Highway Safety Improvement Program (HSIP)
&
High Risk Rural Roads Program (HR3)

Webinar for the 2012 Combined Call for Projects

May 3, 2012

Caltrans - Division of Local Assistance
Office of Bridge and Safety Programs

Webinar Presenters

Ken Kochevar, FHWA - Safety, Team Leader
Welcome

Yin-Ping Li, DLA - Office Chief – Bridge and Safety
Introduction & Overview

Ted Davini, DLA - Safety Program Coordinator
Background, Delivery Requirements and Manual

Richard Ke, DLA - Safety Program Coordinator
Guidelines and Application Form

John Bigham, UC Berkeley, SafeTREC
SafeTREC TIMS website & B/C calculator

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WELCOME

- Importance of safety to FHWA
- Next Authorization – Safety still #1
- Partnership with Caltrans
- Thank You - and - **Good Luck**!

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Presentation Details

- Expected to last up to 2 hours
- Questions and Answers
  - Chat-Pod:
    - Participants may post questions in the 'chat-pod' at any time during the webinar
    - Presenters intend to answer these questions via chat-pod or verbally during the webinar
  - Call-In:
    - Presenters will take call-in questions at key points during the webinar
- This presentation is being recorded
  - A copy will be posted on the HSIP webpage

http://www.dot.ca.gov/hq/LocalPrograms/HSIP/webinar.html

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Presentation Outline

- Program Background & Lessons Learned
- New Local Roadways Safety Manual
- Guidelines, Application Form & Instructions
- TIMS website & B/C calculator
- Timeline
- Questions and Answers

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BACKGROUND & LESSONS LEARNED

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HSIP & HR3 Program Background

- Established under SAFETEA-LU
  - Significantly reduce fatalities and serious injuries
  - Emphasizes DATA-DRIVEN projects
  - National emphasis on safety not expected to change
- HSIP
  - 4 Cycles to date
  - Over $60 M in apportionments / year
- HR3
  - 2 Cycles to date
  - Approximately $9 M in apportionments / year

http://www.dot.ca.gov/hq/LocalPrograms/hsip.htm

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Accomplishments & Lessons Learned

- Safety Index vs. Work Type Projects
  - Work Type projects tended to be based on 'potential' safety problems and not focused on resolving the most problematic high crash locations
- HSIP Cycle 4 showed the value of B/C ratios
  - $743 M in expected benefits from only $75 M project
  - Low-cost / Systemic-type improvements had the highest chance of receiving funding (signing, striping, pedestrian-signals, etc.), even though higher numbers of high-cost improvements were submitted (new signals, shoulder widening, etc.)
- Ped & Bike projects competed well
- Caltrans received a National Safety Award for the Cycle 4 B/C calculation / Application tool

http://www.dot.ca.gov/hq/LocalPrograms/summary-of-results.htm

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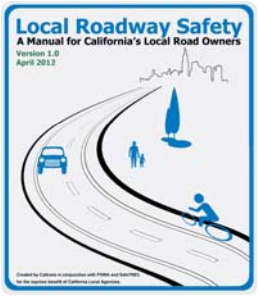
LOCAL ROADWAY SAFETY MANUAL



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New Local Roadways Safety Manual

- Partnership of Caltrans, FHWA and UC Berkeley
  - Build on new FHWA manuals for Local Rural Road Owners and other national safety manuals
  - Incorporate Caltrans Lessons Learned from HSIP Cycle 4 and other statewide safety programs
  - Utilize UC Berkeley SafeTREC TIMS website to provide access to all agencies to their crash data and the tools to complete proactive analysis of their roadways
- Intended to directly support Calls for Projects
  - Agencies that base their applications on a proactive safety analysis of their roadways will be more successful
- Intended to be used all year long!

http://www.dot.ca.gov/hq/LocalPrograms/HSIP/safetymanual-2012-04-22.pdf

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Local Roadways Safety Manual (Cont.)

Manual contents

1. Introduction and Purpose
2. Identifying Safety Issues
3. Safety Data Analysis
4. Countermeasure Selection
5. Calculating the B/C ratio and Comparing Projects
6. Identifying Funding and Construct Improvements
7. Evaluation of Improvements

Appendix A through H

- Appendix B: Details on all CMs available for this Call for Projects

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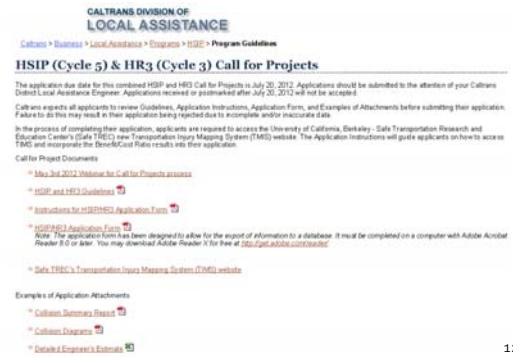
APPLY NOW!


