

WisDOT Sustainability Standards



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'Green Highway'

What Makes a Highway Green?

- | The integration of transportation functionality and ecological sustainability is what makes a Highway Green.
- | Green Highway meets transportation requirements and applies environmental stewardship so both are better than before.

Definition of Green Highway

- | Green Highways are defined by effort to leave the project area better than before through community partnering, environmental stewardship, and transportation network improvement in safety and functionality.

Characteristics of Green Highway

- | Identifies and protect important historical and cultural landmarks
- | Uses recycled materials to eliminate waste and reduce the energy required to build the highway
- | Link regional transportation plans with local land use through partnerships
- | Control population of invasive species, and promote native species growth
- | Reduce disruption to ecological process

Characteristics of *Green Road* (Muench 2008) Rating System

- Relatively simple system
- Point system may lead to "point mongering"
- Lack of transparency in criteria selection
- Lack of standardized method of measurement (qualitative approach)
- Lack of means for assessment of each criterion's trade off
- Actual functionality has not been validated
- Rating system may lead to improvements, but quantitative impact on meeting environmental targets is not known

New Paradigm

- | Green Highway reflects a new paradigm.
- One that bridges the gap between the environment and transportation community

Triple Bottom Line

- | Economic
- | Social
- | Environmental

Also known as People, Planet and Profit

Triple Bottom Line

Sustainability is a practical goal that addresses each of these issues.

Green Vs Traditional Highways

- | The difference between a green highway and a traditional highway starts at planning.
- | The scope of the Green Highway planning is expansive.
 - It incorporates every perspective that will be impacted by the construction of a highway.

Building a Green Highway

- | The major steps of a Green Highway process are :
 - ✓ Planning & Preliminary Design
 - ✓ Final Design and Construction
 - ✓ Operation & Maintenance

WisDOT's Actions

- | WisDOT has incorporated sustainable elements into its transportation projects design for years
- | WisDOT encourages the use of recycled and reclaimed materials on our construction projects.

WisDOT's Actions

- | Typical recycled / reclaimed materials used on our construction projects include:
 - ✓ Reclaimed Asphalt pavement (RAP)
 - ✓ Fly Ash
 - ✓ Asphalt Shingles
 - ✓ Boiler Slag / Steel slag
 - ✓ Recycled Concrete Aggregate (RCA)

Around The Nation

- | Sustainability in projects is gaining momentum.
 - ✓ The State of New York has incorporated sustainability elements into their transportation project design
 - ✓ NYSDOT has a rating system for measuring their department's performance in terms of greening their highways
 - ✓ Recognized good practices

Current Efforts

- | UW-Madison is currently working with WisDOT on developing a Sustainability Rating Program for use in scoring projects as they relate to the greening of highways.

Expectations

- | Expected contributions of Green Highway include:
 - ✓ Reduce energy use
 - ✓ Mitigate environmental burden
 - ✓ Promote human health and safety
 - ✓ Preserve natural resources

Intent

- | By encouraging sustainable transportation project design,
 - ✓ Conserve our natural resources
 - ✓ Enhance quality of our lives
 - ✓ Reaffirm our commitment to future generation

Questions ?