**Re: Expertise of Consultant Staff that assisted in Preparation of the Mobility Plan 2035 and Supporting Analysis**

Attached are the curriculum vitae (CVs) of the City consultants that prepared and advised on the Environmental Impact Report (EIR) and the California Environmental Quality Act (CEQA) process for the EIR on the Mobility Plan 2035. DCP submits the EIR consultants' CVs to provide an evidentiary basis for the City Council to rely on the EIR, including the analysis, data and methodology used in preparation of the EIR (and its technical appendices), and the conclusions of the EIR, as well as the Findings and Statement of Overriding Considerations prepared for the certification of the EIR.

FEHR PEERS

Claire Bowin, Senior City Planner
Policy Planning and Historic Resources Division
Citywide Section
City Hall, Room 667
Los Angeles, CA

**Re: Mobility Plan 2035 Consultant Team**

Dear Ms. Bowin:

Attached are the CVs of the environmental consultants that drafted and advised on the DEIR, the FEIR, including all Master Responses and responses to comments, the Addition to the FEIR, Findings and Statement of Overriding Consideration, and all other written submissions by the City Staff on responses to the EIR including comments submitted after the official comment period ended. The analysis, content, and conclusions in the DEIR, FEIR, the Addition to the FEIR, and City responses to comments are supported by the professional experience and expertise of these consultants, as well as the professional City planners and engineers that reviewed and worked on the Project and the EIR.

Sincerely,

Sarah Brandenberg
Principal

# Jeremy Klop, AICP

Principal

## About

Mr. Klop is a principal with Fehr & Peers in Los Angeles. Since joining the firm in 2002, Mr. Klop has led the planning and management of many of the firm's award-winning public and private projects. He currently directs and oversees the firm's downtown Los Angeles office. His background in multimodal planning, traffic operations, and education has helped provided valuable advice to clients in delivering transportation solutions. He is currently leading LA2B, the Mobility Element of the General Plan for the City of Los Angeles, and is also working on more than a dozen TOD station area plans in the region, including the Union Station Master Plan in downtown LA. He frequently lectures, trains practitioners on multimodal planning through UC Berkeley Tech Transfer in Complete Streets, as served as a chapter co-author for the ITE Transportation Planning Handbook.

## Education

Master of Regional Planning, University of North Carolina, Chapel Hill, NC, 1999
Bachelor of Science, Biology, Calvin College, Grand Rapids, MI, 1994

## Affiliations

American Planning Association: Member
American Planning Association – Colorado Chapter: Vice President of Communications
Institute of Transportation Engineers: Member

## Professional Registration

American Institute of Certified Planners, 2003 (018596)

## Publications and Presentations

*Transportation Planning Handbook – Chapter 21 Pedestrian & Bicycle Planning,* with Matthew Ridgeway, Institute of Transportation Engineers, 2009
*Sustainable Development Code - Complete Streets Chapter,* Rocky Mountain Land Use Institute, March 2009
*TOD Trip Generation – State of the Practice Methods,* Colorado Wyoming ITE, Colorado WTS, and Rocky Mountain ITS Spring Transportation Symposium, April 2008
*Complete Streets*, presentation to Rocky Mountain Land Use Institute, March 2007
*Bridging the Gap: Integrating the Regional Model and Microsimulation,* TRB Annual Meeting Presentation, January 2006
*Who Rules Your Right of Way?,* with Greg Hoch, Kathleen Bracke, and Ellen Ittelson, National APA Conference, April 2006
*Factors influencing bicycle crash severity on two-lane, undivided roads in North Carolina,* with Asad J. Khattak, Transportation Research Record 1674, January 1999

## Project Experience

**Los Angeles Union Station Master Plan**
As part of the team selected by Metro to prepare the Los Angeles Union Station Master Plan, Fehr & Peers is providing expertise in all aspects of surface transportation and the relationship between transportation and land use. The multimodal approach includes the relationship and interface between people arriving and connecting via all modes of travel and is focused on the experience and connection to the both the history and the future of this iconic station. Fehr & Peers is working closely with staff and the team to provide a management plan for parking



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as it relates to the station and supports new development. Our approach will translate into appropriate guidance toward creating an optimal transit-oriented district that is distinctly Los Angeles. Our expertise will inform the project from early testing of concept alternatives through development of the final master plan. Specific areas of our involvement will include transit (rail and bus), pedestrian and bicycle access enhancements, development trip generation analysis, and supporting alternatives development and evaluation for high speed rail integration. Mr. Klop is project manager.

**LA/2B City of Los Angeles Mobility Element Update**

Fehr & Peers is leading a team updating the General Plan Mobility Element for the City of Los Angeles. From a selection of alternative approaches, the City chose a multimodal layered-network approach with a context sensitive overlay to update its street classification system. Fehr & Peers is picking up where its LA Street Classification and Benchmarking System study left off and working with the City to develop concepts for a layered network. Fehr & Peers will work with the City to create new street standards based on the development of that layered network. Through an extensive social media campaign and a series of meetings and workshops, Fehr & Peers will frame the conversation in terms of transportation choices, where options and tradeoffs are clearly defined to reflect both aspirational goals and the constraints of conditions on the ground. This framing allows for the productive exchange of ideas between the public and the City. The Fehr & Peers team is working with the City to prepare a Streetscape Manual that identifies required improvements associated with each street type and addresses the existing disconnects between policy goals and current street standards. Throughout the project, our team is performing outreach and branding related to public engagement for the Mobility Element (now called LA2B). Using an innovative social media approach, the engagement approach includes crowdsourced idea generation and dialogue, a custom contest for ideas, and in-person workshops across the City. Mr. Klop is project manager.

**Street Classification and Benchmarking System, Los Angeles, CA**

As project manager, Mr. Klop led this effort to develop a new classification and benchmarking system for streets throughout the City of Los Angeles. In addition to a review of existing classifications and policies within the City, Fehr & Peers researched and evaluated the effectiveness of measurement tools for benchmarking related to travel modes, land use context, and potential reduction in vehicle miles traveled. The classification system was closely linked to the physical design of streets and a new set of street typologies that respond to the adjacent land use context.

**Strategic Transportation Plan, Denver, CO**

Fehr & Peers helped the City and County of Denver develop the Strategic Transportation Plan. As part of a large, multidisciplinary team, Fehr & Peers worked with staff to develop a new "person trip" capacity approach to forecasting demand for travel and establishing needed improvements. Since the focus of the study was citywide, the project team also sought to go beyond the traditional focus on corridors and instead emphasize a series of "travelsheds" that captured major origin and destination patterns and which also recognized the relationship between adjacent neighborhoods and major transportation corridors. Mr. Klop oversaw the Downtown Travelshed portion of the plan, which included forecasts of person travel in and out of Downtown, evaluation of potential multimodal improvements, and development of a specific project list and cost estimates for implementation. The project also represented a pivotal point in Denver's strategy for transforming transportation where key decisions were made to focus on moving people and to stop growing Denver's road footprint.

**Additional Representative Project Experience**

Mr. Klop served as either the project manager or Principal-in-charge for the following related projects:

- Transit Neighborhood Plans, Los Angeles, CA
- Livable Streets Assessment, Carlsbad, CA
- Mobility Plan Update, Manhattan Beach, CA
- Designing Transit Accessible Communities, Maricopa Association of Governments, AZ
- Riverside Corridor Plan, Austin, TX
- North Stapleton Infrastructure Master Plan, Denver, CO
- Fitzsimons Multimodal Access Plan, Aurora, CO
- University of Wyoming Long Range Development Plan, Laramie, WY
- Cherry Creek North Streetscape, Denver, CO



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# Sarah Brandenberg, PE

Principal

## About

Ms. Brandenberg has 15 years of experience with Fehr & Peers and has managed many complex studies, such as transportation impact studies, EIR transportation and circulation sections, transportation planning studies, and multi-modal corridor studies. She has managed several controversial roadway improvement and land development projects in which public outreach was crucial to project success. In the Freeport/21st Street Two-Way Conversion Study in Sacramento, Sarah led a neighborhood working group through the study process and gathered input on potential project alternatives, such as eliminating a vehicle travel lane to provide on-street bicycle lanes. Sarah also has expertise in Master Plans and University Planning and has prepared the Long Range Development Plans for both UC Davis and UC Santa Barbara, two campuses well known for their high use of active modes of travel and extensive bicycle networks. Other large transportation planning projects include the City of Sacramento and City of Beverly Hills General Plans. Sarah is currently serving as the Project Manager for the City of LA Mobility Element Update and the Wilmington EMPOWER Mobility Plan, and is the Deputy Project Manager for the Westside Mobility Plan in Los Angeles in which public outreach, including the development of a project webpage, on-line survey, and social media sites, are crucial to project success. Sarah's ability to work closely with clients, complete a high-quality technical analysis, and clearly communicate study findings have been and will continue to be critical to project success.

## Education

Bachelor of Science, Civil and Environmental Engineering, Cal Poly San Luis Obispo

## Professional Registration

Licensed Traffic Engineer, State of California

## Publications and Presentations

Taking Micro-Simulation Models to a New Level, Institute of Transportation Engineers District 6 Annual Meeting, July 2002

Balancing Bicycle and Pedestrian Mobility, ADA Requirements & Interchange Design, Institute of Transportation Engineers National Meeting, August 2004

## Project Experience

**Westside Mobility Plan, City of Los Angeles**

Fehr & Peers, with Sarah as the deputy project manager, is leading a multi-disciplinary team to develop a long-term comprehensive Mobility Plan for the Westside of the City of Los Angeles, California. The study includes six major components: development of a state-of-the-art travel demand model; a mobility and rail connectivity study including the potential for north/south rail transit connections from the LAX area through the Westside and integration of transit, highway, bicycle and pedestrian modes; a comprehensive Westside parking study; updates to the Coastal Transportation Corridor and the West Los Angeles Transportation Specific Plans (including trip fee nexus studies for each); and a livable boulevards study addressing the integration of urban design/streetscape and transportation planning. The study includes a substantial public outreach program to engage the community throughout the process. The Westside Mobility Plan blueprint is intended to serve as a catalyst



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for future action to improve transportation on the Westside.

**UC Santa Barbara Long Range Development Plan, Santa Barbara, CA**

Fehr & Peers, with project management provided by Sarah, prepared the transportation impact study for the UC Santa Barbara Long Range Development Plan. The University's plan included the development of new housing to accommodate all new students, faculty, and staff over the 20 year planning horizon. A detailed trip generation survey was conducted to determine the trip generation of students, faculty/staff, and on-campus housing to produce defensible traffic projections for the proposed growth. A sub-area travel demand forecasting model was developed using the local travel model to forecast cumulative traffic projections within the study area and identify the University's fair-share of traffic mitigation. The mobility of bicyclists, pedestrians, transit, and personal vehicles was considered in the analysis along with the availability and demand for on campus parking. Sarah also assisted the University in negotiations with the adjacent jurisdiction for transportation mitigation. Fehr & Peers has served as the on-call transportation consultants for UC Santa Barbara since 2006.

**UC Santa Barbara Ocean Road Housing Project & Bicycle Planning, Santa Barbara, CA**

Fehr & Peers prepared a transportation and circulation study for the Ocean Road development on the main campus of UC Santa Barbara. The project included development of over 500 residential units and two parking structures. The key components of the project were accounting for the unique trip generation characteristics of the proposed housing and accommodating bicyclists traveling between Isla Vista and the main campus. A detailed evaluation of bicycle travel around the Ocean Road housing complex was conducted to improve bicycle and pedestrian design characteristics with the circulation changes proposed as part of the housing project. Fehr & Peers hosted a bicycle and pedestrian design charette with campus staff and the community to identify potential improvements.

**Wilmington EMPOWER Mobility & Action Plan, City of Los Angeles**

Fehr & Peers, with Sarah as the project manager, is leading the Wilmington EMPOWER study. EMPOWER is combining community input and our team's technical expertise to identify mobility challenges and opportunities for the Wilmington area. A comprehensive Mobility Plan to serve the community through 2035 along with an Action Plan outlining six to eight near-term transportation improvements is being developed by our team. As part of this effort, Fehr & Peers is leading Technical Advisory Committee (TAC) meetings at appropriate milestones throughout the study process. A comprehensive public outreach effort began last fall to engage the community in the study and gather input through an on-line MetroQuest survey. The outreach activities provided an overview of the study and gathered input from the community on various mobility topics, such as transit, bicyclists and pedestrians, trip reduction strategies and roadway infrastructure. We also developed an EMPOWER website to increase project exposure and expand access to the residential and business surveys. All public outreach materials are created in both English and Spanish. Fehr & Peers will also be developing an informational brochure on traveling in the Wilmington area with useful and practical tips on using active modes of transportation and transit to reduce environmental impacts through personal mobility decisions.

**Beverly Hills Bikeway Planning & Design**

Fehr & Peers supported the City of Beverly Hills in the planning and design studies that resulted in the approval of the first bicycle facilities in the City. This study began with the evaluation of five potential bicycle routes in the City. Fehr & Peers assessed the feasibility of installing bicycle facilities on selected roadways as identified by the City's Bicycle Ad Hoc Committee. We conducted a field visit with City staff to identify opportunities and constraints and reported our findings to the Committee in Fall 2011. We then conducted a series of public workshops to present the findings of our study and met with the Transportation & Parking Commission as well as City Council to share our results. A key concern of the City was the safety implications of implementing bicycle facilities. We provided research on the additional safety benefits for bicyclists and vehicles that have been shown to result from the installation of bicycle facilities. Following the City Council's approval of two of the proposed bicycle routes, Fehr & Peers provided the engineering design drawings and cost estimates to be used for construction purposes. The new bicycle facilities on Burton Way and Crescent Drive will be constructed in Spring 2013.



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**Multi-Modal Performance Measures, City of Los Angeles**

As part of the Westside Mobility Plan, Fehr & Peers is working with the City of Los Angeles to develop multi-modal performance measures and methods to analyze the LOS for active modes of transportation, such as walking and biking, and transit. Various methodologies, including the 2010 HCM, were applied to two selected roadways in the City. The study focused on developing effective multi-modal mitigation measures instead of the over reliance of vehicular LOS. The results of this study will be used to shape the development of the layered transportation network as part of the City's Circulation Element Update.

**LA2B, City of LA Mobility Element**

Fehr & Peers, with Sarah as the EIR project manager, is leading a team updating the General Plan Mobility Element for the City of Los Angeles. From a selection of alternative approaches, the City chose to implement a multimodal layered-network with a context sensitive overlay to update its street classification system. Fehr & Peers used its previous work on the LA Street Classification and Benchmarking System study to develop concepts for a layered network and create new street standards. Through an extensive social media campaign and a series of meetings and workshops, Fehr & Peers framed the conversation in terms of transportation choices, where options and tradeoffs are clearly defined to reflect both aspirational goals and the constraints of conditions on the ground. This framing allows for the productive exchange of ideas between the public and the City. The Fehr & Peers team also worked with the City to prepare a Streetscape Manual that identifies required improvements associated with each street type and addresses the existing disconnects between policy goals and current street standards. Throughout the project, our team is performing outreach and branding related to public engagement for the Mobility Element (now called LA2B). In Phase 2 of the Mobility Plan update, Fehr & Peers is leading the team to prepare the technical analysis and EIR required for plan adoption. The City's Travel Demand Model, developed by our team, will be used to develop non-traditional performance measures to quantify the benefits of the City's new layered network. As part of this effort, our team geo-coded all of the planned and pending transportation improvement projects in the City that can be used by staff going forward. LA2B will create a new vision for mobility in the City of LA and provide the environmental clearance needed for implementation.

**Freeport/21st Street Two-Way Conversion Study, Sacramento CA**

Fehr & Peers worked with the City of Sacramento to convert Freeport Boulevard and 21st Street from one to two-way operations with Sarah as project manager. These roadways had operated as one-way facilities for approximately 25 years and served commuter traffic to and from Downtown Sacramento. The increases in traffic volumes and vehicle speeds had led to decreased neighborhood livability in the adjacent areas. Fehr & Peers coordinated with City staff in conjunction with a neighborhood working group to develop several design alternatives to convert the roadways back to two-way operation. The preferred and approved design consisted of reducing the number of travel lanes to accommodate on-street bicycle lanes and parking for adjacent residents and businesses. A detailed traffic operations analysis was prepared for the environmental impact report. The City approved this conversion project and the roadways were converted to two-way operation in 2007.

**South Placer County Transportation Impact Fees, Placer County, CA**

Fehr & Peers assisted in developing traffic impact fees for regional roadway projects in South Placer County. The result of this effort was the establishment of the South Placer Regional Transportation Authority (SPRTA) to manage and implement the fee program. Fehr & Peers worked closely with the member jurisdictions to prioritize the transportation projects to include in the fee program and develop the land use and growth assumptions that would fund the improvements. Fehr & Peers has served as the transportation consultants for SPRTA since the inception of the fee program in 2002, with Sarah serving as the project manager, and has updated the fees multiple times to account for new improvement projects and changes in development levels. The most recent fee update was completed in Fall 2009.

**City of Roseville/Placer County Traffic Impact Fee Program, Placer County, CA**

Fehr & Peers worked with the City of Roseville and Placer County to develop the City/County traffic impact fee program to fund improvements to Baseline Road, Fiddyment Road, and Walerga Road. These roadways are critical to both the City's and County's transportation network; and therefore, a new fee program was created to



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generate an additional source of funding for these improvements. The fee program was adopted in 2004 and was updated in 2007. The City and County are currently updating the traffic impact fees to reflect the latest development plans in the region, and adoption of the new fees is expected in Spring 2010. Sarah has served as the project manager for this fee study since its inception.

**Project Specific Traffic Impact Fee Studies, Placer County, CA**

Fehr & Peers developed traffic impact fees for the Placer Vineyards and Sierra Vista Specific Plan developments in Placer County. The Placer Vineyards project was located in Placer County and needed to pay its fair-share of roadway improvement costs to the City of Roseville. The Sierra Vista Specific Plan was proposed on land that would be annexed by the City of Roseville, and needed to pay for traffic impacts to County roadways. The Placer Vineyards traffic fees identified the development's fair-share of roadway improvement costs in the City of Roseville for all City CIP improvements. The Sierra Vista traffic impact fee program focused on roadway improvements identified in the County's CIP for locations north of I-80 and west of SR 65. These studies involved close coordination with the City, County and development team.

**UC Davis Long Range Development Plan, Davis, CA**

Fehr & Peers has served as the University's on-call transportation consultant for over six years and has conducted numerous studies on campus. A key project was the completion of their 2003 Long Range Development Plan. Fehr & Peers assisted with the transportation development of the campus long range plan related to access, new student and faculty/staff housing sites, parking, and bicycle and pedestrian planning with Sarah serving as the project manager. After the campus plan was complete, Fehr & Peers conducted a transportation impact study to determine potential traffic impacts and appropriate mitigation measures to accommodate campus growth over the 20-year planning horizon. The transportation study included the development of a TransCAD travel demand forecasting model for use by the City of Davis and the University and analyzed over 45 intersections during peak travel hours. The transportation analysis also included project specific traffic impact studies for several near-term campus projects: Robert Mondavi Wine & Food Institute, Multi-Use Stadium, Research Park, and West Campus Neighborhood. The transportation planning effort considered the benefit of providing additional on-campus student and faculty/staff housing to reduce commuter trips and limit impacts on regional roadway facilities.



