

## 234 West Florida LEED Core and Shell (CS)

### Checklist with explanatory commentary

8			Sustainable Sites	NOTES
Y			Prereq 1 <b>Construction Activity Pollution Prevention</b> (erosion, sedimentation and dust plan)	
Y			Credit 1 <b>Site Selection</b> (avoid prime farm, 5' 100year flood, habitat, 100' wetland, 50' water, parkland)	234 W. Florida is the quintessential 'green' project; bringing new life to a 100 year old industrial loft in Milwaukee's Historic 5 <sup>th</sup> Ward- rehabilitating a degraded urban environment rather than developing unspoiled land.
Y			Credit 2 <b>Development Density &amp; Community Connectivity</b> (60,000 s.f acre or 1/2 mile criteria) <b>ID Credit for Exemplary Performance- double the specified density</b>	The site is extremely convenient to community services such as restaurants, bars, and other essentials. The density of the 5 <sup>th</sup> Ward is in fact twice what LEED requires, earning 234 W. Florida an Exemplary Performance credit as well.
			Credit 3 <b>Brownfield Redevelopment</b>	
Y			Credit 4.1 <b>Alternative Transportation, Public Transportation Access</b> (1/2 mi. rail or 1/4 mi 2 bus) <b>ID Credit for Exemplary Performance- 5 bus or train lines within ¼ mile</b>	The site is also very well served by public transport. Our proximity to Milwaukee's Intermodal Transit Center in fact earns us an additional Exemplary Performance credit for public transit access.
Y			Credit 4.2 <b>Alternative Transportation, Bicycle Storage &amp; Changing Rooms</b> (5% bike, 0.5% showers)	234 W. Florida offers ample bicycle storage in our underground parking garage, as well as changing and showering facilities to make bicycle commuting a joy.
Y			Credit 4.3 <b>Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles</b> (3% or 5% parking or refuel 3%)	We also reserve several underground parking spaces for small, fuel efficient cars. Ask about eligibility requirements and availability.
Y			Credit 4.4 <b>Alternative Transportation, Parking Capacity</b> (not exceed code, options...)	At the same time, 234 W. Florida is a classic urban building; placing more emphasis on creating a vibrant street presence than an ocean of parking.
			Credit 5.1 <b>Site Development, Protect or Restore Habitat</b> (disturbance boundary or restore 50% disturbed excl. bldg)	
			Credit 5.2 <b>Site Development, Maximize Open Space</b> (Options- exceed open space zoning 25%, or equal to bldg, or 20% site. Green roofs, Urban pedestrian hardscape, wetlands count)	
			Credit 6.1 <b>Stormwater Design, Quantity Control</b> (Existing greater than 50% impervious- 25% decrease in 2 year/24 hr volume.)	
			Credit 6.2 <b>Stormwater Design, Quality Control</b> (treat 90% average annual rain (defined by climate), 80% Total suspended solids removal)	
Y			Credit 7.1 <b>Heat Island Effect, Non-Roof</b> (options- 50% hardscape shaded, SRI above 29 or open grid system, min. 50% parking covered with SRI 29.) <b>ID Credit for Exemplary Performance- 100% of parking SRI 29</b>	234 W. Florida's small parking lot is constructed using heat reflective concrete rather than heat absorbing asphalt. This both provides durability and keeps the area surrounding the building cool.
			Credit 7.2 <b>Heat Island Effect, Roof</b> (options- high SRI roof 78 flat, 29 slope, or green roof 50%, or combination)	
			Credit 8 <b>Light Pollution Reduction</b> (complex. Defined by IESNA criteria for dark, low and medium areas)	
Y			Credit 9 <b>Tenant Design and Construction Guidelines</b>	We hope you find these tenant guidelines helpful should you wish to certify your own tenant space under the LEED for Commercial Interiors rating system.

4				Water Efficiency	NOTES
Y			Credit 1.1	<b>Water Efficient Landscaping</b> , Reduce potable water use in irrigation by 50% from baseline case	
Y			Credit 1.2	<b>Water Efficient Landscaping</b> , No Potable Use or No Irrigation	234 W. Florida uses NO permanent irrigation. This is an easy win in our dense urban environment.
		N	Credit 2	<b>Innovative Wastewater Technologies</b> (Options- 50% reduction in potable use or 50% treated and infiltrated or used on site)	
Y			Credit 3.1	<b>Water Use Reduction</b> , 20% Reduction	Conserving water is important for Milwaukee! The public restrooms and tenant kitchens throughout the building include extremely water efficient fixtures.
Y			Credit 3.2	<b>Water Use Reduction</b> , 30% Reduction ID Credit= 40% reduction or 10% reduction in process and non-regulated uses. (cooling towers etc..)	This means that less waste water is dumped unnecessarily into the combined sewer system, reducing the likelihood of combined sewer overflows into Lake Michigan.

