



Morse U.S. Courthouse  
Eugene, OR



NOAA  
Suitland, MD



EPA Science and Technology  
Kansas City, KS



U.S. Census Bureau  
Suitland, MD

# Building Retrofits

Lance Davis, AIA, LEED



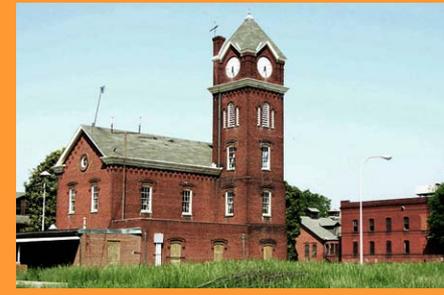
USDA  
Manhattan, KS



FDA  
White Oak, MD



Denver Federal Center  
Lakewood, CO



St. Elizabeth's  
Washington, DC

# Opportunity in the Federal Government

- ▶ Own 445,000 buildings (over **3 billion square feet**)
- ▶ Lease 57,000 buildings (**374 million square feet**)
- ▶ Spend more than **\$10 billion a year** on energy
- ▶ Affect our natural environment, our economy, and the productivity and health of the workers and visitors that use these buildings



Sam Nunn Atlanta Federal Center  
Atlanta, GA



EPA Computer Center  
RTP, NC



Land Port of Entry  
Calais, ME



Metzenbaum U.S. Courthouse  
Cleveland, OH

## Potential Impact

- ▶ 1/3 of utility bill is paid for wasted energy
- ▶ Federally, this represents more than \$3 billion
- ▶ Invest in improving federal assets via energy efficiency
- ▶ Enhance the services you provide to your federal tenants



DHS  
Omaha, NE



NPS  
Omaha, NE



SSA  
Auburn, WA



DOT  
Washington, DC

# Minimum Performance Criteria for EB

**Advanced Meters  
Guiding Principles  
LEED Silver**

# Minimum Performance Criteria for EB

- ▶ Integrated Design
- ▶ Commissioning
- ▶ ENERGY STAR 80
- ▶ 20% Energy Reduction
- ▶ 20% Indoor water reduction
- ▶ 50% Outdoor water reduction
- ▶ 95<sup>th</sup> rain event management

# Minimum Performance Criteria for EB

- ▶ GSA lighting/control specs
- ▶ ASHRAE 55 and 62
- ▶ Demand control ventilation
- ▶ Low emitting materials
- ▶ EPP
- ▶ CPG
- ▶ Biobased
- ▶ 50% construction salvage

# Using the Guiding Principles Checklist

## General use



Home > My Portfolio > Erin's Energy Efficient Edifice > Sustainability Checklist

### Federal High Performance Sustainable Buildings Checklist

The purpose of this checklist is to assist Federal agencies with assessing their existing building stock against the Guiding Principles for Sustainable Existing Buildings, and for reporting on the sustainability data element of the Federal Real Property Profile (FRPP).

Agency: Department of Energy (DOE)  
Department/Region:  
Federal Campus:  
Building Name: Erin's Energy Efficient Edifice  
Federal Real Property ID: 12345678  
Checklist Manager: Erin Zayko [edit](#)  
Sustainability Path: Guiding Principles & Third-party [edit](#)

Last edit date: 10/23/2009 [Upload & View Compliance Documents on File](#) [Generate Report](#)

Indicates that "YES" has been selected for all guiding principles within a section.

**Employ Integrated Design**  **Optimize Energy Performance**  **Protect and Conserve Water**  **Enhance Indoor Environmental Quality**  **Reduce Environmental Impact of Materials**

#### Employ Integrated Assessment, Operation, and Management Principles

Guiding Principle	Action Required	Compliance Verification Documents on File	Responsible Team Member	Notes / Comments
<b>Integrated Assessment, Operation, and Management</b>				
Integrated 1	Use an integrated team to develop and implement policy regarding sustainable operations and maintenance. <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> In Process <input type="radio"/> Not Assessed <a href="#">References and Resources</a>	<input checked="" type="checkbox"/> Team roster or equivalent <input type="checkbox"/> Completed "Responsible Integrated Team Member" fields <input type="checkbox"/> Other: <input type="text" value="enter document name"/>	Enter Name : <input type="text" value="Erin Zayko"/>	<a href="#">View Note/Comment</a>
Integrated 2	Establish operational performance goals for energy, water, material use and recycling, and indoor environmental quality, and ensure incorporation of these goals throughout the remaining lifecycle of the building. Incorporate sustainable operations and maintenance practices within the appropriate Environmental Management System (EMS).	<input checked="" type="checkbox"/> EMS Manual that incorporates operational performance goals and sustainable operations and maintenance practices <input type="checkbox"/> Other: <input type="text" value="enter document name"/>	Enter Name : <input type="text" value="Mike Myers"/>	<a href="#">View Note/Comment</a>

Pre-populated building Info

Pie chart of status

Document repository

Green checkbox = complete

Compliance verification docs

Enter notes and comments

References and resources

Always  
Save before  
Exiting



USDA  
Manhattan, KS



FDA  
White Oak, MD



Denver Federal Center  
Lakewood, CO



St. Elizabeth's  
Washington, DC

# EO13514 and EB impact

- ▶ 0 Net Energy for Designs in 2020
- ▶ Consolidate & Optimize Inventory
- ▶ Guiding Principles



DHS  
Omaha, NE



NPS  
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SSA  
Auburn, WA



DOT  
Washington, DC

## GSA's Stretch Goals

Fossil Fuel Free  
0 Net Site Energy  
GHG Footprint  
ZEF



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GSA

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