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**Education**
Sussex University, England, Chemistry, concentration in Environmental Science
Masters Degree, Candidate, Environmental Management, University of San Francisco
**Professional Affiliations**
Association of Environmental Professionals
Los Angeles Conservancy
American Planning Association

Ms. Lockwood is an environmental consultant with 31 years experience in the preparation of environmental documents pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). She has been the Project Manager for major projects and technical task leader on complex projects involving noise, air quality, energy, and hazardous wastes/materials issues. Ms. Lockwood has broad knowledge and understanding of State and local planning regulations and regional planning documents in Southern California. She has participated in the preparation of environmental documentation for over 500 projects.

Ms. Lockwood has experience with a wide variety of projects, issues and communities and using this experience is able to quickly identify and address issues of potential concern before they become major problems. Her technical background allows her to review complex documentation and identify potential analytic flaws. For these reasons, Ms. Lockwood is frequently asked by lead agencies, larger consulting firms, and lawyers to provide detailed review and recommendations concerning CEQA and NEPA documents, including providing overall advice concerning approach and content of environmental documents, critical review of completed documents/analyses as well as providing specific review of more complex projects and/or issues.

In January 2006, Ms. Lockwood started the small environmental consulting firm of Sirius Environmental (Sirius). Sirius (WBE/SBE/VSBE) is an environmental consulting firm that provides CEQA and NEPA related services. Sirius Environmental was formed to focus on project and program management of projects and programs requiring a detailed understanding of CEQA and NEPA and requiring responsive, individualized management. Sirius Environmental provides support to developers, engineers, consulting firms and public agencies in the preparation of clear, accurate technical reports and documents that meet the increasingly demanding needs of communities and their decision makers.

Ms. Lockwood's areas of technical specialty are energy conservation, noise, air quality, greenhouse gas emissions and hazardous materials. She has overseen the preparation of numerous energy, noise, air quality, and hazardous materials analyses for a variety of projects – small and large. She is also familiar with land use regulation and prepares Land Use analyses for projects in complex regulatory environments as well as aesthetic analyses for projects in urban and rural environments.

Ms Lockwood is an experienced CEQA and NEPA project manager. She has overseen the preparation of comprehensive environmental documents for a variety of different projects, managing complex technical analyses and providing advice to clients regarding effective mitigation strategies. She is familiar with recent case law with respect to environmental documentation. She has undertaken public outreach for controversial projects in a number of sensitive communities.

Ms Lockwood emphasizes quality and responsiveness in her work. She works closely with clients to ensure that information presented in the documents she oversees is complete, accurate, concise, and understandable to the reader.

The selected experience below provides a representative cross section of Ms. Lockwood's experience.

**Selected Experience**

**Southern California National Freight Gateway Collaboration (2012).** Worked with SCAG staff to develop a process to allow expedited coordinated processing of certain freight projects in the region. The Southern California National Freight Collaborative was formed to recognize that freight movement through the region is a

key component of the economy of Southern California and that it needs to be recognized – regionally and nationally as an important integrated infrastructure project. The Collaborative wanted to address environmental concerns by looking at the system as a whole rather than in parts. Such an approach has the potential to allow individual projects to proceed in a streamlined fashion. Ms. Lockwood worked with members of the Collaborative as well as reviewing and permitting agencies to develop an expedited joint-agency process.

**Port of Los Angeles/Port of Long Beach QA/QC (2006).** As part of the ESA team, Ms. Lockwood participated with staff from both Ports in discussing a coordinated approach to key environmental issues common to both Ports, including cumulative analysis, air quality, health risk and mitigation.

**Southern California Association of Governments 2001, 2004, 2008 and 2012 Regional Transportation Plan (RTP). Project Manager.** Ms. Lockwood managed the preparation of the last four RTP Program EIRs (the last one in association with TAHA). The RTP EIRs address impacts associated with 20 to 25 years of anticipated regional transportation improvements and associated growth. The 2001 EIR evaluated five operational scenarios at the 12 regional airports. The complex evaluations looked at noise, air emissions and environmental justice issues across the SCAG six county region, focusing on areas in close proximity to airports. For each RTP Program EIR Ms. Lockwood oversaw the completion of a regional and county-by-county analyses, making extensive use of GIS to examine population, housing, employment, land use, transportation, air quality, noise, aesthetics and views, biological resources, cultural resources, geology, energy, water resources, and public services and utilities. Starting in 2004 the RTP PEIR started to address risk and health effects. Starting in 2008 the RTP PEIR began addressing greenhouse gas emissions. Ms. Lockwood also analyzed the potential displacement or relocation of residences and businesses through acquisition of land and buildings necessary for highway, arterial, and transit improvement; effects of RTP projects on residences, educational facilities, medical facilities, and places of worship; and disturbance and loss of open space areas and agricultural lands.

**City of Los Angeles CEQA and NEPA Compliance (2006 to present).** Ms. Lockwood provided advice to City of Los Angeles staff regarding CEQA and NEPA compliance for a range of planning documents including the new Community Plans and the Bicycle Master Plan and Implementation Plan. In this role Ms. Lockwood met with City staff and consultants to discuss how to approach such thorny CEQA issues as cumulative analysis, consistency in approach and analysis across a variety of City documents, thresholds of significance, mitigation measures as well as how to address specific topics such as Project Description approach and level of detail for analyses such as risk and air toxics.

**Crenshaw Transit Corridor Project (2010).** As a subcontractor to Terry A. Hayes, Inc., Ms. Lockwood provided QA/QC services in reviewing technical sections.

**Hollywood Community Plan EIR. QA/QC Review and Oversight (2007 to present).** Ms. Lockwood was asked by the City of Los Angeles to assist in completing the internal Screencheck Draft EIR and then Draft and Final EIRs for the new Hollywood Community Plan. City staff had competed much of the analysis but needed help pulling the document together, and publishing it. Ms. Lockwood, working as part of the TAHA team, met weekly with City team members to review progress and provide feedback on completed work (analyses and now response to comments).

**Hollywood Mobility Strategy Plan (2006).** Preparation of environmental documentation for the Hollywood Mobility Strategy Plan, a planning document prepared by Iteris for the CRA. The Mobility Strategy Plan aimed to improve traffic and environmental conditions in the Hollywood area. The analysis addressed the potential adverse impacts that could result from proposed access and parking improvements, including rerouting of traffic and unintended consequences to historic buildings as a result of changed traffic patterns and parking strategies.

**On-Call Contracts (2005 to presnt).** Ms. Lockwood has managed a number of long-term on-call contracts including with the Metropolitan Water District, City of Los Angeles Recreation and Parks Department, County Parks and Recreation, City of Los Angeles Public Works, County of Los Angeles public Works. Ms. Lockwood managed the preparation of numerous documents for a variety of projects under these on-call contracts.

**Warner Center Specific Plan Update EIR (2007 to 2014).** Ms. Lockwood recently completed environmental analysis of an update to the Warner Center Specific Plan, that will allow for an additional approximately 20,000

residential units and an additional 15 million square feet of non-residential space in the approximately 900 acres covered by the plan. The Warner Center project is located on the Metro Orange line and is a major employment center in the San Fernando Valley. The City of Los Angeles plans to make Warner Center more balanced center with more housing to support the current and future employment. The Specific Plan calls for an internal circulator to provide internal connectivity and connection to the Orange Line and local bus service. The EIR is being prepared at the same time that the Specific Plan is being prepared and thus as changes are made to the Specific Plan the Administrative Draft EIR is updated. In addition the Administrative Draft EIR was used to identify environmental polices so that the Plan becomes substantially self-mitigating. The Warner Center EIR process includes extensive interaction with a Community Advisory Committee; this committee is providing extensive input to the Specific Plan itself as well as highlighting key issues of concern.

**Metro Orange Line Extension, Project Manager (2008 to 2011).** Under a contract to Iteris, Ms. Lockwood managed the preparation of this fast-track Environmental Impact report (EIR). The Los Angeles County Metropolitan Transportation Authority's (Metro) Orange Line (which opened in 2005) is a bus rapid transit project extending from Warner Center to North Hollywood. The extension will provide connection to the Chatsworth rail line. Key issues addressed in the EIR included land use compatibility (adjacent mobile homes), construction noise, and changes in views as a result of the proposed grade-separated rail crossing. The EIR process included a number of community workshops where the project team presented the project, EIR analysis and answered questions.

**First Year of the First Five-Year Implementation Strategy for the 2010 Bicycle Plan EIR (2012 to 2013).** Under contract to TAHA, Ms. Lockwood is managing this EIR. The newly adopted AB 2245 will allow striping for bike lanes to be statutorily exempt from CEQA in future, but this EIR is already almost complete. Key issues addressed in this EIR include land use changes that could result from any loss of parking and potential diversion of traffic in to neighborhoods, traffic and safety impacts that could result from loss of travel and parking lanes, air quality, and noise. The EIR addresses a range of alternatives for about 40 miles of new bicycle lanes along key routes in the City of Los Angeles, where travel and/or parking lanes are proposed to be lost. Some proposed lanes are controversial because of potential traffic delays along critical north-south routes.

**City of Los Angeles Mobility Element (2012 to present).** Under contract to Fehr & Peers, Ms. Lockwood is managing the preparation of an EIR for the proposed City of Los Angeles Mobility Element. This effort includes consideration of new thresholds of significance for traffic impacts in the City of Los Angeles.

**City of Los Angeles Transit Neighborhood Plans (2012 to present).** Under contract to TAHA, Ms. Lockwood is managing environmental review for proposed changes to land use planning in the vicinity of transit stations along the Crenshaw and Exposition transit lines. Several different types of environmental document are anticipated for the different areas (Addendum to an Existing Community Plan, Statutory Exemption for bike lanes – per the newly adopted AB 2245, Mitigated Negative Declarations). Alternatives analysis and bracketing a range of potential development options is a major consideration.

# MICHAEL SULLIVAN, AICP

**SENIOR PLANNER**

**Education**
University of California Riverside, Bachelor of Science, Environmental Science, 1995
University of California Riverside, Bachelor of Art, Political Science, 1995

Mr. Sullivan joined TAHA in 2007 and specializes in transportation, land use and socioeconomics. He has been on the forefront of integrating a multi-disciplinary approach to evaluating projects that focus on impacts to adjacent communities. He incorporates a multitude of data sources in conducting community-based analyses including, but not limited to, U.S. Census, American Community Survey, transit modeling, and regional growth forecasts. His responsibilities at TAHA include project management, environmental justice/Title VI, Section 4(f), cultural resources/Section 106, land use, traffic and transportation.

**Relevant Experience**

**1130 South Hope Street Shadow Study**. TAHA prepared a shadow study for a proposed 10-story, approximately 120-foot tall hotel in Downtown Los Angeles with up to 44 rooms. The Shadow Study was required as a condition of approval to determine if the building as proposed would cast shadows on any shade-sensitive uses of the adjoining residential condominiums in any way that would exceed established thresholds of significance pursuant to the City of Los Angeles CEQA Thresholds Guide (2006). Mr. Sullivan created 3D models of the existing buildings surrounding the site, used schematic drawings to create a model of the proposed project, analyzed the shadows cast by the project and existing development and evaluated the impacts of the shadows against the City of Los Angeles CEQA Thresholds for shadows.

**3997 Glenalbyn Drive IS/MND**. TAHA prepared an Initial Study/Mitigated Negative Declaration for a single-family residential project in the Mount Washington/Glassell Park Specific Plan Area of the City of Los Angeles. The proposed project involves the construction of a 4,004-square-foot, three-story single-family residence with an attached garage. Key issue was the cumulative impacts of the four proposed new single-family residences. Mr. Sullivan assisted in impact analysis for the project.

**5245 Santa Monica Boulevard IS/MND**. TAHA prepared an Initial Study/Mitigated Negative Declaration for the development of a mixed-use project located in the Hollywood community of the City of Los Angeles. The project consisted of the development of 74 assisted living units, five retail units, five medical office units, and ten regular office units. Key issues addressed included an analysis of potential noise and shadow impacts. Mr. Sullivan assisted in impact analysis for the project.

**848 Grand Avenue Project IS/MND**. TAHA prepared an air quality and noise assessment for a 420-unit (condominiums) residential project that included 34 stories, three above ground parking levels and one ground retail/lobby level. The air quality analysis focused on localized construction emissions. The noise analysis focused on vibration impacts to a nearby historic land use. Mr. Sullivan prepared the Air Quality and Noise Technical Impact Report.

**Alhambra Unified School District Scanlon Center IS**. TAHA prepared an Initial Study for the Alhambra Unified School District to renovate and convert the Scanlon Center into an alternative high school accommodating students attending both Century and Independence High Schools. Mr. Sullivan assisted in conducting an on-site survey, which included ambient noise readings and surrounding land uses.

**Azusa Intermodal Transit Facility EIR/EA**. TAHA prepared an Environmental Impact Report and an Environmental Assessment for the City of Azusa. The project proposes the replacement of a surface parking lot with a three-story parking structure with rooftop parking for approximately 550 parking spaces for patrons of the Azusa Civic Center, Foothill Transit buses and the future Metro Gold Line. The project will be partially funded by federal grants, and, therefore, must also adhere to the requirements of NEPA in addition to CEQA. Key issues include visual and cultural resources, and parklands and public services. Mr. Sullivan is the project manager and is responsible for coordination in the development of the project, participating in team meetings, preparation of the Section 4(f) analysis, assisting in preliminary alternatives analysis, and analyzing the existing setting and potential impacts.

**Bunker Hill Redevelopment Project Amended Design for Development EIR**. TAHA prepared an Environmental Impact Report for the Bunker Hill Amended Design for Development for the Community Redevelopment Agency of the City of Los Angeles. Among the objectives cited in the Downtown Strategic Plan are to establish in the district vibrant neighborhoods containing a variety of housing types in the district, to promote a pedestrian network within a framework that accommodates large buildings and variety of open spaces, to link Bunker Hill and surrounding neighborhoods and districts through a coherent pedestrian network, and to link Bunker Hill to the region through the rail transit network in Downtown Los Angeles. Mr. Sullivan assisted document preparation and technical editing.

**Caltrain Bridge Replacement Projects Air Quality Impact Reports**. TAHA prepared two air quality assessment for the replacement of two rail bridges in the City of San Jose. Replacing the bridge structures would improve the safety of rail operations, minimize service interruptions, minimize future maintenance requirements, and maximize infrastructure life. The analysis focused on regional construction emissions and compliance with federal transportation conformity guidelines. Mr. Sullivan conducted the air quality analysis and drafted the reports for both bridge replacements.

**Caltrain Electrification Program Air Quality Impact Report**. TAHA prepared an air quality analysis for electrifying diesel trains in the San Francisco Bay Area. The analysis focused on regional criteria pollutant emissions calculations for diesel-powered trains and electric trains. An emissions comparison showed that electric trains would decrease regional emissions, including diesel particulate matter. Mr. Sullivan assisted in preparation of the air quality analysis.

**Caltrans I-710 Soundwall Visual Impact Technical Memorandum**. TAHA prepared a visual analysis of proposed early action soundwalls for the Interstate 710 (I-710) Corridor Project. The purpose of this memorandum was to assess the visual impacts of the proposed soundwalls for the I-710 Corridor Project and to propose measures to mitigate any adverse visual impacts associated with the construction of the I-710 Corridor Project on the surrounding visual environment. During construction of the freeway and soundwalls, existing landscaping would be removed from the right-of-way. New landscaping and aesthetic treatments would comply with the Corridor Master Plan. Where required, it includes evaluations on the reduction or avoidance of possible adverse environmental impacts and proposes possible mitigation measures to alleviate those adverse impacts. The memorandum takes into consideration the project area and adjacent areas where viewers can observe the visual changes resulting from the soundwalls. Mr. Sullivan created the visual renderings, conducted the analysis and prepared the memorandum for the project.

**Caltrans High Desert Corridor Project Energy Technical Report**. The High Desert Corridor Project is proposing construction of a new multi-modal link between State Route 14 (SR-14) in Los Angeles County and State Route 18 (SR-18) in San Bernardino County. This project would connect some of the fastest growing residential, commercial and industrial areas in Southern California, including the cities of Palmdale, Lancaster, Adelanto, Victorville and the Town of Apple Valley. Several potential alternatives (and a number of route variations) are currently being studied as part of the Draft Environmental Impact Statement/Environmental Impact Report. The key issues for the project include the development of alternatives, transportation effects, and the inclusion of energy components to reduce the energy needs of the project. Mr. Sullivan is responsible for the Energy Technical Report for the project.

**Casa Mira View Project Air Quality and Noise Impact Report**. TAHA prepared an air quality and noise assessment for the construction of 1,848 multi-family residential units in the Mira Mesa neighborhood of the City of San Diego. Sensitive air quality and noise receptors near the project site included residential and recreational land uses. The air quality analysis focused on potential exposure of new residential land uses to toxic air containments generated by vehicles traveling on an adjacent freeway. The noise analysis focused on land use compatibility issues associated with having sensitive receptors adjacent to a freeway. Mr. Sullivan assisted with technical editing of the document.

**Cedars Sinai Medical Center Project Air Quality and Noise Impact Report**. TAHA prepared an air quality and noise assessment for the construction of an 11-story, 477,650-square-foot inpatient/medical

support facility in the City of Los Angeles. Sensitive air quality and noise receptors near the project site included medical and residential land uses. The air quality analysis focused on localized pollutant concentrations from construction activity due to sensitive receptors being adjacent to the project site. The noise analysis quantified construction noise at adjacent sensitive land uses and recommended mitigation measures to lower noise levels. The noise analysis thoroughly discussed potential vibration impacts from construction activity associated mitigation measures. Mr. Sullivan assisted in the technical editing of the document.

**City of Los Angeles Mobility Element Plan 2035**. TAHA is currently preparing an EIR for the Update to the City of Los Angeles Mobility Element. The update to the Mobility Element is envisioning a new way of moving around the City, using its streets for mobility and beyond. This process involves the creation of priority corridors and designing complete street networks to foster healthy and livable communities. The key issue for the project involves planning for project level transit improvements within a programmatic document. Mr. Sullivan is currently managing the preparation of an EIR for the update to the City of Los Angeles Mobility Element.

**City of Monrovia General Plan Amendments to the Land Use and Circulation Elements Noise Analysis**. TAHA completed a noise assessment of proposed amendments to the Land Use and Circulation Elements of the Monrovia General Plan. The amendments would allow the development of approximately 3,950 net new residential units and almost one million square feet of net new nonresidential development over the life of the plan (approximately 20 years). The noise analysis included a discussion of construction and operational noise and mobile noise contours. Mr. Sullivan conducted on-site noise monitoring.

