



Local Highway Safety Improvement Program (HSIP) & Cycle 12 Call for Projects

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Outline

- Local HSIP: purpose, applicants, funding level, and calls for projects
- Project delivery requirements and status
- Cycle 12 Call-for-projects
 - Funding set-asides
 - Benefit Cost Ratio (BCR) Applications
 - Application Form and Submittal
- Webpages and documents



Local HSIP Purpose

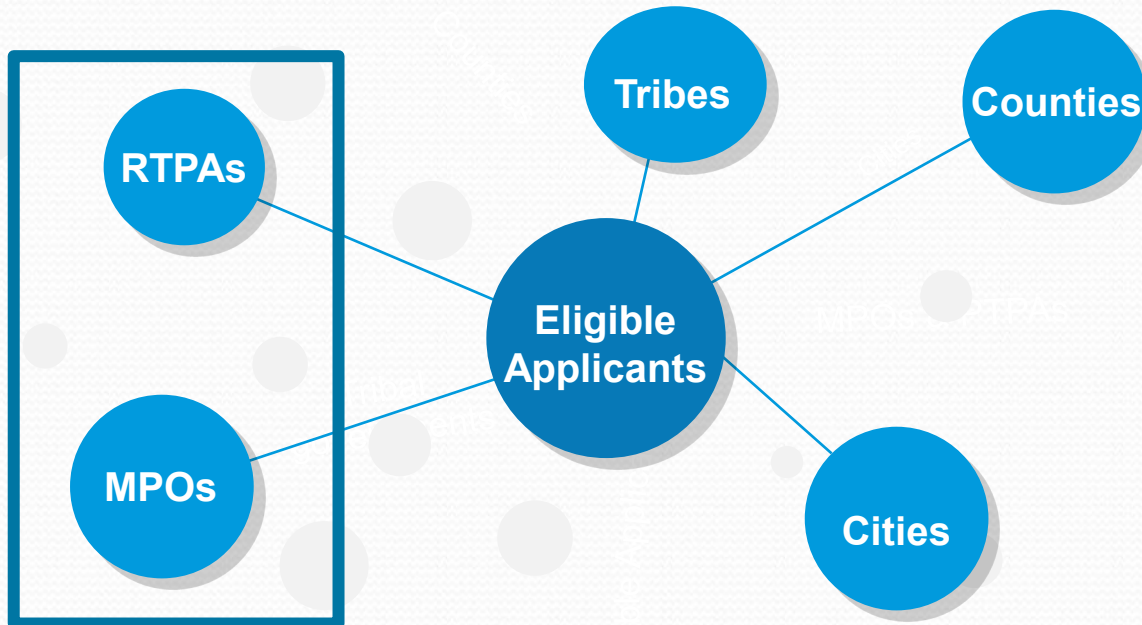


To achieve a **significant reduction in fatalities and serious injuries** on all public roads, including non-State-owned public roads and roads on tribal land.

- [Title 23 US Code 148 Highway Safety Improvement Program](#)
- [23 Code of Federal Regulations, 924 & 490 HSIP Implementation Guidance](#)

Eligible Applicants

Any local agency that owns, operates, and maintains public roadways



can apply on behalf of local agencies

- RTPA: Regional Transportation Planning agency
- MPO: Metropolitan Planning Organization



Local HSIP Funding

**California HSIP:
50/50 split between State HSIP and local HSIP**



State Highways



Local Roads

- Local HSIP: \$120 Million/year
- State funding made possible via SB 137 funding exchange



HSIP Calls for Projects

Cycle	1	2	3	4	5	6	7
Year	2007	2008	2010	2011	2012	2013	2015
Cycle	8	9	10	11	12		
Year	2016	2018	2020	2022	2024		



Past HSIP Calls for Projects

Cycles 8 to 11:

\$868 billion awarded to 999 projects. 212 completed/343 in construction. Expected benefits: \$19 billion.

Cycle	Release Date	Number of Applications	Number of projects selected	HSIP funds approved (\$M)	BCR Cutoff	Average BCR of selected projects
8	11/21/2016	247	225	\$216.9	3.5	10.3
9	12/12/2018	351	220	\$180.8	7.5	17.7
10	3/30/2021	429	268	\$238.3	12.0	24.0
11	3/9/2023	434	286	\$231.6	18.0	35.5
	Total	1,461	999	\$867.6		21.9

Project Delivery: Requirements and Status

Project Delivery Requirements

Established to ensure safety projects are delivered in a timely manner:

- 2 Milestones
 - Preliminary Engineering (PE) Authorization - within 9 months; and
 - Construction (CON) Authorization - within 36 months

The agency is not eligible to apply for new HSIP funds if:

(1) an active HSIP project is flagged for not meeting the delivery requirements;

Resolve the flag by September 30, 2024: the District Local Assistance Engineer (DLAE) must receive the Request for Authorization package by September 30, 2024 and verify it is complete; **OR** An extension is granted if justified.

