

ACEC Engineering Excellence: Southwest Moody Avenue, Southwest River Parkway to Southwest Gibbs Grand Award: Transportation

BY STEPHANIE BASALYGA

While most transportation projects in metropolitan areas pose challenges, some come with bigger headaches than others. Case in point: The city of Portland's Southwest Moody Avenue project.

Southwest Moody Avenue connects two crucial areas of Portland: downtown and the burgeoning South Waterfront District. But the street was an unimproved stretch of pavement with only partial bicycle and pedestrian access. The project called for realignment of the roadway, installation of new public and private underground utilities, and construction of a new double-track streetcar alignment. The twist lay in the timeline – all design and construction work for the \$51.2 million project had to fit within an 18-month timeframe.

Harper Houf Peterson Righellis was brought on to lead the project from conceptual design

through construction, a role that included project management, civil engineering, utility coordination and landscape design. The position came with its fair share of problems that required innovation and quick thinking.

In order to accommodate future light-rail development planned for the area, for example, the roadway had to be raised 14 feet. Knowing it was necessary to find a way to reduce the weight of that raised section, the project team selected low-density cellular concrete as fill material.

Also, the project team actually designed a new rail type. The most common rail type used for a project like this one is girder rail. That type of rail isn't manufactured in the United States, but the federal funding that the project had received required all materials used for it meet requirements of the Buy America Act.

Design team members identified a rail type used in Europe that is similar to girder rail, and then contacted U.S. manufacturers until they found one willing to produce an American-made product. The new rail is now being produced for use in other light-rail projects around the country.

Submitting firm: Harper Houf Peterson Righellis

Client/owner: City of Portland Bureau of Transportation

Other consultants: ACE Consulting, AINW, DKS Associates, Elcon Associates, GeoDesign Inc., Jacobs Engineering, OBEC Consulting Engineers, Parametrix, Pavement Services Inc., Shiels Oblitz Johnson, URS