**City of Santa Ana-Garden Grove Fixed Guideway EIR/EA**. TAHA prepared a combined Draft EIR/EA for a streetcar transit system linking the Santa Ana Regional Transportation Center and the Harbor/Westminster Corridor. Two alternatives are being considered within the historical Downtown Santa Ana and key issues involve the preservation of historic bridge and the loss of parking. Mr. Sullivan prepared Environmental Justice, Cultural Resources, Community Impact and Section 4(f) technical reports and corresponding sections for the project.

**County of Los Angeles Data Center Air Quality Impact Report**. TAHA prepared an air quality assessment for County Data Center on the Rancho Los Amigos National Rehabilitation Center Campus within the City of Downey, County of Los Angeles. The proposed project included an office building, a parking lot, and rehabilitation of a historic power plant building to accommodate the emergency power supply. The analysis focused on sensitive air quality receptors near the project site including residential and educational land uses and stationary source emissions from four 2,000 kilowatt generators (fueled by fuel oil) and five cooling towers. Mr. Sullivan assisted in completing the air quality study

**Downtown Redlands Specific Plan Program EIR**. TAHA is preparing a Program Environmental Impact Report for the City of Redlands. A portion of the project site includes a National Register historical district. The proposed project includes amendments to the General Plan and revisions to the Downtown Redlands Specific Plan (i.e., expansion of its boundaries, modification of its goals, and establishment of a development program that will provide a pedestrian-friendly, amenity-rich mixed-use environment. Key issues include historic resources, population growth, and traffic impacts. Mr. Sullivan prepared land use, geology, seismicity, hydrology, and public services sections.

**East Los Angeles College Master Plan EIR, Addendum and Supplemental EIR**. In 2001, TAHA prepared an Environmental Impact Report that evaluated the expansion plans of the East Los Angeles College. The project included expanding its current facilities, developing new structures, rehabilitate old structures, and potentially sharing land uses with other agencies, such as a high school. In 2004, TAHA prepared an addendum to the EIR as the result of changes to the Master Plan that considered a reduction in the total number of proposed parking spaces, removal of additional buildings, and reorientation of proposed buildings. In 2010, TAHA prepared a Supplemental EIR that focused on the additional information and analysis necessary to reflect the projected increase in enrollment and proposed changes

to the campus relative to the previous Master Plan EIR. Key issues of concern included visual impacts, land use compatibility, traffic, parking, air quality, noise, police service, fire access, utilities, hazards related to removal of buildings, historic resources, and archeological sensitivity. Specific attention was placed on the potential impact of the expanded Weingart stadium on traffic and the surrounding residential neighborhood. Mr. Sullivan analyzed and prepared the land use section of the EIR.

**Formation of the Wiseburn Unified School District Program EIR**. TAHA prepared an Air Quality and Noise Impact Report and a Program Environmental Impact Report for the formation of the Wiseburn Unified School District (WUSD), which involved a change of local government structure from separate elementary and high school districts to one unified district to serve grades K–12. Primary focus of the Program EIR was the effects related to the foreseeable development of a new high school within the WUSD, including identification of potential school sites and the general effects of a prototypical school on the surrounding areas of each of these sites. Key issues of concern included land use and economic and fiscal effects. Mr. Sullivan assisted in analyzing air quality, noise and vibration, public services sections.

**Geary Corridor Bus Rapid Transit Project**. TAHA is preparing air quality, noise, and energy reports for a bus rapid transit (BRT) project in San Francisco, The San Francisco County Transportation Authority proposes to implement transit improvements from approximately the Transbay Terminal in the east (First and Mission Streets) to 33rd Avenue in the west. The environmental analysis will identify the benefits and impacts of BRT alternatives, recommend a preferred alternative for Geary Boulevard, and develop a set of strategies to mitigate potential impacts of BRT implementation. The analyses focused on changes to regional vehicles miles traveled affected regional air quality and energy. Mr. Sullivan prepared the noise analyses the project.

**George Washington Carver Lighting Study**. TAHA conducted a technical lighting study for the Los Angeles Unified School District (LAUSD). The lighting study evaluated the potential spillover light and glare effects of installing four 70-foot tall poles with lighting fixtures at the existing George Washington Carver School athletic field. The primary concern was the potential for spillover light to impact nearby residential properties and buildings. The lighting would be installed to illuminate the athletic field to an average of approximately 50 footcandle (fc). *Visual Professional Edition – Version 2.6* light modeling software was used to model the project site, existing lighting, proposed lighting, and potential mitigation strategies. Mr. Sullivan monitored the existing on-site lighting conditions at the high school and surrounding area and assisted in the preparation of the document.

**Highway 1 Soquel to Morrisey Auxiliary Lanes Project Air Quality Impact Report**. TAHA prepared an air quality assessment for a Highway 1 auxiliary lane from Soquel Avenue to Morrissey Boulevard in Santa Cruz County. Sensitive receptors near the transportation corridor included residential and educational land uses. The air quality analysis discussed two alternatives: No Build and Build. The analysis included mobile source air toxics, dispersion modeling, and a discussion of acrolein emissions per Monterey Bay Unified Air Pollution Control District guidelines. Mr. Sullivan assisted in the preparation of the Air Quality Technical Report, which included graphics, CO analysis, regional and localized construction emissions, operational emissions, ambient air quality, mobile source air toxics, greenhouse gas analysis, and federal conformity consistency.

**Hollywood High School Athletic Field Lighting Study**. TAHA prepared a lighting evaluation report for the Los Angeles Unified School District (LAUSD). The study evaluated the spillover light and glare effects of installing six 65-foot tall poles with lighting fixtures at the existing Hollywood High School athletic field. Key issues included the potential for spillover light to impact nearby residential properties and buildings. Mr. Sullivan monitored the existing on-site lighting conditions at the high school.

**Hollywood Park Redevelopment Project Air Quality and Noise Impact Report**. The Hollywood Park Redevelopment Project consisted of the redevelopment of the approximate 238-acre Racetrack Grandstand and the Pavilion/Casino and the construction of a new mixed-use development. The proposed project included demolition of all improvements and structures on the project site, including the Hollywood Park Racetrack and grandstand, and the new construction of approximately 2,995 for-sale

dwelling units, 620,000 square feet of retail space, 75,000 square feet of office/commercial space, a 300-room hotel including 20,000 square feet of related meeting space, and 10,000 square feet of community serving uses. Sensitive receptors located near the project site included residential and institutional land uses. The air quality analysis focused on regional construction and greenhouse gas emissions. The key noise issue was land use compatibility for mixing residential with commercial land uses. Mr. Sullivan assisted with on-site noise monitoring and noise modeling.

**Home Depot Center NFL Training Facility Supplemental EIR**. TAHA is preparing a Supplemental Environmental Impact Report for the Home Depot Center EIR. The proposed project includes the development of a hotel and NFL training facility on the Home Deport Center site on the California State University Dominguez Hills (CSUDH) campus. The proposed project also includes the development of a lighted soccer field and two additional recreational soccer fields. Key issues for the project include spillover lighting, land use, and noise. Mr. Sullivan is the project manager and is responsible for coordination in the development of the project, and participating in team meetings, attending public scoping meetings, preparation of the Supplemental EIR.

**Inglewood Florence La Brea Transit Oriented Development (TOD) Study**. A TOD Study was prepared to capitalize on the transit investment of the Crenshaw/LAX Transit Project and to spur the development of Downtown Inglewood. The station area planning process used community input to prioritize and plan for the development of key pieces within the Downtown Inglewood area that will link the transit station with both the community Civic core. Mr. Sullivan was the TAHA project manager for developing phased light rail station area development (TOD) strategies for the City of Inglewood.

**Jordan Downs Redevelopment Project EIR**. TAHA prepared an Environmental Impact Report for the Housing Authority of the City of Los Angeles (HACLA) for the redevelopment of Jordan Downs. Currently, Jordan Downs provides 700 housing units for approximately 2,300 residents on 49.4 acres of land. The redevelopment of Jordan Downs will include a one-for-one replacement of the existing housing units and an expansion to accommodate an additional 1,400 housing units on the existing property and 21 acres of County of Los Angeles land that will be annexed to the City of Los Angeles as part of the project. Mr. Sullivan is responsible for evaluation of the land use impacts associated with the project.

**LACC Master Plan Revisions EIR Addendum**. TAHA prepared an Addendum to the Master Plan Environmental Impact Report that TAHA previously prepared for the Los Angeles City College (LACC) to ensure that no new significant impacts would result from the improvements planned in the new Master Plan Update that has been prepared for the college. The improvements planned for the college include enlarging the central plant, constructing a new physical plant and new student union building, and demolishing the existing cafeteria to accommodate a new Student Union Plaza. Mr. Sullivan conducted on-site surveys and photo documentation, as well as completing the analysis and subsequent preparation of the Addendum.

**LACMTA Crenshaw/LAX Transit Corridor Project AA/EIS/EIR**. In association with Parsons Brinckerhoff, TAHA prepared an Alternatives Analysis (AA) and Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Crenshaw/LAX Transit Corridor Project. After the release of the Draft EIS/EIR, TAHA prepared a Supplemental Environmental Impact Statement/Recirculated Draft EIR to evaluate additional maintenance facility sites for the project. Since the publication of the Record of Decision in December 2011, TAHA has also prepared two additional environmental documents (Supplemental Environmental Assessment/Addendum and Environmental Technical Memorandum/Addendum) to address design changes that have occurred during refined engineering. The proposed project will provide for a Light Rail Transit service within the Crenshaw Corridor and along the Harbor Subdivision, an existing freight railroad line. The Corridor extends approximately ten miles from Wilshire Boulevard on the north to El Segundo Boulevard on the south. The 33-square-mile project study area includes portions of the Cities of Los Angeles, Inglewood, Hawthorne, El Segundo, as well as portions of unincorporated Los Angeles County. Mr. Sullivan was responsible for coordination in the development of the project, and participating in weekly team meetings, attending

public scoping meetings, and assisting in preliminary alternatives analysis, and analyzing the existing setting and potential impacts in the EIR/EIS.

**LACMTA Airport Connector AA/EIS/EIR**. TAHA is currently preparing a combined Alternatives Analysis/Draft Environmental Impact Statement/Environmental Impact Report for a transit connection linking the Metro Green Line Aviation Station and Los Angeles International Airport (LAX). Key issues of concern include the interface of airport operations and traffic and parking. Plans call for the proposed project to utilize either a people mover system that would link to the existing Aviation Station or to one of a number of proposed Metro Green Line extension alignments. Mr. Sullivan is responsible for coordination in the development of the project, and participating in weekly team meetings, attending public scoping meetings, and assisting in preliminary alternatives analysis, and analyzing the existing setting and potential impacts in the EIR/EIS.

**LACMTA Regional Connector EIS/EIR**. In association with CDM, TAHA prepared an EIS/EIR for the Regional Connector Project. The Regional Connector will connect the Metro Gold Line, Blue Line and Expo Line enabling passengers to travel from Montclair to Long Beach and from East Los Angeles to Santa Monica without transferring. By providing continuous through service between these lines, the Regional Connector will improve access to both local and regional destinations - and greatly improve the connectivity of the transportation network for the region. One of the key issues of the project was the disruption of the Little Tokyo community, which is an environmental justice community. Substantial public outreach and the development of alternatives were developed to ensure that community members were not disproportionately affected by the project. Mr. Sullivan was the TAHA project manager for the

**LACMTA Union Division Bus Maintenance & Operations Facility IS/EA**. TAHA is preparing a Mitigated Negative Declaration under CEQA and a Categorical Exclusion under NEPA (MND/CE) for the proposed Metro Union Division Bus Maintenance and Operations Facility. The facility would include 470,000 square feet of new and reused development on 6.9 acres. The project would include a Bus Maintenance Facility and Parking Structure, the Bauchet Parking Structure a Central Cash County Facility and a public vehicle access CNG/Alternative Fuels facility. Two hundred CNG standard buses would be accommodated by the proposed project with the potential to accommodate 60-foot long articulated buses. Mr. Sullivan assisted in preparation of the air quality technical report for the Initial Study/Environmental Assessment.

**LACMTA Westside Extension Transit Corridor Technical Reports and EIR/EIS**. TAHA prepared the Land Use, Displacement, and Environmental Justice Technical Reports for Metro's Westside Extension Transit Corridor in the West Los Angeles area. The Westside Extension would extend the Metro Purple Line from its current western terminus at Western Avenue/Wilshire Boulevard to Westwood with possible extension to Santa Monica. Additionally, a secondary route is proposed from the Metro Red Line Hollywood Boulevard/Highland Avenue station through the City of West Hollywood. TAHA also assisted Parsons Brinckerhoff in the preparation of the EIS/EIR. Mr. Sullivan was the TAHA project manager and drafted the Land Use, Displacement, and Environmental Justice Technical Reports.

**LACOE Transfer of Territory CE**. TAHA prepared a Categorical Exemption for Los Angeles County Office of Education (LACOE) for a transfer of territory from the Monrovia Unified School District to the Arcadia Unified School District. The project involved changing school district boundaries from Monrovia to Arcadia school district, based on the petition brought forth by a special needs student. Mr. Sullivan assisted in document preparation and organizing the foundation of the project.

**LADWP Cooling Plant and Distribution System Project Air Quality and Noise Impact Report**. TAHA prepared an Air Quality and Noise Technical Report for the Los Angeles Department of Water and Power. The proposed project would construct a cooling plant and distribution system in order to provide a centralized system for producing chilled water for use by area users, generally consisting of large commercial, governmental, industrial and institutional buildings. Sensitive receptors near the project site included residential towers, a school, concert halls, a park, and a hotel. The air quality analysis focused on how the cooling plant and distribution system would reduce regional operational emissions and reduce

regional greenhouse gas emissions through improvements in energy efficiency. The noise analysis focused on operational noise associated with mechanical equipment. Mr. Sullivan assisted in monitoring ambient noise readings at selected sensitive receptors adjacent to the proposed project.

**LADWP Elysian Reservoir Project**. TAHA prepared an Air Quality and Noise Impact Report for a project that would replace the uncovered Elysian Reservoir with underground concrete tanks. The construction process potentially included 300 truck trips per day and a total of 554,337 cubic yards of import/export. The air quality analysis focused on regional construction emissions associated with haul trucks. A health risk assessment was conducted to quantify the risk of diesel emissions from the haul trucks to nearby sensitive receptors. The noise analysis focused on haul truck noise on the surrounding roadway network. A vibration analysis was completed that quantified vibration from tunneling equipment. Mr. Sullivan conducted the air quality and noise analysis and prepared the report

**LADWP Mission Wells Facility Project**. TAHA prepared an Air Quality and Noise Impact Report for the construction several facility improvements, including the construction of new wells, a pump station, and an ammonication/chloramination station in the City of Los Angeles. The air quality analysis focused on regional and localized construction emissions. The noise analysis focused on construction noise and associated exposure to adjacent residential land uses. Mitigation measures were recommended to reduce noise levels. Mr. Sullivan conducted on-site ambient noise measurements at adjacent sensitive receptors and assisted in calculating air quality emissions and mobile noise from light-duty auto and heavy-duty truck trips.

**Maclay Middle School Lighting Study**. TAHA conducted a technical lighting study for the Los Angeles Unified School District (LAUSD). The lighting study evaluated the potential spillover light and glare effects of installing 70-foot tall poles with lighting fixtures at the existing Maclay Middle School athletic field. The primary concern was the potential for spillover light to impact nearby residential properties and buildings. The lighting will be installed to illuminate the athletic field to an average of approximately 50 footcandle (fc). *Visual Professional Edition – Version 2.6* light modeling software was used to model the project site, existing lighting, proposed lighting, and potential mitigation strategies. Mr. Sullivan evaluated the existing on-site lighting conditions at the high school and surrounding area and managed the preparation of the study and document.

**Markham Middle School Lighting Study**. TAHA conducted a technical lighting study for the Los Angeles Unified School District (LAUSD). The lighting study evaluated the potential spillover light and glare effects of installing eight 70-foot tall poles with lighting fixtures at the existing Markham Middle School. The primary concern was the potential for spillover light to impact nearby residential properties and buildings. The lighting will be installed to illuminate the two soccer fields to an average of approximately 50 footcandle (fc). *Visual Professional Edition – Version 2.6* light modeling software was used to model the project site, existing lighting, proposed lighting, and potential mitigation strategies. Mr. Sullivan evaluated the existing on-site lighting conditions at the high school and surrounding area and managed the preparation of the study and document.

**Northern/Canoga Extension of the Metro Orange Line EIR**. In association with Sirius Environmental, TAHA prepared an Environmental Impact Report for the northern extension of the Metro Orange Line in the Canoga Park area of the San Fernando Valley. The Orange Line extension will be a bus rapid transit project. Key issues addressed in TAHA's environmental work included, Air Quality, Noise, Energy, Land Acquisition, Displacement and Relocation, Parklands and Other Community Facilities, and Population, Housing and Environmental Justice. Mr. Sullivan assisted in the development of the Air Quality Impact Report, conducting CO Hot Spot analysis, preparing graphics, and editing additional sections of the EIR.

**Owens Lake Construction Emissions Technical Memorandum**. TAHA calculated the maximum daily construction emissions and construction greenhouse gas (GHG) emissions associated with implementation of dust control measures at the Owens Lake bed. The analysis utilized the California Air Resources Board's OFFROAD2007 and EMFAC2007 emission models. Mr. Sullivan assisted in calculating maximum daily construction emissions and construction greenhouse gas (GHG) emissions.

**Port of Los Angeles and Long Beach Air Quality Monitoring Program**. TAHA is providing technical support for an air quality monitoring program within the Port of Los Angeles and Long Beach operational regions of influence. The Port of Los Angeles (POLA) has air quality monitoring at four sensitive receptor locations in the communities within and surrounding the POLA, while the Port of Long Beach (POLB) currently has two sensitive receptor locations. TAHA provides assistance to Science Applications International Corporation (SAIC) and the POLA and POLB by providing trained personnel to visit the sites and assist in the operation of the air quality monitoring equipment. TAHA technicians provide field support to ensure the sampling protocol is followed every three days based on the monitoring schedule recommended by the Environmental Protection Agency (EPA). Key issue of concern is air quality impacts on surrounding residential communities. Mr. Sullivan's responsibilities include monitoring ambient particulate matter (PM2.5 and PM10) and meteorological parameters, calibrating and routing maintenance of the equipment, changing air filters, collecting and recording data, restocking air filters and reporting to the project manager at SAIC.