OR (2) two or more active HSIP projects are still not in construction after 5 years from project selection.



Cycle 8 -11 Project Delivery Status

(as of 4/3/2024)

Status	Number of Projects	Percentage
No Authorization	137	14%
Preliminary Engineering (PE) or Right-of-Way (ROW)	284	29%
In Construction (CON)	343	35%
Completed	212	22%
Total	976	100%

72 projects delayed (32 on PE; 40 on CON)



Local HSIP Cycle 12 Call-for-projects

Local HSIP Cycle 12 Timeline

<https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program/apply-now>

- Announcement - May 6, 2024
- Applications Due - September 9, 2024
- Applications will be reviewed by Caltrans Districts and Headquarters – September/October 2024
- Develop the list of recommended projects and secure approval by Caltrans management - November/December 2024



Local HSIP Cycle 12

- **Applicants: Cities, Counties, Tribes and Other**
 - Agencies with delivery delays on their current HSIP projects must resolve the delays by 9/30/2024.
 - Applicants must have completed Local Roadway Safety Plan (LRSP) or equivalent
- **Expected to use both federal and state funds**
 - State funding made possible via SB 137 funding exchange;
 - Federal funding is for larger projects and High Risk Rural Roads (HRRR)/Vulnerable Road User (VRU) Special Rule projects.
- **Multiple applications may be submitted for the same project:**
 - For a “systemic approach” project (i.e. locations with similar characteristics and crash types): include less/more number of locations thus have higher/lower Benefit Cost Ratios (BCRs); or
 - Two applications: one as BCR, the other applying for a funding set-aside.
- **Fund Reimbursement Ratio: 90%**



Application Categories

▪ **Benefit Cost Ratio (BCR) Applications**

- Majority of the applications (\$252 million)
- BCR calculation is required. Project selection based on BCR.
- Application minimum BCR: 4.0
- Maximum \$10 million per agency.
- Number of applications per agency: no limit

▪ **Funding Set-asides**

- \$48 million for all set-asides
- No BCR required
- Funding Reimbursement Ratio = 90%.
- Number of applications per agency: 1 for each set-aside



Funding Set-asides

Five Set-asides:

- Guardrail Upgrades;
- Pedestrian Crossing Enhancements;
- Installing Edgelines;
- Bike Safety Improvements;
- Tribes

Project selection criteria (priority in the below order):

- Agencies with no funds awarded in Cycles 10&11;
- agencies with no same set-aside funds awarded in Cycles 10&11;
- Agencies with more Fatal + Severe Injury (F+SI) crashes in the last 3 years.



Funding Set-asides

▪ Guardrail Upgrades

- Total \$15M; Max per agency: \$1M
- For upgrades of existing guardrails and end treatments; bridge rails are not eligible

▪ Pedestrian Crossing Enhancements

- Total \$20M; Max per agency: \$350k
- Install pedestrian countdown signal heads, Rectangular Rapid Flashing Beacons (RRFB) and other flashing beacons, pedestrian signal/crossing/signs, advanced yield lines/signs, and other signs/stripping.



Funding Set-asides

▪ Installing Edgelines

- Total \$3M; Max per agency: \$350k
- Installing edgelines along roadways

▪ Bike Safety Improvements

- Total \$7M; Max per agency: \$350k
- Installing bike lanes / separated bike lanes. Removing objects and installing way finding signs for multi-use paths/trails



Funding Set-asides

▪ Tribes

- Total \$3M; Max per agency: \$350k
- Applicants must be federally recognized tribes in California
- For any work under the other 4 set-asides, and other low-cost roadway safety improvements (signs, pavement delineators, edge-lines, centerlines, rumble strips/stripes, etc.)

