

# 1 Problem

<b>What</b> <b>When</b>	Problem(s)	Concrete slab crushed vehicle, family killed
	Date	April 13, 2015
	Time	10:15 A.M.
<b>Where</b>	Different, unusual, unique	Construction work on overpass
	Facility, site	Angeline Street in Bonney Lake, WA
	Task being performed	Construction on State Route 410 overpass

<b>Impact to the Goals</b>	
<b>Safety</b>	3 fatalities
<b>Customer Service</b>	Negative press
<b>Production/ Schedule</b>	Delay in construction project
	Traffic delays
<b>Property/ Equipment</b>	Vehicle destroyed
<b>Labor/ Time</b>	Significant recovery/ investigation effort

# 2 Analysis

**Basic Level Cause Map** - Start with simple Why questions.

**Basic Cause-and-Effect**

The vehicle was hit by the concrete slab because it was accidentally dropped and the truck was under the overpass at the time it fell because the road was open to traffic. The road would typically have been closed to traffic while heavy work was performed on the overpass, but the work plan for the construction project did not indicate that any heavy work would be performed on the day of the accident. Investigators are still working to understand exactly why the concrete slab fell, but early indication is that temporary metal bracing that was supporting the concrete may have failed due to buckling.

**More Detailed Cause Map** - Add detail as information becomes available.

For a free copy of our Root Cause Analysis Template in Microsoft Excel, used to create this page, visit our web site.

**ThinkReliability**  
Investigate Problems. Prevent Problems.  
Houston, Texas 281-412-7766 ThinkReliability.com  
Copyright ThinkReliability 2015

# VEHICLE CRUSHED

Cause Map

## Concrete slab smashes truck, killing 3

On April 13, 2015, a large section of a concrete barrier fell from an overpass onto a truck in Bonney Lake, Washington. A couple and their baby were in the vehicle and were all killed instantly.

"There definitely were anticipated closures. There were flaggers standing by at the time the accident occurred."

-Woody Edvalson,  
Bonney Lake city clerk and spokesman

Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

**CAUSE MAPPING**  
Problem Solving • Incident Investigation • Root Cause Analysis

**Step 1 Problem** - What's the Problem?

**Step 2 Analysis** - Why did it happen?

**Step 3 Solutions** - What will be done?

**Why?**

NOTE: Read the Cause Map from left to right with the phrase "Was Caused By" in place of each arrow.