bicycle access, through refining the operational mitigation component of the URBEMIS 2002 model. The impacts of reduced parking supply, affordable housing and Transportation Demand Management measures are also considered, making this one of the most advanced tools available to assess the traffic impacts of different types of development.

The work was undertaken to develop an impact fee in California's San Joaquin Valley, on behalf of the Air District. This fee would be levied according to the emissions generated by new developments, giving developers an incentive to build less auto-oriented communities that incorporate many of the trip-reduction measures included in the model.

The result is a tool with far wider application that permits adjustment of standard trip generation rates to account for a development's context and efforts to reduce vehicle travel.

Palo Alto Transportation Impact Fee

4/2003 – 5/2005

City of Palo Alto, CA
Transportation Division, 250 Hamilton Avenue
Palo Alto, CA 94301

Contact: Joe Kott, Transportation Manager, (650) 329-2598

While the City of Palo Alto previously levied traffic impact fees on new development, these only applied in a small part of the City, and covered only traditional intersection widening and other measures to increase roadway capacity. In contrast, the City's overall transportation policies prioritize non-automobile modes, and seek to minimize increases in vehicle trips. In response to this discrepancy, Nelson\Nygaard developed a nexus study for a citywide Transportation Impact Fee that would support these policy goals. The fee is one of the few in the nation to be focused on trip reduction and alternative modes, and is

Traffic Reduction Strategies Study

CITY OF PASADENA

raising funding for bicycle, shuttle, Transportation Demand Management (TDM) and computerized traffic management programs. The fee structure also provides financial incentives for developments to minimize their trip generation, through locating close to transit, providing a mix of uses, or implementing TDM programs.

SANDAG Congestion Mitigation Strategies Research

1/2003 - 6/2003

San Diego Association of Governments (SANDAG)

401 B Street, Suite 800

San Diego, CA 92101

Contact: *Mario R. Oropeza, Project Manager, (619) 699-1900*

Nelson\Nygaard was a subconsultant to URS in this effort to develop a Congestion Mitigation and Travel Demand Strategy Toolbox. The toolbox provides strategies that local jurisdictions can use in their Congestion Management Plan deficiency plans and land use analysis programs. Nelson\Nygaard provided research on transit and land use strategies used by other jurisdictions and the trip reduction results that have been documented. Nelson\Nygaard also documented the state of Transportation Demand Management (TDM) ordinances in California and wrote a model ordinance decision matrix to allow the region or local jurisdictions to adopt an ordinance. Finally, Nelson\Nygaard provided sample VMT reduction strategies incorporated into Traffic Impact Analysis Guidelines.

San Carlos Traffic Mitigation Study

5/2001-9/2002

City of San Carlos, CA

600 Elm Street

San Carlos, CA 94070

Contact: *Elizabeth Cullinan, Planning Director, (650) 802-4263*

San Carlos is facing a classic problem for "inner core" suburbs: how to do infill, transit-oriented development without exacerbating existing traffic congestion problems? To help the city explore this question and plan for new growth, Nelson\Nygaard developed detailed strategies for minimizing the transportation impacts of new development. The recommendations included planning and zoning control changes that focused new development around existing transit services, while reducing parking requirements and other incentives for driving. Our reports also included recommendations for new shuttle, bicycle and pedestrian improvements.

I-10/Robertson Intersection Multi-Modal Access

12/2004- 9/2005

SCAG / Westside Cities

818 W. 7th Street, 12th Floor

Los Angeles, CA 90017

Contact: *Susan Yun, Associate Planner, Culver City, (310) 253 5710*

In conjunction with Kaku Associates, Nelson\Nygaard undertook multi-modal access and transit-oriented development planning for the Southern California Association of Governments (SCAG) and the Westside Cities. This work included assessing station area and regional multi-modal access to the Mid-City Expo light rail line proposed between Los Angeles and Culver City. Nelson\Nygaard analyzed primary pedestrian, bicycle and transit routes to the Mid-City terminus station and facilitated a public workshop to synthesize a

recommended plan to increase transit access to the station, improve pedestrian amenity and address strategic and funding concerns.

Santa Monica Performance Measures **5/2005 to current**

City of Santa Monica, CA Transportation Department

1685 Main Street

Santa Monica, CA 90401

Contact: *Lucy Dyke, Transportation Planning Manager, (310) 434-2670*

Nelson\Nygaard is currently assisting the City of Santa Monica in their General Plan update process. We have focused on translating the City's quality of life, economic development, social justice and ecological sustainability goals into a coherent set of transportation performance indicators. These indicators would address all modes of transportation and would emphasize the movement of people and goods over the movement of vehicles.