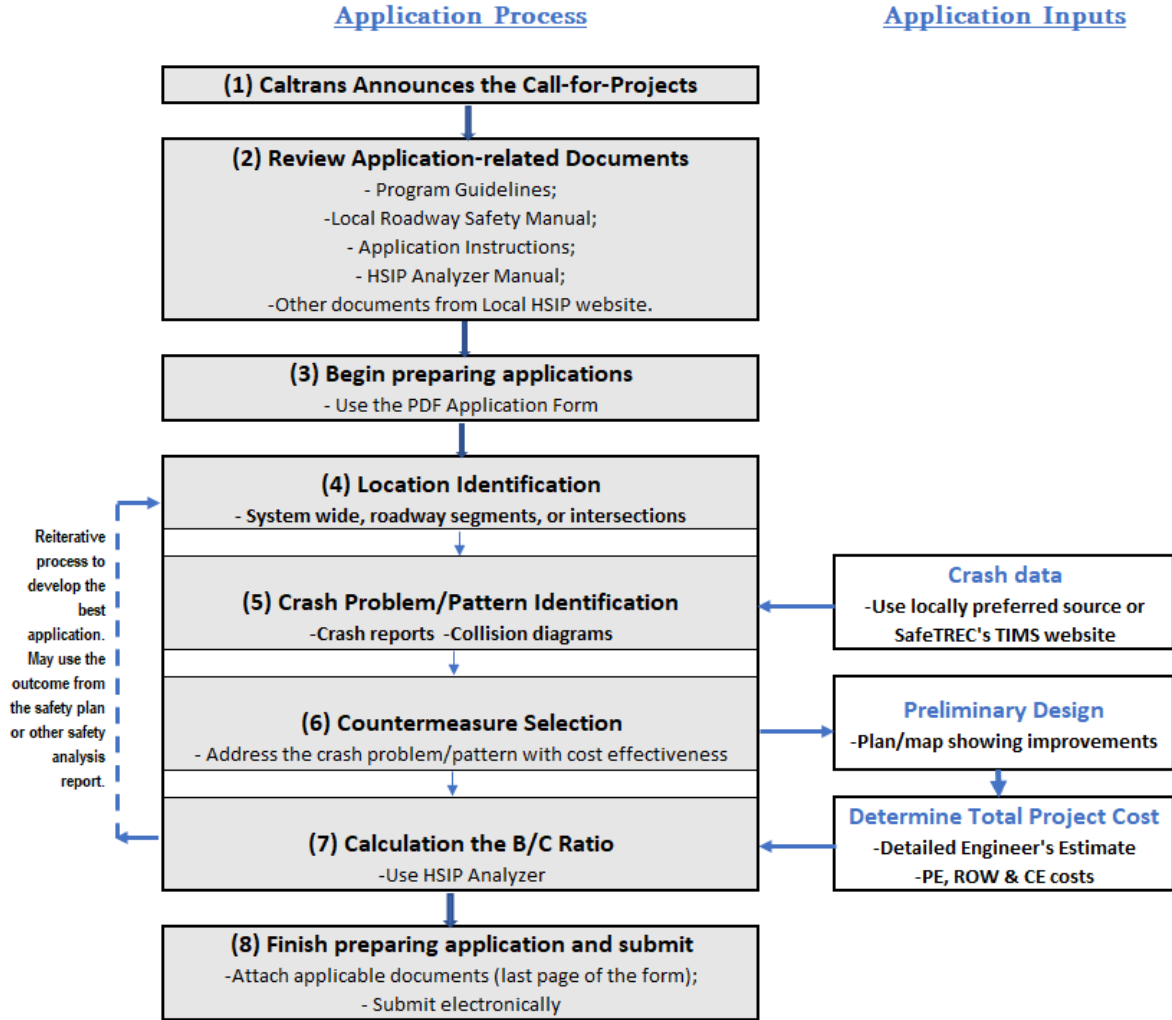


Benefit Cost Ratio (BCR) Applications

- Work must be related to the safety countermeasures as listed;
- Prefer projects that can be delivered quickly and have minimal Right-Of-Way (ROW) and environmental impacts;
- BCR applications are selected for funding based on the BCRs. Applications will be ranked per BCRs from highest to lowest.
- BCR cutoff is unknown at the time of application submittal.
- BCR must be at least 4.0 for submitting.



BCR Applications - Steps



BCR Applications: Safety Countermeasures

- Safety improvements must be related to the 86 Safety countermeasures (CMs) with established Crash Reduction Factor (CRF)
- CMs by location types
 - Signalized Intersection (SI): 22
 - Non-Signalized Intersection (NS): 25
 - Roadway (R): 39
- CMs by Crash types (for applying CRFs)
 - All: 63
 - Pedestrians and Bicyclists: 18
 - Night: 3
 - Emergency vehicle involved: 1
 - Animal involved: 1



BCR Applications: Safety Countermeasures

CM List Example - CMs for Signalized Intersections:

