



Bicycle & Pedestrian Advisory Committee

Free Complete Streets Safety Assessments

- Is your community seeing or hoping for more bicyclists on the road?
- Does your community encounter challenges ensuring the safety of pedestrians?
- Does your community have high-collision locations?

The Institute of Transportation Studies, through its Tech Transfer Program, offers Free Complete Streets Safety Assessment to communities with any size population. This new program combines and replaces what were previously separate programs, the Rural Safety Assessments, Traffic Safety Assessments, Pedestrian Safety Assessments, and Bicycle Safety Assessments. Its goal is to help you to improve bicycle safety, accessibility and infrastructure.

Recently, the Tech Transfer Program completed a safety assessment for locations in El Dorado County and Placerville.

The program is now accepting applications for the current grant cycle, October 01, 2015 through September 30, 2016.

For more information, contact the presenter:

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<http://www.techtransfer.berkeley.edu/services/pedestrian-safety-assessments>

Complete Streets Safety Assessments

For California Communities

The primary objectives of Complete Streets Safety Assessments are:

- To improve safety for all modes of travel in a city or county, with emphasis on pedestrian and bicycle safety
- To create safe, comfortable, accessible, and welcoming environments for all road users
- To enhance the walkability, bikeability, and economic vitality of local districts

To achieve these objectives, Tech Transfer provides free Complete Streets Safety Assessments to California local agencies. We send expert evaluators to review traffic, pedestrian, and bicycle safety conditions, programs, and needs of your agency, and suggest new strategies to improve safety for all road users, with emphasis on pedestrians and bicyclists. Tech Transfer provides highly-focused, in-depth, expert safety reviews of problem areas and specific suggestions for pedestrian and bicycle safety improvements. This free technical assistance service also helps local agencies identify potential sources of funding to make the suggested improvements, and justification to use in grant applications for state and federal funding.

Who can request a Complete Streets Safety Assessment?

California communities with populations over 25,000 with significant pedestrian and bicycle safety issues may request a Complete Streets Safety Assessment from Tech Transfer. Priority is given to applicant agencies that appear in the highest collision rates (top ten lists) for OTS collision rankings. California agencies can review their [OTS collision ranking online](#).

How is the Complete Streets Safety Assessment conducted?

If a local agency is selected by Tech Transfer and approved by OTS for a CSSA, Tech Transfer will assign a team of two safety experts (evaluators) in the fields of traffic engineering, planning, or traffic enforcement, depending on the needs of the local agency, to conduct the study for the community.

The evaluators will begin with a thorough phone interview of local agency staff and then schedule a one-day visit to the city or county to observe pedestrian and bicycle traffic conditions in the field. As part of the assessment, the evaluators will review the community's pedestrian/bicycle safety programs, with a view to increase the overall effectiveness of the programs. They will also review available safety data such as [Statewide Integrated Traffic Reporting System \(SWITRS\)](#) and [Office of Traffic Safety \(OTS\) ranking](#). Based on the available collision data and discussions with city and county staff, a list of intersections and roadway segments with the highest rates of pedestrian and bicycle collisions is proposed for the evaluation. The evaluators will then visit the city or county for one day to conduct an evaluation using the comprehensive "[A Technical Guide for Conducting Pedestrian Safety Assessments for](#)

[California Communities](#)” and “[A Technical Guide for Conducting Bicycle Safety Assessments for California Communities.](#)” to help the community achieve their objectives listed above. The site visit is conducted at various locations, as determined in coordination with city or county staff. The observations made during the field audit are used to suggest policies and physical improvements that could enhance pedestrian and bicycle safety and accessibility, and in some instances, economic vitality, and then suggest new strategies to improve safety for all modes of transportation in the community.

After completing the one-day visit, the two evaluators prepare a report summarizing their findings and suggestions. This report presents the findings and suggestions for improvements derived from:

- Benchmarking analysis of the community's existing pedestrian and bicycle programs, policies, and practices, which aims to provide the community with information on current best practices and how the city or county compares
- Field walking and biking audits at various locations in the city or county
- Discussions with and data provided by the local enforcement regarding their practices for pedestrian and bicycle safety

Many suggestions in the CSSA report may be appropriate for grant applications, including OTS grant or Safe-Routes-to-School funding. The suggestions for improvement may also be used as the starting point for a Pedestrian/Bicycle Master Plan, a document that would set forth pedestrian/bicycle and streetscape policies for the community and identify and prioritize capital improvement projects.

How can I request a Complete Streets Safety Assessment?

