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Altri autori (Persone)	DuncanChris <1962->
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Nota di contenuto	Sustainable Renovation: Strategies for Commercial Building Systems and Envelope; Contents; Acknowledgments; Preface; Chapter 1: Introduction; Sustainability Defined; The Urgency of Sustainability in Buildings; The Importance of Existing Buildings; Renovation Contrasted with Replacement; Facility Management and Incremental Renovation; The Benefits of Sustainable Renovation; Health and Comfort; Economic Returns; Reduction of Climate Change Impact; Chapter 2: Whole Building Design; Introduction; Existing Building Context; Climate and Function; Building Energy Simulation Models Testing and Benchmarking PerformanceUnderstanding Existing Building Strategies; Daylight; Ventilation; Permanent Materials; Building Envelope; Building Systems; Modern Building Code Implications; Chapter 3: Facility Management Upgrades; Introduction; Immediate Improvement; Behaviors; Testing and Analyzing Performance; Retrocommissioning; Lighting; Plug Loads; Heating, Ventilating, and

Air-Conditioning; Water Use; Beyond Energy-Green Operations and Maintenance; Indoor Environmental Quality; Regional Issues; Putting Your Program Together; Chapter 4: Building Envelope Redesign; Introduction
Air Infiltration LossesInsulation Strategies; Cold Climate; Humid Middle Latitude Climate; Hot Humid Climate; Hot Dry Climate; Continental Climate; Pre-War Buildings; Thermal Mass and Climate Zones; Masonry Wall Design; Window Replacement and Shading; Roof Structure and Insulation; Roofing; Mid-Century Modern Buildings; Curtain Wall Replacement, Modification, and Shading; Insulation Options; Window Replacement; Roofing; Late Modern Buildings; Introducing Daylight; Correcting Roof Structures and Slope; Insulation Options; Window Replacement; Roofing; Chapter 5: Building Systems Replacement Building System NeedsThermal Comfort; Water Use; Light; Building Controls and Environmental Responsiveness; Pre-War Buildings; Renovation or Replacement of Steam and Hydronic Systems; Improving Ventilation and Fire Safety; Restoring or Improving Daylighting; Water Saving Strategies; Electric Power and Controls Replacement; Mid-Century Modern Buildings; Renovation or Replacement of Hydronic Systems; Creating New Passive Ventilation Options; Improving or Replacing Forced Air Heating, Ventilation, and Air-Conditioning; Restoring or Improving Daylighting; Water-Saving Strategies
Electric Power and Controls ReplacementLate Modern Buildings; Strategies for Deep Floor Plates; Creating New Passive Ventilation Options; Improving or Replacing Forced Air Heating, Ventilation, and Air-Conditioning; Restoring or Improving Daylighting; Water-Saving Strategies; Electric Power and Controls Replacement; Systems Replacement Summary; Chapter 6: Building Materials; Environmentally Beneficial Products; Rating Systems and Lifecycle Assessment; LCA Tools; Recycling, Salvage, and Reuse; Resource Efficiency; Reduction in Operational Energy and Waste; Low-Emitting Materials
""Natural"" Materials

Sommario/riassunto

The complete resource on performing sustainable renovations for both Historic and modern existing buildings This forward-looking and insightful guide explores how the sustainable renovation of existing buildings presents great opportunities for initiating extensive changes in the performance of the built environment. Great examples of existing building upgrades are examined, illustrating how to do sustainable renovations, along with current design approaches for radically improving the functionality of existing prewar, postwar, and late modern buildings. Sustainable Renovation saves i