CALTRANS DIVISION OF
LOCAL ASSISTANCE

Caltrans > Business > Local Assistance > Programs > HSIP > Program Guidelines

HSIP (Cycle 5) & HR3 (Cycle 3) Call for Projects

The application due date for this combined HSIP and HR3 Call for Projects is July 20, 2012. Applications should be submitted to the attention of your Caltrans District Local Assistance Engineer. Applications received or postmarked after July 20, 2012 will not be accepted.

Caltrans expects all applicants to review Guidelines, Application Instructions, Application Form, and Examples of Attachments before submitting their application. Failure to do this may result in their application being rejected due to incomplete and/or inaccurate data.

In the process of completing their application, applicants are required to access the University of California, Berkeley - Safe Transportation Research and Education Center's (Safe TREC) new Transportation Injury Mapping System (TIMS) website. The Application Instructions will guide applicants on how to access TIMS and incorporate the Benefit/Cost Ratio results into their application.

Call for Project Documents

- May 3rd 2012 Webinar for Call for Projects process
- HSIP and HR3 Guidelines
- Instructions for HSIP/HR3 Application Form
- HSIP/HR3 Application Form
  Note: The application form has been designed to allow for the export of information to a database. It must be completed on a computer with Adobe Acrobat Reader 8.0 or later. You may download Adobe Reader X for free at http://get.adobe.com/reader/
- Safe TREC's Transportation Injury Mapping System (TIMS) website

Examples of Application Attachments

- Collision Summary Report
- Collision Diagrams
- Detailed Engineer's Estimate

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HSIP & HR3 Combined Call for Projects

Primary Elements

- General Details
- Guidelines
- Application Instructions
- Application Form (PDF Form)
- Sample Attachments
- SafeTREC-TIMS Benefit / Cost Calculator

http://www.dot.ca.gov/hq/LocalPrograms/HSIP/apply_now.htm

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General Details

- 3 month Call: Monday April 23rd to Friday July 20th.
- $100+ Million of HSIP funding available
- $15 Million of HR3 funding available
- Applications will be selected based on their B/C ratio
- Caltrans is looking for multiple applications from each agency! *Larger of $2M or 1.5 times the population share*

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Guidelines

- Eligible Applicants:
  Agencies that own, operate, and maintain the roadway
  - City and County agencies
  - Tribes, Universities, Transportation Agencies
  - Others (reviewed on a case-by-case basis)
- Project Funding:
  - Maximum reimbursement ratio is 90% (federal)
  - Maximum federal funds for a project is $900,000
  - Minimum federal funds for a project is $100,000
    - Small / Rural agencies may ask the DLAE for an exception on project size due to very low crash numbers within their jurisdiction.

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Guidelines (Cont.)

- Eligible Projects/Improvements:
  - Generally, any work on publicly owned roadway or bicycle/pedestrian pathway that corrects or improves the safety for users
  - Must lead to the construction of safety improvements
  - Improvement-type must have an established Crash Reduction Factor to be included in the Application's B/C Calculation
    - Overall B/C must be 1.0 or greater.
  - Prefer projects that can be delivered quickly and have minimal ROW and Environmental impacts
  - HR3: 57% of all Fatal crashes occur on Rural Roads
    - Targets specific roadways: Rural Major Collector, Rural Minor Collector, & Rural Local Roads

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Guidelines (cont.)

- Keys to a high B/C ratio
  - Complete a "proactive safety analysis" of roadways
  - Select locations & corridors with high #s of crashes
  - Select lower-cost improvements/countermeasures (CMs) with high Crash Reduction Factors (CRFs)
  - Combine multiple CMs or multiple locations into one application to improve project delivery efficiencies
  - Minimize adding non-safety elements (or elements without established CRFs) into project scope

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Guidelines (Cont.)

- Application Review and Project Selection Process
  - Projects with B/C ratios less than 1.0 will be rejected
  - Statewide Project Selection
    - All HR3 funds; and
    - 60% to 75% of the HSIP funds
  - District Project Selection
    - 25% to 40% of the HSIP funds
  - Applications will be reviewed for "**Fatal Flaws**" in both the Districts and in Headquarters

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Guidelines (Cont.)

- Application data must be accurate, complete and free of "Fatal Flaws".
  - The project scope is eligible for HSIP and/or HR3 funding
  - The CMs used in the B/C ratio calculation are appropriately applied based on the scope of the project
  - The crash data used in the B/C ratio calculation is appropriately applied based on the scope of the project and countermeasures used
  - The cost included in the application represents the likely Total Project Costs necessary to fully construct the proposed scope
  - The application data and attachments are reasonable and meet generally accepted traffic engineering principles

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Guidelines: Project Delivery Requirements

Agencies can check current project status under the "Project and Program Summaries" section on this web page

http://www.dot.ca.gov/hq/LocalPrograms/HSIP/delivery_status.htm

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Guidelines: Project Delivery Requirements

- Established to ensure safety projects are delivered in a timely manner
- PE Auth., CON Auth. and project close-out
- If an active HSIP/HR3 project is flagged for not meeting one or more of these milestones, Caltrans will not accept HSIP/HR3 applications from that agency unless the flags have been resolved by the application due date
  - A flag with HSIP projects will NOT impact the HR3 applications, and vice versa
  - For applications to be accepted, the DLAE must receive the Request for Authorization package and verify it is complete

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Application Instructions

- Applicants should print and review the entire Application Instructions before filling out the Application Form.
- Instructions provide details explanation for selected fields.
- If Caltrans reviewers conclude that the application includes a “fatal flaw”, the application will be dropped from funding considerations.

