Stormwater Takes the Lead in Sustainable Roads.

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What is Greenroads?

Greenroads is a sustainability rating system for roadway design & construction.
- Applicable to all roadway projects
- A holistic way of considering roadway design & construction.

Greenroads Details

Photo courtesy of the Port of Tacoma
By: Aequalis Photography
Benefits of Greenroads in Tacoma

- City Policies
- Inspired Interdepartmental communication
- More efficient projects.

Earthday Opening Pitch

Tacoma’s Greenroads

Clay Huntington Way
- Private Commercial
- Alaska Street
- Arterial
- Asalin Court
- Residential
- Wapato Lake Drive
- Residential

Alaska Ribbon Cutting

Cheney Stadium
Sustainable Stormwater Project
Clay Huntington Way

Stormwater Cost Analysis
- Traditional storm design twice the cost

Challenges & Solutions

Construction
• Sequencing
• Excavated to subgrade
  • Stockpiles
  • Truck route
• Scarification Plan & QAQC

Maintenance
• Bi-annual sweeping
• Runoff - Concrete SW
• Bird Baths

Challenges & Solutions

Standard Specifications
• State Standards
• Mix Design
• Ballast
Alaska Street 56th – 72nd

- Sidewalk & Pedestrian
- Bike Lanes
- Transit stops
- Signal upgrades
- Scenic Views of Wapato Lake
- Wetland Mitigation
- Sustainable Landscaping
- Regional & Recycled Materials

- Pervious Concrete Parking Lanes
- Standard Road 100% Recycled Subbase

Alaska Street 56th-72nd

Overflow Perf. Pipes

Infiltration under sidewalk

Challenges & Solutions

- New HMA Leaches
- Sweeper (vacuum) radius is small
- Gutters are bad

Overflow Infiltration Gallery
Wapato Lake Drive
Pavement Technologies
- Long Life Pavement
- Cool Pavement
- 99% of materials purchased came from within 50 miles
- ½ cost of traditional design
- LED Street Lights

Wapato Lake Drive

100% Porous Asphalt Road

Standard Curb &

Wapato Lake Drive

- Turnaround standard HMA
- Overflow Infiltration Gallery
- Geomembrane Liner
Asotin Court
Construction Activities
• Regional Materials
• Tagro
• Water tracking
• Environmental Training
• Paver Emission Reduction

Construction Challenges
• Ballast
• Paving
• Shallow utilities

Groundwater?
What's wrong with this picture?

Green infrastructure is changing rapidly. You need a core team of engineering, geotechnical, materials, inspection & maintenance staff.

Conclusions

- Green infrastructure is a cost-effective strategy for managing stormwater and rebuilding roads.
- Green infrastructure require a hands-on approach with a knowledgeable team.
- We NEED industry standards!