To learn more about Complete Streets Safety Assessments and to request one for your community, email safety@techtransfer.berkeley.edu. A limited number of assessments are available each fiscal year, so send in your request early.

What kinds of safety issues can the assessment address?

The Complete Streets Safety Assessments may include, but are not limited to, the following topics:

- School traffic safety, Safe-Routes-to-School program and grant funding
- Pedestrian and bicycle safety education programs
- Inventory of sidewalks, informal pathways, and key pedestrian and bicycle opportunity areas
- Adoption of open space requirements
- Walking and biking audits
- Pedestrian and bicycle-oriented traffic signal and stop sign warrants
- Proper use of pedestrian and bicycle traffic control devices, and need for additional devices (signs, markings, striping and signals)
- Adoption of bicycle parking requirements

- Pedestrian and bicycle-oriented speed limits and speed surveys
 - Adoption of street tree requirements
 - Coordination with health agencies
 - Implementation of Americans with Disabilities Act (ADA) improvements
 - Crosswalk installation, removal, and enhancement policy
 - Preparation of a Pedestrian and Bicycle Master Plan
 - Crossing barriers
 - Collection of pedestrian and bicycle volumes
 - Traffic calming programs
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- High-collision intersections
 - Inadequate sight-distance
 - Speeding
 - Red-light running
 - Roadway channelization and road diet
 - Traffic circulation
 - Signal timing
 - Pedestrian and bicycle access management
 - Traffic record keeping
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- Enforcement goals, capabilities, and improvements
 - Local enforcement resources, and deployment
 - Police personnel training
 - Hit-and-run collisions
 - Traffic record systems
 - Collision history and collision reporting practices
 - Reporting of collision factors
 - Public relations and outreach efforts
 - Enforcement of pedestrian and bicycle right-of-way laws and speed limits

Who performs the Complete Streets Safety Assessments?

Each evaluation is conducted by a team of two experts in traffic engineering, planning, or traffic enforcement, which are selected based on the needs of the local agency. Our team of expert evaluators includes:

Bruce Appleyard, PhD, AICP, is a Principle at CFA Consultants. He is passionate about helping people create joyful and enriching communities that reflect their spirit and identity, are economically vibrant, and yield environmental and health benefits for all. Bruce specializes in pedestrian and bicycle planning and design, as well as applied GIS research on human settlement and behavior patterns at the intersection of urban design, transportation, and land use and environmental policy. His research and applied work has focused on identifying how these policies and practices can be used in concert with one another to improve a range of sustainability, livability, social equity, and public health outcomes (air & water quality, climate change, physical activity, safety). Dr. Bruce Appleyard is also an Assistant Professor at San

Diego State University's School of Public Affairs and member of the Active Transportation Research Center at SDSU.

John Ciccarelli is a transportation planning and design consultant with over 20 years of experience specializing in bicycle and pedestrian modes, with particular expertise in city and bicycle and pedestrian master plans, corridor and trail studies and plans, and safety analysis. He has developed and taught planning and design workshops for Tech Transfer, UC Davis Extension, Caltrans, LA DOT, LA County Metro, and Association of Pedestrian and Bicycle Professionals (APBP). John served for 11 years on the Bicycle Technical Committee of the National Committee on Uniform Traffic Control Devices (NCUTCD) and for 3 years on the California Traffic Control Devices Committee (CTCDC). He is a principal author of APBP's Bicycle Parking Guidelines. As Stanford University's first Bicycle Program Coordinator he created and implemented a comprehensive facilities program to improve safety and accessibility for Stanford's thousands of student and commuter bicyclists. John is a certified League Cycling Instructor (LCI) who teaches bicycle driver education classes and Learn To Bicycle lessons. He holds a Bachelor's Degree in Electrical Engineering.

Terry Cates is an experienced law enforcement leader with over 30 years of progressively responsible experience including all aspects of traffic safety. He retired in good standing as a Division Commander from the Vacaville Police Department. He worked a variety of assignments including, Defensive/Pursuit Driving Instructor, Motor Officer, Motor Instructor, Motor Sergeant, and was the Division Commander of the Traffic Section when he retired. Terry has investigated and supervised many investigations including collisions involving multiple fatalities. He has written and managed traffic safety grants in excess of 1.3 million dollars which were awarded by the California Office of Traffic Safety. As the Motor Sergeant he supervised over 60 DUI checkpoints. He was a member of the Solano County Safe Routes to School Program. Terry received several awards from the California Office of Traffic Safety for his traffic safety efforts. He currently sits on a State Highway Steering Committee for Motorcycle Safety.