Berkeley Transportation Impact Fee **3/2005 to current**

City of Berkeley, CA

2180 Milvia Street

Berkeley, CA 94704

Contact: *Matt Nichols, Principal Transportation Planner, (510) 981-7068*

Nelson\Nygaard provided technical assistance to complete the nexus study and introduce a Transportation Services Fee in Berkeley. The fee is notable because it seeks to address the root cause of traffic impacts from new development, through funding bicycle, pedestrian, transit and demand management programs to reduce vehicle trips.

Client References

Elizabeth Cullinan **(650) 802-4264**

Planning Director

City of San Carlos

Planning Department

600 Elm Street

San Carlos, CA 94070

Lucy Dyke **(310) 434-2670**

Transportation Planning Manager

City of Santa Monica

1685 Main Street

Santa Monica, CA 90401

Jeffrey Dean Bender **(206) 684-8837**

Senior Transportation Planner

Seattle Department of Transportation

700 Fifth Avenue, Suite 3900

Seattle, WA 98104-5043

Michael R. Kodama Planning Consultants

Michael R. Kodama, Planning Consultants (SBE/DBE/MBE) works on transportation planning, funding and policy issues. The firm has experience with many Transportation Demand Management (TDM) and parking management issues. MK has conducted statewide, regional and local TDM studies throughout Southern California. MK projects include: Pasadena, Monrovia, Glendale, Pomona, Monterey Park, Montebello, Claremont, Newport Beach, Santa Ana, Caltrans, South Coast AQMD, Metrolink, Los Angeles County MTA, Los Angeles CRA, Los Angeles DOT, and many others.

Michael R. Kodama is president of the firm. He is an urban planner with a background in transportation planning, funding, and policy issues. During the past fourteen years, Mr. Kodama has worked in the public and private sectors, participating on a wide variety of projects. Mr. Kodama was the Vice President of Air Quality/ Transportation Compliance for Kosmont & Associates, Inc. and worked for Caltrans District 7.

Mr. Kodama has a Bachelor of Arts degree from the University of California at Los Angeles in Sociology and Economics and a Masters of Arts degree from the University of California at Los Angeles in Urban Planning, with an emphasis in Social Policy Analysis and Transportation. He is a professor at the University of Southern California, teaching transportation planning.

Kyle Maetani is the senior project manager. He has been responsible for developing public/private partnerships involving transportation, community, public policy and economic development issues. He worked for MTA and has direct experience with the MTA Transportation System. Mr. Maetani previously worked for Commuter Transportation Services, Inc. (Government Relations Manager) and Assemblywoman Gwen Moore (Field Representative) with responsibilities that included transportation demand management, land use, airport issues and goods movement. He is a co-author of a transportation demand management training manual prepared for the State of Oregon Department of Environmental Quality. In addition, he has assisted in evaluations regarding the trip reduction-related impacts of various transportation projects. He has worked on TDM and parking management issues for fifteen years.

Mr. Maetani has over 20 years of experience in transportation-related public policy, funding and planning issues. Mr. Maetani has a Master in Public Administration, University of Southern California and a Bachelor of Arts from the University of California at Los Angeles.

The following client contacts can be contacted to confirm the quality of Michael R. Kodama Planning Consultants' work:

Mr. Norman Dong

916 651-6889

Senior Transportation Planner
Caltrans
Division of Transportation Planning
MS 32
1120 N Street
Sacramento CA 95814

Mr. Robert Huddy

213 236-1972

Senior Transportation Planner
Southern California Association of Governments
818 West Seventh Street
Los Angeles CA 90017

Ms. Brooke Person

213 543-7641

Glendale Transportation Management Associates
400 W Cerritos Avenue
Glendale CA 91204

Peer Review Committee

Nelson\Nygaard and Kodama Planning Associates have teamed with two pre-eminent transportation researchers to serve as peer reviewers throughout the entire project. These peer reviewers will provide initial feedback to the city and the consultant team on the proposed study methodology and goals of the study, support the consultant teams' best practice review with their own extensive knowledge of cutting-edge transportation research, and review all recommendations and deliverables to ensure that all recommended traffic reduction strategies will be effective in the local context.

