

## 2022 Regional Solicitation – Pedestrian Safety Measure in Three Roadway Applications (Strategic Capacity, Roadway Reconstruction/Modernization, and Spot Mobility and Safety)

### A. **MEASURE:** Pedestrian Safety Measure in Roadway Applications

#### **Determine if these measures do not apply to your project.**

Does the project match either of the following descriptions?

- Project is primarily a freeway (or transitioning to a freeway) **and** does not provide safe and comfortable pedestrian facilities and crossings.
- Existing location lacks any pedestrian facilities (e.g., sidewalks, marked crossings, wide shoulders in rural contexts) **and** project does not add pedestrian elements (e.g., reconstruction of a roadway without sidewalks, that doesn't also add pedestrian crossings and sidewalk or sidepath on one or both sides).

If either of the items above are checked, then **score for entire pedestrian safety measure is zero**. Applicant does not need to respond to the sub-measures and can proceed to the next section.

#### **SUB-MEASURE 1: Project-Based Pedestrian Safety Enhancements and Risk Elements**

To receive maximum points in this category, pedestrian safety countermeasures selected for implementation in projects should be, to the greatest extent feasible, consistent with the countermeasure recommendations in the Regional Pedestrian Safety Action Plan and state and national best practices. Links to resources are provided on the Regional Solicitation Resources web page.

Please answer the following two questions with as much detail as possible based on the known attributes of the proposed design. If any aspect referenced in this section is not yet determined, describe the range of options being considered, to the greatest extent available. If there are project elements that may increase pedestrian risk, describe how these risks are being mitigated.

- **Describe how this project will address the safety needs of people crossing the street at signalized intersections, unsignalized intersections, midblock locations, and roundabouts.**

Treatments and countermeasures should be well-matched to the roadway's context (e.g., appropriate for the speed, volume, crossing distance, and other location attributes). Refer to the Regional Solicitation Resources web page for guidance links. (Limit 2,800 characters; approximately 400 words)

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#### *Considerations*

Is the distance in between signalized intersections increasing (e.g., removing a signal)?

- No
- Yes. If yes, describe what measures are being used to fill the gap between protected crossing opportunities for pedestrians (e.g., adding

2022 Regional Solicitation – Pedestrian Safety Measure in Three Roadway Applications (Strategic Capacity, Roadway Reconstruction/Modernization, and Spot Mobility and Safety)

High-Intensity Activated Crosswalk beacons to help motorists yield and help pedestrians find a suitable gap for crossing, turning signal into a roundabout to slow motorist speed, etc.). (Limit 1,400 characters; approximately 200 words)

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- Will your design increase the crossing distance or crossing time across any leg of an intersection? (e.g., by adding turn or through lanes, widening lanes, using a multi-phase crossing, prohibiting crossing on any leg of an intersection, pedestrian bridge requiring length detour, etc.). This does not include any increases to crossing distances solely due to the addition of bike lanes (i.e., no other through or turn lanes being added or widened).

- No

- Yes. If yes:

- How many intersections will likely be affected? \_\_\_\_\_
  - Describe what measures are being used to reduce exposure and delay for pedestrians (e.g., median crossing islands, curb bulb-outs, etc.) (Limit 1,400 characters; approximately 200 words)
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- If grade separated pedestrian crossings are being added and increasing crossing time, describe any features that are included that will reduce the detour required of pedestrians and make the separated crossing a more appealing option (e.g., shallow tunnel that doesn't require much elevation change instead of pedestrian bridge with numerous switchbacks). (Limit 1,400 characters; approximately 200 words):
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- If mid-block crossings are restricted or blocked, explain why this is necessary and how pedestrian crossing needs and safety are supported in other ways (e.g., nearest protected or enhanced crossing opportunity). (Limit 1,400 characters; approximately 200 words)
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- **Describe how motorist speed will be managed in the project design, both for through traffic and turning movements.** Describe any project-related factors that may affect speed directly or indirectly, even if speed is not the intended outcome (e.g., wider lanes and turning radii to facilitate freight movements, adding turn lanes to alleviate peak hour congestion, etc.). Note any strategies or treatments being considered that are intended to help motorists drive slower (e.g., visual narrowing, narrow lanes, truck aprons to mitigate wide turning radii, etc.) or protect pedestrians if increasing motorist speed (e.g., buffers or other separation from moving vehicles, crossing treatments appropriate for higher speed roadways, etc.). (Limit 2,800 characters; approximately 400 words)
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2022 Regional Solicitation – Pedestrian Safety Measure in Three Roadway Applications (Strategic Capacity, Roadway Reconstruction/Modernization, and Spot Mobility and Safety)