Thomas Clausen, PE, is a registered civil engineer and traffic engineer in California. He has over 35 years of experience. Mr. Clausen has worked at the senior level in several Bay Area cities, the Metropolitan Transportation Commission, Caltrans, and two consulting firms (Fehr & Peers and TJKM). His areas of expertise include traffic operations, signing and striping, traffic impact studies, traffic safety, and congestion management. Mr. Clausen is an ITE Fellow and past International Director representing the Western District. He is a member of ASCE. He holds a Master of Engineering Science from UC-Berkeley and a Master of Public Administration from CalState Eastbay. He has been an UC Extension instructor for over 10 years and has completed traffic safety assessments for more than five years.

Michelle DeRobertis, PE, is a founding Principal with Transportation Choices for Sustainable Communities, a 501c3 nonprofit organization dedicated to helping communities provide a truly multimodal street and transportation network. Ms. DeRobertis has over thirty years transportation engineering experience in bicycle planning and design, and was project manager for numerous major bicycle facility planning and design studies for California cities and counties. She was a consultant for twenty years and she worked in the public sector for ten years,

first for the City of Alameda as an Associate Civil Engineer and then as a Senior Transportation Planner and Bicycle Program Manager for the Santa Clara Valley Transportation Authority. She has served on the Bicycle Technical Committee that advises the FHWA on the MUTCD since 1998 and has taught at UCB ITS Tech Transfer for over 15 years. She is a registered civil and traffic engineer in California and she received her BS and MS degrees in Civil Engineering from UC Berkeley.

Nazir Lalani, PE, is the President of Traffex Engineers, Inc., a transportation consulting firm that provides consulting services to local agencies ranging from the complete responsibilities of traffic engineering functions to specialized operations such as synchronized signal systems and studies designed to improve pedestrian and bicycle facilities. Nazir is currently the Contract City Traffic Engineer for the Cities of La Quinta and Indian Wells in Southern California. In 2009, Nazir completed ten years of service with the County of Ventura, where he was the Deputy Director of the Transportation Department in charge of the Traffic and Transportation Division in the Transportation Department of the Ventura County Public Works Agency. Nazir has also held local government positions with the City of Ventura, Santa Barbara County, the City of Lakewood, Colorado, the City of Phoenix, Arizona, and the Greater London Council in England.

Dennis Smith is a retired police sergeant who served the City of Glendale Police Department for more than three decades. While serving as a Police Motor Sergeant he supervised numerous investigations involving traffic fatalities and/or serious injuries. He also planned and supervised many sobriety checkpoints and enforcement operations. Mr. Smith managed the department's red-light camera program. As a member of the Safe-Routes-To-Schools committee he collaborated with the Glendale Unified School District and helped to identify schools in need of infrastructure and traffic safety improvements. Mr. Smith authored numerous traffic safety grants that were submitted to the California Office of Traffic Safety, resulting in awarded grants that exceeded one million dollars.

John Turner retired from the Ventura Police Department as a Sergeant with 30 years of service. He supervised motor officers and the collision investigation units for 22 years. He was the designated expert for the city attorney on collision related claims and he served on the city's Traffic Safety Board and Collision Review Committee. He has extensive experience in traffic enforcement, collision investigation, and innovative traffic safety programs. He has worked as a police officer in Santa Barbara, as a collision reconstructionist, and had testified as an expert in Vehicle Code application in California, Arizona, Nevada, and Texas, including in front of Senate Committees. He has won numerous awards for police work since 1984. He was the Principal at his own company, Turner Accident Reconstruction, and currently is a National Account Director for Redflex Traffic Systems Inc. He has published and owns several intellectual patents.

SAFETY ASSESSMENT STUDIES

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SAFETY ASSESSMENT STUDIES

- Traffic Safety Assessment (TSA)
- Pedestrian Safety Assessment (PSA)
- Bicycling Safety Assessment (BSA)
- Rural Safety Assessment (RSA)



SAFETY ASSESSMENT STUDIES

Funding for these programs is provided By:

Grant from the California Office of Traffic Safety (OTS), through the National Highway Traffic Safety Administration (NHTSA)

Process:

- Outreach to CA communities (cities and counties)
- Receive applications from local agencies
- Approve local agencies, priority is based on:
 - OTS Ranking: it is a tool for individual cities to compare their city's traffic safety statistics to those of other cities with similar-sized populations.
 - Any previous safety studies done, and how long ago