**San Diego Association of Governments Mid-Coast Transit Corridor Project SEIS/SEIR**. TAHA is assisting Parsons Brinckerhoff in preparing a Supplemental Environmental Impact Statement/ Environmental Impact Report (EIS/EIR) for the San Diego Association of Government's extension of a light rail transit service from Old Town Transit Center to the University Town Center in University City. Currently, TAHA is preparing technical reports for Land Use, Communities and Neighborhoods, and Environmental Justice for use in the Supplemental EIS/EIR. Key issues include traffic, noise, and environmental justice. Mr. Sullivan is the project manager and is responsible for the preparation of technical reports, coordination, and the development of the project.

**San Gabriel Trench EIR**. TAHA prepared an Environmental Impact Report/Environmental Assessment for the San Gabriel Trench Grade Separation Project, which extends through the City of San Gabriel and portions of the Cities of Alhambra and Rosemead. The project would provide four grade separations in the City of San Gabriel where the Union Pacific Railroad currently intersects with local streets. The grade separations would involve the construction of a trench that allows trains to pass below bridges constructed at the Ramona Street, Mission Drive, Del Mar Avenue and San Gabriel Boulevard crossings. The Project is proposed to reduce train noise and vehicular traffic congestion and to improve safety at the grade crossings. Mr. Sullivan assisted in the air quality and noise analysis for the project.

**sBX E Street Corridor BRT Project**. TAHA prepared air quality, energy, and safety analyses for a bus rapid transit project located in the Cities of San Bernardino and Loma Linda. The 16-mile transit improvement will include mixed-flow, side-lane exclusive, and center-lane exclusive travel. The air quality analysis will focus on regional construction and operational emissions. The energy analysis focused on the benefits of regional transit verse private vehicle travel. The safety analysis focused on pedestrian and motorist safety along with rider security. Mr. Sullivan assisted in the preparation of the air quality, energy, and safety analyses.

**South and Southeast Los Angeles Community Plan Update EIR**. TAHA is preparing Environmental Impact Reports (EIRs) for update to the South Los Angeles and Southeast Los Angeles Community Plan (Community Plans). The Community Plans are two of 35 Community Plans, which comprise the Land Use Element of the General Plan. The Land Use Element is one of the seven State-mandated elements of the General Plan that also include noise, transportation, and conservation among others. The Community Plans are intended to promote an arrangement of land uses, streets, and services in the South and Southeast Los Angeles Community Plan Areas (CPAs) to encourage economic vitality, social and physical well-being, and general health, safety, welfare and convenience for the people who live and work in the CPAs. In the EIRs, environmental impacts associated with projected growth for the CPAs will be analyzed. Mr. Sullivan is responsible for the biological and land use analyses and document preparation.

**Southern California Association of Governments (SCAG) 2008 Regional Transportation Plan (RTP)**. TAHA completed the global warming analysis for SCAG's 2008 RTP. The analysis included calculation of greenhouse gas (GHG) emissions associated with construction activity, mobile sources,

electricity generation, and natural gas consumption. GHG emissions were compared to the State emissions inventory compiled by the California Air Resources Board. Mr. Sullivan assisted in calculating emissions for the five different alternatives contained in the plan.

**Southwest College Master Plan Update Supplemental EIR**. TAHA prepared a Supplemental Environmental Impact Report for the Los Angeles Southwest College Master Plan Update. The Master Plan Update addresses the campus facility improvements needed since the original 2003 Master Plan. In 2003, an EIR was prepared for the original Master Plan, and the Supplemental EIR will focus only on changes that have occurred to the original EIR. Improvements proposed in the Master Plan Update would construct six new facilities, modernize four existing buildings and upgrade existing infrastructure. Mr. Sullivan was responsible for the daily management of the project and led the public outreach process which involved community meetings and briefings to the Los Angeles Community College District Board of Trustees.

**Target Store Redevelopment Project EIR**. TAHA prepared an Environmental Impact Report for the proposed Target Store Redevelopment Project located in the City of Azusa. The project site is located within Downtown Azusa and is directly adjacent to the Metro Gold Line right-of-way. The Target Corporation is proposing to redevelop the site with an approximately 170,000-square-foot building situated above one levels of parking. The proposed project is intended to capitalize on the Gold Line Authority's future plans for a new station adjacent to the project site to further address the goals of the redevelopment plan and the recently updated general plan and development code to develop Downtown Azusa into a more viable commercial district. Mr. Sullivan prepared the Initial Study for the project and prepared the Geology, Hazards, Land Use, Public Services, and Utility sections for the Environmental Impact Report.

**The Crossings on Amigo IS/MND**. In association with Environmental Planning Associates, TAHA prepared an Initial Study/Mitigated Negative Declaration for the development of an affordable housing project containing 90 income-restricted units on two sites separated by Amigo Avenue in the City of Los Angeles. The project consists of the renovation of two existing structures, the demolition of six structures and construction a new multi-family structure and an activity center for the project residents. TAHA also prepared an Air Quality and Noise Technical Impact Report for the project. Mr. Sullivan reviewed and analyzed the cultural, archaeological, traffic, geotechnical, hydrological, and hazardous materials technical reports and prepared the Initial Study/Mitigated Negative Declaration.

**The Plaza at the Glen Project Air Quality and Noise Impact Report**. TAHA prepared an Air Quality and Noise Impact Report for a mixed-use development consisting of 150 condominium units, a 230-room hotel, 450,000 square feet of general office space, 100,000 square feet of medical office space, a 45,000-square-foot health and fitness center, a 2,700-seat theater, and a 285,000-square-foot shopping center. The air quality analysis focused on greenhouse gas emissions and project compliance with local and regional regulations. The noise analysis focused on delivery truck noise and potential impacts to an adjacent school. Mr. Sullivan conducted the air quality and noise analysis and prepared the report.

**University High School Lighting Study**. TAHA conducted a technical lighting study for the Los Angeles Unified School District (LAUSD). The lighting study evaluated the potential spillover light and glare effects of installing six 75- to 90-foot tall poles with lighting fixtures at the existing University High School athletic field. The primary concern was the potential for spillover light to impact nearby residential properties and buildings. The lighting will be installed to illuminate the athletic field to an average of approximately 50 footcandle (fc). *Visual Professional Edition – Version 2.6* light modeling software was used to model the project site, existing lighting, proposed lighting, and potential mitigation strategies. Mr. Sullivan monitored the existing on-site lighting conditions at the high school and surrounding area and managed the preparation of the study and document.

**Vermont/Manchester Shopping Center EIR**. TAHA prepared an EIR/EA for the Community Redevelopment Agency of the City of Los Angeles (CRA/LA). The proposed project would develop a commercial shopping center at the 8400 and 8500 blocks of Vermont Avenue in the South Los Angeles

Community of the City of Los Angeles. The proposed project consists of two development alternatives. One alternative would result in 72,000 square feet of commercial development (64,800 square feet of retail space and 7,200 square feet of office space) and surface parking. The second alternative would result in 104,000 square feet of commercial development (83,200 square feet of retail space and 20,800 square feet of office space), surface parking, and a three-level parking structure. Mr. Sullivan assisted with the CO analysis and technical editing for the proposed project.

**Village Trailer Park IS/EIR**. TAHA is currently preparing an Environmental Impact Report (EIR) for a mixed-use development in the City of Santa Monica. The project includes the closure of the existing Village Trailer Park and construction of a approximately 350,000 square-foot mixed-use development that would be split 35/65 between commercial and residential uses respectively. The non-residential commercial space would include creative/office space and 11,000 square feet of neighborhood serving retail. The residential uses would be comprised of 144 apartment units, 109 of these units would be subject to Santa Monica's rent control ordinance, with 52 of those set aside for low-income residents. The remaining 37 units would be market-rate apartments. Mr. Sullivan was responsible for preparing the Land Use section of this document.

**West Boulevard Pedestrian Linkage Study.** As part of collaborative team headed by the RRM Design Group, TAHA helped define short term and long term light rail station area development strategies for the Los Angeles Neighborhood Initiative. West Boulevard is one of the few neighborhood-oriented stations along the Crenshaw/LAX light rail route proposed by the Los Angeles Country Metropolitan Transportation Authority. The station offered a unique opportunity to engage local residents to define a strategic plan and leverage the transportation investment to affect positive changes in adjacent underutilized land uses. A particular emphasis of the work undertaken by TAHA was to build a transit-oriented concept based on retaining and enhancing existing land uses, such as a community-based charter school, rather than forecasting dramatic changes that create concern and uncertainty for local residents. Mr. Sullivan assisted in the solicitation of community involvement and coordinated in the development and review of the study to ensure consistency with the planned transit improvements and acquisitions at the station area proposed under the Crenshaw/LAX Transit Corridor Project.

**West Hollywood Mixed-Use Overlay Zone (MUOZ) East Side EIR**. TAHA prepared an Environmental Impact Report for the City of West Hollywood for its Mixed-Use Overlay Zone on the east side of the City. The primary goal of the proposed MUOZ is to establish a set of mixed-use standards and incentives to encourage the development of mixed-use housing and commercial opportunities along the Santa Monica Boulevard from Fairfax Avenue east to La Brea Avenue. Through an iterative process of modeling and analysis of past development trends in consultation with City staff, the number of additional housing units that are likely to be built as a result of the proposed project by the year 2025 was generated. Mr. Sullivan assisted in document preparation and technical editing for land use, geology, seismicity, and hydrology. Mr. Sullivan also was involved in analyzing the proposed alternatives for the project.

**West Los Angeles College Lighting Study**. TAHA assisted Sirius Environmental in the preparation of technical lighting study for the West Los Angeles College Lighting Study in Culver City. The lighting study evaluated the potential spillover light and glare effects lighting from a recently constructed parking structure. The primary concern was the potential for spillover light to impact nearby residential properties and buildings. Mr. Sullivan monitored the existing on-site lighting conditions at the college and adjacent residences and prepared a technical memorandum for the Study.

**Westfield Fashion Square Expansion Project Air Quality and Noise Impact Report**. TAHA prepared an Air Quality and Noise Impact Report for the construction of 280,000 gross leasable square feet of additional retail and restaurant uses in the Sherman Oaks neighborhood of the City of Los Angeles. Sensitive air quality and noise receptors near the project site included educational and residential land uses. The air quality analysis focused on greenhouse gas emissions from mobile sources, natural gas consumption, electricity generation, and electricity associated with water usage. The key noise issues were associated with proposed loading docks and parking structures. Mr. Sullivan assisted in preparation of the technical report, which includes mobile noise, identification of sensitive receptors, noise readings,

construction and operational noise analysis, ambient background air quality and noise analysis, CO analysis, regional and localized construction emissions, and operational emissions.

**Westfield North County Expansion Project Air Quality and Noise Study**. TAHA prepared an Air Quality and Noise Impact Report for the construction of 454,000 square feet at the Westfield North County Shopping Center located in the City of Escondido. Sensitive air quality and noise receptors near the project site included residential and recreational land uses. The air quality analysis focused on regional construction and greenhouse gas emissions. The key noise issue was land use compatibility associated with siting a new hotel near the Interstate 15 Freeway. Mr. Sullivan assisted in the preparation of the Air Quality and Noise Analysis, specifically, in conducting carbon monoxide hot spots analysis in significant areas surrounding the project.

**Wilshire-Berendo Condominium Project IS/MND**. In association with Environmental Planning Associates, TAHA prepared an Initial Study/Mitigated Negative Declaration for the construction of 150 condominium units in a 17-story structure located at 670 South Berendo Street in the City of Los Angeles. Specifically, the project consisted of 12 residential levels atop five above ground parking levels (one with residential units) and two subterranean parking levels, and provided a total of 405 stalls in the above/at grade and subterranean garage. TAHA also prepared an Air Quality and Noise Technical Impact Report for the project. Mr. Sullivan assisted in on-site noise monitoring and technical editing.

# SAM SILVERMAN

**SENIOR ASSOCIATE**

**Education**
University of California, Los Angeles, School of Public Health, Master of Science, Environmental Health, 2001
University of California, Santa Barbara, Bachelor of Science, Environmental Studies, 1999

Mr. Silverman joined TAHA in 2006 as a Senior Environmental Scientist. His specialties are greenhouse gas analysis and preparing air quality and noise analyses for commercial, residential, and industrial development along with transportation projects. Mr. Silverman's thorough knowledge of air quality analysis methodology includes comprehensive familiarity with the regional and localized estimation methodology set forth by the South Coast Air Quality Management District, application of various computer models (e.g., CalEEMod, EMFAC, AERMOD, Caline-4, and CAL3QHC), health risk assessments (HRAs), and construction and operation emission inventories. His knowledge of noise analysis methodology includes noise monitoring, noise models (e.g., Traffic Noise Model), and stationary source analyses.

Mr. Silverman's air quality and noise reports follow a general format. Mr. Silverman typically assesses regional construction emissions using California Air Resources Board's (CARB) CalEEMod emissions inventory model. Localized construction concentrations are estimated using similar methodology as regional emissions and analyzed using SCAQMD localized significance threshold guidance. Regional operational emissions are calculated using average daily traffic and CARB's CalEEMod or EMFAC models. Localized carbon monoxide concentrations are calculated using EMFAC and either the CAL3QHC or CALINE4 dispersion models. Mr. Silverman also analyzes toxic air contaminants, odors, project consistency with air quality management plans, and cumulative emissions. In addition, Mr. Silverman estimates greenhouse gas emissions from mobile and stationary sources. The typical noise analysis includes ambient noise monitoring, quantification of construction noise levels at nearby sensitive receptors, mobile source noise calculations, and quantification of operational noise sources (e.g., recreational activity, mechanical equipment, and parking lots).

**Relevant Experience**

**12th Avenue Interchange Project Air Quality Impact Report**. Mr. Silverman managed the preparation of an Air Quality Impact Report for modifications to the State Route-198 and 12th Avenue interchange in the City of Hanford, California. The operational regional emissions analysis demonstrated that improvements to the interchange would reduce vehicle delay and increase vehicle speeds, thus reducing regional emissions. The analysis also included a qualitative discussion of mobile source air toxics and a federal conformity analysis.

**1360 and 1500 Figueroa Residential Project Air Quality and Noise Impact Report**. Mr. Silverman prepared an air quality and noise analysis for a residential project in Downtown Los Angeles. The proposed project included 527 residential units in two 31-story towers. Sensitive air quality and noise receptors near the project site included residences, a medical center, and a church. Mr. Silverman completed a thorough air quality and noise analysis that also assessed construction vibration impacts on residential land uses.

**41st and Alameda Warehouse Project IS/MND**. Mr. Silverman prepared an Air Quality and Noise Impact Report for a warehouse facility in the City of Los Angeles. The proposed project included approximately 643,000 square feet of warehouse and ancillary support space in a 45-foot high, two-story structure with subterranean parking. The loading docks were the key air quality and noise issue. Mr. Silverman completed a diesel particulate matter Health Risk Assessment based on loading dock activity and estimates regional emissions based on detailed truck volumes and trip distances. Mr. Silverman also assessed loading dock noise levels at nearby residential land uses.

**6911 Santa Monica Boulevard Project EIR**. Mr. Silverman prepared an air quality and noise analysis for the demolition of existing uses and development of 348 apartment units, approximately 40,654 square

feet of creative office uses, and approximately 15,101 square feet of ground floor retail/restaurant space in the City of Los Angeles. Sensitive air quality and noise receptors near the project site included residences and an elementary school. The Air Quality and Noise Analysis examined all potential impacts to sensitive receptors. In addition, Mr. Silverman analyzed potential noise impacts associated with an outdoor seating area and compatibility of proposed residences with the surrounding land uses.

**848 Grand Avenue Project IS/MND**. Mr. Silverman managed the air quality and noise analysis for a 420-unit (condominiums) residential project that included 34 stories, three above ground parking levels, and one ground retail/lobby level. The air quality analysis focused on localized construction emissions. The noise analysis focused on vibration impacts to a nearby historic land use.

**850 S. Hill Street Project IS/MND**. Mr. Silverman prepared an air quality and noise analysis for a residential project in Downtown Los Angeles. The proposed project included 167 residential units with a building envelope of up to 21 stories. Sensitive air quality and noise receptors near the project site included multi-family residences, such as the adjacent Eastern Columbia residential tower. In addition to the Air Quality and Noise Analysis, Mr. Silverman analyzed construction noise impacts associated with construction a multi-story building adjacent to an historical apartment building.

**8767 Wilshire Office Development Project Air Quality and Noise Impact Report**. Mr. Silverman prepared an Air Quality and Noise Impact Report for a commercial development in Beverly Hills. The applicant proposed to construct a 75,000 square-foot/retail commercial building located on a 37,500-square-foot lot on the northeast corner of Wilshire and Robertson Boulevards at 8767 Wilshire Boulevard. The primary concern of the air quality analysis was fugitive dust and nitrogen oxide emissions due to excavation and the nearby location of sensitive receptors. The noise analysis focused on construction noise levels at adjacent sensitive receptors.

**8801 Sunset Boulevard Project Air Quality and Noise Impact Report**. Mr. Silverman managing the preparation of an air quality and noise analysis for the redevelopment of an approximately 1.0-acre parcel located at 8801 Sunset Boulevard in the City of West Hollywood. The proposed project included 52,031 square feet of commercial and retail space plus parking. Demolition of the existing one-story, former Tower Records building would be required to allow for development of the proposed project. The air quality analysis focused on construction emissions and exposure of nearby sensitive land uses to excess levels of air pollution. The noise analysis focused on construction impacts to adjacent sensitive land uses.

**Abbot Kinney Hotel Project Air Quality and Noise Impact Report**. Mr. Silverman managing the preparation of an air quality and noise analysis for a hotel project located in the Venice neighborhood of the City of Los Angeles. The proposed project included a 92-room hotel facility, 3,000 square feet of retail use, 1,758 square feet of restaurant use, and remodeling of existing restaurant uses. A total of 174 parking spaces were proposed on the site with 166 spaces in a subterranean parking structure and eight spaces in the surface valet area. The air quality analysis focused on construction pollutant concentrations at an adjacent school. The noise analysis focused on valet and trash pick-up activity.

**AC Transit East Bay BRT Project Air Quality Impact Report**. Mr. Silverman managed the preparation of an Air Quality Impact Report for express bus service from Downtown Berkeley through Downtown Oakland and San Leandro. Specifically, the project would build bus lanes and BRT stations on arterial streets in the cities of Berkeley, Oakland and San Leandro. The intent of the project is to achieve the speed and reliability of rail using lower cost buses. The air quality analysis focused on air quality conformity with federal guidelines and $PM_{2.5}$ emissions.

**Alhambra Unified School District (AUSD) Scanlon Center Project IS/MND**. Mr. Silverman managed the preparation of an air quality and noise analysis for conversion of an existing 20,000-square-foot AUSD Administration Center into an alternative high school. Sensitive air quality and noise receptors near the project site included residential and educational land uses. The air quality analysis focused on

the exposure of adjacent residential land uses to localized construction emissions. The noise analysis discussed if the project site would be compatible for an educational land use.