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- If known, what are the existing and proposed design, operation, and posted speeds? Is this an increase or decrease from existing conditions? (Limit 1,400 characters; approximately 200 words)
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**SCORING GUIDANCE** (10 Points)

Projects that will provide the most improvement to pedestrian safety across the two questions will receive full points. Other projects will receive a share of the full points, based on scorer's discretion, considering the following scoring guidance. Weight the responses to each of these questions equally and consider them cumulatively when scoring. If mid-block crossings are not applicable for the project, and the applicant's explanation adequately shows that pedestrian needs are still being safely met, do not penalize the applicant.

See the *FHWA STEP Studio* resource, *FHWA STEP Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations*, *NCHRP Report 926: Guidance to Improving Pedestrian and Bicyclist Safety at Intersections*, and related resources referenced in the application prompt for state-of-practice guidance on pedestrian-oriented safety design and treatments.

Assume that pedestrians may need to travel along and across the entire extent of the project, and evaluate how well the pedestrian safety countermeasures described serve those needs. Projects that serve those needs with the greatest safety and least pedestrian delay, detour, or discomfort should score highest. For example, projects that provide safe at-grade crossings or comfortable tunnels with minimal detour and elevation change should score higher than projects that include pedestrian bridges requiring lengthy detours and elevation change. Projects that provide frequent crossing opportunities or crossing opportunities well-aligned with transit or other likely places with pedestrian crossing needs should score higher than projects that have infrequent or non-existent protected crossings.

Consider how safely, easily, and comfortably children, older adults, and people with disabilities will be able to navigate crossing the street. Score projects more highly if the safety countermeasures selected are designed to be comfortably used by people of all ages and abilities.

Consider pedestrian-oriented safety treatments in context with motor vehicle design elements. If there are motor vehicle design elements that raise concerns about pedestrian safety (e.g., increased speed, increased crossing distance) that are not fully mitigated by the pedestrian safety countermeasures described, consider a lower score. For roadway expansion projects, where all projects *by definition* will be increasing crossing distance, consider how much additional distance is added as well as the types of countermeasures being considered. If the only element causing an increase in crossing distance is the addition of bike lanes or other bike facilities, especially if the project has reduced other elements to help mitigate this impact (e.g., reducing through lane widths), do not penalize the score for the crossing distance attributable to bike lanes.

2022 Regional Solicitation – Pedestrian Safety Measure in Three Roadway Applications  
(Strategic Capacity, Roadway Reconstruction/Modernization, and Spot Mobility and Safety)

Regardless of the speed limit, score projects more highly if they include design elements to help motorists drive slowly. For example, narrow lanes, visual narrowing, and elements to help motorists turn slowly, such as tight turning/corner radius or truck aprons, curb extensions, medians/crossing islands, and hardened centerlines.

**SUB-MEASURE 2: Existing Location-Based Pedestrian Safety Risk Factors**

These factors are based on based on trends and patterns observed in pedestrian crash analysis done for the Regional Pedestrian Safety Action Plan. Check off how many of the following factors are present. Applicants receive more points if more risk factors are present.

