



RELI RESILIENCY ACTION LIST (FULL)

REFERENCE BRIEF

For Communities, Buildings, Homes + Infrastructure

Pilot V1.1

An Action List + Strategic Resource Incorporated into the Green + Resilient Property Underwriting Standards
C3 Living Design . Capital Markets Partnership . AREA Research . University of Minnesota Arch8561

For Field Interpretation
MAY 2015 | ORIGIN AUG 2014

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STRUCTURES	COMMUNITY	NUMBER	DESCRIPTION	POINTS	DIRECT VALUE	REFERENCE
<p>STRUCTURE Applies to Buildings, Homes and Artifacts COMMUNITY Applies to Organizations, Neighborhoods, Districts, Infrastructure, Urban + Campus Projects POINTS Points have not be allocated and will be established as part of the RELI Pilot Phase DIRECT VALUE If 'Y' (yes) the requisite or credit is a line-item in the RELI Green + Resilient Finance Standard REFERENCE The RELI Credit Catalog is inclusive + comprehensive drawing from multiple sources POLY-REQS + POLY-CREDITS Contain sub-requisites + credits.</p>						
PANORAMIC APPROACH						
PA PANORAMIC APPROACH TO PLANNING, DESIGN, MAINTENANCE + OPERATIONS						
S	C	Req 1	Study: Short-Term Hazard Preparedness + Mitigation	Required	Y	RELI
S	C	Req 2	Integrative Process, Development + Community Stakeholder Involvement	Required	Y	IP LEED Envision
S	C	Poly-Req 3	Commissioning + Long-Term Monitoring / Maintenance	Required	Y	LEED Envision
S	C	Poly-Credit 1	Business + Community Case Analysis, Post-Development Evaluation and Reporting	TBD		Varies
S	C	Credit 2	Establish a Sustainability + Resiliency Management System	TBD		Envision
S	C	Credit 3	Address Conflicting Regulations + Policies	TBD		Envision
Credits 4-7 below expand the Integrative Process required by requisite 2 above.						
S	C	Poly-Credit 4	Study + Design for By-Product + Underutilization Synergies	TBD to TBD		Adapted Envision
S	C	Poly-Credit 5	Study + Design for Improved Project Element + Infrastructure Integration	TBD to TBD		Adapted Envision
S	C	Poly-Credit 6	Study + Design for Long-Term Adaptability, Diversity + Redundancy	TBD		RELI
S	C	Poly-Credit 7	Study + Living Design for Advanced Resiliency using a diversity of ecology based perspectives	TBD		RELI
S	C	Credit 8	Third Party Leadership + Next Generation Certifications and Programs	TBD		RELI
RISK ADAPTATION + MITIGATION FOR ACUTE EVENTS						
HP HAZARD PREPAREDNESS						
S	C	Req 1	Fundamental Emergency Planning + Preparedness for Common Hazardous Events	Required	Y	RELI
S	C	Req 2	Fundamental Access To: First Aid, Emergency Supplies, Water, Food, Communications	Required	Y	RELI
S	C	Poly-Credit 1	Enhanced Emergency Planning for Common Hazards + Extreme Events	TBD	Y	RELI
S	C	Credit 1.1	Enhanced Emergency Planning for Common Hazards + Extreme Events.	TBD		RELI
	C	Credit 1.1	Project organization actively participates in or starts a United We Serve Team	TBD		RELI
S	C	Credit 2	Enhanced Access: Emergency Care + Supplies, Water, Food, Communications	TBD	Y	RELI
S	C	Poly-Credit 3	Additional Emergency Provisions For the Community + for Longer Timeframes	TBD	Y	RELI
S	C	Credit 3.1	4 Days of additional Provisions provided for the Community	TBD		RELI
S	C	Credit 3.2	4 Days of additional Provisions and Shelter provided for the Community	TBD		RELI
S	C	Credit 3.3	10 Days of additional Provisions provided for the Community	TBD		RELI
S	C	Credit 3.4	10 Day of additional Provisions and Shelter provided for the Community	TBD		RELI
S	C	Credit 3.5	10 Day of additional Provisions provided for the Facility(s) Occupants	TBD		RELI
S	C	Credit 4	Community Education: Authentic Dialogues on ever-increasing Weather, Safety + Resiliency Risks	TBD		RELI
HA HAZARD ADAPTATION + MITIGATION						
S	C	Req 1	Sites of Avoidance + Repair: 500 Year Flood Plain, Storm Surge + Sea Rise	Required	Y	RELI
S	C	Req 2	Fundamental Emergency Operations: Back-up Power + Operations	Required	Y	RELI
S	C	Req 3	Fundamental Emergency Operations: Thermal Safety During Emergencies	Required	Y	RELI
S	C	Req 4	Safer Design for Extreme Weather, Wildfire + Seismic Events	Required	Y	Fortified



