Resources & References

BEST PRACTICES

This chapter provides best practice references that are intended to be used as resources for the implementation. They support both the big picture ideas of the Framework for the Future and Key Initiatives in Chapter 3, as well as the more specific goals, objectives, and action strategies in the plan elements address in Part Two of the General Plan document.

In general, the Best Practices included are a specific representative reference intended to be just one of several resources for a more comprehensive topic. While many of the Best Practices are applicable to many different contexts, others have been included for the specific context and associated opportunities, as well as potential challenges, of Providence City.

SUSTAINABLE URBAN DEVELOPMENT TOOLKIT

Urban Development: Sustainable, livable communities are built on the principles of interconnected green space, multi-modal transportation, and mixed-use development. Connections are made through an integrated network of sidewalks, trails, bike lanes, transit stops, and streets. A variety building uses including, commercial, institutional, educational, and housing are readily accessible. Following these practices creates not only an environmentally sustainable city, but a healthier population, both physically and socially.

More information found at: ***www.asla.org/sustainableurbandevelopment.aspx***

HEALTHY + LIVABLE COMMUNITIES TOOLKITS

The American Society of Landscape Architects (ASLA) offers several toolkits on how to create a better built environment. Toolkits are how theories are put into practice. Each "tool" in a toolkit is a best practice. Three of their toolkits—Sustainable Transportation, Healthy and Livable Communities, and Sustainable Urban Development—are applicable for Providence. Each toolkit is divided into the following sections:

- Organizations
- Resources
- Research
- Projects

More information found at: ***www.asla.org/livable.aspx***

SUSTAINABLE TRANSPORTATION TOOLKIT

Transportation: The character of transportation corridors determines the form, pattern and sense of place in communities. Transportation infrastructure, such as roads, intersections, alleys, and parking lots, together account for 20-40% of urban land. Sustainable transportation follows best practices for transportation that integrates driving, biking, and walking with the natural environment to create multi-modal systems that are safe, beautiful, and comfortable.

More information found at: ***www.asla.org/sustainabletransportation.aspx***

CONSERVATION SUBDIVISION

Conservation subdivisions are a method of managing development in such a way to preserve open space within and around a residential subdivision. Sometimes equated as "golf course communities without the golf course", conservation subdivisions cluster home developments in a more compact arrangement. The developer is able to maintain the same number of parcels, but at a smaller scale, thus allowing communal open space for the residents. Ideally conservation subdivisions should be designed to complement a larger network of green infrastructure. A well-designed conservation subdivision will maintain contiguous blocks of open space that connect to open space on adjacent parcels. There are a number of short term and long term benefits to this method of development. These include:

- Shorter runs of utilities
- Less roads to construct and maintain
- Reduce pavement area/reduce stormwater runoff
- Improved marketability/more desirable for future homeowners with guarantee that open space will remain undeveloped
- Homes appreciate faster and sell for higher prices than traditional subdivisions
- Environmental benefits: reduces runoff and pollution, habitat protection, preservation of wildlife corridors, biodiversity

More information found at:
http://conservationtools.org/library_items/349-Conservation-Subdivision-Design-Handbook
www.landchoices.org/conservationsubs/consubs_pdfs/ggbrochure2009.pdf

WALKABLE AND LIVABLE COMMUNITIES

The success of creating a walkable, pedestrian focused community is significantly affected by building placement. Failure to do so often results in the post 1950s standard of suburban sprawl, where the automobile is given precedent, creating vast landscapes of parking lots dotted by disconnected box store development. By identifying five crucial areas of the urban form, proper treatment to these components can result in an attractive, accessible, and desirable city environment. Best practices for building placement identify the following components for consideration:

Edges: Well-designed edges, such as buildings that line the sidewalk, provide a sense of enclosure and define the space for the pedestrian. Street trees along edges are an important component in created a satisfying experience for pedestrians.

- Sidewalks: Sidewalk width should accommodate a variety of uses, including strolling, standing, sitting, as well as quick moving pedestrians.
- Parking: Place parking on the street, or in lots that are discreetly screened through careful building placement.
- Buildings: Quality building design, including not only form, but material selection and visibility from within and outside the building enliven the street edge and create an attractive urban environment.
- Character: Buildings should create an identity and sense of place for the location it is found in.

More information found at: *www.walklive.org/walkability/*

SMART GROWTH IN SMALL TOWNS & COMMUNITIES

Not every small town is alike; some are small communities struggling to maintain a healthy population or economy, while other small towns experience the opposite problem of too much growth too quickly, therefore losing the "small town" qualities that were the initial appeal for many of the community. The Environmental Protection Agency has created a library of resources and strategies for small down development that will help regulate growth and maintain character. Included in these guidelines are:

- Land use planning to focus growth in town centers and achieve a walkable community
- Natural landscape protection, enhancements for recreation, and environmental protection
- Walking, biking, and public transit alternatives appropriate to a small community

More information found at: *www.epa.gov/smartgrowth/smart-growth-self-assessment-rural-communities*

GREEN INFRASTRUCTURE

In response to the unique climate conditions of the semi-arid west, the Environmental Protection Agency has created a series of guidelines for low-impact development and green infrastructure that responds to Utah's water needs. The principles of Low Impact Development (LID) include methods of building design and community development in a way of keeping storm water runnoff as uncontaminated as possible. This is done to slow storm water to mitigate erosion and flooding, while also allowing the stormwater to soak in and require aquifers. Additionally these practices treat polluted stormwater and prevent contamination in nearby aquifers, streams, and waterways. This is achieved through the development of green infrastructure in the community. The methods and implementation guidelines for the various green infrastructure alternatives include:

- Green Roofs (more appropriately known as living roofs or eco-roofs)
- Rain Gardens
- Bioswales/Bioretention Cells
- Detention/Retention Ponds
- Porous Pavements
- Rainwater Harvesting

More information found at: *www.epa.gov/region8/green-infrastructure*

FORM-BASED CODE

Form-Based Code provides an alternative solution to the standard, yet not necessarily effective model of zoning, by integrating uses, allowing for more efficient and vibrant community design. Manuals have been created for the use of city leaders as a means of implementing a Form-Based Code, appropriate to their municipality. Some elements of a Form-Based Code include:

- Regulating Plan: A plan that defines the locations for which different building standards apply.
- Public Standards: Defines the standards of design for components found in the public realm such as, sidewalks, street trees, furniture, etc.
- Building Standards: Sets out the expectations as related to configurations, building function, and features.

Additional parameters that would be incorporated in the document include architectural, landscape, environmental resource, and signage standards.

More information found at: *www.formbasedcodes.org/*

NEIGHBORHOOD DEVELOPMENT CERTIFICATION

Leadership in Energy and Environmental Design (LEED) Certification has extended beyond sustainable building design to now include standards for better neighborhood development (LEED-ND). These standards award sustainable practices that promote better overall health, quality of life, and enhance the natural environment. LEED standards can be utilized when revising new codes and regulations for cities. Some categories eligible for credit include:

- Smart Location and Linkage: Diminish the impact of sprawl on the natural environment by consideration of location of development and available access to alternative transportation.
- Neighborhood Pattern and Design: Creating more efficient, vibrant, and healthy communities by creating walkable, mixed-use neighborhoods.
- Green Infrastructure and Buildings: Creating buildings and infrastructure in such a way that reduces energy and water use, reuses existing structures, and utilizes more sustainable materials in the construction of new or repurposed buildings.

More information found at: *www.usgbc.org/guide/nd*

MODEL SMART GROWTH CODES

The American Planning Association (APA) report provides planners and policy makers with a tool to make better land development decisions that ultimately result in more compact, walkable, mixed-use cities. The report enables policy makers with a means of updating and creating new regulations for smarter community growth. Multiple models of smart growth ordinances are explored in the document, providing users with several options for framing desired growth. Some of these ordinances include: Mixed-Use Zoning, Town Center Zoning, Affordable Housing Density, Transfer Development Rights, Transit Oriented Development, and Form Based Code Overview.

More information found at: *www.planning.org/research/smartgrowth/*

BIKEWAY DESIGN GUIDE

Similar to the Urban Street Design Guidelines, the Bikeway Design Guide provides municipalities a clear and efficient manual for creating safe and enjoyable streets for bicyclists. Given the recognized value of building accessible roads for cyclists, this manual provides an effective strategy for such implementation. The manual seeks to overcome the deficiencies of standard practices set out by American Society of State Highway and Transportation Officials and invite cities to create context appropriate solutions for their city. The guide sets out design guidelines based on three levels: Required, Recommended, and Optional. Understanding the complex nature of individual locations, these guides provided planners, engineers, and designers with a malleable framework, allowing them to create a bicycle friendly environment that is appropriate to their residents' needs.

More information found at: *www.sustainablesites.org/*

SUSTAINABLE SITES INITIATIVE

The Sustainable Sites Initiative (SITES) is a is an interdisciplinary effort by the American Society of Landscape Architects, the Lady Bird Johnson Wildflower Center at The University of Texas at Austin and the United States Botanic Garden to create voluntary national guidelines and performance benchmarks for sustainable land design, construction and maintenance practices.

Similar to LEED, SITES is a rating system for sustainable landscapes. As urbanization and development continue, that growth "profoundly impacts ecological systems as well as the health, safety, and welfare of our communities." Buildings, infrastructure and other components of a city should not be built without regard to their impacts on ecologically resources and the quality of life of a community. The SITES rating system consists of 10 areas. Pre-requites are required in 9 of the 10 areas before a project is eligible for certification. Certification levels vary depending on how many points a project achieves. Like LEED, SITES is administered by Green Business Certification Inc. (GBCI).

More information found at: *www.sustainablesites.org/*

STREET DESIGN GUIDELINES
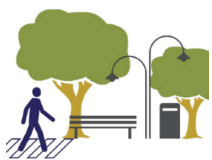
The Urban Street Design Guide is a manual created for municipalities to utilize as a blueprint for higher quality and efficient street design. Given the prolific number of streets in most American cities, the guide seeks to outline a clear vision for street development and how to best implement quality design practices. Given the principle that each city is different and presented with its own unique challenges and opportunities related to their streets, the manual provides three levels of guidance: Critical Features, Recommended Features, and Optional Features. Critical Features consist of design elements that are mutually agreed upon as unquestionably necessary for success. Recommended Features suggest implementation of elements that provide added value and are seen a certainly beneficial, though not absolutely necessary. The final level of guidance, Optional Features, set out situational dependent suggestions that could enhance the street network, provided they are utilized in the appropriate scenario.

More information found at: *www.nacto.org/publication/urban-street-design-guide/*