- Existing road configuration is **either**:
  - One-way, 3+ through lanes
  - Two-way, 4+ through lanes
- Existing road has a design speed, posted speed limit, or speed study/data showing 85<sup>th</sup> percentile travel speeds in excess of:
  - 30 MPH or more
- Existing road has AADT of greater than 15,000 vehicles per day (List the AADT \_\_\_\_\_)

2022 Regional Solicitation – Pedestrian Safety Measure in Three Roadway Applications (Strategic Capacity, Roadway Reconstruction/Modernization, and Spot Mobility and Safety)

**SCORING GUIDANCE** (10 Points)

Multiply the score from Sub-Measure 1 by the proportion of risk factors indicated to calculate the number of points earned for Sub-Measure 2. Applications where all three factors are present score additional points equal to 100% of their Sub-Measure 1 score. Applications where two of the three factors are present score additional points equal to 2/3 (or 67%) of their Sub-Measure 1 score. And so on. To earn the maximum possible score on Sub-Measure 2, a project would need to earn maximum points on Sub-Measure 1 and also have all 3 risk factors present.

**SUB-MEASURE 3: Existing Location-Based Pedestrian Safety Exposure Factors**

These factors are based on based on trends and patterns observed in pedestrian crash analysis done for the Regional Pedestrian Safety Action Plan. Check off how many of the following existing location exposure factors are present. Applicants receive more points if more risk factors are present.

- Existing road has transit running on or across it with 1+ transit stops in the project area (If flag-stop route with no fixed stops, then 1+ locations in the project area where roadside stops are allowed. Do not count portions of transit routes with no stops, such as non-stop freeway sections of express or limited-stop routes. If service was temporarily reduced for the pandemic but is expected to return to 2019 levels, consider 2019 service for this item.)
- Existing road has high-frequency transit running on or across it and 1+ high-frequency stops in the project area (high-frequency defined as service at least every 15 minutes from 6am to 7pm weekdays and 9am to 6pm Saturdays. If service frequency was temporarily reduced for the pandemic but is expected to return to 2019 levels, consider 2019 frequency for this item.)
- Existing road is within 500' of 1+ shopping, dining, or entertainment destinations (e.g., grocery store, restaurant)

If yes, please describe (Limit 1,400 characters; approximately 200 words):

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- Existing road is within 500' of other known pedestrian generators (e.g., school, civic/community center, senior housing, multifamily housing, regulatorily-designated affordable housing)

If yes, please describe (Limit 1,400 characters; approximately 200 words):

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## 2022 Regional Solicitation – Pedestrian Safety Measure in Three Roadway Applications (Strategic Capacity, Roadway Reconstruction/Modernization, and Spot Mobility and Safety)

### **SCORING GUIDANCE** (10 Points)

Multiply the score from Sub-Measure 1 by the proportion of exposure factors indicated to calculate the number of points earned for Sub-Measure 3. Applications where all four factors are present score additional points equal to 100% of their Sub-Measure 1 score. Applications where two of the four factors are present score additional points equal to 2/4 (or 50%) of their Sub-Measure 1 score. And so on. To earn the maximum possible score on Sub-Measure 3 a project would need to earn maximum points on Sub-Measure 1 and also have all 4 exposure factors present.

### Resources for Pedestrian Safety Measure in Roadway Applications

To receive maximum points in this category, pedestrian safety countermeasures selected for implementation in projects should be, to the greatest extent feasible, consistent with the countermeasure recommendations in the Regional Pedestrian Safety Action Plan and state and national best practices. The following is a current list of state-of-practice resources for pedestrian safety:

- [\*FHWA Safe Transportation for Every Pedestrian \(STEP\) Studio: Tools for Selecting and Implementing Countermeasures for Improving Pedestrian Crossing Safety\*](#)
- [\*FHWA STEP Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations\*](#)
- [\*NCHRP Report 926: Guidance to Improve Pedestrian and Bicyclist Safety at Intersections\*](#) The appendix contains a matrix of useful safety countermeasures to consider.
- National Association of City Transportation Officials Guides:
  - [\*City Limits: Setting Safe Speed Limits\*](#)
  - [\*Urban Street Design Guide\*](#)
  - [\*Transit Street Design Guide\*](#)
- [\*Manual on Uniform Traffic Control Devices \(MUTCD\)\*](#)
- [\*PEDSAFE\*](#)
- [\*FHWA Proven Safety Countermeasures\*](#)
- [\*Minnesota's Best Practices for Pedestrian and Bicycle Safety \(MnDOT, Jan 2021\)\*](#)
- [\*CMF Clearinghouse\*](#)