FESC Outreach:
Experience & Opportunities

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Program for Resource Efficient Communities
Program for Resource Efficient Communities

We promote application of design, construction and management practices that minimize environmental degradation and make more efficient use of energy, water and other natural resources in Florida’s built environment and communities.
FESC Outreach

Experience

- Fact Sheets
- Sustainable Floridians
- Others...
INTERACT, PLAN, FIND SUPPORT & SAVE

START THE TOUR

STEP 1: INTERACT WITH US
STEP 2: CREATE YOUR PLAN
STEP 3: FIND HELPFUL SUPPORT
How To: Insulate Your Attic

Introduction

Heat flows from warm areas to cool areas. In Florida, this often means heat is flowing from a warm outdoors to an air-conditioned indoors. On winter days, heat flows from a warm inside to a cold outside. Insulation can reduce the amount of heat that flows, reducing cooling and heating costs.

Insulation is rated in terms of its thermal resistance. This resistance, or R-value, refers to the performance of insulation by measuring the resistance to heat flowing through the insulation over time. An insulation with greater resistance (higher R-value) to heat flow means that less heat enters your home during warm months and less heat leaves your home in the cool months, when you are heating the interior space.
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Opportunities – Quantifying Impacts

• Land Development
• Local Governments
• Others...
Restoration Case Study

- This 5,187-acre master plan evolved significantly over its 4-year permitting process.
- Designs were for 8,500 dwelling units.
- It was fully entitled earlier this summer based on the 2009 design.
- Restoration is entitled to create a mixed-use, transit oriented community with 3.5 million ft² of commercial space.
Restoration 2006 Design

VMT Analysis

Destinations
Restoration 2009 Design

VMT Analysis

- Destinations
## Restoration’s Two Designs: Transportation

### VMT Analysis

**Inputs**

<table>
<thead>
<tr>
<th></th>
<th>2006 Plan</th>
<th>2009 Plan</th>
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<tbody>
<tr>
<td>Trips</td>
<td>68,000</td>
<td>68,000</td>
</tr>
<tr>
<td>Internal trip length, miles</td>
<td>1.75</td>
<td>0.38</td>
</tr>
<tr>
<td>Onsite trip capture</td>
<td>20%</td>
<td>50%</td>
</tr>
<tr>
<td>Total daily travel, miles</td>
<td>594,000</td>
<td>349,000</td>
</tr>
<tr>
<td>Gasoline, gallons/day</td>
<td>29,254</td>
<td>17,216</td>
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</table>

### GHG Emissions

<table>
<thead>
<tr>
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<th>2006 Plan</th>
<th>2009 Plan</th>
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<tbody>
<tr>
<td>Mtons CO2e/yr</td>
<td>98,900</td>
<td>58,200</td>
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</tbody>
</table>

**Metric tons CO2e/yr avoided:** 40,700

**Fuel costs/yr avoided:** $13,000,000

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13,000 solar rooftops - ~$260,000,000
**Restoration’s Two Designs: Road Infrastructure**

Life Cycle Analysis (50 year life)

<table>
<thead>
<tr>
<th>Inputs</th>
<th>2006 Plan</th>
<th>2009 Plan</th>
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</thead>
<tbody>
<tr>
<td>Miles:</td>
<td>72</td>
<td>39</td>
</tr>
<tr>
<td>Lane miles:</td>
<td>186</td>
<td>103</td>
</tr>
<tr>
<td>Impervious area, ft²</td>
<td>17,000,000</td>
<td>10,000,000</td>
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<tr>
<td>Landscaped area, ft²</td>
<td>6,000,000</td>
<td>3,000,000</td>
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<tr>
<td>Cost</td>
<td>$383,623,680</td>
<td>$238,180,800</td>
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**GHG Emissions**

- Mtons CO2e/yr: 13,031, 7,176
  - Metric tons CO2e/yr avoided: 5,855
  - Initial costs avoided: $145,442,880

2,000 solar rooftops - ~$40,000,000
Manatee County: Mapping Infrastructure Intensity
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Opportunities – Quantifying Impacts

• Plum Creek – Envision Alachua (60,000 acres)
• Plum Creek – 121 Project (~2,000 dwelling units)
• Town of Long Boat Key
• Manatee County – How Will We Grow?
• Sarasota County – Fiscal Neutrality
• Others...