

Rock Miller is a registered Civil Engineer in California and Hawaii specializing in Traffic Engineering and Transportation Planning with emphasis on Active Transportation and its contribution to place-making, urban design, streetscapes, and overall mobility. Rock is Stantec's subject matter expert on walking, biking, and application to complete streets. He has over 35 years of experience working in both consulting and for local agencies. Rock is well known to transportation professionals throughout North America, in part due to his service as International President of the 15,000-member Institute of Transportation Engineers (ITE) in 2012 and his continuing service on the US National Committee on Uniform Traffic Control Devices and for the Transportation Research Board.

Rock is a leader in developing and standardizing unique and innovative concepts to better serve walking and biking. He is also an excellent presenter and facilitator in building consensus for complex transportation projects. This expertise, coupled with his strong experience and credibility in traditional traffic engineering, operation of traffic signals and traffic safety, are of great value in technical presentation of complex projects.

Rock has completed highly visible projects in the U.S. and Canada. He has served in significant roles on projects in Vancouver, Calgary, Minneapolis, Columbus, Denver, Atlanta, Lexington, Rochester (NY), Tampa, Honolulu, Salt Lake City, Baton Rouge, Auckland (NZ), and throughout California.

EDUCATION

M.S. Civil Engineering, University of California, Davis,
Davis, California, 1976

B.S. Civil Engineering, University of California, Davis,
Davis, California, 1973

REGISTRATIONS

Professional Engineer #29493 (Civil), State of
California

Professional Engineer #1139 (Traffic), State of
California

Professional Engineer #11271-PE (Civil), State of
Hawaii

Certified Professional Traffic Operations Engineer
#205, Institute of Transportation Engineers

MEMBERSHIPS

Voting Member, National Committee on Uniform
Traffic Control Devices

International President, 2012, Institute of
Transportation Engineers

Member, Association of Pedestrian and Bicycle
Professionals

Member, American Society of Civil Engineers

Past Section and District President, Institute of
Transportation Engineers

Fellow, Institute of Transportation Engineers

AWARDS

2009 APWA Southern California B.E.S.T. Project of
the Year, Orange County Traffic Signal Master Plan

2005 Annual Meeting Best Technical Presentation:
How Does the Chicken Cross the Road?

2002 Western ITE Editors Award - In Pavement
Flashing Crosswalks – State of the Art

PROJECT EXPERIENCE

Bicycle / Pedestrian Studies

OC Loop Feasibility Study, Orange County, California (Principal-In-Charge)

Rock led the project team on a feasibility study to connect existing bicycle and recreational trails to form a continuous loop through North Orange County. The final project will cover more than 70 miles, including about 40 miles of existing beachfront and levee trails with 30 miles of new trail along smaller waterways, railroad rights of way, and urban separated bikeway segments. The project will include several complex structures to separate from freeways, high volume arterials, active rail corridors, and challenging waterway channels.

Centre Cycle Tracks - Short Version, Calgary, Alberta (Technical Advisor)

Rock has led a team, including our local Calgary office, to identify and design a network of protected bikeways for the city center. Rock is responsible for traffic analysis, addressing traffic concerns, and directing the design of cycle tracks. Rock has led presentations in front of the City Council and conferred with the City's mayor.

CV Link, Coachella Valley, California (Principal In Charge)

Rock is providing traffic engineering and urban bikeway designs for the Stantec team working on the CV Link project. This project will construct a 70-mile multi-use trail across the developed portions of the Coachella Valley from Palm Springs to Coachella city along the Whitewater River Wash. The trail will be separated from traffic for most of its length, and will serve cyclists, hikers, neighborhood electric vehicles, and other eligible users. The trail will include special features including shade structures, charging stations, and thematic landscape architectural treatments. Stantec is designing the trail within or across all public roadways. Special designs will be utilized where the trail will be exposed to automobile traffic in segments and crossings.

Herondo Street/Harbor Drive Gateway Park and Cycle Track, Redondo Beach, California (Project Manager)

Rock served as the project manager for this project to develop plans for proposed bicycle friendly facilities along two important roadways within their Marina district. This project consisted of several innovative alternatives, including a separated bikeway while increasing parking capacity using reserve angle parking within the coastal zone. The project was opened in June 2015 providing benefits to motorized and non-motorized users, and further beautifying Redondo's Harbor Gateway. Rock's role encompasses the traffic analysis and simulation of the road diet and roundabout, conceptual visualization, field survey and aerial topography, civil design of the cycle track, drainage facilities, and related signing and striping plans. He led the design concepts and stakeholder and commission meetings, along with several public workshops. This project has won more than six technical awards and commendations to date.

