

Email sent to TfNSW suggesting an Eco-treatment of the rail line that has been used successfully in Portland USA to "soften" the impacts of the rail system. No response was received and the EIS does not demonstrate any such imaginative design.

TFNSW must incorporate every treatment possible to reduce the visual impacts of the light rail. These can also be used to reduce noise. Trackside planter boxes are used extensively on the new Christchurch NZ system.

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**Date:** 6 June 2013 10:42:00 am AEST

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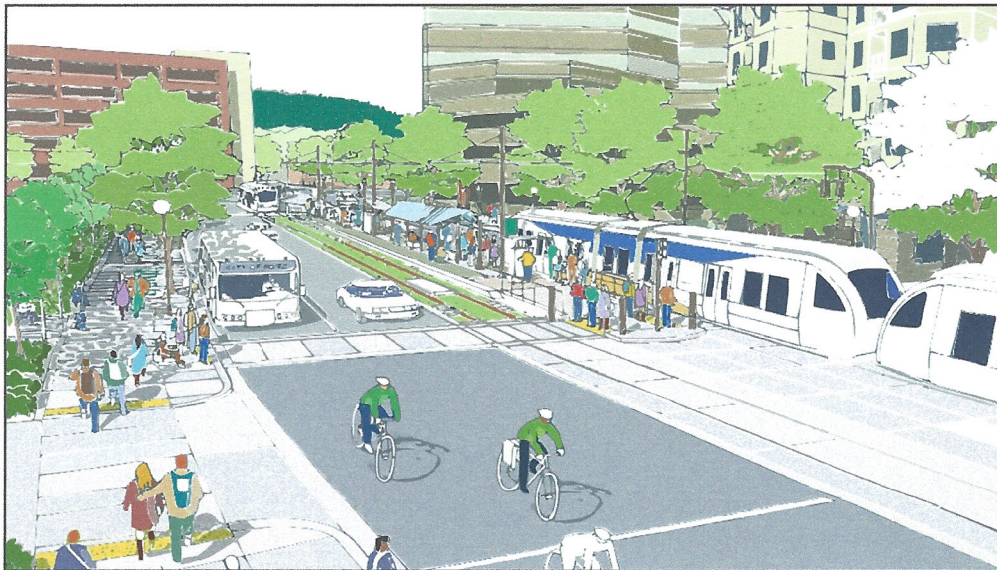
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**Subject:** Light Rail Eco Design in Portland USA

Further to my email of yesterday, I read with great interest that the Transport Minister has secured a real expert to run the project. Mr Goodling has worked on the Portland system which I know well.

To support some of my design ideas I offer these short extracts for your consideration

#### **Eco-track at the Lincoln St/SW 3rd Ave Station**



A vegetated trackway will provide a colorful carpet of low-growing plants along 200 feet of light rail line at the Lincoln St/SW 3rd Ave Station.

In step with Portland's reputation as one of the nation's greenest cities, the Portland-Milwaukie Light Rail Transit Project is taking sustainable transit further with "eco-track" on SW Lincoln Street downtown. This vegetated trackway will provide a colorful carpet of low-growing plants along 200 feet of light rail line at the Lincoln St/SW 3rd Ave Station.

Although "green" or "grass" trackways exist in Europe, this stretch will be a Portland first by providing a vegetated trackway area pervious to stormwater, thus reducing runoff.

To sprout interesting colors and textures, SW Lincoln's eco-track will blend evergreen sedum types such as red carpet, green ice, orange ice and Murale, a sedum that changes from green in summer to red-orange in winter. Sedums are commonly used on eco-roofs thanks to their ease of maintenance, durability and shallow roots.

Custom grown in one-inch-thick mats, the sedums will be rolled out in rows between the rails and within the trackway. "They grow about three inches high so they won't interfere with the vehicles," the light rail project's West Segment Urban Design Lead Elizabeth Higgins explained. "Sedums are generally drought tolerant, but we will have a permanent drip irrigation system for plant establishment and in case they need water during the hottest summer months."

**Higgins pointed out that the innovative design is part of a larger plan to enrich the urban experience along the light rail alignment. "We wanted to establish a new type of green street to contribute to a neighborhood known for its parks and greenery," she noted. "In addition to the eco-track, we are returning a canopy of trees on SW Lincoln as well as incorporating sidewalk stormwater planters."**

### **Portland Transport System**

..... travels almost exclusively on city streets, sharing the road with buses, bicyclists, and automobile traffic. Unlike historical streetcar lines that tended to travel in the center of the street, the Portland vehicles travel in the curb lane. Parallel parking along the curb is not affected, except at stop locations where a raised curb bumps out. The low-floor design allows barrier-free boarding for passengers with disabilities. With the exception of shelters located at each stop (not unlike typical bus stop shelters), the passenger facilities for the system are minimal.

The tracks typically run on one-way streets, with northbound and southbound tracks usually a block apart.