Table 1. Countermeasures for Signalized Intersections

No.	Type	Countermeasure Name	Crash Type	CRF	Expected Life (Years)	HSIP Funding Eligibility	Systemic Approach Opportunity?
SI01NT	Lighting	Add intersection lighting (S.I.)	Night	40%	20	90%	Medium
SI02	Signal Mod.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	All	15%	10	90%	Very High
SI03	Signal Mod.	Improve signal timing (coordination, phases, red, yellow, or operation)	All	15%	10	50%	Very High
SI04EV	Signal Mod.	Install emergency vehicle pre-emption systems	Emergency Vehicle	70%	10	90%	High
SI05	Signal Mod.	Install left-turn lane and add turn phase (signal has <u>no</u> left-turn lane or phase before)	All	55%	20	90%	Low
SI06	Signal Mod.	Provide protected left turn phase (left turn lane already exists)	All	30%	20	90%	High
SI07	Signal Mod.	Convert signal to mast arm (from pedestal-mounted)	All	30%	20	90%	Medium
SI08	Operation/ Warning	Install raised pavement markers and striping (Through Intersection)	All	10%	10	90%	Very High
SI09	Operation/ Warning	Install flashing beacons as advance warning (S.I.)	All	30%	10	90%	Medium
SI10	Operation/ Warning	Improve pavement friction (High Friction Surface Treatments)	All	55%	10	90%	Medium
SI11	Geometric Mod.	Install raised median on approaches (S.I.)	All	25%	20	90%	Medium
SI12PB	Geometric Mod.	Install pedestrian median fencing on approaches	P & B	35%	20	90%	Low
SI13	Geometric Mod.	Create directional median openings to allow (and restrict) <u>left-turns</u> and u-turns (S.I.)	All	50%	20	90%	Medium
SI14	Geometric Mod.	Install right - turn lane (S.I.)	All	15%	20	90%	Medium
SI15	Geometric Mod.	Reduced Left-Turn Conflict Intersections (S.I.)	All	50%	20	90%	Medium
SI16RA	Geometric Mod.	Convert intersection to roundabout (from signal)	All	Varies	20	90%	Low
SI17RA	Geometric Mod.	Convert intersection to compact roundabout (from signal)	All	Varies	20	90%	Low
SI18PB	Ped and Bike	Install pedestrian countdown signal heads	P & B	25%	20	90%	Very High
SI19PB	Ped and Bike	Install pedestrian crossing (S.I.)	P & B	25%	20	90%	High
SI20PB	Ped and Bike	Pedestrian Scramble	P & B	40%	20	90%	High
SI21PB	Ped and Bike	Install advance stop bar before crosswalk (Bicycle Box)	P & B	15%	10	90%	Very High
SI22PB	Ped and Bike	Modify signal phasing to implement a Leading Pedestrian Interval (LPI)	P & B	60%	10	90%	Very High



BCR Applications: Safety Countermeasures

- **Incremental approach:**

for certain high-cost safety improvements: Need to show that low-cost improvements, e.g., new curve signing or additional signs, or High Friction Surface Treatment (HFST), have been tried

- R15 (Widen shoulder),
- R16 (Curve shoulder widening (outside only)),
- R17 (Improve horizontal alignment (flatten curves)) and
- R18 (Flatten crest vertical curve)



BCR Applications: Safety Countermeasures

- **NS03: New traffic signals**

Signal Warrant calculation sheet is required as an attachment to the application for installing new traffic signals and must meet warrant (4) Pedestrian Volume, (5) School Crossing or (7) Crash Experience

- **NS25PB: Install Pedestrian Signal (including Pedestrian Hybrid Beacon (HAWK))**

Warrant 4, 5 and/or 7, or passing the test in Figure 4F-1/4F-2 in Chapter 4F of California Uniform Traffic Control Devices (CA MUTCD).

- **SI07 and SI02 should not be used together**

SI07: Convert signal to mast arm; SI02: Improve signal hardware.



Application Preparation

1) For set-aside applications

- Select project locations systemically.
- make sure the work is eligible for the respective set-aside.

2) For BCR applications

- Use safety countermeasures that target the crash types at the project locations.
- Use crashes within the influence area of the CMs.
- Follow the instructions:
 - Incremental approach for certain CMs; Warrant requirement for signals; projects involving state highways, etc.
- Maximize project benefit:
 - Select locations with high number of crashes; select effective CMs; Use multiple CMs when applicable.
- Lower project cost:
 - Use low-cost CMs; Minimize non-safety related components.



Application Form - attachments

1. Local Roadway Safety Plan (LRSP) Certification (required)
2. Engineer's Checklist (required)
3. Vicinity map/Location map (required)
4. Project maps/plans showing existing and proposed conditions (required)
5. Pictures of existing condition (required)
6. HSIP Analyzer (required)
7. Collision Diagram(s) (required for BCR applications)
8. Collision List(s) (required for BCR applications)
9. Warrant studies (required for new signals)
10. Letter/email of Support from Caltrans (required for applications involving State Highways)
11. Additional narration, documentation, letters of support, etc. (Optional)



Useful Documents & Websites

- **Local HSIP Website:**

<https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program> or Google search “CA Local HSIP”

- **Local Roadway Safety Manual (LRSM)**

- **Transportation Injury Mapping System (TIMS):** <http://tims.berkeley.edu/>

- **FHWA Safety Website:** <https://highways.dot.gov/safety>



Contact

Local Assistance HSIP

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