ITE Delegation to Netherlands, Netherlands (International President)

Serving as International President of the Institute of Transportation Engineers, Rock led a delegation on a scanning tour of the Netherlands to review Dutch Bikeway Engineering infrastructure. Approximately 25 percent of all urban trips within the Netherlands are made by bicycle. The delegation met with representatives of City governments, bicycling advocacy organizations, and the developers of the CROW manual that presents Bikeway Engineering Standards. Sites included the Cities of Amsterdam, Rotterdam, Delft, and Utrecht. Infrastructure included the extensive network of cycle tracks, unique intersection treatments, paving treatments, and special traffic controls developed for managing bicycle traffic. The delegation members will be preparing reports and presentations regarding the feasibility and procedure for bringing appropriate treatments to the US.

National Committee on Uniform Traffic Control Devices (NCUTCD, Voting Member)

Rock is a voting member and representative of the League of American Bicyclists (LAB) on this influential National Committee that drafts and approves policies on behalf of the Federal Highway Administration (FHWA) for use of traffic control devices throughout the U.S. Rock has prepared initial drafts and edited many pending proposals that are expected to be included in the 2017 version of the U.S. Manual on Uniform Traffic Control Devices (MUTCD), including bicycle lane buffers, contra-flow bicycle lanes, lane marking extensions through intersections, and use of colored pavement treatments.

California Traffic Control Devices Committees (Alternate Member)

In 2011, Rock was named to this Statewide Committee that advises Caltrans on the California Manual on Uniform Traffic Control Devices and statewide issues regarding traffic control. Rock was appointed specifically to represent walking and bicycling interest groups based upon endorsements by advocacy groups including Walk San Diego, the California Bicycle Coalition, and the Los Angeles County Bicycle Coalition.

Model Design Manual for Living Streets, Los Angeles, California (Non-motorized Transportation Expert)

Rock assisted the County of Los Angeles, Department of Public Health, in developing their Street Design Manual. This manual focuses on all users and all modes, seeking to achieve balanced street design that accommodates cars while ensuring that pedestrians, cyclists, and transit users can travel safely and comfortably. This manual also incorporates features to make streets lively, beautiful, and economically vibrant, as well as environmentally sustainable. Rock participated in the two-day public charrette program, and assisted with writing the bicycle and liability chapters of the report. The report outlines the objectives for the County is trying to achieve in their "living streets" goals, including making the roadways safe and pleasant for all users.

Crosswalk Safety Studies*, Santa Ana, California (Transportation Engineer)

Rock was retained by the City of Santa Ana to improve pedestrian safety and public awareness of related issues. The project analyzed pedestrian/vehicle accident patterns at marked crosswalk locations throughout the City and also conducted a unique public awareness program. The safety study included an analysis of pedestrian/vehicle accident patterns and suggested measures to reduce this type of accident. The study also analyzed factors related to accidents at marked crosswalks, comparing characteristics of sites with pedestrian accidents to a randomly selected control group of sites. A pedestrian safety public awareness campaign was designed to increase public awareness of pedestrian safety in the City. This campaign included participation by the news media, transit operators, government organizations, private companies, and volunteers. One of the features of the study was the use of "Moving Violators," costumed actors that appeared at venues throughout the City and made safety presentations. A pedestrian safety "toolkit" for use by City officials in implementing pedestrian safety programs was also developed as part of this phase of the study. The project activities were funded under a grant from the California Office of Traffic Safety. The Pedestrian Safety/Moving Violators paper won the Best Paper Award at the ITE International Section Annual Conference in May 2003.

Traffic Safety Legal Expert Analysis, Southern California (Expert Witness)

Rock has served as an expert witness on various projects regarding traffic safety issues throughout Southern California. Many of these projects involve pedestrians and cyclists. One important example is for the City of Los Angeles, where he was requested to study usage and conditions at 50 marked uncontrolled crosswalks throughout Los Angeles and develop information that would help the City to improve safety and better defend itself from lawsuits. The study methodology largely replicated the methodology that Rock developed for a citywide crosswalk study in the City of Santa Ana in the late 1990s. The results of this study were presented at technical conferences and published in 2005.

* denotes projects completed with other firms

Hoag Memorial Hospital Presbyterian Master Plan*, Newport Beach, California (Project Engineer)

Rock analyzed the hospital's existing and future parking needs and developed a parking management plan in order to address parking difficulties and maximize parking opportunities within the hospital campus. The study found that it would be essential for Hoag Hospital to control parking in its structures to prevent employees of nearby buildings to park in the structure. A controlled/pay parking program and valet parking were suggested to significantly discourage this behavior. Rock presented all information to Hospital executive staff in a PowerPoint presentation.

Roundabouts

Camino Del Rio Intersection Improvements, San Clemente, California (Project Manager)

Rock managed and oversaw the design of two large roundabouts, street design and was involved heavily with client contact. The City needed to address the potential for rising traffic volumes along Camino de Los Mares and Camino del Rio due to imminent completion of a new regional arterial link. Neighbors were concerned about increasing traffic volumes and sought improvements that would improve the neighborhood. The roundabout solution proved to be well-received in addressing future traffic volume, speeding, and safety issues. Stantec proceeded to provide full design services for the roundabouts, including drought tolerant landscaping that is appropriate to the neighborhood and improved circulation for pedestrians and bicyclists.