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S	C	Poly-Credit 2	Adaptive Design for Extreme Rain, Sea Rise, Storm Surge + Extreme Weather, Events + Hazards	TBD	Y	RELI
S	C	Credit 2.1	Adaptive Design for Resilient Management of Extreme Rain Events	TBD		RELI
S	C	Credit 2.2	Adaptive Design for Sea Rise, Storm Surge	TBD		RELI
S	C	Poly-Credit 3	Advanced Emergency Operations: Back-up Power, Operations, Thermal Safety + Operating Water	TBD	Y	RELI
S	C	Credit 3.1	Advanced Emergency Operations: Back-up Power + Operations: Critical Services, Lighting	TBD		RELI
S	C	Credit 3.2	Advanced Emergency Operations: Thermal Safety During Emergencies	TBD		RELI
S	C	Credit 3.3	Advanced Emergency Operations: On-Site Water Storage for Operations	TBD		RELI
S	C	Credit 3.4	Thermal Safety: Moderate to Large Cooling Center	TBD		RELI
S	C	Credit 3.5	Thermal Safety: Advanced Cooling Center	TBD		RELI
S	C	Poly-Credit 4	Passive Thermal Safety, Thermal Comfort + Lighting Design Strategies	TBD	Y	2030 Palette
S	C	Credit 4.1	Landscape based Passive Cooling	TBD		2030 Palette
S	C	Credit 4.2	Passive Lighting	TBD		2030 Palette
S	C	Credit 4.3	Passive Heating	TBD		2030 Palette
S	C	Credit 4.4	Passive Cooling	TBD		2030 Palette
S	C	Poly-Credit 5	Transit + Transportation System Protection + Continuous Operations	TBD	Y	RELI
S	C	Credit 5.1	Protect below ground system vents and entrances from flooding	TBD		RELI
S	C	Credit 5.2	Plan systems for 500 Year Floods	TBD		RELI
S	C	Credit 5.3	Plan Systems for Extreme Rain Events	TBD		RELI
S	C	Credit 5.4	Provide Distributed Generation Power Sources	TBD		RELI
S	C	Poly-Credit 6	Provide Environmental Protection + Remediation for Parks + Preserves	TBD		RELI
S	C	Credit 6.1 Select One	Option 1: Develop action plans + stow needed supplies on-site for flood protection	TBD		RELI
S	C		Option 2: Protect, restore + develop flood protection (including natural systems)	TBD		RELI
S	C	Credit 6.2	Provide Buffer Zones protecting from development + supporting bio-diversity and biophilia	TBD		RELI
S	C	Credit 6.3	Provide wildlife corridors between parks + preserves to support bio-diversity and biophilia	TBD		RELI

COMPREHENSIVE ADAPTATION + MITIGATION FOR A RESILIENT PRESENT + FUTURE

CV COMMUNITY COHESION, SOCIAL + ECONOMIC VITALITY

S	C	Poly-Req 1	Improve Community Quality of Life	Required		Envision
			<u>Option 1: Broad community alignment (Envision QL1.1 Superior Level)</u>	Required		Envision
S	C	Select One	<u>Option 2: Holistic assessment and collaboration (Envision QL1.1 Conserving Level)</u>			Envision
			<u>Option 3: Community Renaissance (Envision QL1.1 Restorative Level)</u>			Envision
S	C	Poly-Credit 1	Incorporate important community views and aspects of local landscape	TBD		Envision
		Credit 1.1	<u>Understanding and balance - (Envision QL3.2 Improved Level / required for this credit)</u>			Envision
		Credit 1.2	<u>Alignment with community values- (Envision QL3.2 Enhanced Level / required for this credit)</u>			Envision
S	C	Credit 1.3 Select One	<u>Option 1: Community preservation and enhancement - (Envision QL3.2 Superior Level)</u>	TBD		Envision
			<u>Option 2: Community connections and collaboration - (Envision QL3.2 Conserving Level)</u>	TBD		Envision
			<u>Option 3: Restoration of community and character - (Envision QL3.2 Restorative Level)</u>	TBD		Envision



