

Kahoma Residential Subdivision Sustainability Plan

Introduction. Act 181, 2011 Session Laws of Hawaii, establishes sustainability as a State priority by incorporating the Hawaii 2050 sustainability plan definitions, guiding principles and goals into HRS § 226-108. Consistent with the sustainability guidelines, Petitioner prepared a Sustainability Plan based on the *Healthy Community Design Smart Growth Checklist* prepared by the Hawaii State Department of Health, Built Environment Working Group.

Planning and Land Use Context. The Project Site is a remnant portion of former sugar cane lands created by the Kahoma Stream Flood Control Project. Construction of the Kahoma Stream Flood Control Channel isolated the Project Site from agricultural lands which are located north of the Kahoma Stream Flood Control Channel. Subsequently, lands abutting the Flood Channel were urbanized and developed as part of the Lahaina Business Park. Lands to the south and east of the Project Site are single family residential areas which were developed many years ago. To the west of the Project Site, the land was developed as a multi-family residential area. Thus, the Project Site is an underutilized vacant parcel of land surrounded by urbanized areas. As such, the Project Site is considered in-fill development. This in-fill location, combined with the relatively small size (16.7 acres) of the Project Site and the goal to provide affordable workforce housing, establishes the context for the Kahoma Residential Subdivision Sustainability Plan.

Project Goals and Sustainability Strategies. The goal of the Kahoma Residential Subdivision Project is to create a neighborhood well integrated with the surrounding community, providing the residents the ability to live, work, and play in proximity to shopping areas, job centers, schools and community amenities. A range of single family house types targeted to West Maui's workforce population will be made available by the Project.

The following is a summary of the major sustainable planning strategies for the Project:

- Connectivity and compatibility with existing infrastructure (roads, water and wastewater).
- Connectivity and compatibility with existing single-family neighborhoods to the south. As the existing neighborhoods have limited mobility options with only one major roadway into and out of the area (Lahainaluna Road), providing a connecting roadway to the business areas to the north of the Project will benefit

both the residents of the Project and the residents of the residential neighborhoods to the south.

- Connectivity to business and shopping areas to the north.
- Incorporation of an on-site recreational park.
- Provision of multiple options for mobility (pedestrian, bicycle and bus transit)
- Design of structures within the Project to reflect the context of abutting single-family neighborhoods.
- Incorporation of traffic calming measures in roadways within the Project.
- Minimization of impacts from increased runoff with on-site retention facilities.
- Partnering with Habitat for Humanity to provide a range of affordable housing options.

Attached is the completed *Healthy Community Design Smart Growth Checklist* for the Kahoma Residential Subdivision. The checklist identifies the specific strategies integrated into the Project. These strategies will be supplemented as the Project progresses through its detailed design process, incorporating comments from the project team and designers with consideration for technological enhancements, governmental requirements, market conditions, consumer acceptance and a balancing of the added costs for sustainability measures against resulting increased cost of development.

In summary, the location of the Kahoma Residential Subdivision adjacent to existing urban areas supports sustainable design principles by shortening necessary trips for everyday needs and minimizing use of petroleum fueled vehicles. Establishing connectivity with surrounding neighborhoods, shopping and business areas through use of bikeways and sidewalks encourages non-vehicular travel and promotes fitness through safe walking, biking and other active transportation both for residents of the Kahoma Residential Subdivision and for residents of neighborhoods to the south. Including a neighborhood park in the Project encourages recreation and healthy lifestyles. Existing natural topography of the Project Site results in relatively minor topographical changes through excavation or fill activities. This in turn lessens energy needs during construction. Proximity to existing infrastructure and utilities also lessens the construction costs and energy consumption, providing an efficient means of meeting future needs of the Project. Lastly, the size of the single family lots will allow for incorporation of home gardens by the residents of the Project, promoting the use of Hawaii's natural resources.



Healthy Community Design Smart Growth Checklist

The Hawaii State Department of Health, Built Environment Working Group, recommends that State and County Planning Departments, developers, engineers and other professionals apply healthy built environment principles when they plan or review new developments or redevelopments. Government agencies should lead by example in their own projects. This checklist focuses on public health elements that would be integrated into land use and community planning and design. We ask you to share this list with others to increase community awareness of how to design healthier communities.