SAFETY ASSESSMENT STUDIES

- ❑ Assign evaluators (consultants or part-time employees) to each agency
- ❑ Evaluators conduct studies, prepare a technical report or a brief memo, submit to Tech Transfer
- ❑ After review and approval, we send an electronic copy of report to local agency and OTS
- ❑ We do not share the reports without permission from the local agency
- ❑ For this Current Cycle: 6 TSA, 7 PSA, 7 BSA, 6 RSA, for a total of 26 studies

TRAFFIC SAFETY ASSESSMENT (TSA)

- ❑ Previously known as Traffic Safety Evaluation (TSE)
- ❑ Tech Transfer has offered TSA to California cities and counties for more than 20 years
- ❑ It focuses on engineering and enforcement
- ❑ It serves local agencies in OTS population ranking A-D (more than 25,000 in population)
- ❑ We have conducted 215 TSA studies

PEDESTRIAN SAFETY ASSESSMENT (PSA)

- ❑ Tech Transfer has offered PSA to California cities and counties since 2007
- ❑ Focus on engineering
- ❑ Objective is to improve pedestrian safety and circulation in a city or county
- ❑ It serves local agencies in OTS population ranking A-D (more than 25,000 in population)
- ❑ We have conducted 87 PSA studies

BICYCLE SAFETY ASSESSMENT (BSA)

- We conducted a pilot Pedestrian/Bicycle Safety Assessment (PBSA) in grant cycle 2012-2013
- We started in 2013-2014 grant cycle, we conducted 4 studies
- It focuses on engineering
- Objective is to improve bicycle safety and circulation in a city or county
- Serves local agencies in OTS population ranking A-D (more than 25,000 in population)

RURAL SAFETY ASSESSMENT (RSA)

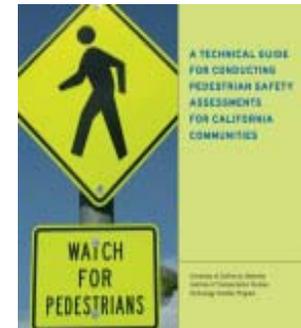
- ❑ We started in 2013-2014 grant cycle, we conducted 4 studies, including one for a native American tribe
- ❑ It serves local agencies in OTS population ranking E and F (population under 25,000)
- ❑ The primary objective of a RSA is to improve traffic safety in rural or small communities
- ❑ It is a smaller version of a TSA
- ❑ This service includes all modes of transportation (vehicle, pedestrian, and bicycle)

SAFETY ASSESSMENT GUIDEBOOKS

- ❑ A Technical Guide for Conducting Pedestrian Safety Assessments for CA Communities
- ❑ A Technical Guide for Conducting Bicycle Safety Assessments for CA Communities
- ❑ A Technical Guide for Conducting Traffic Safety Assessments and Rural Safety Assessments for CA Communities

A TECHNICAL GUIDE FOR CONDUCTING PEDESTRIAN SAFETY ASSESSMENTS FOR CA COMMUNITIES

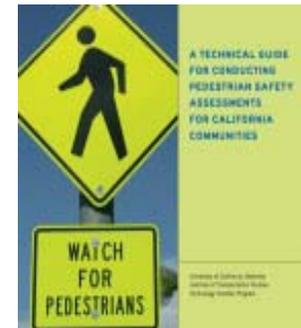
- ❑ This document describes the California PSA process and provides guidelines for evaluators to conduct PSAs
- ❑ First Edition: 2008, and Second Edition: 2013
- ❑ Targeted for application within California, it is also applicable outside of CA
- ❑ You can download from our website:
<http://www.techtransfer.berkeley.edu/publications>



A TECHNICAL GUIDE FOR CONDUCTING PEDESTRIAN SAFETY ASSESSMENTS FOR CA COMMUNITIES

What it covers:

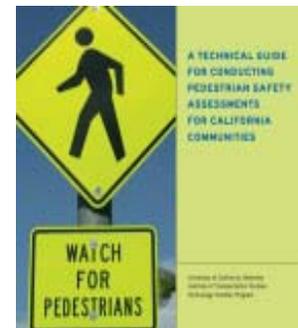
- Objective of the CA PSA
- PSA Process:
 - Identify locations in the community for evaluation
 - Obtain relevant information from the local agency (Data Request Checklist)
 - Pre-visit interview (Suggested Questions)



A TECHNICAL GUIDE FOR CONDUCTING PEDESTRIAN SAFETY ASSESSMENTS FOR CA COMMUNITIES

PSA Process (continued):