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S	C	Poly-Credit 2	Community Connectivity: Walkability, Public Transit, Non-motorized Transit	TBD	Y	LEED V4
S		Credit 2.1	Surrounding Density + Diverse Uses (Option 1. Surrounding Density)	TBD		LEED NC V4
S		Credit 2.2	Access to Quality Transit	TBD		LEED NC V4
S		Credit 2.3	Bicycle Facilities	TBD		LEED NC V4
S		Credit 2.4	Reduced Parking Footprint	TBD		LEED NC V4
	C	Credit 2.5	Preferred Location	TBD		LEED NC V4
	C	Credit 2.6	Access to Quality Transit	TBD		LEED NC V4
	C	Credit 2.7	Bicycle Facilities	TBD		LEED NC V4
	C	Credit 2.8	Walkable Streets	TBD		LEED ND V4
	C	Credit 2.9	Compact Development	TBD		LEED ND V4
	C	Credit 2.10	Connected and Open Community: Surrounding Connectivity (Case 1.)	TBD		LEED ND V4
	C	Credit 2.11	Connected and Open Community: Internal Connectivity (Case 2.)	TBD		LEED ND V4
S	C	Poly-Credit 3	Community Connectivity: Mixed-Use Commercial, Housing + Public / Community Space	TBD	Y	LEED RELI
S	C	Credit 3.1	Surrounding Density + Diverse Uses (LEED NC, Option 2. Diverse Uses)	TBD		LEED V4
S	C	Credit 3.2	Surrounding Density + Diverse Uses (RELI Resilient Use Categories)	TBD		RELI
S		Credit 3.3	Provide Community Access to Useful Space	TBD		RELI
S		Credit 3.4	Open Space	TBD		LEED V4
S	C	Credit 3.5	Joint Use of Facilities	TBD		LEED Schools
S	C	Credit 3.6	Housing and Jobs Proximity	TBD		LEED ND V4
S	C	Credit 3.7	Mixed-Use Neighborhoods	TBD		LEED ND V4
	C	Credit 3.8	Option 1: Access to Civic and Public Space	TBD		LEED ND V4
	C	Select One	Option 2: The 2030 Palette - Parks Swatch	TBD		2030 Palette
S	C	Credit 3.9	Access to Recreation Facilities	TBD		LEED ND v4
S	C	Credit 3.10	Access to Public Schools + Public Libraries	TBD		RELI
S	C	Poly-Credit 4	Expand Citizen Participation: Public Amenities, Councils, Organizations, Communication	TBD		RELI
S	C	Credit 4.1	Public Amenities: Manage + Operate a Community Space + Resource	TBD		RELI
S	C	Credit 4.2	Actively Participate in Local Disaster Recovery Programs	TBD		RELI
S	C	Credit 4.3	Actively Participate in a Local, Regional or National Groups + Organizations	TBD		RELI
S	C	Credit 4.4	Organize and Develop a Community Communication Tool	TBD		RELI
S	C	Poly-Credit 5	Resilient Organizations: Cooperative + B-Corporation(s), Non-Profits + Social Equity Measures	TBD		RELI
S	C	Credit 5.1	Develop a Resilient Organization: Producer / Consumer / Worker Cooperative, B-Corp., Non-Profit	TBD		RELI
S	C	Credit 5.2	Human PHD: Social Equity Within the Community	TBD		LEED Pilot
S	C	Credit 5.3	Human PHD: Social Equity Within the Supply Chain	TBD		LEED Pilot
S	C	Credit 5.4	Human PHD: Social Equity Within the Project Team	TBD		LEED Pilot
S	C	Poly-Credit 6	Develop or Expand Local Skills, Capabilities + Long-Term Employment + Mix	TBD		Envision
			Option 1: Hire Locally - (Envision QL1.3 Enhance Level)	TBD		Envision
			Option 2: Specific Skills Outreach - (Envision QL1.3 Superior Level)	TBD		Envision
			Option 3: Local Capacity Development - (Envision QL1.3 Conserving Level)	TBD		Envision
			Option 4: Long Term Competitiveness - (Envision QL1.3 Restorative Level)	TBD		Envision
S	C	Poly-Credit 7	Use Regionally Sourced + Manufactured Materials and Products	TBD		LEED Envis
S	C	Poly-Credit 8	Stimulate Sustainable Growth and Development	TBD		Envision