1				Energy & Atmosphere	NOTES
Y			Prereq 1	<b>Fundamental Commissioning of the Building Energy Systems</b> (commissioning agent, owners project requirements OPR, design team basis of design BOD, plan to achieve. Verify installation, create report.)	
Y			Prereq 2	<b>Minimum Energy Performance</b> (Comply with ASHRAE 90.1-2004)	
Y			Prereq 3	<b>Fundamental Refrigerant Management</b> (NO CFCs)	
1			Credit 1	<b>Optimize Energy Performance</b> (3.5% improvement over code per point) 2 pts = 7%, 4pts = 14%. Existing Building Renovations- 28% Better than ASHRAE = max 8 pts.	234 W. Florida is designed to operate approximately 4% more efficiently than required by code.
			Credit 2	<b>On-Site Renewable Energy</b> (percentage of energy costs for building. 1% of building annual energy cost) only 1 point possible in CS	
			Credit 3	<b>Enhanced Commissioning</b> (complex- independent agent, report to owner, design review, submittal review, systems manual, staff training, review within 10 months of occupancy.)	
			Credit 4	<b>Enhanced Refrigerant Management</b> (No refrigerants. Or formula balancing life cycle GWP and ODP)	
			Credit 5.1	<b>Measurement &amp; Verification- BASE BUILDING</b> (M&V plan)	
			Credit 5.2	<b>Measurement &amp; Verification- TENANT SUB-METERING</b> (centrally monitored electronic metering network capable of sub-metering + tenant M&V plan)	
			Credit 6	<b>Green Power</b> (35% elec. From green power contract for 2 years. We Energies Energy for Tomorrow Program)	

7			Materials & Resources	NOTES
Y			Prereq 1 <b>Storage &amp; Collection of Recyclables</b> (Dedicated area- size not regulated.)	234 W. Florida provides for the recycling of paper, corrugated cardboard, glass, plastics and metals. Our centralized collection area is located in the underground parking garage.
Y			Credit 1.1 <b>Building Reuse</b> , Maintain <b>25%</b> of Existing Walls, Floors & Roof (if addition included it must be less than 2X existing building saved.)	Perhaps the greenest feature of 234 W. Florida is the fact that we have reused a building that is already over 100 years old; providing it a bright future for the next 100 years.
Y			Credit 1.2 <b>Building Reuse</b> , Maintain <b>50%</b> of Existing Walls, Floors & Roof	Adaptive reuse saves both materials and the energy and carbon emissions embedded in their production.
Y			Credit 1.3 <b>Building Reuse</b> , Maintain <b>75%</b> of Existing Walls, Floors & Roof	In the end, we were able to save over 90% of the building, excluding the windows and roof, which LEED CS allows replacement of in order to increase the building's energy efficiency.
Y			Credit 2.1 <b>Construction Waste Management</b> , Divert 50% from Disposal (By weight or volume- Consistent throughout.)	In the end, very little waste material was removed from the building or generated on site. Of the 256 tons of construction waste generated, 138 tons or 54% has been diverted from the landfill.
			Credit 2.2 <b>Construction Waste Management</b> , Divert 75% from Disposal	
Y			Credit 3 <b>Materials Reuse, 1%</b> (based on cost of total value of materials on project. Furniture if consistent CR.3-7. No electrical, plumbing or specialty items (elevators))	234 W. Florida has reused materials totaling close to 4% of the total materials cost of the project, including 445 lineal feet of relocated heavy timber beams, 16,000 salvaged and reused bricks, and 4,000 s.f. of salvaged Oak flooring. This jumps to 9% if you include the refurbishment of much of the building's original sprinkler system, a system excluded from the LEED CS accounting.
			Credit 4.1 <b>Recycled Content</b> , 10% (post-consumer + ½ pre-consumer) (Based on cost. Content fraction determined by weight. )	
			Credit 4.2 <b>Recycled Content</b> , 20% (post-consumer + ½ pre-consumer)	
Y			Credit 5.1 <b>Regional Materials</b> , 10% Extracted, Processed & Manufactured Regionally (Extracted, harvested or recovered + Manufactured within 500 mile radius. Based on cost. Content fraction determined by weight)	234 W. Florida benefits from the industrial strength of our region. To cite just the most expensive components of the project, most of both the glass and aluminum for the building's three different glazing systems is manufactured regionally from materials produced regionally.
Y			Credit 5.2 <b>Regional Materials</b> , 20% Extracted, Processed & Manufactured Regionally.	LEED CS also allows materials that have been salvaged and reused to be considered as manufactured locally, which reflects well on our careful reuse of timber, bricks and flooring noted in credit 3.
			Credit 6 <b>Certified Wood</b> (50% of wood based products FSC certified based on cost. Recycled wood fiber CR 4 excluded)	