Healthy Built Environment Principles:

- Promote fitness through safe walking, biking, and other active transportation through connectivity of planned bikeways and paths with existing and adjacent networks, designing travelways that connect multiple destinations and encourage non-vehicular travel.
- Promote clean air by making transit convenient and comfortable, minimizing petroleum fueled car and truck use, and minimizing fossil energy use.
- Promote a healthy environment by buying green products, reducing, reusing & recycling, and minimizing waste in construction, operations, and demolition.
- Promote fitness and health by encouraging home and community gardens

Healthy Built Environment Best Practices:

Close Proximity to Existing/Future Development and Infrastructure

- Close to roadways, water and sewer service
- Located within growth/redevelopment area
- Walking distance to transit
- Next to or includes food/convenience/retail/services
- Next to or includes employment, recreation, entertainment
- Wide range of housing opportunities

Mix and Balance of Uses

- Multi-use buildings
- Multi-use districts
- Provide employment, housing, neighborhood serving retail/service
- Provide civic, educational, cultural recreation
- Provide street-level uses that maximize pedestrian activity

Site Optimization and Compactness

- Maximize allowable floor-area ratio
- Maximize dwelling unit/acreage density
- Maximize usable open space for gathering and recreation
- Maximize usable open space for home and community gardens
- Locate buildings at minimum setbacks or at "build-to" lines

Accessibility and Mobility Choices Provide:

- Shelters at transit stops and store fronts (e.g. awnings or arcades) and along paths and lanes.
- Pedestrian/bicycle/stroller/wheelchair facilities for and on transit
- Sidewalks, preferably on both sides of the street
- Walking and bike paths separate from roads (e.g. in greenways)
- Bike lanes in roads marked with paint and good signs

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Accessibility and Mobility Choices Provide:

- Shared paths & sidewalks marked to separate walkers and bicyclists. (paint, texture, signs)
- Bike racks, stroller storage
- Direct street connections, such as well-marked paths to front doors
- Parking lots & garages behind, above, or below buildings
- Connections to existing or planned parks, open space
- Raised or highly visible crosswalks near schools (paint and signs)
- Ramps, depressed curbs, and periodic breaks in curbs for people with disabilities
- Meet all ADA standards for accessibility

Healthy Designs for Indoor Areas

- Pleasant, wide central stairs provided to encourage walking
- Elevators stop on alternate floors (except ADA elevator)
- Bike/luggage/stroller ramps on stairs
- Indoor bicycle parking provided
- Showers and lockers provided at work sites

Community Context, Site Design, and Visual Appeal

- Preserve or re-use existing buildings/structures when feasible
- Incorporate buildings reflect local historic building materials, styles and/or design
- Include a map of the neighborhood and nearby street connections is included with plans
- Scale and mass of buildings relate to existing neighborhood structures
- Provide open access to all adjacent natural features such as coasts, streams, river-ways, mountains, forests, hiking, trails
- Create coastal, stream, and forest **green-ways** with walking and bike paths to town/village centers, parks, other destinations
- Insure automobile access makes minimum impact on pedestrian/bicyclist experience

- Create or enhance community spaces such as plazas, squares, parks, etc.
- Include open spaces and trails that provide opportunities for physical activity
- Provide play equipment in parks for children
- Include pedestrian/bicyclist-oriented landscaping and lighting

Fine - Grained Block, Pedestrian and Park Network

- Create street networks based on a grid system; avoid cul de sacs
- Incorporate short block lengths
- Design for traffic calming measures in and around residential areas
- Design pedestrian/bicycle systems to link with civic, cultural, retail/service destinations, and other paths
- A variety of park types and sizes

Environmental Quality

- Recycle materials from deconstruction of existing infrastructure
- Maximize energy efficiency of buildings
- Use green building materials when feasible
- Use energy conservation equipment, systems and/or programs
- Use water conservation systems
- Use rainwater on-site - provide storage, infiltration, irrigation
- Use on-site wastewater treatment & reuse or disposal where appropriate
- Use solar energy for heating and electricity
- Use wind energy
- Minimize artificial A/C, energy use, GHG emissions
- Protect, preserve and/or restore any on-site natural features such as steep slopes, wetlands, watersheds
- Create and maintain buffers around natural areas
- Plant native Hawaiian species
- Establish a recycling program for residents/tenants

Variety and Range

- Include a variety of building types and styles
- Include locally owned businesses in project
- Provide a wide-range in pricing structure of units that will be sold or leased
- Insure at least 20% of the units will be priced for very low and moderate incomes
- Provide a variety of densities in both residential and commercial employment units
- Vary set backs
- Vary residential lot size
- Address need for community facilities

Re-Use and Redevelopment Options

- Install utility lines along access roads
- Install utility lines underground
- Master plans to show future/projected streets, blocks and development sites
- Include building types and structures that are adaptable to different uses

Process Collaboration and Predictability of Decisions

- Conduct pre-design workshops/Charrettes with stakeholders, agencies, and the public
- Provide public outreach regarding, input, project vision, goals, and timetable
- Provide a project model that serves as a visual representation of the project
- Contact State and county staff (planning, public works, etc) in all key departments in the planning phase of project development
- Develop Public/Private partnerships
- Align design plans with existing community and general plans