**Alpine Village Conditional Use Permit**. TAHA prepared a noise analysis for a Conditional Use Permit (CUP) related to Oktoberfest events at Alpine Village. The CUP would legalize Alpine Village activities that include business and medical offices, restaurants, chapel, commercial, markets, retail and open air public assembly. Also proposed were adding permanent tent open air public assembly, permanent satellite bathroom, and kitchen accessory buildings. Alpine Village hosts the annual Oktoberfest event that attracts large crowds and includes live music. The noise analysis assessed existing Oktoberfest noise levels as they relate to the Los Angeles County Noise Ordinance. Key issue of concern included amplified noise. Mr. Silverman managed the preparation of a noise assessment.

**Asgard Campus Noise Assessment**. Mr. Silverman managed the preparation of a noise analysis to assess the significance of potential noise (unwanted sound) impacts related to the development of a property located near the Anton Boulevard/Sunflower Avenue intersection in the City of Costa Mesa. The analysis focused on mobile noise generated by an adjacent freeway and aircraft noise related to John Wayne Airport.

**Avalon and Fries Street Segments Closure Project**. Mr. Silverman managed the preparation of a noise analysis related to roadway closure proposed by the Port of Los Angeles. The proposed project included vacating Fries Avenue and Avalon Boulevard between Water Street and A Street, constructing associated street improvements, and providing dual right-turn lanes southbound at the intersection of Viaduct/North Access Road. The analysis focused on construction noise and changes to roadway noise associated with redistributed traffic.

**Baldwin Hills Crenshaw Plaza Expansion Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an Air Quality and Noise Impact Report for the expansion of an existing shopping mall from 997,609 to 3,435,726 square feet. The project included commercial space, a hotel, and residential land uses. The air quality analysis focused on detailed construction and global warming analyses. The noise analysis focused on the compatibility of the proposed residences with future noise levels.

**Ballona Wetlands Ecological Reserve Environmental Analysis**. The purpose of the project was to enhance habitat and improve public access to the 600-acre Ballona Wetlands Ecological Reserve in the City of Los Angeles. Major infrastructure including roads, utilities, and a flood control channel transect the site. The Reserve provides habitat for some special status species and significant cultural resources exist on the site. Mr. Silverman managed the completion of the Utilities and Services, Public Services, and Recreation sections for an EIR/EIS.

**Ball Road and Sunkist Street Intersection Improvements Project**. TAHA prepared an Air Quality Impact Report for roadway improvements planned for the existing intersection of Ball Road from Athena Way east to State Route 57 (SR 57), and along Sunkist Street from Whidby Lane south to Omega Ave in the City of Anaheim in order to increase efficiency and relieve traffic congestion. The proposed project would add a new second dedicated left-turn in the southbound direction along Sunkist Street, a new third westbound through lane and dedicated right-turn lane along Ball Road, and would modify the existing median east of the intersection. The air quality analysis focused on roadway construction emissions and long-term emissions benefits associated with reduced vehicle delay. Mr. Silverman managed the air quality analysis.

**Ban of Plastic Bags**. In association with Parsons Brinckerhoff, TAHA is currently preparing an Environmental Impact Report for the proposed Single-Use Plastic Bag Ordinance in the City of Los Angeles for the Bureau of Sanitation. The Single-Use Plastic Bag Ordinance would ban the use of single-use plastic carryout bags, charge a fee on paper bags, and promote the use of reusable bags at specified retailers within the City. A six-month grace period would be provided for large retailers and a one-year grace period would be provided for small retailers. The Ordinance would also include a public education

component. Key issues include air quality, health hazards, and solid waste. Mr. Silverman prepared the air quality analysis.

**Banducci Substation Air Quality Impact Report**. Mr. Silverman managed the preparation of an Air Quality Impact Report for a substation proposed by Southern California Edison. The proposed project was located in Kern County, California and included construction of a new 66/12 kilovolt (kV) Substation, two new 66 kV subtransmission line segments that would loop the existing Correction-Cummings-Kern River 1 66 kV Subtransmission Line, three new underground 12 kV distribution getaways, and telecommunication facilities to connect the proposed project to the existing telecommunications system. The air quality analysis focused on criteria pollutant and greenhouse gas emissions generated by construction activity.

**Brisco Road-Halcyon Road Highway 101 Improvements**. Mr. Silverman managed the preparation of air quality and noise studies associated with correcting ramp and mainline operations on Highway 101 at the Brisco Road-Halcyon Road/Route 101 Interchange in Arroyo Grande, CA. The purpose of the proposed Caltrans project was to improve traffic flow and safety for the local and interregional movement of people and goods. The project was designed such that it would not preclude the ultimate widening of Highway 101 or future interchange improvements. The air quality analysis focused on regional emissions. The noise analysis focused on assessing transportation noise using the Traffic Noise Model (TNM).

**Broadway Streetscape Master Plan**. TAHA prepared a mitigated negative declaration and environmental assessment for the Broadway Streetscape Master Plan. Named Bringing Back Broadway, the project is a 10-year plan to revitalize the Historic Broadway corridor in downtown Los Angeles, a National Register Historic District. Goals are to provide economic development and business assistance; re-activate Broadway's historic vacant theaters, as well as more than one million square feet of vacant commercial space and increase parking and transit options, including bringing the beloved streetcar back to downtown Los Angeles. The project included infrastructure improvements, increased parking and transit options to serve Broadway, and the goal to create a sense of place and history through urban planning, historic preservation, urban design, lighting design and streetscapes. Mr. Silverman prepared the air quality and noise analyses.

**Bunker Hill Access Study**. Mr. Silverman analyzed the Bunker Hill area of the City of Los Angeles to determine if there was adequate transportation capacity to accommodate an increase in the floor-area ratio (FAR) from 5:1 to 6:1. Mr. Silverman estimated the transportation capacity of Bunker Hill in 1970 when the Bunker Hill Redevelopment Plan was issued. Mr. Silverman calculated the current transportation capacity of Bunker Hill from various transportation services (e.g., buses and trains). The increase in Bunker Hill capacity from 1970 to 2006 was analyzed to determine if the existing Bunker Hill Capacity could accommodate a 6:1 FAR.

**Caldecott Tunnel Mobile Source Air Toxics Analysis**. Mr. Silverman completed a Mobile Source Air Toxics Analysis based on guidance published by the Federal Highway Administration and the California Department of Transportation. The analysis focused on diesel particulate matter, acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. Mr. Silverman utilized a spreadsheet tool that incorporated EMFAC2007 emission factors and California Air Resources Board speciation factors, and allowed for the input of project-specific traffic activity data such as peak and off-peak hour vehicle miles traveled, speed, travel times and traffic volumes.

**California Incline Project**. TAHA prepared an Air Quality Impact Report for the reconstruction of the California Incline with one lane of traffic in each direction and a five-foot sidewalk on the west side. Construction of the new bridge would require the reconstruction of the upper and lower approaches to the bridge at Ocean Avenue and Palisades Beach Road, respectively. The air quality analysis focused on construction emissions and consistency with federal transportation conformity regulations. Mr. Silverman managed the air quality analysis.

**Caltrain Bridge Replacement Projects Air Quality Impact Reports**. Mr. Silverman managed the completion of two Air Quality Impact Reports for the replacement of two rail bridges in San Jose. A life-cycle analysis of the Guadalupe River Bridge and the Los Gatos Creek Bridge concluded that replacement of the bridges would be more cost efficient than a rehabilitation because the bridge structures were determined to be near the end of their useful service life and seismically vulnerable. Replacing the bridge structures would improve the safety of rail operations, minimize service interruptions, minimize future maintenance requirements, and maximize infrastructure life. The Air Quality analysis focused on regional construction emissions and compliance with federal transportation conformity guidelines.

**Caltrain Electrification Program Air Quality Impact Report**. Mr. Silverman completed an air quality analysis for electrifying diesel trains in the San Francisco Bay Area. Regional criteria pollutant emissions were calculated for diesel-powered trains and electric trains. An emissions comparison showed that electric trains would decrease regional emissions, including diesel particulate matter.

**Camino Nuevo High School Athletic Field Project Health Risk Assessment**. Mr. Silverman managed the completion of a health risk assessment (HRA) for an athletic field located near the intersection of Hoover Street and Temple Street in the City of Los Angeles. The project site was located within 500 feet of Highway 101. The HRA quantified emissions generated by traffic on Highway 101 and used a dispersion model to determine diesel particulate matter concentrations at the project site. The diesel particulate matter concentrations were translated into a health risk based on a calculation methodology provided by the South Coast Air Quality Management District.

**Casa Mira View Project Air Quality and Noise Impact Report**. Mr. Silverman completed an Air Quality and Noise Impact Report for the construction of 1,848 multi-family residential units in the Mira Mesa neighborhood of the City of San Diego. Sensitive air quality and noise receptors near the project site included residential and recreational land uses. The air quality analysis focused on potential exposure of new residential land uses to toxic air containments generated by vehicles traveling on an adjacent freeway. The noise analysis focused on land use compatibility issues associated with siting sensitive receptors adjacent to a freeway. In addition, Mr. Silverman analyzed air quality and noise impacts associated with a potential freeway direct access ramp being located adjacent to the project site.

**Cascades Project Air Quality Analysis**. Mr. Silverman managed the preparation of an air quality analysis associated with 280 apartment units and 82 single-family detached condominiums on a 15.62-acre site located in the Sylmar neighborhood of the City of Los Angeles. The air quality analysis focused on regional construction and operational emissions along with greenhouse gas (GHG) emissions.

**Catalina and 8th Street Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an Air Quality and Noise Impact Report for a 35-story, mixed-use condominium project, located in the City of Los Angeles. The proposed project included 300 condominium units with 5,000 square feet of retail space. The air quality analysis focused on localized construction pollutant concentrations at a nearby school complex. Similarly, the noise analysis focused on construction impacts and associated mitigation measures to reduce noise levels at the school complex.

**Cedars-Sinai Medical Center Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation an Air Quality and Noise Impact Report for the construction of an 11-story, 477,650-square-foot inpatient/medical support facility in the City of Los Angeles. Sensitive air quality and noise receptors near the project site included medical and residential land uses. The air quality analysis focused on localized pollutant concentrations from construction activity due to sensitive receptors being adjacent to the project site. The noise analysis quantified construction noise at adjacent sensitive land uses and recommended mitigation measures to lower noise levels. The noise analysis thoroughly discussed potential vibration impacts from construction activity associated mitigation measures.

**Celerity Dyad Charter School Expansion Project Categorical Exemption**. Mr. Silverman managed the completion of a categorical exemption for the expansion of the Celerity Dyad Charter School. The

proposed project would expand the existing Celerity Dyad School by approximately 350 students by locating them in portable classrooms until a permanent campus could be built. The Class 32 exemption included a discussion of the applicable general plan and zoning designations, the project site's value as habitat for endangered, rare or threatened species, potential impacts to traffic, noise, air quality, or water quality, and if the proposed project could be adequately served by all required utilities and public services.

**City of Inglewood General Plan Update Air Quality and Noise Sections**. Mr. Silverman was responsible for updating the City of Inglewood General Plan air quality and noise sections. The air quality section included a description of exiting air quality conditions, identification of major pollutant sources within the City, and set forth goals and policies for future air quality management. He also managed noise measurements throughout the City, calculated mobile noise, analyzed aircraft noise, and set forth goals and policies for future noise management.

**City of Monrovia General Plan Amendments to the Land Use and Circulation Elements**. Mr. Silverman managed the preparation of a Noise Impact Report to support City of Monrovia General Plan Amendments. The noise analysis included noise monitoring to characterize transportation sources, a land use compatibility discussion, and noise contours for major roadway corridors.

**Compton Creek Master Plan**. TAHA prepared a Mitigated Negative Declaration/Environmental Assessment for the Compton Creek Master Plan. The proposed project included the development of open space along the edges of Compton Creek within the boundaries of the City of Compton. Several types of open space and recreational facilities were proposed, including pocket parks, bicycle trails, and pedestrian bridges. In addition, TAHA assessed the possibility of joint-use of recreational facilities with schools located adjacent to Compton Creek. Mr. Silverman managed the air quality and noise analyses.

**County of Los Angeles Data Center Project Air Quality Impact Report**. Mr. Silverman completed an Air Quality Impact Report for County Data Center on the Rancho Los Amigos National Rehabilitation Center Campus within the City of Downey, County of Los Angeles, California. The proposed project included a 58,000 square-foot building, a 110-space parking lot, and rehabilitation of a 23,000-square-foot historic power plant building to accommodate the emergency power supply. Sensitive air quality receptors near the project site included residential and educational land uses. The air quality analysis focused on stationary source emissions from four 2,000 kilowatt (kW) generators (fueled by fuel oil) and five cooling towers.

**CSULA Math & Science High School Project**. TAHA prepared a Categorical Exemption for a charter high school to be located on the California State University, Los Angeles campus. Capacity included 500 students in 32,000 square feet of development. The Categorical Exemption analyzed traffic, noise, air quality, water quality, historic resources, and public services. Mr. Silverman managed the preparation of the Categorical Exemption.

**CSULA Replacement Science Building Wing B Project**. TAHA prepared a Categorical Exemption for a second wing (Wing B) of the Replacement Science Building on the campus of the California State University, Los Angeles. The Categorical Exemption analyzed traffic, noise, air quality, water quality, historic resources, and public services. Mr. Silverman managed the preparation of the Categorical Exemption.

**Daily Breeze Medical Buildings Project Air Quality Impact Report**. Mr. Silverman managed the preparation of an Air Quality Impact Report for the demolition of existing buildings and construction of two medical buildings, with a total floor area of approximately 174,635 square feet. Sensitive air quality and noise receptors near the project site included residential and educational land uses. The Air Quality Analysis focused on localized pollutant concentrations from construction activity due to sensitive receptors being adjacent to the project site.

**Domain Project Recirculated Draft EIR Air Quality and Noise Analyses**. Mr. Silverman managed the preparation of air quality and noise sections for an EIR related to a mixed-use development located in the

City of West Hollywood. The proposed project included 9,300 square feet of retail and restaurant space and 166 apartment units in a six-story building. Located in the City of Los Angeles, the proposed project included development of a three-story parking structure consisting of 750 parking spaces and an athletic practice field to serve as an accessory use to the existing school. The air quality analysis focused on localized construction pollutant concentrations and operational greenhouse gas emissions. The noise analysis focused on construction and mobile source activity.

**Downtown Natomas Airport Light Rail Transit MOS-1 Project Air Quality Impact Report**. Mr. Silverman managed the preparation of an air quality analysis for a light rail transit system in the City of Sacramento. The air quality analysis focused on the reduction in regional emissions obtained by increasing transit ridership and decreasing private vehicle travel. The analysis also included a comprehensive discussion of greenhouse gas emissions and global warming impacts.

**Downtown Redlands Specific Plan Program EIR**. TAHA is currently preparing a Program Environmental Impact Report (EIR) for the revision of the existing Downtown Redlands Specific Plan. The purpose of the Specific Plan is to provide a comprehensive set of standards for land-use, development design, and public improvements. In addition to the revisions to the Downtown Specific Plan, the proposed project involves amendments to the Redlands General Plan. The revisions to the Downtown Redlands Specific Plan include expansion of its boundaries, modification of its goals, and establishment of a development program that will provide a pedestrian-friendly, amenity-rich mixed-use environment. The project also proposes to extend the Specific Plan Area boundaries to generally include the area south of Redlands Boulevard. Mr. Silverman managed the preparation of the air quality and noise analyses.

**Dumbarton Rail Corridor Project Air Quality Impact Report**. Mr. Silverman prepared an Air Quality Impact Report for the Dumbarton Rail Corridor Project. The project included five alternatives ranging from bus rapid transit to rail transit. The air quality analysis quantified regional operational emissions, greenhouse gases, and localized carbon monoxide hotspots. The federal conformity analysis focused on localized emissions from rail activity.

**East Los Angeles College Master Plan Revisions EIR**. TAHA is currently preparing a Supplemental Environmental Impact Report (EIR) for the East Los Angeles Community College Facilities Master Plan. The EIR will provide the additional information and analysis necessary to reflect the projected increase in enrollment and proposed changes to the campus relative to the previous Master Plan EIR TAHA prepared in 2001 and the subsequent Addendum TAHA prepared in 2004. Mr. Silverman managed the preparation of an air quality and noise analyses. The air quality analysis focused on pollutant exposure to the on-site Child Development Center and the noise analysis focused on mechanical equipment associates with a central plant.

**East-West Studios Appeal Noise Memorandum**. Mr. Silverman prepared a noise memorandum disputing the findings of a Mitigated Negative Declaration (MND) completed for a proposed commercial development located adjacent to a sound studio. The sound studio was sensitive to increased daytime noise levels. Mr. Silverman found that the MND did not adequately address construction noise and vibration. The noise analysis quantified construction noise at the sound studio and proposed mitigation measures to reduce noise levels.

**Echo Park Lake Rehabilitation Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an Air Quality and Noise Impact Report for the rehabilitation of Echo Park Lake. The State of California identified the Lake as an impaired water body. As a result, the City of Los Angeles proposed to implement in-lake improvements; vegetation, habitat and park improvements; and parkland structural best management practices at the Lake. Construction activities would include draining the Lake to remove the sediment accumulated within the Lake. The removed sediment would require drying, handling and hauling from the project site. The air quality analysis focused on fugitive dust emissions and the noise analysis focused on construction activity.

**El Cajon Public Safety Center Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an Air Quality and Noise Impact Report for the construction of a three-story public safety center with a parking structure. Sensitive air quality and noise receptors near the project site included residential, educational, and religious land uses. The air quality analysis focused on regional construction emissions and potential global warming impacts. The noise analysis discussed siren activity, an indoor shooting range, and a pedestrian plaza.

**Fairfax Retail Project Air Quality Impact Report**. Mr. Silverman managed the preparation of an Air Quality Impact Report for a 23,477-square-foot retail development located in the City of Los Angeles. The proposed project included a speciality market/pharmacy, general retail space, and a restaurant. The air quality analysis focused on construction pollutant concentrations at adjacent residential land uses.

**Figueroa Streetscape Project**. TAHA prepared an Environmental Impact Report for the first 40 miles of projects included in the City of Los Angeles 2010 Bicycle Plan's Five-Year Implementation Strategy. The projects were grouped into general areas of the City including Central Los Angeles, Hollywood to the City of Alhambra, the Westside and Northeast Los Angeles. Types of treatments included bicycle lanes, road diets (i.e., reducing the number of vehicle lanes to include bicycle lanes), protected bicycle lanes, and shared lane markings. Mr. Silverman prepared the air quality and noise analyses.