Richard Willson is a professor and chair in the Department of Urban and Regional Planning at California State Polytechnic University, Pomona. He also served as chair of the Department of Urban and Regional Planning from 1994 to 2000 and Interim Dean of the College of Environmental Design for the 2002/03 academic year. Dr. Willson's research in transportation planning addresses land/use transportation relationships, travel demand management, transit-oriented development, and parking policy. His planning theory research addresses the implications of communicative action theory for transportation planning, educational assessment, and leadership. The research has appeared in the Journal of Planning Education and Research, the Journal of the American Planning Association, Transportation, Transportation Quarterly, Regional Science and Urban Economics, Transportation Research A and other journals. He also consults with regional and local transportation agencies, such as the Bay Area Rapid Transit District, and developers of urban infill projects. Dr. Willson holds a Ph.D. in urban planning from the University of California, Los Angeles, a Masters of Planning from the University of Southern California, and is a member of the American Institute of Certified Planners. His work has been recognized by California Chapter of the American Planning Association in the 2005 Outstanding Planning Award for Leadership and Service/Academic.

Elizabeth Deakin is Director of the University of California Transportation Research Center and Professor of City and Regional Planning at UC Berkeley, where she also is co-chair of the interdisciplinary Global Metropolitan Studies Initiative and an affiliated faculty member of the Energy and Resources Group and the Master of Urban Design group. Deakin's research focuses on transportation and land use policy and the environmental impacts of transportation. She has published over 100 articles, book chapters, and reports on topics ranging from environmental justice to transportation pricing to development exactions and impact fees. She currently is conducting a study benchmarking transit-oriented development and developing TOD guidelines for the Federal Transit Administration. Among her recently completed projects are the development of transit investment policy for the Bay Area Rapid Transit (BART) District Board, a system plan for express bus services for the San Francisco Bay Area, and the development of a plan for revitalization of San Pablo Avenue from Oakland through El Cerrito, CA. Other recent studies investigate the efficacy and acceptability of transportation pricing strategies and the emissions reduction potential of transportation demand management measures.

Deakin served as chair of the Congressionally-mandated National Academy of Sciences' Advisory Board on Surface Transportation-Environmental Research, which recommended a new transportation-environmental research board recently authorized in the new federal transportation legislation. She has been active in a number of government posts including city and county transportation commissions and state advisory boards.

Deakin holds degrees in transportation systems analysis and political science from MIT as well as a law degree from Boston College.

Work Plan

Described below is Nelson\Nygaard's work plan for developing the City of Pasadena Traffic Reduction Strategies Study. Precisely a year ago, the Pasadena City Council adopted the Mobility Element of the 2004 General Plan. The purpose of the Mobility Element is to provide a multimodal plan, which promotes the priority of non-auto trips. The City of Pasadena has a simple transportation policy goal – "Pasadena will be a city where people can circulate without cars." What is not fully developed in the City's Mobility Element is a specific set of cost-effective, fully funded strategies for meeting these goals.

Nelson\Nygaard will identify two packages of strategies that will allow Pasadena to reduce PM peak period traffic on Pasadena streets by 10 percent and 25 percent, respectively. The study will identify specific traffic reduction strategies, provide an analysis on how effective those strategies will be, and document the economic costs and other potential side effects of adopting these measures.

Task 1: Kickoff And Background Research

1.1 Revise and Finalize Work Plan

Nelson\Nygaard will work with the City of Pasadena to finalize the proposed work plan, schedule and budget.

1.2 Kick-off Meeting with Project Team

At the kick-off meeting, Nelson\Nygaard will speak with City staff and assess the City's overall traffic reduction program. The number of staff is to be determined, but should be sufficient to cover the range of the City's programs (we recommend a group of 5-10 people).

1.3 Review Pasadena Policies and Practices

Nelson\Nygaard will collect and review all relevant planning documents and existing data from the City of Pasadena. These documents and information include but are not limited to:

- 2004 General Plan
- 2004 Mobility Element
- Neighborhood Traffic Management Plan Guidelines
- Transportation Impact Review
- Existing TDM programs
- Parking management strategies
- Bicycle and pedestrian access
- Transit operations

In addition to these planning and transportation documents, other zoning related issues that may have an impact on trip reduction will be documented. These issues include potential parking, traffic and building code obstacles. For instance, a building code that is mainly aimed at new development may prevent infill development, a valuable tool in reducing overall trip reduction.

Nelson\Nygaard will use these and other documents to prepare a draft outline of the existing conditions and issues in Pasadena. The outline will be included in the project's first technical memorandum. The collection of these documents will also facilitate the identification of any other types of data collection and research that may need to be conducted in addition to the existing scope of work.

1.4 Prepare Conditions and Issues Memorandum

Based upon the information gathered at the initial kick-off meeting and through the initial review of planning documents and transportation programs, Nelson\Nygaard will prepare *Technical Memorandum #1: Transportation Conditions and Issues in Pasadena*. The purpose of this document will be to identify the major issues that need to be addressed through the course of the planning process. This memorandum will include:

- Summary description of major transportation programs and plans
- Identification of any potential data collection and research needs
- Key existing conditions and issues in Pasadena, including current transportation policies and practices

Final version comments from the City will be delivered to Nelson\Nygaard within two weeks containing one consistent set of comments.

