

Hello my name is Hunter Printz, I am currently a junior at Thomas Jefferson a high school in Auburn Washington. I built a model of what I think the I-90 wildlife crossing will look like. During my construction and planning of my model I took into consideration some of the challenges that the engineers and builders of the wildlife crossing will come across. Some of the issues I thought of were building a structure that crosses six lanes, a median and two partial shoulders. The crossing also will need to be wide enough for separate animal groups to pass the bridge. I figured this distance to be about 70 - 80 feet, that would be no trouble for an engineer if this was just a normal concrete overpass, but that is not what we are dealing with here. And the added support that will be needed from the added weight of the dirt, trees, and other things the builders put atop the wildlife crossing to make it as natural as possible. I also took into account the types of animals that will use this crossing.

The issue of building an overpass over a six lane highway would be no trouble for an engineer but that is just your average overpass, the wildlife crossing is very different from an engineering standpoint. This is because the crossing will have thousands of pounds of dirt, trees, rocks, and other things to make the crossing as natural as possible for these animals. That is why in my design I made separate tunnels for the east and west bound lanes of traffic. The separate tunnels will be good for many reasons the first is they can add necessary stability for the crossing because you will be able to have more strategically placed columns and beams to hold up and compose the crossing out of. In between the two tunnels you can also build up the center point of the crossing and make it possible to put in more beams and columns that will help with the stability of the structure. The next issue is having the crossing be wide enough so that if both predators and prey are on the crossing they can run through the trees and not be seen. With these factors I feel that the double tunnel model will be the most practical design for the I-90 wildlife crossing.

Now that we have our design we need to make the crossing as natural for the animals that will be using it and also safe so they can't just walk right of the edge and fall into traffic. That is why i put wildlife fencing on my model, 8 foot metal fencing, with holes small enough so that animals that will be on the crossing cannot fit through such as raccoons, foxes, rabbits, coyotes, and other small animals but the fencing needs to be tall enough so deer elk and other animals cannot jump over. Putting this same fencing around both sides of the hi way would also stop the animals from crossing at any point also it will help direct the animals to the wildlife crossing. Some things that would help make the crossing more natural would be trees, boulders, field grass, alpha-alpha, clover, this will also attract the animals to feed and so they know where the crossing is. The crossing will need many trees to help the animals cross without being seen by their predators and not having a huge loss in heard because they crossed at the same time as a cougar. With all of these factors in question I feel that my model will best meet the needs of the proposed I-90 wildlife crossing.

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