**Fullerton Road Corridor Improvement Project**. Mr. Silverman managed the preparation of an Air Quality Impact Report for the widening of Fullerton Road and related improvements in the City of Industry. The proposed project included roadway widening along 0.45 mile of Fullerton Road beginning at the City of Industry jurisdictional boundary (Fullerton Road and State Route 60) and ending at Camino Bello (unincorporated Los Angeles County [Rowland Heights]). As proposed, the project roadway width would be 78 feet (curb to curb) and would add a third lane (in each direction) along Fullerton Road and also includes the accommodation of a Class II bicycle lane from Colima Road to Camino Bello. Sidewalks, curbs, and gutters (in compliance with the Americans with Disabilities Act) will also be reconstructed (west side of roadway from Fullerton Road to Colima Road and east side from Fullerton Road to Camino Bello). At Fullerton Road and State Route 60, the eastbound off-ramp would be reconstructed as part of the widening project to accommodate an additional right turn lane. The air quality analysis focused one estimating the emissions benefits associated with improved roadway speeds and intersection efficiency.

**Geary Corridor Bus Rapid Transit Project**. Mr. Silverman managed the preparation of air quality, noise, and energy analyses for a bus rapid transit (BRT) project in San Francisco, CA. The San Francisco County Transportation Authority proposes to implement transit improvements from approximately the Transbay Terminal in the east (First and Mission Streets) to 33rd Avenue in the west. The environmental analysis will identify the benefits and impacts of BRT alternatives, recommend a preferred alternative for Geary Boulevard, and develop a set of strategies to mitigate potential impacts of BRT implementation. The analyses focused on changes to regional vehicles miles traveled affected regional air quality and energy.

**Goleta Beach Park Bridge Replacement Air Quality and Noise Analyses**. Mr. Silverman managed the preparation of air quality and noise analyses for the replacement of the Goleta Beach Park Bridge located in the County of Santa Barbara. The technical studies were prepared in accordance with guidance established by the California Department of Transportation. The air quality analysis focused on construction exhaust emissions and the noise analysis focused on assessing if construction noise would prevent the park from being used during the replacement process.

**Groundwater Reliability Improvement Program (GRIP) Recycled Water Project**. TAHA completed a Noise and Vibration Study for the Water Replenishment District (WRD) of Southern California GRIP Recycled Water Project. WRD proposes to construct an advanced water treatment (AWT) plant at the property comprised of 4320, 4330 and 4334 San Gabriel River Parkway in the City of Pico Rivera. In addition, a brine line would extend underground from the AWT plant within San Gabriel River Parkway and connect to an existing sewer pipeline on Beverly Road. The analysis focused on construction impacts along the alignment. Mr. Silverman managed the preparation of the Study.

**Harvard-Westlake School Parking Structure Air Quality and Noise Analyses**. Mr. Silverman managed the preparation of air quality and noise sections for an EIR related to a new parking structure associated with Harvard-Westlake School. Located in the City of Los Angeles, the proposed project included development of a three-story parking structure consisting of 750 parking spaces and an athletic practice field to serve as an accessory use to the existing school. The proposed project also included a pedestrian bridge crossing Coldwater Canyon Avenue connecting the proposed parking structure to the existing campus. The air quality analysis focused on construction emissions and the noise analysis focused on athletic field noise at adjacent residences.

**Hawaii DLNR Shooting Range**. Mr. Silverman is managing the preparation a noise assessment for the Department of Land and Natural Resources (DLNR) Shooting Range Project. The proposed project is located on the Big Island, North Kona District, Hawaii. The shooting complex includes a 1,000-yard competitive high power rifle range, a 100-yard high power target rifle range, a 100-yard rim-fire/air rifle range, a 50-yard bull's eye pistol range, a 50-yard action pistol range, skeet and trap ranges, a ten-station sporting clays course, a 50-yard target archery range, and a field archery course. The proposed complex also includes office structures, a hunter education center, picnic areas, and parking areas. The noise analysis will focus on potential noise impacts to resort areas.

**Haynes Generating Station Units 5 and 6 Repowering Project Noise Impact Report**. Mr. Silverman managed the preparation of a Noise Impact Report for the installation six new natural gas-fired combustion turbines at the Haynes Generating Station located in the City of Long Beach. The noise analysis focused on construction equipment noise levels and potential impacts to an adjacent retirement community. In addition, a detailed operational noise analysis was completed to determine industrial noise.

**Health Career Academy IS/MND**. In association with Sirius Environmental, TAHA prepared an Initial Study/Mitigated Negative Declaration for the development of a new Los Angeles Community College District (LACCD) Health Career Academy to address the shortage of health care professionals as part of the Measure J Bond Program. Mr. Silverman managed the preparation of an air quality and noise analyses. The air quality analysis focused on pollutant exposure to the adjacent hospital and the noise analysis focused on locating the classroom building in a compatible noise environment.

**Highway 1 HOV Lane Widening Project Air Quality Impact Report**. Mr. Silverman completed an Air Quality Impact Report for a nine-mile widening of Highway 1 in Santa Cruz County from the San Andreas–Larkin Valley Road Interchange to the Morrissey Boulevard Interchange. Sensitive receptors near the transportation corridor included residential and educational land uses. The air quality analysis discussed three alternatives: No Build, Transportation System Management, and HOV Lane Alternative. The analysis included mobile source air toxics, dispersion modeling and, a discussion of acrolein emissions per Monterey Bay Unified Air Pollution Control District guidelines.

**Highway 1 Soquel to Morrisey Auxiliary Lanes Project Air Quality Impact Report**. Mr. Silverman managed the preparation an Air Quality Impact Report for a Highway 1 auxiliary lane from Soquel Avenue to Morrissey Boulevard in Santa Cruz County. Sensitive receptors near the transportation corridor included residential and educational land uses. The air quality analysis discussed two alternatives: No Build and Build. The analysis included mobile source air toxics, dispersion modeling and, a discussion of acrolein emissions per Monterey Bay Unified Air Pollution Control District guidelines.

**Highway 101 (Petaluma to Rohnert Park) Mobile Source Air Toxics Analysis**. Mr. Silverman completed a Mobile Source Air Toxics Analysis based on guidance published by the Federal Highway Administration and the California Department of Transportation. Based on the average daily traffic along the project corridor, the analysis qualitatively discussed emissions of diesel particulate matter, acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. The analysis compared mobile source toxic emissions among the no-build and build alternatives.

**Highway 101 (Steele Lane to Windsor River Road) Mobile Source Air Toxics Analysis**. Mr. Silverman completed a Mobile Source Air Toxics Analysis based on guidance published by the Federal Highway Administration and the California Department of Transportation. Based on average daily traffic along the project corridor, the analysis qualitatively discussed emissions of diesel particulate matter, acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. The analysis compared mobile source toxic emissions among the no-build and build alternatives.

**Hillery Drive Direct Access Ramp Noise Assessment**. Mr. Silverman provided noise consulting services to a multi-family residential land use located in San Diego, CA that will be bisected by a Direct Access Ramp (DAR) to Interstate 15. The DAR will be located between two buildings of the residential complex and would increase ambient noise levels. Mr. Silverman prepared a memorandum describing the negative consequences of increased noise levels (e.g., sleep deprivation).

**Hoffman Summit Wind Project Air Quality and Noise Impact Report**. Mr. Silverman prepared an Air Quality and Noise Impact Report for 135 wind turbines on approximately 15,182 acres located four miles northwest of the corporate boundary of California City in unincorporated territory of Kern County, California. The air quality analysis discussed how wind turbines would improve the regions reliance on renewable energy. Because of the remote location, the noise analysis focused on potential impacts to wildlife.

**Hollywood Park Redevelopment Project Air Quality and Noise Impact Report**. Mr. Silverman prepared an Air Quality and Noise Impact Report for the proposed Hollywood Park Redevelopment Project. The Hollywood Park Redevelopment Project consisted of the redevelopment of the approximate 238-acre Racetrack Grandstand and the Pavilion/Casino and the construction of a new mixed-use development. The proposed project included demolition of all improvements and structures on the project site, including the Hollywood Park Racetrack and grandstand, and the new construction of approximately 2,995 for-sale dwelling units, 620,000 square feet of retail space, 75,000 square feet of office/commercial space, a 300-room hotel including 20,000 square feet of related meeting space, and 10,000 square feet of community serving uses. Sensitive receptors located near the project site included residential and institutional land uses. The air quality analysis focused on regional construction and greenhouse gas emissions. The key noise issue was land use compatibility for mixing residential with commercial land uses.

**I-10 Corridor Project**. Mr. Silverman managed the preparation of Air Quality and Energy Studies for the I-10 Corridor Project. The studies will comply with California Environmental Quality Act and National Environmental Policy Act requirements. The I-10 Corridor Project will consider one “no build” and two “build” alternatives. Construction of the “build” alternatives includes between 25 and 33 miles of additional lane(s) in each direction of I-10, auxiliary lanes, shoulders, median barriers, sound walls, retaining walls, drainage facilities, and improvement of bridges and freeway ramps. The air quality analysis is focused on transportation conformity requirements and localized roadside criteria pollutant concentrations. The air quality analysis used EMFAC2011 to estimate greenhouse gas emissions for the proposed project. The energy analysis is focused on estimating changes in regional energy consumption based on vehicle miles traveled.

**I-405 Improvement Project**. Mr. Silverman managed the preparation of an Air Quality Impact Report and Air Quality Transportation Conformity Analysis for the proposed expansion of Interstate 405 in Orange County, CA. The California Department of Transportation—District 12, in cooperation with the Orange County Transportation Authority, proposed to improve mainline freeway and interchanges on Interstate 405 in Orange County for approximately 14 miles between State Route 73 and Interstate 605 I-605. The air quality analysis focused on regional criteria and greenhouse gas emissions from mobile sources.

**I-580 Eastbound HOV Lane Widening Project from East of Greenville Road to Hacienda Drive Mobile Source Air Toxics Analysis**. Mr. Silverman completed a Mobile Source Air Toxics Analysis based on guidance published by the Federal Highway Administration and the California Department of

Transportation. Based on average daily traffic along the project corridor, the analysis qualitatively discussed emissions of diesel particulate matter, acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. The analysis compared mobile source toxic emissions among the no-build and build alternatives.

**Jefferson Boulevard Improvements Categorical Exemption**. TAHA prepared a categorical exemption for improvements to a portion of Jefferson Boulevard located in Culver City and Los Angeles, CA. The proposed project would provide a vital urban greenway retrofit connection balancing the vehicular, pedestrian, and bicycle experience through the application of streetscape improvements. These improvements include sustainable landscaping, stormwater infiltration practices, pedestrian/bicycle friendly measures, and directional signage. The Class 4 exemption included a description of the project and findings leading to the determination that the project was exempt from further environmental documentation under the provisions of CEQA. Mr. Silverman was responsible for the daily management of the project.

**Jensen Solids Handling Facility Air Quality and Noise Impact Report**. Mr. Silverman completed an Air Quality and Noise Impact Report for the Jensen Solids Handling Facility and Site Improvement Program. The Jensen Plant is located at 13100 Balboa Boulevard in the community of Granada Hills in the City of Los Angeles. The objectives of the proposed project were to allow the Jensen Plant to process solids generated on-site at the water treatment capacity of 750 million gallons per day without relying on the LADWP lagoons, and to improve existing facilities at the Jensen Plant necessary to protect worker safety, ensure plant reliability, and facilitate efficient operation and maintenance of the plant. The air quality analysis focused on construction emissions form heavy-duty equipment and the noise analysis focused on potential constriction impacts to adjacent residential land uses.

**Jordan Downs Redevelopment Project EIR**. TAHA is currently preparing an Environmental Impact Report for the Housing Authority of the City of Los Angeles (HACLA) for the redevelopment of Jordan Downs. Currently, Jordan Downs provides 700 housing units for approximately 2,300 residents on 49.4 acres of land. The redevelopment of Jordan Downs will include a one-for-one replacement of the existing housing units and an expansion to accommodate an additional 1,400 housing units on the existing property and 21 acres of County of Los Angeles land that will be annexed to the City of Los Angeles as part of the project. Mr. Silverman managed the air quality and noise analyses.

**Jordan Downs Redevelopment Project Greenhouse Gas Analysis**. TAHA prepared a specialized greenhouse gas (GHG) analysis for the Jordan Downs Redevelopment Project. Currently, Jordan Downs provides 700 housing units for approximately 2,300 residents on 49.4 acres of land. The redevelopment of Jordan Downs will include a one-for-one replacement of the existing housing units and an expansion to accommodate an additional 1,400 housing units. The analysis utilized trip information obtained from the Southern California Association of Governments Transportation Demand Model. The trip generation component of the Travel Demand Model relies heavily on socioeconomic variables, such as residential population, households, household income, workers, and employment by type to estimate trip generation, distribution, mode choice, and trip assignment. This information was used to estimate mobile source GHG emissions associated with retained residents with low incomes and new residents moving into market-rate housing. The analysis was dependent on socioecomonic data and associated vehicle trip patterns (e.g., low income residents and public transportation compared to middle income residents with long work commutes). Mr. Silverman managed the technical analysis and prepared the discussion.

**Kare Youth League Santa Fe Dam Sports Park Health Risk Assessment**. Mr. Silverman managed the preparation of a health risk assessment for a youth recreational facility located in the City of Irwindale. The project site was located adjacent to the Interstate 605 Freeway and numerous industrial land uses, including an asphalt plant. The health risk assessment quantified the risk associated with mobile source diesel particulate matter emissions and industrial emissions such as benzene from the asphalt plant.

**Kroc Community Center Project Noise Impact Report**. Mr. Silverman managed the preparation of a Noise Impact Report for a recreational and community center located in the City of Long Beach. The

proposed project included the construction of an approximately 170,536-square-foot, three- to four-story, three-building complex and outdoor recreation area (i.e., pools, playfields, and a climbing wall). The noise analysis focused on recreational noise levels associated with the proposed pools. Mitigation measures were recommended to reduce noise levels at adjacent residential and uses.

**La Brea Greenbelt Urban Forestry Project**. Mr. Silverman prepared a Categorical Exemption for the La Brea Greenbelt Urban Forestry Project. North East Trees proposed to plant 1,500 native trees along two miles of La Brea Avenue in the Baldwin Hills area of Los Angeles. The project was attended to mitigate air pollution from an increase in vehicle trips associated with the La Brea/Expo Station of the Exposition Light Rail Line.

**La Jolla Canyon Project Noise Memorandum**. Mr. Silverman prepared a technical memorandum discussing the noise compatibility of an apartment complex with the surrounding roadway network. The discussion also included an analysis of exposure to mobile source noise from balconies.

**Lakes District Specific Plan.** Mr. Silverman managed the preparation of air quality and noise analyses for a mixed-use project in West Covina, CA. The Project Applicant, Charles Company, proposed to construction 450 apartment units and 20,000 square feet of retail use in the City of West Covina. The 6.1-acre project site is located at 301 S. Glendora Avenue. Site access would be provided by three driveways. Driveways on Lakes Drive and Walnut Creek Parkway would be restricted to resident access. A driveway on S. Glendora Avenue would be available for residents, guests, and retail customers. Parking would be provided in a surface lot and multi-story parking structures. The air quality analysis focused on localized construction emissions and the noise analysis focused on construction noise.

**Lakeside Recreation Complex Project**. Mr. Silverman managed the preparation of a Noise Impact Report for the Los Angeles Department of Water and Power (LADWP) Lakeside Recreation Project. The proposed project included recreation facilities at the Lakeside Debris Basin to replace existing facilities that are being removed from the MWD Jensen Filtration Plant property. The Lakeside Debris Basin is located in Sylmar on the east side of Interstate 5 generally adjacent to the Los Angeles Reservoir. The new facility would include baseball and soccer fields. The noise analysis focused on construction and athletic field noise at nearby residential land uses.

**Lido Yacht Anchorage Refurbishment Project Air Quality Impact Report**. Mr. Silverman managed the preparation of an air quality analysis for the refurbishment of the Lido Yacht Anchorage in the City of Newport Beach through the demolition, dredging and reconstruction of the existing Lido Yacht Anchorage. The proposed project included dredging material from the anchorage area, as well as expanding the dock system to meet the current and anticipated future trends in the Newport Beach boating community. The air quality analysis focused on construction emissions associated with dredging activity. The analysis included the quantification of tug boat and haul truck emissions.

**Lomita Boulevard Office/Light Industrial Development Project Air Quality and Noise Impact Report**. Mr. Silverman completed an Air Quality and Noise Impact Report associated with the construction of approximately 203,000 square feet of medical, office, and light industrial land uses in the City of Torrance. Sensitive receptors near the project site included an adjacent church. The air quality analysis focused on localized pollutant concentrations at the church generated by construction activity. The noise analysis focused on construction and operational noise levels at the adjacent church.

**LADWP Cooling Plant and Distribution System Project Air Quality and Noise Impact Report**. Mr. Silverman prepared an Air Quality and Noise Impact Report for the Los Angeles Department of Water and Power. The proposed project would construct a cooling plant and distribution system in order to provide a centralized system for producing chilled water for use by area users, generally consisting of large commercial, governmental, industrial and institutional buildings. Sensitive receptors near the project site included residential towers, a school, concert halls, a park, and a hotel. The air quality analysis focused on how the cooling plant and distribution system would reduce regional operational emissions and reduce

regional greenhouse gas emissions through improvements in energy efficiency. The noise analysis focused on operational noise associated with mechanical equipment.

**LADWP Elysian Park/USC Water Recycling Project Air Quality and Noise Analyses**. Mr. Silverman managed the preparation of air quality and noise analyses associated with a recycled water pipeline in the City of Los Angeles. The mainline segment totaled 28,200 linear feet and extensions were proposed to service specific known customers (e.g., the Los Angeles Convention Center). The air quality analysis focused on regional construction emissions generated during cut-and-cover activity and the noise analysis focused on vibration impacts to adjacent sensitive land uses.

**LADWP Elysian Reservoir Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an Air Quality and Noise Impact Report for a project that would replace the uncovered Elysian Reservoir with underground concrete tanks. The construction process potentially included 300 truck trips per day and a total of 554,337 cubic yards of import/export. The air quality analysis focused on regional construction emissions associated with haul trucks. The noise analysis focused on haul truck noise on the surrounding roadway network. A vibration analysis was completed that quantified vibration from tunneling equipment.

**LADWP Mission Wells Facility Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an Air Quality and Noise Impact Report for the construction several facility improvements, including the construction of new wells, a pump station, and an ammonication/chloramination station in the City of Los Angeles. The air quality analysis focused on regional and localized construction emissions. The noise analysis focused on construction noise and associated exposure to adjacent residential land uses. Mitigation measures were recommended to reduce noise levels.

**LADWP Reseda Boulevard Pipeline**. TAHA prepared air quality, greenhouse gas, and noise analyses for a Los Angeles Department of Water and Power (LADWP) pipeline project located in the San Fernando Valley of the City of Los Angeles. The proposed project involved replacing approximately 6,600 linear feet of potable water distribution main in portions of Reseda Boulevard, Cantara Street, Etiwanda Avenue, and Strathern Street. Construction activity would include trenching on residential streets. The air quality analysis focused on localized construction emissions and the noise analysis focused on residential exposure to equipment noise.