Task 1 Deliverables: Technical Memorandum #1: Transportation Conditions and Issues

Task 2: Best Practices Review

The Nelson\Nygaard team will conduct a detailed review of TDM and performance measurement programs in cities across North America and the rest of the world. We will review approximately ten cities, focusing on those that have achieved real traffic reduction or stand poised to do so in the future. Before we begin our peer city review, we will consult with City staff to identify critical components for inclusion into the best practices review.

2.1 North-American Best Practices

In discussion with the City of Pasadena, the team will identify comparable North American cities to research in regards to transportation land use policy and practices. The results of this research will then be used to bring Pasadena up-to-date with programs from comparable cities, including identification of best practices, implementation cost ranges and priorities for recommended changes. The following list includes cities that may serve as valuable peers as we perform the Best Practices Review. We will work with the City of Pasadena to finalize our list of peers to ensure that each city reviewed has similarities to Pasadena.

- Boulder, CO
- Arlington, VI
- Portland, OR
- Palo Alto, CA
- Cambridge, MA
- Gainesville, FL

2.2 International Best Practices

To ensure our review provides new and innovative strategies for the City, we suggest expanding our review to include best practices from other cities around the world. In doing so, we will take advantage of both Adam Millard-Ball's and Jessica ter Schure's international expertise. As an example, the City of Lund, a university town in southern Sweden of approximately 100,000 inhabitants, has established a very aggressive mobility program that has generated a reduction in vehicle miles traveled compared to other cities in Sweden.

2.3 Analysis of Strategy Effectiveness

Based on the findings from the North American and international best practices, the team will conduct an analysis of the effectiveness of each strategy in both theory and practice. The results achieved in other cities will be compared to the local context to determine if it is feasible to anticipate similar results in Pasadena

2.4 Prepare Best Practices Memorandum

The team will prepare *Technical Memorandum #2: Best Practices Memorandum*. Final version comments from the City will be delivered to Nelson\Nygaard within two weeks containing one consistent set of comments.

Task 2 Deliverables: Technical Memorandum #2: Best Practices

Task 3: Selection of Recommended Strategies

3.1 Identification of Relevant Strategies for Pasadena

Based on the findings in Tasks 1 and 2, the Nelson\Nygaard team will, in consultation with City staff, identify the strategies that are most relevant to Pasadena. The recommendations will include strategies that will get Pasadena residents and commuters out of their cars and onto transit and/or other modes of transportation (rail, bicycle, walking). The plan will also include strategies that will reduce regional trips passing through Pasadena on City streets and demand management strategies to help Pasadena accommodate new residential and employment growth without being overwhelmed by new traffic.

The following section briefly lists traffic reduction strategies that could be considered in Pasadena. It should in no way be seen as a complete list, but only as a base for discussion.

1. **Congestion pricing:** Several cities around the world have implemented or are about to implement congestion pricing, such as toll zones and toll roads. London, Norway (Oslo, Bergen and Trondheim) and Singapore have successfully implemented such systems and Stockholm in Sweden is about to implement its own system. Another example is the HOV lane system in San Diego.

2. **Parking strategies:** Old Pasadena has come far in its implementation of a successful parking management system compared to many other Californian downtowns. The relevance of other parking strategies that could be considered in the city, such as employee parking pricing, unbundling residential parking costs, parking cash out, minimum and maximum parking requirements, parking benefit district experience (which has already been implemented in old Pasadena), will be examined.
3. **Transit:** Programs and strategies such as universal transit passes, potential for increased frequency, fare free zones, bus rapid transit, partnerships with other transit agencies, the Gold Line extension, Pasadena Arts bus improvements, will be examined.
4. **Transportation Demand Management ordinances:** Some American cities have adopted or are about to implement TDM ordinances. These programs assist the City in determining
5. **Regulatory reforms:** Oftentimes outdated or little known provisions of a city's zoning code can prevent the type of infill development that reduces vehicle trips from being feasible in the city. In addition, a city's local environmental review practices can overestimate auto traffic of infill development projects and development standards often require excessive parking ratios which can contribute to increased traffic congestion.
6. **Development impact fees** can help fund investments in new transportation infrastructure or programs to help reduce vehicle traffic. Several cities have implemented an impact fee on every new vehicle trip that a new development project generates, thereby providing an incentive for developers to be proactive in reducing auto traffic generated by the project.
7. **Car Sharing** allows residents and employees access to a car for occasional use, without the need to own one. Pasadena may be well suited to car sharing, having high residential density and fairly abundant transportation alternatives. We will explore this option and make recommendations for further program development, using our direct experience working with San Francisco's City CarShare organization to develop its highly successful operation in the Bay Area
8. **Bicycle and pedestrian improvements.** Questions such as the following can be raised: What routes are most in need of improvement? Are new routes needed? Is signage adequate? Is there enough secure, covered bicycle parking in the right places? What kind of bicycle and pedestrian improvement is required in new developments?
9. **Transportation performance measures and monitoring:** Developing performance measures to evaluate the success of TDM programs and conducting on-going monitoring to find out which strategies are working and which are not is a critical component of any traffic reduction effort. New technologies have made evaluation of TDM much more cost-effective and less labor-intensive. We will evaluate the