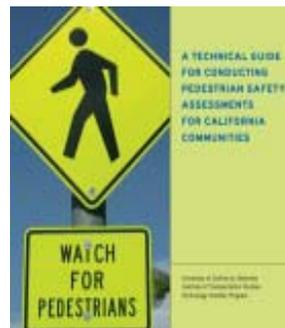
- Perform Field Walking Audits and Reviews:
 - ❖ Walking Audits (Sample Walking Audit Checklist)
 - ❖ Nighttime Audit
 - ❖ Economic Vitality Walking Audit
 - ❖ Target Citizen Group Walking Audit
 - ❖ Windshield Audit
 - ❖ Aerial Photograph Audit or GIS-Based Audit
 - ❖ Proposed Development Audit
 - ❖ Existing Site Audit



A TECHNICAL GUIDE FOR CONDUCTING PEDESTRIAN SAFETY ASSESSMENTS FOR CA COMMUNITIES

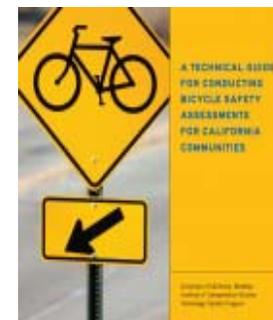
What it covers (continued):

- Pedestrian Improvement Measures
- Policy, Programs, and Practices
- Relevant Standards, Tools, Best Practices, and Safety Resources



A TECHNICAL GUIDE FOR CONDUCTING BICYCLE SAFETY ASSESSMENTS FOR CALIFORNIA COMMUNITIES

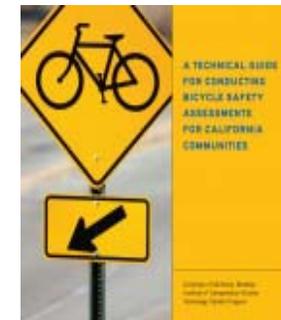
- ❑ This document describes the California BSA process
- ❑ Developed in September 2013
- ❑ It is modeled after the Technical Guide for Conducting Pedestrian Safety Assessments for California Communities.
- ❑ Targeted for application within California, but applicable outside CA
- ❑ You can download from our website:
<http://www.techtransfer.berkeley.edu/publications>



A TECHNICAL GUIDE FOR CONDUCTING BICYCLE SAFETY ASSESSMENTS FOR CALIFORNIA COMMUNITIES

What it covers:

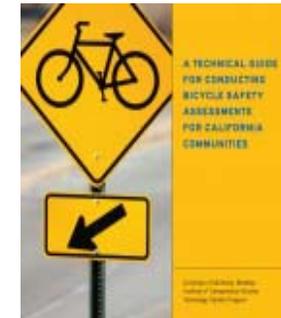
- Objective of the CA BSA
- BSA Process:
 - Ranking the Community by Bicycle Safety Performance
 - Obtain Relevant Information from the Local Agency
 - Data Request Checklist
 - Pre-visit Interview



A TECHNICAL GUIDE FOR CONDUCTING BICYCLE SAFETY ASSESSMENTS FOR CALIFORNIA COMMUNITIES

BSA Process (continued):

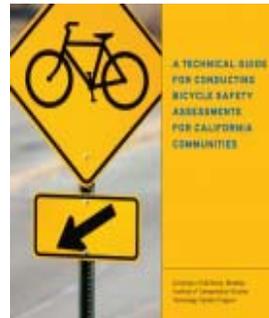
- Perform Field Audits and Reviews:
 - ❖ Bicycling Audit
 - ❖ Bicycle Collision Audit
 - ❖ Nighttime Audit
 - ❖ Corridor Analysis Audit
 - ❖ Safe Routes to School Audit
 - ❖ Bicycle Support Facilities Audit
 - ❖ Windshield Audit
 - ❖ Proposed Development Audit
 - ❖ Behavioral Audit



A TECHNICAL GUIDE FOR CONDUCTING BICYCLE SAFETY ASSESSMENTS FOR CALIFORNIA COMMUNITIES

What it covers (continued):

- Bicycle Improvement Measures
- Policy, Programs, and Practices
- Relevant Standards, Tools, Best Practices, and Safety Resources



A TECHNICAL GUIDE FOR CONDUCTING TRAFFIC SAFETY ASSESSMENT (TSA)/RURAL SAFETY ASSESSMENT (RSA) FOR CALIFORNIA COMMUNITIES

Will be developed and published in 2015

SAFETY ASSESSMENT STUDIES

- ❖ To request a safety study for your community, email :
safety@techtransfer.berkeley.edu
- ❖ For more information, contact:
afsaneh.yavari@berkeley.edu
(510) 643-3163