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Application Form

- Designed for local agency traffic safety practitioners to easily complete the application process
  - Complete their roadway analyses
  - Define the project scope – CMs/CRFs
  - Prepare plans and crash diagrams
  - Estimate the cost/schedule
- Application Form is a savable PDF file
  - Data validation by dropdown lists/JavaScript
  - Adobe Acrobat Reader 8.0 or later is required (http://get.adobe.com/reader/ to download)
  - Data to be exported – DO NOT CHANGE Application Form.
  - Final file MUST be submitted as part of application package

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DEMO: APPLICATION FORM

APPLICATION FOR
HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) PROGRAM CYCLE 5
AND HIGH RISK RURAL ROADS (HR3) PROGRAM CYCLE 3

APPLICATION SUMMARY

After the application is finalized, please save this PDF form using the exact "Application ID" column below as the file name.

This summary page is filled out automatically once the application is completed.

Application ID: NA-NA-NA

Submitted By (Agency):

Caltrans District | Application Number | Out of

Project Location

Project Description

Countermeasure 1:
Countermeasure 2:
Countermeasure 3:
Total Expected Benefit | Total Project Cost $0.00

B/C Ratio: 0.00

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Sample Attachments

- Provide clear expectations on the type of attachments that are required with each application.
- Caltrans anticipates updating a few of these example attachments.
- Agencies should check the Apply-Now website in Mid-May for potential updates.

http://www.dot.ca.gov/hq/LocalPrograms/HSIP/apply_now.htm

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TIMS - Website and Tools

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TIMS: Website and B/C Calculator

- Overview of TIMS
  - Strategic Goal
  - Limitation on Data (Timeliness & Geo-referencing)
  - Explanation of Disclaimer
  - Tutorials
- All Local Agencies now have access to Crash Data
  - This should be considered as an "Option"
- All Applications <u>must</u> include a TIMS B/C calculation
  - Agencies may use their locally preferred crash data analysis tools (i.e., CrossRoads) or import the data directly from TIMS crash summary files.

http://tims.berkeley.edu/

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TIMS Crash Mapping Applications

- SWITRS Query & Map
  - Data query focused application
  - One page summary statistics
  - Google Maps collision display
    - 5,000 collisions limit
    - Collision points clustered until zoomed in
- SWITRS GIS Map
  - Map-centric collision viewing with other data layers
  - 1,000 collision display limit
  - Focused collision spatial selection tools

http://tims.berkeley.edu/

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TIMS: B/C Calculator

- Add application information
- Select crash data time period
- Select countermeasure
- Enter or import collision data
  - Create collision map
- Enter project costs
- Print / save results

http://tims.berkeley.edu/

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TIMS: Tutorials

- SWITRS Query & Map
- SWITRS GIS Map

- Using the SWITRS GIS Map to select collision data for the Benefit / Cost calculator
- How to use the Benefit / Cost calculator

http://tims.berkeley.edu/

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TIMS Funding

- TIMS Website:
  - Funding for this program was provided by a grant from the California Office of Traffic Safety, through the National Highway Traffic Safety Administration.
- Benefit / Cost Calculator:
  - Funding was provided through a grant with the Caltrans Division of Local Assistance for development of the benefit/cost calculator tool.

http://tims.berkeley.edu/

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TIMS: Tips for Success

- Save your password in the web browser.
- Watch the Tutorial Videos first!
  - Most usability questions are answered in the videos.
- If you are seeing something grossly different from the tutorial videos, there are several potential culprits:
  - Your web browser or special plug-ins are blocking the site. If you have ad or pop-up blockers, or Javascript or Flash blocking, the site cannot function.
  - Your IT department/internet network are restricting the site. Please contact them to add an exception for tims.berkeley.edu.
  - Try Mozilla Firefox or Google Chrome as web browser instead
- Test out the site on a home computer or other internet network to see if you have a different experience. Do not keep trying the same function if it's not working.

http://tims.berkeley.edu/

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TIMELINE

- **July 20th**: Applications due!
  - That's less than 3 months for roadway analysis, project/ scope identification, and application preparations!
- **By the end of July**: Applicants will be asked to complete a short survey
- **August & September**: Applications will be reviewed for "Fatal Flaws" in both the Districts and in Headquarters
- **September & October**: Develop the list of recommended projects and secure approval by Caltrans management
- **October**: Agencies will be notified of final selections
  - Applicants with "Fatal Flaws" will be notified at this time

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QUESTIONS & ANSWERS

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