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## **Grade Crossing Protection Fund**

## **APPLICATION FOR FUNDING**

The Commission's objectives in distributing monies from its Grade Crossing Protective Fund (GCPF) are as follows: To reduce accident/incident frequency and severity at both public and private railroad crossings; and to reduce pedestrian trespassing and the frequency of trespass-related deaths and injuries along railroad rights-of-way. Any public, private, or nonprofit entity may submit an application to the Commission for GCPF monies.

The focus of the GCPF program is to fund projects that demonstrate a need for improved public safety related to one of the following four categories:

- **Grade crossing safety projects** (the Commission's original GCPF program).
- Trespass prevention projects. Examples of projects in this category include fencing or other physical barriers that prevent trespassing on railroad rights-of-way; pedestrian warning devices; establishing new public grade crossings; installing channeling devices; media/public relations campaigns; and enforcement-related activities.
- Private crossing safety improvements. Examples of projects in this category include private crossing closures; installation of private crossing-specific warning devices; installation of nighttime/off-hours locked gates; and improvements to reflectorization/conspicuousness of existing warning devices.
- Miscellaneous safety projects. Examples of projects in this category include improvements to motorists' ability to see approaching trains, including the removal of physical obstructions; participation in roadway improvements at or approaching grade crossings; and mitigation of crossing closures.

All projects that fall within any of these four general categories are eligible for funding consideration.

Applicant Name:	Robert Cooley, Director of Operations
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Type of Application:	Miscellaneous Safety Projects – Roadway Improvements at Grade Crossing

Private crossing safety improvement

Trespass prevention

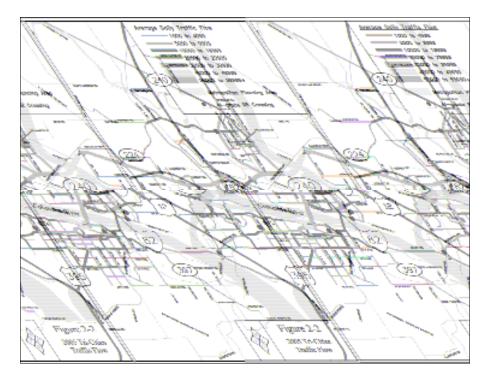
Miscellaneous

Please list all of the other companies (e.g., railroad companies) organizations, or state or local agencies that may be involved in implementing this proposal and the name, address and phone number of each.

## N/A

1) Provide a detailed summary of the hazard being addressed, including any accident/incident Information or other supporting data. If filing this application electronically, photographs, drawings, or other optional materials that are not in electronic format may be sent to the mailing address specified in the "instructions" section and should be clearly identified as an attachment to your application:

According to the Benton-Franklin Council of Governments, 2005 Traffic Flow Study, the highway traffic volumes at the SR-240 railroad crossing reflect 10,000 to 20,000 vehicles per day. With the 2002 WSDOT completion of expansion of the SR 240 Richland Bypass from four to six lanes, and the major capacity improvements on Stevens Drive north of SR 240, and at the junction of SR-240 and Stevens Drive, by the City of Richland in late 2006, additional traffic volume increases are anticipated. (*See TCRY Figure 1, Area Traffic Volumes*)



TCRY Figure 1, Area Traffic Volumes

The WA-DOT has regularly resurfaced the highway in the proximity of the SR 240 railroad crossing. The highway surface has increasingly becomes elevated above the rail grade. With vehicle speeds of 40 to 55 mph over the crossing, sever tire-bounce occurs. While the separation of highway and rail grade gradually increases due to the regular wear from the resultant impacts, more critically, those impacts direct substantial pressures on the railroad crossing surface. Significant vibration impact is directed to the rail and concrete panels, and to the fixtures maintaining all crossing materials. As the grade between the highway and rail increases, so the lateral impact of the highway vehicles against the crossing materials increases. Those impacts not only rapidly increase damage to the surface of the crossing, but increase the likelihood of horizontal shifts of crossing panels and rails as well, putting both highway and rail traffic at greater risk. Neither the railroad crossing nor the highway surface at the crossing were designed nor intended to withstand the present traffic volumes and the resultant destruction from the repeated tire-bounce and lateral impacts. Weekly maintenance has become the norm, in the form of rail-spike replacement with fillers and adhesives, gauge corrections, panel adjustments, and other temporary fixes. Those repairs are inadequate for assuring appropriate safety to highway and rail operations for more than approximately 1-week at a time, due to nearly unrelenting tire-bounce and lateral impact effects.

Either, or both, the highway surface and rail crossing materials are likely to fail under the present frequency and degree of impact pressures. Depending upon the degree of failure in one, or both, a motor vehicle encountering resultant damage could reasonably be expected to sustain damage itself from a primarily lateral impact with the rail or a portion of a crossing panel. That damage and driver response, or lack thereof, could reasonably be expected to result in the crash of that vehicle. Significant lateral impact to the rail could break the rail or concrete panels, thus causing an accident of either a motor vehicle or a TCRY locomotive / railcar. Out of concern for safety of both vehicle and railroad traffic

the crossing itself has been maintained by, and at the expense of, the Tri-City & Olympia Railroad Company (TCRY).

2) Provide a detailed description of your proposed project and explain how its implementation will eliminate or mitigate the hazard. If available, please attach any drawings or construction plans for your proposed project (see section 1 if filing electronically):

By installing new cross ties and raising the railroad track by black top or new concrete panels. The rail will be even with the highway surface. This will eliminate substantial impacts upon the integrity of the railroad track and concrete panels, creating a smooth crossing.

*3) Provide cost estimates, including those related to long-term maintenance:* 

Estimated cost for new crossing with blacktop would be about \$20,000.00. Estimated cost for crossing with new concrete panels would be about \$30,000.00.

Maintenance cost would be reduced. Regular weekly inspections resulting in maintenance repair – would be reduced. Such repairs would be anticipated to occur on a quarterly basis as a result.

*4) Estimated timeline of project, if approved:* 

Project would take 5 working days to complete; project could be completed by July 1, 2007.

5) If known, provide a description of how the project's success would be measured:

The determination of success can and will be measured in two aspects:

- A. That, the integrity of the crossing, rail, ties, and panels will be visually noticeable and structurally sound at each inspection. Weekly patching and repairs to the crossing, rail, ties, or panels, will be reduced to anticipating such actions on a quarterly basis.
- B. That, no highway vehicle or train accidents or incidents will occur as a result of failure to correct the highway to rail grade mismatch and the cause of crossing damage.
- 6) Other comments:

N/A