**LADWP San Fernando Valley Water Recycling Project Air Quality and Noise Analyses**. Mr. Silverman managed the preparation of air quality and noise analyses associated with a recycled water pipeline in the City of Los Angeles. The mainline segment totaled 109,800 linear feet and extensions were proposed to service specific known customers (e.g., North Hollywood High School). The air quality analysis focused on localized construction emissions at adjacent sensitive land uses and the noise analysis focused on equipment noise.

**LADWP Silver Lake Reservoir Regulator Station Noise Assessment**. Mr. Silverman managed the preparation of a noise analyses related to regulator station associated with the Los Angeles Department of Water and Power (LADWP) Silver Lake Reservoir Project. LADWP proposed a new 66-inch diameter bypass pipeline around the Silver Lake Recreation Complex. A regulator station at the southern end of the Reservoir complex would regulate water pressure prior to distribution to existing service areas. The purpose of this analysis was to assess compliance with Mitigation Measure N-3 in the Silver Lake Reservoir Project Final Environmental Impact Report. The mitigation measure stated that LADWP would include technologically advanced sound-reduction measures in its detailed design of the regulator station equipment and/or enclosure materials to ensure that noise levels during operation of the regulator station would be 40 decibels or less at the nearest residence. The noise analysis focused on noise levels at adjacent residences.

**LADWP Upper Stone Canyon Reservoir Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an Air Quality and Noise Impact Report for a project that would construct a

concrete roof over the currently uncovered Upper Stone Creek Reservoir. The project analysis included demolition of the existing reservoir bottom and a new reinforced concrete liner, concrete perimeter retaining wall, and a system of interior concrete sheer walls/columns to support the new roof. The air quality analysis focused on assessing emissions from earthmoving equipment, soil haul trucks, and concrete trucks.

**LADWP Van Norman Complex Water Quality Improvement Project Air Quality and Noise Assessment**. Mr. Silverman managed the preparation of air quality and noise analyses associated with improvements to Bull Creek Extension Channel (BCEC), a concrete-lined storm water conveyance and flood control facility located within the Van Norman Complex (VNC). The VNC consist of two large concrete storm water channels (i.e., the East Storm Channel and the BCEC) that convey water through the property and to and from the various on-site debris and detention basins. The proposed project included six primary phases of work: hillside grading, the realignment of BCEC within the Lower Debris Basin, the construction of the new diversion channel, the widening of BCEC north of the Lower Debris Basin, modifying and enlarging the existing Lower San Fernando Dam spillway structure, and increasing the height of the dike along the east side of Bull Creek. The air quality analysis focused on fugitive dust emissions and the noise analysis focused on construction equipment noise levels at adjacent residences.

**Long Beach Crematorium Health Risk Assessment**. Mr. Silverman prepared a health risk assessment (HRA) to determine the extent to which crematoriums in the City of Long Beach result in elevated health risks to the surrounding communities. The discussion presented background information on air quality emissions associated with crematoriums, relevant regulatory framework, and the risks associated with air emission depending on the number of burners used at one location and the distance from the source to the nearest land use.

**Los Angeles Unified School District (LAUSD) Air Quality and Noise Analyses**. Mr. Silverman managed and prepared air quality and noise sections for over ten new LAUSD high schools, middle schools, and elementary schools. The air quality analyses included regional construction and operation emissions inventories, implementation of the SCAQMD's localized significance methodology, mobile carbon monoxide hotspot analysis, and examination of the LAUSD project consistency with regional air quality plans. The noise analyses included an analysis of construction noise, pick-up and drop-off activity, mobile noise, parking, and recreational noise.

**Los Angeles Unified School District Health Risk Assessments**. Mr. Silverman prepared multiple Health Risk Assessments for LAUSD schools pursuant to Public Resources Code Section 21151.8 and Education Code Section 17213. He was responsible for source identification, source characterization, exposure quantification, and risk characterization. Source identification involved a site walk to locate all hazardous emitting facilities within 500 feet of the proposed schools. Source characterization involved obtaining information from owners of emitting facilities, and if necessary, calculating emission factors associated with freeways or heavily traveled roadways. Exposure quantification involved determining contaminant impacts during school hours using the ISCST dispersion model. The final step was to characterize the carcinogenic, chronic, and acute health risk to staff and students at the proposed school using methodology set forth by the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment.

**Metro 3 Corridors Project**. TAHA prepared documentation to support a Categorical Exclusion and Categorical Exemption for near and medium-term transit improvements along the Reseda, Sepulveda and Lankershim Boulevard corridors in the San Fernando Valley. The air quality analysis focused on localized construction emissions. The noise analysis focused on roadway noise changes associated with roadway widening. Mr. Silverman managed the preparation of the air quality and noise analyses.

**Metro Crenshaw Transit Corridor AA/EIS/EIR**. In association with Parsons Brinckerhoff (PB), TAHA is the task manager for the preparation of an alternatives analysis/environmental impact statement/environmental impact report for the Los Angeles County Metropolitan Transportation Authority's Crenshaw-Prairie Corridor Project. The combined environmental document will comply with

both CEQA and NEPA mandates. The proposed project would provide for transit improvements, potentially including Bus Rapid Transit or Light Rail Transit, within the Crenshaw-Prairie Corridor and along the Harbor Subdivision, an existing freight railroad line. The Corridor extends approximately ten miles from Wilshire Boulevard on the north to El Segundo Boulevard on the south. The 33-square-mile project study area includes portions of the Cities of Los Angeles, Inglewood, Hawthorne, El Segundo, as well as portions of unincorporated Los Angeles County. Mr. Silverman managed the preparation of the air quality and noise analysis.

**Metro Airport Connector**. TAHA is preparing an EIR and EA for a new intermodal transit station located along the Crenshaw/LAX Light Rail Transit (LRT) Project. The proposed project is envisioned to include an LRT station to be served by the Metro Green and Crenshaw/LAX Lines, a bus plaza for Metro and municipal buses, passenger pick up, drop off, pedestrian, and bicycle amenities; and an enclosed transit center/terminal building that connects Metro's AMC Transit Station with Los Angeles World Airport's proposed Automated People Mover station. Key issues included displacement, circulation, and construction impacts. Mr. Silverman is the project manager.

**Metro Northern/Canoga Extension of the Metro Orange Line EIR**. Mr. Silverman managed the air quality analysis for the northern extension of the Metro Orange Line in the Canoga Park area of the San Fernando Valley. Regional operational emissions were calculated based on vehicle miles traveled for each alternative. The analysis discussed how extending the Metro Orange Line would remove vehicles from the transportation system and would reduce associated regional emissions.

**Metro Union Division Bus Maintenance & Operations Facility IS/EA**. Mr. Silverman managed the preparation of air quality and noise analyses for an Initial Study/Environmental Assessment document for the construction of a new bus maintenance and operations facilities at the intersection of Cesar Chavez Boulevard and Vignes Street in east Downtown Los Angeles. The 8.23-acre project site would house and operate a mixed fleet of approximately 200 CNG buses. The project would include three levels of bus and automobile parking, an administrative building, maintenance shop, and all associated maintenance & fueling equipment.

**Movietown Specific Plan Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an air quality and noise analysis for the construction of approximately 371 residential units and approximately 32,300 square feet of retail/commercial uses located in the City of West Hollywood. The air quality analysis focused on greenhouse gas emissions and compliance with local and regional regulations. The noise analysis focused on construction noise and vibration levels at adjacent movie and photography studios. Mitigation was proposed to reduce noise and vibration levels.

**Noise Mitigation Report for the Hoopili Project and Expert Witness.** Mr. Silverman reviewed an Environmental Noise Assessment Report prepared for the Ho'opili project located in Oahu, Hawaii. The proposed project included 11,750 residential units, business and commercial areas, schools, and large amounts of open space. TAHA prepared written testimony and testified in front of the Hawaii Land Use Commission. The testimony focused on noise/land use compatibility and mitigation measures to reduce on-site noise.

**Olympic and Broadway Mixed-Use Project**. Mr. Silverman prepared the air quality and noise analysis associated with a two multi-story mixed-use buildings located in Central City Community Plan area of Downtown Los Angeles. The southern parcel site, located at 1026 South Broadway, consisted of approximately 240 apartment units, 7 live/work units, 18,100 square feet of retail area, and 450 to 600 parking spaces. The northern parcel site (Building B), located at 928 South Broadway, consisted of approximately 427 apartment units, 10 live/work units, 29,500 square feet of retail area, and 1,256 parking spaces. The air quality analysis focused on construction emissions and the noise analysis focused on potential impacts to nearby historic structures.

**Owens Lake Construction Emissions Technical Memorandum**. Mr. Silverman prepared a technical memorandum that discussed maximum daily construction emissions and construction greenhouse gas

(GHG) emissions associated with implementation of dust control measures at the Owens Lake bed. The analysis utilized the California Air Resources Board's OFFROAD2007 and EMFAC2007 emission models.

**Pacific Medical Buildings Torrance Project Air Quality Impact Report**. Mr. Silverman prepared an Air Quality Impact Report for a four-story, 90,000-square-foot medical office building. Sensitive air quality and noise receptors near the project site included residential and hospital land uses. The air quality analysis focused on localized pollutant concentrations from construction activity due to sensitive receptors being adjacent to the project site.

**Panda Express Mixed-Use Development Project Air Quality Analysis**. Mr. Silverman managed the preparation of an air quality analysis for a supplemental EIR related to the Rosemead Commercial Retail Center. Sensitive receptors near the project site included educational and residential land uses. The construction emissions analysis focused on nitrogen oxide emissions associated with hauling prefabricated buildings to the project site from outside the South Coast Air Basin.

**Poplar Corridor Safety Improvement Project**. TAHA prepared an Air Quality Impact Report related to the installation of a raised center median along Poplar Avenue from west of Poplar/Idaho intersection through the Poplar/Amphlett intersection where the entrance to and exit from the US 101/Poplar interchange ramps are located. The southbound off-ramp was proposed to be widened from one lane to two lanes, adding an exclusive left turn lane to southbound Amphlett Boulevard. The project also included traffic calming and pedestrian/bicycle safety enhancements along both Poplar Avenue (from Humboldt to Idaho) and Humboldt Street (from Peninsula to Poplar). These improvements included a new crosswalk across Poplar at Idaho Street, two new crosswalks across Humboldt St at College Ave and 500 feet north with bulbouts and flashing beacons, speed feedback signs, Sharrow markings for bicycles, enhanced striping, new landscaping and new lighting. The air quality analysis was prepared in accordance with guidelines established by the California Department of Transportation and the Bay Area Air Quality Management District. The air quality analysis focused on roadway construction emissions and long-term changes in emissions associated with changes in truck activity. Mr. Silverman was the project manager.

**Potential Industries Material Recycling Facility Expansion Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an Air Quality and Noise Impact Report for the Potential Industries Material Recycling Facility Expansion Project. Potential Industries proposes to demolish an existing 40,042-square-foot warehouse and replace it with a new 34,250-square-foot material recovery facility. The expansion will enable Potential Industries to increase the total material received from 1,000 tons of material per day to 2,500 tons of material per day over a five-year period. The air quality analysis focused on truck emissions and the noise analysis focused on construction activity.

**Providence Holy Cross Medical Center Expansion Project Air Quality Impact Report**. Mr. Silverman completed an air quality analysis for expansion of a hospital in the City of Los Angeles. The proposed project included adding an approximately 119,570 square foot, 136-bed patient wing to the existing Main Hospital building. Sensitive receptors near the project site included educational and residential land uses. The key air quality issues were greenhouse gases and exposure of existing employees to construction-related pollutant emissions.

**Residences at the Alhambra Project Air Quality Impact Report**. Mr. Silverman completed an air quality analysis for 351 condominiums in the City of Alhambra. Sensitive receptors near the project site included educational and residential land uses. The project was located near a rail line. A diesel particulate matter assessment was completed to ascertain if the project-related residents would be exposed to high levels of particulate matter.

**San Diego Children's Hospital Expansion Project Air Quality and Noise Impact Memorandum**. Mr. Silverman completed an air quality construction analysis, a construction health risk assessment, and a mobile noise analysis for the expansion of San Diego Children's Hospital. The primary air quality issue

was potential impacts to patients and staff of the existing Hospital campus. As such, a detailed health risk assessment was completed that focused on heavy-duty equipment and haul trucks that would emit diesel particulate matter.

**San Fernando Bikeway.** TAHA prepared a Categorical Exemption for a Class I Bikeway in the City of Burbank. The San Fernando Bikeway is a proposed three-mile Class I bike path along San Fernando Boulevard, Victory Place, Lake Street, and the Burbank Western Flood Control Channel near the Downtown Metrolink Station in the City of Burbank. This project will complete a regional bike path extending from Sylmar to the Downtown Burbank Metrolink Station along the San Fernando Boulevard rail corridor. The San Fernando Bikeway will be constructed as a separate Class I bicycle path for much of the project length with only minimal street crossings. Most of the path will be constructed in Metro-owned rail right of way with a small, on-street segment proposed along Lake Street. When complete the bikeway will help extend the County's network of regional Class I bike paths and connect directly to the Downtown Burbank Metrolink Station. Mr. Silverman managed the preparation of the Categorical Exemption.

**San Gabriel Trench Project**. TAHA prepared an Environmental Impact Report/Environmental Assessment for the San Gabriel Trench Grade Separation Project, which extends through the City of San Gabriel and a portion of Alhambra. The project would provide four grade separations of the Union Pacific Railroad in the City of San Gabriel. The grade separations would involve the construction of a trench that allows trains to pass below bridges constructed at the Ramona Street, Mission Drive, Del Mar Avenue and San Gabriel Boulevard crossings. The project is proposed to reduce train noise and vehicular traffic congestion and to improve safety at the grade crossings. Mr. Silverman managed the preparation of the air quality and noise sections.

**San Juan Capistrano Bikeway Gap Closure Project**. TAHA prepared an Air Quality and Greenhouse Gas Assessment for the City of San Juan Capistrano Bikeway Gap Closure Project. The Proposed Project included bikeway improvements designed to enhance connectivity, safety and ridership throughout the City's existing bikeway trail system. The proposed bikeway gap connections upgrade a number of existing bikeways in the City and provide important connections to the neighboring cities. The analysis focused on quantifying emissions reductions associated with changes to regional vehicle miles traveled. Mr. Silverman was the project manager.

**Santa Ana-Garden Grove Fixed Guideway Project**. Mr. Silverman managed the preparation of a combined Environmental Assessment/Draft Environmental Impact Report for a 4.2-mile streetcar alignment located in central Orange County, California. TAHA prepared a combined Environmental Assessment/Draft Environmental Impact Report for a 4.2-mile streetcar alignment located in central Orange County, California. The Cities of Santa Ana and Garden Grove, in cooperation with Orange County Transportation Authority, are proposing to build a transportation system to provide a convenient connection between Metrolink commuter rail service at the Santa Ana Regional Transportation Center and a new transit center in Garden Grove. The eastern portion of the alignment was proposed to be in mixed-flow traffic and the western portion of the alignment was proposed to be in the abandoned Pacific Electric right-of-way. The environmental document assessed the various attributes of the proposed alternatives including 12 streetcar stations, Traction Power Substations, grade crossings, and maintenance facility locations. Key issues included environmental justice, community impacts, and noise.

**Santa Monica Recycling and Drop Off Facility Project IS/MND**. TAHA prepared an Initial Study/Mitigated Negative Declaration for the renovation and modernization of the existing City of Santa Monica and Southern California Disposal (SCD) Recycling and Solid Waste Transfer Stations. Upon completion, the project would serve as an integrated transfer, recycling and disposal facility, whereby SCD provides transfer services in an expanded transfer station and operates a self haul area on City land and Allan Company provides recycling services. Mr. Silverman managed the preparation of an air quality and noise analyses. The air quality analysis focused on truck emissions and the noise analysis focused on equipment noise associated with sorting materials.

**sBX E Street Corridor BRT Project EIR/EA Air Quality, Energy, and Safety Analyses**. Mr. Silverman managed the preparation of air quality, energy, and safety analyses for a bus rapid transit project located in the Cities of San Bernardino and Loma Linda. The 16-mile transit improvement will include mixed-flow, side-lane exclusive, and center-lane exclusive travel. The air quality analysis will focus on regional construction and operational emissions. The energy analysis focused on the benefits of regional transit verse private vehicle travel. The safety analysis focused on pedestrian and motorist safety along with rider security.

**Scattergood Generating Station Repowering Project**. Mr. Silverman prepared a Noise Study for the repowering of the Scattergood Generating Station located in Los Angeles, CA. The proposed repowering involved providing a combination of Combined Cycle Generating Systems (CCGS) and Simple Cycle Generating Systems (SCGS) that could be used to replace the base load capacity of an older generating unit and provide capacity to meet peak load demands The analysis focused on construction noise impacts to adjacent residences.

**Sierra Canyon Secondary School Athletic Field Project IS/MND**. Mr. Silverman managed the preparation of an air quality and noise analysis for construction of a baseball diamond, a football-soccer field/track, and tennis courts for the Sierra Canyon Secondary School located in the City of Los Angeles. Sensitive receptors near the project site included residential land uses and the existing Sierra Canyon Secondary School. The air quality analysis included a mobile source health risk assessment because the project site was located adjacent to a freeway. The noise analysis focused on construction noise because residential land uses were located adjacent to the project site.

**Silicon Valley Rapid Transit Corridor Project Air Quality Impact Report**. Mr. Silverman completed an Air Quality Impact Report for construction of a 16.3-mile BART heavy rail transit line from the City of Fremont to the City of Santa Clara. The air quality analysis focused on construction emissions associated with at-grade construction and tunneling. A carbon monoxide analysis was completed for parking structures using the United States Environmental Protection Agency SCREEN3 computer model. The Air Quality Impact Report also included an analysis of federal conformity guidelines.

**South Gate Educational Center Firestone Site EIR**. TAHA prepared an EIR for the development of the South Gate Educational Center Master Plan for a site near the intersection of Atlantic Avenue and Firestone Boulevard in the City of South Gate in 2006. However, this project was abandoned by the Los Angeles Community College District (LACCD) due to circumstances outside of the CEQA process. Subsequently, LACCD identified a new site for the South Gate Educational Center near the intersection of Santa Fe Avenue and Firestone Boulevard. Approximately 403,000 gross square feet of administrative, academic, and support facilities are being proposed. Mr. Silverman managed the preparation of an air quality and noise analyses. The air quality analysis focused on regional emissions from mobile sources and the noise analysis focused on locating the classroom building in a compatible noise environment.

**South Los Angeles Community Plan Update EIR**. TAHA is preparing an EIR for update to the South Los Angeles Community Plan (Community Plan). The Community Plan is one of 35 Community Plans, which comprise the Land Use Element of the General Plan. The Land Use Element is one of the seven State-mandated elements of the General Plan that also include noise, transportation, and conservation among others. The Community Plan is intended to promote an arrangement of land uses, streets, and services in the South Los Angeles Community Plan Area (CPA) to encourage economic vitality, social and physical well-being, and general health, safety, welfare and convenience for the people who live and work in the CPA. In the EIR, environmental impacts associated with projected growth for the CPA will be analyzed. Mr. Silverman is managing the air quality, climate change, and noise analyses.

