

SUSTAINABILITY RATING SYSTEMS ★ ★ ★ ★

Tools to encourage sustainable practices and communicate benefits

CASE STUDIES

Sustainability Rating Systems (SRS) are checklists of sustainable practices with common metrics. Although not the primary focus of SRS, sustainable pavement practices can contribute to the overall score earned by a project. A [recent case study](#) featured three agencies who used SRS to improve the sustainability performance of major construction projects.

INVEST: GEORGE V. VOINOVICH EASTBOUND BRIDGE



Cleveland, Ohio

The Ohio Department of Transportation (DOT) used its [Infrastructure Voluntary Evaluation Sustainability Tool](#), or **INVEST** – an SRS for surface transportation including planning, development, operation, and maintenance of projects – to measure, track, and improve the sustainability performance of the George V. Voinovich Eastbound Bridge project.

- \$273 million design-build project, certified in 2015
- Removal of existing innerbelt bridge and construction of a 3,900-ft long, five-lane steel delta-girder bridge, retaining walls, city street improvements, and a bicycle trail
- Social considerations: pedestrian and bicycle access, scenic/recreational qualities

39 out of 58 possible pavement-related SRS points achieved



100% of demolished old innerbelt bridge reused or recycled



>20% reclaimed asphalt pavement (RAP) content in recycled materials used



2,388 tons of rebar steel reused



13,044 tons of concrete reused

GREENROADS: NORTHEAST 120TH STREET EXTENSION



Kirkland, Washington

The City of Kirkland's 120th Street extension project was certified by the [Greenroads](#) Rating System, an SRS for roadway design and construction.

- \$6.7 million project, certified in 2014
- 44-ft wide, 880-ft long asphalt pavement, bicycle lanes in each direction, 6 bioretention units, 270,000-gal stormwater detention vault
- Social considerations: noise mitigation, light pollution reduction, pedestrian and bicycle access, water use tracking

23 out of 53 possible pavement-related SRS points achieved



40-year pavement design life selected to reduce life-cycle costs



100% of existing hardscape and asphalt parking lot materials reused



378 tons of RAP incorporated into new asphalt pavement



WMA with **20% RAP** used for asphalt roadway

ENVISION: I-4 ULTIMATE PROJECT



Central Florida

The Florida DOT's I-4 Ultimate project was certified by the [Envision](#) Rating System, an SRS for civil infrastructure and roads.

- \$2.3 billion public-private partnership project, certified in 2017 (estimated construction completion: 2021)
- 21-mile long section, including general-use travel lanes and four additional lanes and reconstruction of 15 major interchanges
- Widened 13 existing bridges, reconstructed 74 bridges, and added 53 new bridges
- Social considerations: noise mitigation, light pollution reduction, encouragement of alternative transportation modes, preservation of historical and cultural elements, and enhancement of public space

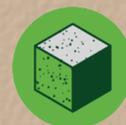
143 out of 247 possible pavement-related SRS points achieved



95% of waste diverted from landfills



598,000 tons of asphalt reused as RAP and road base



550,000 yd² of existing concrete pavement reused



150,000 yd³ of other concrete items reused