

# Topic: Principles for “Sustainable Communities”

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## Principles for Sustainable Communities

### Policy Statement:

The American Institute of Architects California Council (AIACC) supports the development of sustainable solutions at a continuum of scales; from global, national, state and regional, to community and site planning, to urban and architectural design. To help promote implementation of sustainable urban design, sustainable urban design principles and practices should be incorporated into required General Plan Framework and Zoning Codes.

### Related National AIA Policies

1. Comprehensive Energy
2. Environment and Architecture
3. Sustainability
4. Livable Communities
5. Urban Design

### Related AIACC Policies

1. Incentives for Investing in Livable Communities

### Policy Background:

Architects work to improve our environment and society in many capacities – public, private, education, advocacy – and in a continuum of scales; from global, national, state and regional, to community and site planning, to urban and architectural design. Buildings and construction consume 68% of US electricity, contribute 48% of greenhouse gas emissions, and generate 65% of our solid waste. [AIA -2007], and much of the developing world is following suit. Planning and urban design decisions at all levels impact vast amounts of energy, resources and lifestyles.

The AIACC believes that it is incumbent on all California Architects, designers and planners to embrace sustainable design and practice strategies, to gain the inherent and cumulative benefits possible, and to ensure future generations inherit a viable and healthy ecosystem - built & natural.

### Policy Principles, Issues and Positions:

#### 1. General Sustainable Principles:

- Zero to minimal wastes: reuse/repair; ‘waste’ = resource/energy
- Zero to minimal permanent impacts on: air quality; water; endangered habitat, flora or fauna
- Zero emissions or pollutants
- Cradle to Cradle philosophy including: maximize or exclusive use of renewable energy and utilization of closed loop recycling.
- Prioritize life cycle costing and analysis; not simply first- costs.

#### 2. Regional and Urban Design Sustainable Principles:

“The correct study site is always bigger than the project boundary.”

- **Designate** regions of distinct cities/towns with green in between.
- **Incorporate** new “Eco-cities/towns” that employ superior urban design, best sustainable practice, and reinforce planned regional growth.
- **Coordinate** regional development, public transportation systems, and infrastructure.
- **Re-use** and mitigate already disturbed/developed sites; brown fields and gray fields.
- **Avoid** flood plains, wetlands, steep slopes.
- **Conserve** habitat, water bodies, topsoil, food production and forest lands.
- **Restore** damaged habitat, wetlands, natural features; “site-repair”.
- **Reduce** the developments physical and eco-logical footprint.
- **Infill**, Re-develop and/or build adjacent to existing fabric, or within planned new cities/towns, to minimize new infrastructure.

#### 3. Issue: Well-planned and fully integrated transportation networks are crucial to the development of sound, sustainable urban design:

- **Implement** high speed rail as the inter-city transport of future.
- **Reinforce** public transportation and transit oriented development (TOD), especially to major job centers.
- **Establish** public transportation networks and routes as the primary armature for land use & mobility.
- **Ensure** a complete and looped pedestrian and bike network/connectivity.
- **Establish** auto and service access via an efficient, yet minimal “gray network” of rational street types and connectivity.
- **Provide** a range of mobility options to all users.
- **Establish** progressive transportation management techniques: T.D.M.’s, car-shares; van-pool link-ups; district shuttles, etc.



**4. Issue: Great neighborhoods are the key to the success of the community and the region.**

- **Create** complete and integrated neighborhoods, directly linked to others.
- **Employ** mixed-uses/activities, especially at the “neighborhood centers” and at transit stops.
- **Create** a “*green network*” of diverse public parks, plazas and passive open space, providing recreation, linked by trails, paths and sidewalks.
- **Combine** compact, mixed-use projects and re-development, with plentiful green space and public realm.
- **Ensure** a range of schools, public safety and other public facilities at accessible, strategic locations.
- **Emphasize** public squares/parks as an organizing center of neighborhoods, civic life and facilities, not residual or peripheral.

**5. Issue: Inspired urban design at the neighborhood scale is important to the quality of life for all inhabitants.**

- **Locate** a range of housing types and prices in neighborhoods.
- **Co-locate** jobs with housing and vice versa.
- **Minimize** parking footprints and parking floor area.
- **Minimize** impervious surface areas; use natural filtration.
- **Ensure** streets are walkable and pedestrian friendly.
- **Optimize** green/cool roofs, trees and landscape to reduce heat islands.
- **Provide** community gardens and an edible landscape.
- **Minimize** grading, site disturbance and soil export.

**6. Issue: Buildings should be planned and designed to create a vibrant public realm while responding to natural and built context:**

- **Prioritize** and preserve the shared, public realm, over quasi-public or private spaces; and the pedestrian experience over vehicular convenience.
- **Use** buildings to define, energize and provide security to dynamic public places and features.
- **Emphasize** and locate public buildings, parks and facilities as expressions of ecological responsibility, civic pride and identity.
- **Re-use** the energy and resources embodied in viable existing buildings; preservation and adaptive use of heritage structures.
- **Locate** to reward transit users and celebrate stations and stops.
- **Ensure** equitable access to day lighting, solar gain, and ventilation breezes.
- **Consider** district-scale utilities, co-generation facilities, and storm treatment.
- **Respect**, conserve and integrate natural habitat/features.

**Conclusion**

**Sustainable urban design enriches and sustains the economy while improving quality of life for all:**

- **Encourage** a high level of coordination between communities and jurisdictions, using a watershed/bio-region approach.
- **Invest** more in sustainable testing/research, best practices, and education/outreach.
- **Transform** a consumption/waste-based, energy intensive economy, to a steady-state model, recognizing the ecological carrying capacity.
- **Deeper appreciation** for natural and built heritage, and it's inter-dependence.
- **Reduced costs** for utility, maintenance, and long-term operating costs for buildings.
- **Reduced pollution**, storm runoff, treatment plants, and associated costs.
- **Reduced costs** for physical infrastructure & emergency services and associated taxes.
- **Higher tenant satisfaction**, customer loyalty and investment returns.
- **'Quadruple Bottom Line'**: Ecological – economic - social and cultural/aesthetic.
- **More productive, healthy, active and fulfilled** students, workers and citizens (higher test scores, improved worker productivity, etc.).
- **Reduces climate impact**; minimizes resources and energy consumption; and preserves essential habitat, species and eco-systems for future generations.
- **A built environment in harmony with nature**, that satisfies essential needs with equity and common purpose, and inspires pride and cultural optimism.

**More involved, participatory and engaged society for a stronger democracy.**