Traffic Calming

Traffic Calming Study and Implementation Plan*, Los Alamitos, California (Project Engineer)

Rock has been responsible for preparing design drawings for modern roundabouts at approximately 10 locations throughout southern California. Sites include the Day Creek Roundabout in Rancho Cucamonga, the Seeley Roundabout and the Village Roundabout reconstruction in La Quinta, the 26th/Washington Roundabout in Santa Monica, and the Park and Ximeno roundabouts at the Vista Bicycle Boulevard in Long Beach.

Newport Heights Neighborhood Traffic Management Plan*, Newport Beach, California (Project Engineer)

The Newport Heights neighborhood of the City of Newport Beach has a long history of resident concerns over traffic conditions, cut through traffic, and speeding. Rock led a series of public workshops and meetings to develop a plan for managing traffic conditions throughout the neighborhood. The study documented existing traffic conditions, identified problem areas throughout the neighborhood, and prepared a neighborhood traffic management plan. The preliminary plan includes a wide variety of traffic calming measures. The plan was well received by the community. Rock then designed the traffic calming improvements recommended within the report.

Streetscapes

Santa Monica Berkeley Street Traffic Calming, Santa Monica, California (Principal-in-Charge)

Together, our team and the City of Santa Monica addressed neighborhood traffic concerns on Berkeley Street, a short cut that draws traffic from outside of the neighborhood and is inundated with speeding. Our neighborhood workshops helped the residents develop a plan. We subsequently designed the neighborhood-endorsed improvements, including medians and bulb-outs, which were planted with drought resistant California natives; realigning a large intersection; and implementing appropriate traffic controls.

Teaching

Traffic Engineering Continuing Education, Berkeley, California (Lead Instructor)

Rock serves as a lead instructor for UC Berkeley Institute for Transportation Studies. He teaches classes to professionals on Fundamentals of Traffic Engineering and on the Manual on Uniform Traffic Control Devices. These classes both feature important changes in Federal and State guidance for improving safety through proper and innovative traffic control features, as well as basic design principals. As a result, Rock is a true expert in the state of the art in traffic control devices and in safety innovations.

* denotes projects completed with other firms

PUBLICATIONS

What's Happening in Bicycle-Friendly Long Beach. *Institute of Transportation Engineers District Annual Meeting, Anchorage AK (also presented in Portland OR, St Louis MO, Little Rock AR, and Carmel, IN), 2011.*

Traffic Signal Coordination, Myths and Realities. *California League of Cities/City Engineers Conference, 2008.*

Transportation and Other Items of Interest in Orange County CA. *ITE Journal, 2008.*

I-5 Capacity Analysis. *Presentation to the Board of Directors of the Orange County Transportation Authority, 2007.*

Safety Experience with PPLT Conversions in California. *ITE District 6 Annual Meeting, 2007.*

Walking' in L.A., Los Angeles Crosswalk Safety Study. *Presentation for State of Utah, WASHTO-X, 2005.*

Designing Highway Facilities for Pedestrian Safety. *Montana Joint Engineers' Council, 2005.*

In-Pavement Flashing Crosswalks, State of The Art. *TRB Urban Street Symposium, 2003.*

Can 25,000 Pedestrians Cross the Street Safely?. *ITE Spring Conference, 2003.*

Managing Traffic Calming Projects, Speed Bumps in the Process. *American Public Works Association, Southern California Section, 2001.*

Safety in Marked and Unmarked Crosswalks. *Institute of Transportation Engineers, Traffic Engineering Council Newsletter, 2000.*

Active Control at Highway/Rail Grade Crossings Committee, 2000.

Stantec

The Stantec community unites more than 22,000 employees working in over 400 locations. We collaborate across disciplines and industries to bring infrastructure projects to life. Our work—professional consulting in planning, engineering, landscape architecture, surveying, project management, and project economics—begins at the intersection of community, creativity, and client relationships.

Since 1954, our local strength, knowledge, and relationships, coupled with our world-class expertise, have allowed us to go anywhere to meet our clients' needs in more creative and personalized ways. With a long-term commitment to the people and places we serve, Stantec has the unique ability to connect to projects on a personal level and advance the quality of life in communities across the globe.

Our proactive approach to managing the design development, and environmental processes is a culture nurtured by all of our staff. The latest technology is used for alternative assessments, final design production, and public presentations. Whether performing a traffic operation assessment, traffic signal design, communication system integration, or conducting a long range transportation planning study, Stantec has the experience to develop cost-effective and innovative solutions.

We are among the largest national transportation engineering firms. We have decades of experience in:

- Traffic engineering design and operation
- Traffic calming analysis and design
- Active transportation/pedestrian and bicycle facilities
- Traffic signal system design, integration, and operation
- Transportation management/controller design and integration
- Intelligent transportation system (ITS) planning and design
- Transit system planning and design
- Design of transportation facilities
- Traffic control and project construction staging
- Construction management
- Complete streets planning and design
- Safety studies