4			Indoor Environmental Quality	NOTES
Y			Prereq 1 <b>Minimum IAQ Performance</b> (Comply with ASHRAE 62.1- 2004)	
Y			Prereq 2 <b>Environmental Tobacco Smoke (ETS) Control</b> (Prohibit smoking + exterior smoking min. 25' from entry. Or designated smoking rooms with negative air pressure of min. 1 PA, average 5 PA. or (Residential) isolate units.)	234 W. Florida is a NO SMOKING building.
			Credit 1 <b>Outdoor Air Delivery Monitoring</b> (permanent monitoring system. CO2 sensors densely occupied space. Airflow measure elsewhere) CO2 sensors naturally vented spaces.)	
			Credit 2 <b>Increased Ventilation</b> (30% above ASHRAE 62.1- 2004 or natural vent standard- Carbon Trust Good Practice Guide)	
Y			Credit 3.1 <b>Construction IAQ Management Plan</b> , During Construction (Sheet Metal and Air Conditioning Contractors National Association IAQ Guidelines...+ protect materials from moisture damage + MERV 8 or better temporary filters on permanent AHUs)	The construction of 234 W. Florida has included steps taken to insure a clean and healthy indoor environment, including procedures to insure that the mechanical systems remained clean and uncontaminated, and that building materials were properly protected to prevent water damage and the potential for mold growth.
2 for 3			Credit 4.1 <b>Low-Emitting Materials, Adhesives &amp; Sealants</b> (All interior adhesives and sealants South Coast Air Quality Management District VOC limits.)	Likewise, all of the adhesives used in the building (there aren't many!) have been selected to meet stringent offgassing standards.
2 for 3			Credit 4.2 <b>Low-Emitting Materials, Paints &amp; Coatings</b> (Green Seal and SCAQMD. Flat paint 50 g/L, non-flat 150 g/L, anti-rust paints 250 g/L, clear finishes between 100 -55 g/L)	All of the paints used inside the building have similarly been selected to be low-odor, low- volatile organic compound emitting formulations. This building specification carries into the paint that will be used to finish your leased space.
2 for 3			Credit 4.3 <b>Low-Emitting Materials, Carpet Systems</b> (carpet Green Label +. Cushion Green Label. Adhesive EQ CREDIT 4.1 50 g/L)	And finally, the same care has been given to the selection of environmentally appropriate carpet and carpet tiles. Together, these three steps equate to 2 points in the LEED CS checklist.
			Credit 4.4 <b>Low-Emitting Materials, Composite Wood &amp; Agrifiber Products</b> (no added urea-formaldehyhde)	
			Credit 5 <b>Indoor Chemical &amp; Pollutant Source Control</b> (permanent entry system min. 6' long. Dedicated exhaust in areas where chemicals may be present, MERV (minimum efficiency reporting value) filters 13 or better supply and return)	
			<b>Credit 6</b> <b>Controllability of Systems, Thermal Comfort</b> (Individual control 50% of occupants. Operable window criteria given. + control of shared spaces. ASHRAE 55-2004. Thermal Environmental Conditions for Human Occupancy.)	
			<b>Credit 7</b> <b>Thermal Comfort, Design</b> (ASHRAE 55-2004. Thermal Environmental Conditions for Human Occupancy.)	
			Credit 8.1 <b>Daylight &amp; Views, Daylight 75% of Spaces</b> (Options- glazing factor calculation. Or Daylight simulation. Or Daylight Measurement.)	
Y			Credit 8.2 <b>Daylight &amp; Views, Views for 90% of Spaces</b> (Direct line of sight vision glazing (2'6"- 7'6") single offices count 100% if 75% of area qualifies)	The classic narrow plan of this historic industrial loft, designed to provide well daylight working conditions throughout the building, enables us to say that properly laid out, any space you lease is capable of providing views to the outside for almost every corner of the plan.

<b>5</b>			<b>Innovation &amp; Design Process</b>	<b>NOTES</b>
<b>Y</b>			Credit 1.1 <b>Innovation in Design:</b> Provide Specific Title	<b>SS 2- Exemplary Performance for Development Density and Community Connectivity</b>
<b>Y</b>			Credit 1.2 <b>Innovation in Design:</b> Provide Specific Title	<b>SS 4.1- Exemplary Performance for Public Transportation Access</b>
<b>Y</b>			Credit 1.3 <b>Innovation in Design:</b> Provide Specific Title	<b>Green Cleaning</b>
<b>Y</b>			Credit 1.4 <b>Innovation in Design:</b> Provide Specific Title	<b>SS 7.1 Exemplary Performance for Heat Island Effect Mitigation, Non-Roof</b>
<b>Y</b>			Credit 2 <b>LEED® Accredited Professional</b>	<b>James Wasley, LEED AP, LEED Consultant</b>
			<b>Project Totals (pre-certification estimates)</b>	
<b>29</b>			<b>Certified</b> 23-27 points <b>Silver</b> 28-33 points <b>Gold</b> 34-44 points <b>Platinum</b> 45-61 points	<b>LEED Silver certified</b>