feasibility of new technologies based on our experience conducting technology reviews.

3.2 Develop and Analyze 10% and 25% Scenarios

Nelson\Nygaard will integrate the strategies identified in Task 3.1 into a two-tiered TDM program tailored to Pasadena's unique community characteristics and goals.

The team will as a first step select the traffic reduction strategies that will reduce PM peak period traffic on Pasadena streets by 10%. The selection will be conducted in discussion with City staff.

In the second step of the task, Nelson\Nygaard will select the identified strategies that will reduce PM peak period traffic on Pasadena streets by 25%. This list of strategies may include some or all of the strategies selected in the 10% scenario.

3.3 Analysis of Mobility and Economic Impacts and Implementation Framework

The team will carry out an analysis of the mobility and economic impacts resulting from the implementation of the proposed traffic reduction strategies. We will review theoretical results and case studies of actual experience with each strategy, problems encountered, and results achieved. The impacts that may be studied are:

Mobility Impacts:

- Potential for trip reduction (peak hour, overall, congestion reduction)
- Potential for application on both existing and new development
- Effects on each type of travel mode and type of user

Economic Impacts:

- Effect on retail sales, property values, development costs, and other indicators
- Effect on the ability to attract and retain jobs, such as the effects on employee benefits (e.g. impact of a parking cash-out amount for employees not driving to work)
- Effects on non-market costs and benefits, such as congestion and related time savings, pollution, traffic safety etc.

The team will also develop an implementation framework that explores issues such as:

- Barriers to implementation in Pasadena (e.g., legal, physical, community acceptance)
- Time required for implementation (number of years)
- Guidelines to ensure a successful implementation

3.4 Prepare Draft Report

Nelson\Nygaard will provide an administrative draft report to staff. Final version comments from the City will be delivered to Nelson\Nygaard within two weeks containing one consistent set of comments.

3.5 Prepare Final Report

The team will prepare a Final Report: *City of Pasadena Traffic Reduction Strategies*.

Task 3 Deliverables:

Draft Report: City of Pasadena Traffic Reduction Strategies (electronic version)

Final Report: City of Pasadena Traffic Reduction Strategies (25 printed copies and electronic version)

Task 4: Final Presentations

The Nelson\Nygaard team will make one additional visit to Pasadena to present the findings of the report and recommendations. Presentations will be made to the Transportation Advisory Committee, the Economic Development and Technology Committee and the City Council.

The Nelson\Nygaard team will make one additional visit to Fort Collins to present the findings of the report and recommendations, one to City staff and one to a citizen advisory board. The City will have the right to use the presentation materials.

Task 4 Deliverables: PowerPoint presentations to i) Transportation Advisory Committee, ii) Economic Development and Technology Committee, and iii) City Council

Schedule and Availability

The Nelson\Nygaard team will have the availability to start the project in the beginning of January 2006 and will complete the project within five months of the start date.

	January	February	March	April	May	June
Kick-Off and Background Research						
Task 1.1 Revise and Finalize Scope of Work						
Task 1.2 Kick-Off Meeting	M					
Task 1.3 Review Pasadena Policies and Practices						
Task 1.4 Prepare Issues Memorandum			D			
Best Practices Review						
Task 2.1 North American Best Practices						
Task 2.2 International Best Practices						
Task 2.3 Analysis of Strategy Effectiveness						
Task 2.4 Prepare Best Practice Memorandum				D		
Selection of Recommended Strategies						
Task 3.1 Identify Relevant Strategies for Pasadena						
Task 3.2 Develop and Analyze 10% and 25% Scenarios						
Task 3.3 Analyze Economic and Mobility Impacts						
Task 3.4 Prepare Draft Report					D	
Task 3.5 Prepare Final Report						D
Final Presentations						
Transportation Advisory Committee						M
The Economic Development and Technology Committee						M
City Council						M

D = Deliverable

M = Meeting