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PH PRODUCTIVITY, HEALTH + DIVERSITY

S	C	Poly-Req 1	Minimum IAQ + Views to the Exterior	Required	Y	LEED RELI
S	C	Poly-Req 2	Minimum Protection for Prime Habitat + Floodplain Functions	Required	Y	LEED Envis
S	C	Poly-Credit 1	Human PHD: Expanded IAQ, Daylight + Views, Fresh Air	TBD	Y	LEED NC V4
S	C	Poly-Credit 2	Human PHD: Active Design for Buildings, Communities and Urban Environments	TBD		Active Design
S	C	Credit 3	Human PHD: Provide for Social Equity: Interdisciplinary / Intercultural Opportunities	TBD		RELI Stars
S	C	Poly-Credit 4	Human + Eco PHD: Reduce Pesticides, Prevent Surface + Groundwater Contamination	TBD	Y	Envision
S	C	Poly-Credit 5	Ecological PHD: Protect Wetlands + Avoid Slopes and Adverse Geology	TBD	Y	Envision
S	C	Poly-Credit 6	Ecological PHD: Biodiversity, Habitat + Soil	TBD		LEED Envis

EW ENERGY, WATER + FOOD

S	C	Poly-Req 1	Minimum Water Efficiency + Resilient Water and Landscapes	Required	Y	LEED
S	C	Poly-Req 2	Minimum Energy Efficiency + Atmospheric Impacts	Required	Y	LEED
S	C	Poly-Credit 1	Plan For Rainwater Harvesting , Resilient Landscapes + Food Production	TBD	Y	RELI
S	C	Poly-Credit 2	Plan the Site and Orientation For Sun + Wind Harvesting, Natural Cooling	TBD	Y	Multiple
S	C	Poly-Credit 3	Water Use Reduction, Near Zero / High Efficiency Water Flows and Resilient Landscapes	TBD	Y	LEED RELI
S	C	Poly-Credit 4	Energy Optimization, Near Zero / Carbon Neutral, Net Zero, Net Positive Energy Flows	TBD	Y	Multiple
S	C	Poly-Credit 5	Edible Landscaping, Urban Agriculture + Resilient Food Production	TBD	Y	RELI
S	C	Poly-Credit 6	Reduced Site Environmental Impacts: Lighting, Heat-Island, Airborne Toxins	TBD	Y	LEED Envis

MA MATERIALS + ARTIFACTS

S	C	Poly-Req 1	Minimum Material Effectiveness + Life Cycle Planning	Required		Multiple
S	C	Credit 1	Safer, Non-Toxic Materials (SMaRT or equivalent Certified)	TBD	Y	RELI
S	C	Credit 2	Material + Artifact Effectiveness: Full Life Cycle Design for durability, adaptability, flexibility	TBD	Y	Adapted Autodesk
S	C	Credit 3	Material + Artifact Effectiveness: Design for Disassembly, Reuse, Recycling + Composting	TBD	Y	Adapted AutoDesk
S	C	Poly-Credit 4	Material Effectiveness: Use Recycled Content Materials, Salvaged Materials + Local Materials	TBD		LEED
S	C	Credit 5	Use Legally Logged Wood from Ecologically Managed Forests (FSC Certified)	TBD	Y	RELI LEED
S	C	Credit 6	Reduce Net Embodied Energy + Carbon, Water and Toxins	TBD	Y	ADAPTED LEED SMART
S	C	Poly-Credit 7	Divert Waste from Landfills, Reduce Excavated Soils Taken from Site	TBD		LEED Envis

APPLIED CREATIVITY AND CONTEXTURAL FACTORS FOR RESILIENCY

AC Applied Creativity, Innovation + Exploration

S	C	Poly-Credit 1	Applied Creativity in Resiliency + Integrative Design			
S	C	Poly-Credit 2	Contextual Factors + Project Responsive Topics			
S	C	Poly-Credit 3	Exemplary Performance			