**South Sacramento Corridor Phase II Project Air Quality Analysis**. Mr. Silverman completed a mobile carbon monoxide hot spot analysis for construction of a light rail station at Cosumnes College. Mr. Silverman utilized the CAL3QHC dispersion modeling to determine carbon monoxide concentrations adjacent to a proposed parking structure. In addition, he analyses carbon monoxide concentrations along roadway segments in the Cosumnes College area.

**Southeast Los Angeles Community Plan Update EIR**. TAHA is preparing an EIR for update to the Southeast Los Angeles Community Plan (Community Plan). The Community Plan is one of 35 Community Plans, which comprise the Land Use Element of the General Plan. The Land Use Element is one of the seven State-mandated elements of the General Plan that also include noise, transportation, and conservation among others. The Community Plan is intended to promote an arrangement of land uses, streets, and services in the Southeast Los Angeles Community Plan Area (CPA) to encourage economic vitality, social and physical well-being, and general health, safety, welfare and convenience for the people who live and work in the CPA. In the EIR, environmental impacts associated with projected growth for the CPA will be analyzed. Mr. Silverman is managing the air quality, climate change, and noise analyses.

**Southern California Association of Governments (SCAG) 2008 Regional Transportation Plan (RTP) Global Warming Analysis**. Mr. Silverman completed the global warming analysis for SCAG's 2008 RTP. The analysis included calculation of greenhouse gas (GHG) emissions associated with construction activity, mobile sources, electricity generation, and natural gas consumption. GHG emissions were compared to the State emissions inventory compiled by the California Air Resources Board.

**Southern Owens Valley Solar Ranch**. Mr. Silverman prepared a Noise Study for 200 megawatt net generating capacity solar energy facility using solar photovoltaic panel modules and associated infrastructure. The project site was located on approximately 2,579 acres in Owens Valley, approximately six miles southwest of the town of Independence and approximately 10 miles north of the town of Lone Pine. The noise analysis focused on construction-related truck noise along U.S. Highway 395 and the Manzanar National Historic Site. Project-related off-site construction trucks noise impacts were analyzed using the Federal Highway Transit Administration's Traffic Noise Model (TNM). TNM is the current Caltrans standard computer noise model for traffic noise analysis. The model allows for the input of roadway parameters, noise receivers, and sound barriers if applicable.

**Stephen S. Wise Middle School Relocation Project Air Quality and Noise Impact Report**. Mr. Silverman prepared air quality and noise sections for the demolition of an elementary school and the construction of a middle school. The air quality analysis focused on localized construction impacts to nearby air quality-sensitive receptors. The noise analysis focused on recreation noise exposure to the surrounding residential neighborhood.

**Sunset Time Project EIR Air Quality and Noise Analysis**. Mr. Silverman managed the preparation of an air quality and noise analysis for the construction of 149 hotel rooms, 40 residential condominium units, five low-income affordable housing units, and 35,456 square-feet of commercial and entertainment space located in the City of West Hollywood. The air quality analysis focused on regional and localized construction emissions. The noise analysis focused on noise generated by construction activity and recreational activity (e.g., pools) on the project site. The noise analysis also included a discussion of project site compatibility with the existing ambient noise environment.

**Sweetwater Union Middle School No. 12 & High School No. 14 Project Noise Impact Report**. Mr. Silverman prepared analysis for a middle school and high school located in Chula Vista, California. The primary concern for the project site was noise levels at proposed classrooms due to traffic along Eastlake Parkway and Hunte Parkway. The project included ambient noise measurements and an analysis of student exposure students to high noise levels.

**Sycamore Creek Specific Plan Project Air Quality Analysis**. Mr. Silverman managed the preparation of an air quality analysis for a residential development located in the City of Vista. Sensitive air quality receptors near the project site included residential land uses. The air quality analysis focused on greenhouse gas emissions, regional operational emissions, and localized carbon monoxide concentrations from mobile sources.

**Target Store Redevelopment Project EIR**. Mr. Silverman managed the preparation of an air quality and noise analysis for the proposed Target Store Redevelopment Project located in the City of Azusa. The

project site was located within Downtown Azusa directly adjacent to the Metro Gold Line right-of-way. The Target Corporation proposed to redevelop the site with an approximately 170,000-square-foot building situated above one level of parking. The proposed project intended to capitalize on the Gold Line Authority's plans for a new station adjacent to the project site to further address the goals of the redevelopment plan and the recently updated general plan and development code to develop Downtown Azusa into a more viable commercial district. The proposed project included an approximately 168,000-square-foot building situated above one level of parking. The air quality analysis focused on localized carbon monoxide concentrations. The noise analysis focused on noise generated by trucks using the loading docks.

**The Crossings on Amigo Project IS/MND**. Mr. Silverman managed preparation of an air quality and noise analysis for 90 multi-family apartments and a 3,000-square-foot activity center in the City of Los Angeles. The proposed project was located adjacent to Reseda Elementary School. As such, the air quality analysis focused on exposure of students to toxic air contaminants. The noise analysis focused on construction noise levels at adjacent residential land uses and Reseda Elementary School.

**The Plaza at the Glen Project**. Mr. Silverman managed the preparation of an air quality and noise analysis for a mixed-use development consisting of 150 condominium units, a 230-room hotel, 450,000 square feet of general office space, 100,000 square feet of medical office space, a 45,000-square-foot health and fitness center, a 2,700-seat theater, and a 285,000-square-foot shopping center. The air quality analysis focused on greenhouse gas emissions and project compliance with local and regional regulations. The noise analysis focused on delivery truck noise and potential impacts to an adjacent school.

**THUMSCO Amine CO2 Removal Facility Project Noise Analysis**. Mr. Silverman completed a noise analysis for the construction of an amine carbon dioxide removal plant in the Port of Long Beach. Project components included the installation of modularized process equipment (e.g., pump, filter, and heat exchangers), two towers, an absorber, a 5,000-gallon underground storage tank containing amine solvent, and a regenerator. The analysis included the impact of construction activity to nearby sensitive receptors and operational noise levels associated with new equipment.

**Transbay Transit Center Program**. Mr. Silverman managed the completion of air quality and noise analyses for a Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR) for the Transbay Transit Center Program located in San Francisco, CA. Phase 2 of the Program was environmentally cleared in 2004 and would extend Caltrain and future High Speed Rail underground from Caltrain's current terminus at 4th and King Streets into the new downtown Transit Center. The Phase 2 refinements assessed in the SEIS/EIR include a widened throat structure entering the train box, extended the train box, ventilation structures, taxi staging areas, and event parking at the AC Transit bus storage facility. The air quality analysis focused on regional construction emissions and the noise analysis focused on increased train activity.

**Van Ness BRT Project Air Quality Impact Report**. Mr. Silverman managed the completion of an Air Quality Impact Report for a bus rapid transit (BRT) system along Van Ness Avenue in San Francisco, CA. Each analyzed alternative included the following elements: a dedicated transit lane; transit signal priority; sidewalk extensions at corners; pedestrian safety, landscaping, access and lighting improvements; removal of some left turn pockets; creation of some right turn pockets; stop consolidations at four locations; and station amenities. The air quality analysis focused on compliance with the Bay Area Air Quality Management District Guidelines and demonstrating the beneficial air quality impacts of increasing reliance on mass transit.

**Van Nuys Airport Propeller Park Development Project Air Quality Impact Report**. Mr. Silverman managed the completion of an Air Quality Impact Report for the development of approximately 350,000 square feet of new hangars and offices at the Van Nuys Airport. The 30-acre project site is located in the City of Los Angeles at the west side of Van Nuys Airport on the former Air National Guard base. The air quality analysis focused on regional and localized construction emissions.

**Vasona Light Rail Corridor Extension Project Air Quality Impact Report**. Mr. Silverman managed the preparation of an Air Quality Impact Report for the extension of the Vasona Light Rail line from the existing Winchester Station to a new station near the intersection of Winchester Boulevard and Highway 85 in Los Gatos, CA. The project included an expansion of the existing park-and-ride lot at the Winchester Station, the construction of a station and park-and-ride lot at Hacienda Avenue, and the construction of a station and park-and-ride lot at Vasona Junction. The air quality analysis focused on greenhouse gas emissions and project compliance with local and regional regulations. The air quality analysis focused on measures to reduce construction emissions and operational emissions associated with reductions in vehicle miles traveled.

**Venice Beach Seasonal Ice Skating Rink**. TAHA completed a Noise Study associated with the seasonal Venice Beach Seasonal Ice Skating Rink. The ice skating rink was proposed to be located between the recreation center and the skate park in Windward Plaza. Proposed sound equipment included four 12-inch loudspeakers to be used for both skating music and public address. The Noise Study assessed amplified sound in accordance with requirements set forth by the California Coast Commission and the City of Los Angeles Municipal Code. The analysis incorporated ambient noise monitoring and attenuation calculations. Mr. Silverman managed the noise analysis.

**Village Trailer Park IS/EIR**. TAHA prepared an Environmental Impact Report (EIR) for a mixed-use development in the City of Santa Monica. The project includes the closure of the existing Village Trailer Park and construction of an approximately 350,000 square-foot mixed-use development that would be split 35/65 between commercial and residential uses respectively. The non-residential commercial space would include creative/office space and 11,000 square feet of neighborhood serving retail. The residential uses would be comprised of 144 apartment units, 109 of these units would be subject to Santa Monica's rent control ordinance, with 52 of those set aside for low-income residents. The remaining 37 units would be market-rate apartments. Mr. Silverman is managing the air quality, climate change, noise, and transportation analyses.

**Villas at Gower Project Categorical Exemption**. Mr. Silverman prepared an air quality analysis associated with a categorical exemption for an affordable housing project. The air quality analysis focused on greenhouse gas emissions and that the proposed project would be designed to Leadership in Energy and Environmental Design Silver standard.

**Wai'ale Project**. Mr. Silverman is managing the preparation of an air quality and noise analysis for the Wai'ale Project located in Maui, Hawaii. The proposed project includes approximately 2,550 units and 700,000 square feet of commercial/business uses on approximately 545 undeveloped acres. Wai'Ale will be a master-planned community consisting of single- and multi-family residences, village mixed use areas, commercial, open space and cultural preserves, and civic uses. The air quality analysis focused on regional emissions from mobile sources. The key noise issues were associated with locating residences adjacent to light industrial land uses.

**Wattstar Theatre and Education Center IS/MND Addendum/EA**. TAHA prepared an Addendum to an Initial Study/Mitigated Negative Declaration and an Environmental Assessment for the construction of a 35,318-gross-square-foot motion picture theatre and an education center. The mixed use building was designed to accommodate training facilities for students to prepare for careers in video and film production, post-production, animation, music editing, writing and business development. As part of the proposed project, Graham Avenue, between 103rd and 104th streets was proposed to be vacated and merged with the parcel proposed for the theatre/education building. Mr. Silverman managed the air quality and noise analyses.

**Weddington Golf and Senior Housing Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an Air Quality and Noise Impact Report for a multi-family residential project located in the City of Los Angeles. The proposed project included a 336,000-square-foot, 200-unit senior residential condominium campus with subterranean parking. The air quality analysis focused on local

exposure to construction emissions and the noise analysis focused on the project's compatibility with the existing noise environment.

**Westfield Fashion Square Expansion Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an Air Quality and Noise Impact Report for the construction of 280,000 gross leasable square feet of additional retail and restaurant uses in the Sherman Oaks neighborhood of the City of Los Angeles. Sensitive air quality and noise receptors near the project site included educational and residential land uses. The air quality analysis focused on greenhouse gas emissions from mobile sources, natural gas consumption, electricity generation, and electricity associated with water usage. The key noise issues were associated with proposed loading docks and parking structures.

**Westfield North County Expansion Project Air Quality and Noise Impact Report**. Mr. Silverman managed the preparation of an Air Quality and Noise Impact Report for the construction of 454,000 square feet at the Westfield North County Shopping Center located in the City of Escondido. Sensitive air quality and noise receptors near the project site included residential and recreational land uses. The air quality analysis focused on regional construction and greenhouse gas emissions. The key noise issue was land use compatibility associated with siting a new hotel near the Interstate 15 Freeway.

**Westside Extension Transit Corridor EIR/EIS**. TAHA prepared an Alternative Analysis and Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for Metro's Westside Extension Transit Corridor in the West Los Angeles area. The Westside Extension would extend the Metro Purple Line from its current western terminus at Western Avenue/Wilshire Boulevard to Westwood with possible extension to Santa Monica. Additionally, a secondary route is proposed from the Metro Red Line Hollywood Boulevard/Highland Avenue station through the City of West Hollywood. Alternatives including an underground subway and transit stations will be evaluated. TAHA is preparing five standalone Technical Reports for the project: Land Use, Energy, Real Estate Acquisitions, Environmental Justice and Community and Neighborhood Impacts in addition to supporting GIS based maps for community meetings and report preparation. Mr. Silverman prepared the energy analysis for the EIS/EIR.

**Weymouth Water Treatment Plant Improvement Program**. Mr. Silverman managed the preparation of air quality and noise impact studies related to upgrades at the Metropolitan Water District Weymouth Water Treatment Plant. The proposed project involves rehabilitating and refurbishing aging treatment structures, upgrading systems to improve treatment processes, enhancing worker safety, reducing carbon emissions with renewable energy, improving stormwater management, and ensuring compliance with recent legislation pertaining to the State Drinking Water Act. Specific components of the proposed project include renovation of the Chlorine Containment and Dry Polymer System Buildings; rehabilitation of the Oxidation Demonstration and the Washwater Pumpback Facilities; construction and operation of a new aqueous ammonia tank farm and solar generation facility; seismic upgrades to the Water Quality Laboratory, Engineering Building, Central Stores, and Sedimentation Basin; media and internal basin component replacement to the Filtration Basins; and mechanical component upgrades to the Sedimentation/Flocculation Basins and Finished Water Reservoir. The proposed project would also improve storm water control measures and the domestic and fire water system throughout the plant. The air quality analysis focused on localized construction emissions and the noise analysis focused on mechanical equipment.

**SR 99 Hot Spot Analysis**. TAHA completed air dispersion modeling for the pollutants PM10 and PM2.5 pursuant to the Environmental Protection Agency (EPA) guidelines for Quantitative Hot Spot Analyses in Nonattainment areas for this project located on State Route 99 in Madera County. The analysis complied with EPA Guidance Document "Transportation Hot Spot Analysis in PM2.5 and PM10 Nonattainment and Maintenance Areas." (EPA-420-B-10-040). The results of the dispersion modeling were used to demonstrate Project Level Conformity. All modeling was run using AERMOD (American Meteorological Society/Environmental Protection Agency Regulatory Model) air quality dispersion model and EMFAC 2011 Emissions Model for Emission Factors. Mr. Silverman was the project manager.

**Channel 35 Studio Relocation**. TAHA prepared a Noise and Vibration Study associated with the construction of a new Digital Television Studio within the Merced Theatre and Masonic Hall. Both structures are on the State Historical Register and are located within the Historic El Pueblo de Los Angeles, Historical Monument in downtown Los Angeles. Both structures were proposed to receive an extensive retrofit to the structural, mechanical,electrical and plumbing systems. The noise and vibrational analysis focused on construction activity. Of particular importance was potential vibration impacts to nearby historic facilities. Mr. Silverman was the project manager.

**San Fernando Valley Water Recycling Facility**. TAHA is currently completing air quality and noise studies for a water pipeline to deliver recycled water. The proposed project consists of construction of a recycled water network in the San Fernando Valley based on connecting to specific known customers. The construction would occur in public streets and move sequentially from east to west, beginning with the North Hollywood Park segment. Subsequent segments would be constructed in the following order: Valley Plaza Park, Van Nuys Sherman Oaks Park, Reseda Park, VA Hospital, and Pierce College. Construction would mostly consist of trenching in 90 feet segments at a time using a cut and cover technique. Mr. Silverman was the project manager.

**MWD Diemer Treatment Plant**. TAHA assisted the Metropolitan Water District (Metropolitan) with the preliminary development of the project descriptions related to air and noise for components of the Diemer Upgrades EIR 2013. TAHA reviewed project information provided by Metropolitan and developed air and noise data needs requests for the EIR analysis. At Metropolitan's request, TAHA met with AECOM staff and the Metropolitan Engineers to discuss the various project components that will be included and the data needs request. Mr. Silverman was the project manager.

**Torrance Residential Project**. TAHA prepared an Air Quality and Greenhouse Gas Impact Study for the Torrance Residential Project. The proposed project was located at the southeast corner of Torrance Boulevard and Normandy Avenue, and included 84 single-family houses. The air quality analysis focused on localized construction concentrations at adjacent existing residences. The greenhouse gas analysis focused on long-term operational emissions from mobile sources and electricity use. Mr. Silverman was the project manager.

**Turner Impact School HRA**. TAHA completed a health risk assessment (HRA) for the 2231 South Western Avenue Middle School. The proposed project includes a charter school adjacent to the Interstate 10 (I-10) Freeway in the City of Los Angeles. California Public Resources Code Section 21151.8 requires assessment of hazardous pollutants within ¼ mile of any public school. In addition, California Senate Bill 352 requires HRAs for schools within 500 feet of busy roadways. The HRA assessed mobile and stationary sources of hazardous pollutants located within a ¼ mile of the proposed school. The following includes the scope of work and cost associated with the HRA. The HRA included source characterization, exposure quantification, risk characterization, and risk conclusion. Mr. Silverman was the project manager.

**Brisco Road-Halcyon Road Highway 101 Improvements**. TAHA prepared air quality and noise studies associated with correcting ramp and mainline operations on Highway 101 at the Brisco Road-Halcyon Road/Route 101 Interchange in Arroyo Grande, CA. The purpose of the proposed Caltrans project was to improve traffic flow and safety for the local and interregional movement of people and goods. The project was designed such that it would not preclude the ultimate widening of Highway 101 or future interchange improvements. The air quality analysis focused on regional emissions. The noise analysis focused on assessing transportation noise using the Traffic Noise Model. Mr. Silverman was the project manager.

**Pier B Chassis Yard**. TAHA prepared a Noise and Vibration Study in accordance with Appendix G of the California Environmental Quality Act Guidelines. The proposed project included the establishment of 13-acre chassis yard near the Long Beach Container Terminal. Site upgrades included infrastructure improvements for lighting, shop space for chassis repair, and administrative support space. The proposed project would increase truck trips on the local roadway network and would locate new

operational equipment at the project site. Roadway noise was estimated using the Federal Highway Administration RD-77-108 noise calculation methodology. Equipment noise levels were estimated using reference levels listed in the Federal Highway Administration Roadway Construction Noise Model. Mr. Silverman was the project manager.