

# UNIVERSITY OF THE NATIONS, KONA, INC. 2020 MASTER PLAN UPDATE

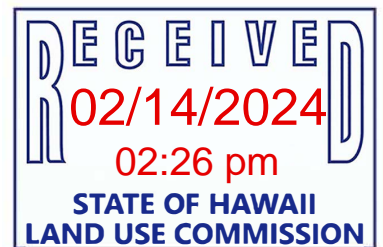
DRAFT ENVIRONMENTAL IMPACT STATEMENT  
Volume I: DEIS



APPLICANT:



University of the Nations, Kona, Inc.  
75-5851 Kuakini Highway  
Kailua-Kona, HI 96740



PREPARED BY:



111 S. King Street, Suite 170  
Honolulu, Hawai'i 96813

FEBRUARY 2024



# **UNIVERSITY OF THE NATIONS, KONA, INC. 2020 MASTER PLAN UPDATE**

Kailua-Kona, Island of Hawai'i, Hawai'i

TMK (3) 7-5-010:085 and (3) 7-5-017:006

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This environmental document was prepared pursuant to Hawai'i Revised Statutes, Chapter 343,  
Environmental Impact Statement Law and Hawai'i Administration Rules, Chapter 11-200.1,  
Environmental Impact Statement Rules.

**FEBRUARY 2024**



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## List of Abbreviations

AA	Archaeological Assessment
ADA	American with Disabilities Act
AIS	Archaeological Inventory Survey
ALISH	Agricultural Lands of Importance to the State of Hawai'i
ASEA	Aquifer Sector Area
ASYA	Aquifer System Area
BMPs	Best Management Practices
CAB	Clean Air Branch
CalEEMod	California Emissions Estimator Model
CDP	Census Designated Place
CERCLA	Comprehensive Environmental Response Compensation, and Liability Act
CO	Carbon Monoxide
CIA	Cultural Impact Assessment
CWB	Clean Water Branch
CWPP	Community Wildfire Protection Plan
CWRM	Commission on Water Resource Management, State of Hawai'i
CZM	Coastal Zone Management Program, State of Hawai'i
CZMA	Coastal Zone Management Act
dBA	Decibels A
DEIS	Draft Environmental Impact Statement
DLNR	Department of Land and Natural Resources, State of Hawai'i
DNL	Day Night Average Sound Level
DOE	Department of Education, State of Hawai'i
DOFAW	Department of Forestry and Wildlife, State of Hawai'i
DOH	Department of Health, State of Hawai'i
DOT	Department of Transportation, State of Hawai'i
DPW	Department of Public Works, County of Hawai'i
DWS	Department of Water Supply, County of Hawai'i
EA	Environmental Assessment
EIS	Environmental Impact Statement
EISPN	Environmental Impact Statement Preparation Notice

EPA	U.S. Environmental Protection Agency
ERP	Environmental Review Program
EU	Excavation Units
FEMA	Federal Emergency Management Area
FHA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FM	Fentometer
FONSI	Finding of No Significant Impact
FTE	Full-Time Equivalent
GHG	Greenhouse Gases
GPD	Gallons per Day
GPM	Gallons per Minute
HAR	Hawai'i Administrative Rules
HE	Hawaiian Electric
HEER	Hazard Evaluation and Emergency Response, State of Hawai'i
HFD	Hawai'i Fire Department, County of Hawai'i
HRS	Hawai'i Revised Statutes
HTCO	Hawaiian Telcom
HUD	Housing and Urban Development
H <sub>2</sub> S	Hydrogen Sulfide
IBC	International Building Code
IPCC	Intergovernmental Panel on Climate Change
Kv	Kilovolt
LEED	Leadership in Energy and Environmental Design
LID	Low Impact Development
LOS	Level of Service
LSB	Land Study Bureau, University of Hawai'i
LUC	Land Use Commission, State of Hawai'i
LUPAG	Land Use Pattern Allocation Guide
MAR	Mobility Analysis Report
MDU	Medium Density Urban
MGD	Million Gallons per Day
MPH	Miles per Hour

MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Sciences
NO <sub>x</sub>	Nitrogen Oxides
OHA	Office of Hawaiian Affairs, State of Hawai'i
O <sub>3</sub>	Ozone
PACIOOS	Pacific Islands Ocean Observing System, University of Hawai'i
Pb	Lead
Petition Area	62-acres of Land Purchased by University of the Nations, Kona, Inc.
PHRI	Paul H. Rosendahl, Inc.
PM <sub>2.5</sub>	Particulate Matter Smaller than 2.5 Microns
PM <sub>10</sub>	Particulate Matter Smaller than 10 Microns
PUC	Public Utilities Commission, State of Hawai'i
SDG	Sustainable Development Goals
SDWB	Safe Drinking Water Branch, State Department of Health
SMA	Special Management Area
SAAQS	State Ambient Air Quality Standards
SHPD	State Historic Preservation District
SLU	State Land Use
SLR	Sea Level Rise
SLRXA	Sea Level Rise Exposure Area
So <sub>x</sub>	Sulfur Oxides
So <sub>2</sub>	Sulfur Dioxide
SSSC	Side Street Controlled
TDFM	Travel Demand Management Plan
TDM	Transportation Demand Management
TMP	Transportation Management Plan
TEN	The Environmental Notice
TMKs	Tax Map Keys
TU	Test Units
T&C	Traditional and Customary Native Hawaiian Rights

UN	United Nations
University	University of the Nations
U of N Kona	University of the Nations, Kona, Inc.
USFWS	United States Fish and Wildlife Services
USGS	United States Geological Survey

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# Executive Summary

## ES.1 Summary of the Project

University of the Nations, Kona, Inc. (U of N Kona), a Hawai'i 501(c)(3) non-profit corporation that operates a mission-based educational institution (the University), was founded in 1978 at its present campus (Existing Campus) in Kailua-Kona on the Island of Hawai'i. U of N Kona is an innovative degree-granting training institution. It is globally networked, and collaborates with other non-traditional university-level educational campuses, recognized by the Global Accrediting Association. U of N Kona is one of approximately 600 locations with programs in over 90 languages around the world that offers transformational learning opportunities for emerging Christian leaders.

The Existing Campus identified by Tax Map Key (TMK) (3) 7-5-010:003 has been preparing followers for Christian services for over 40 years. Adjacent to the Existing Campus is the Petition Area identified by (TMKs) (3) 7-5-10:085 and (3) 7-5-17:006. Prior to 2018, various entities affiliated with the University, including the University's Benefit Corporation (Bencorp), held title to the Petition Area and prepared a plan that would generate revenue for the U of N Kona. The plan prepared by Bencorp included market-rate condominiums, a for-profit Pacific Cultural Center, which included an outside performance arena, a museum complex, a restaurant and shops, and a small educational facility. This formerly-proposed use, identified as the Hualālai Village Development Project, would not have been permissible under the State's Agricultural Land Use District designation (HRS §205-4.5) and required Bencorp to petition the Land Use Commission (LUC) for a district boundary amendment. In 2002, Bencorp filed a petition to reclassify the Petition Area from the Agricultural District to the Urban District, and on August 8, 2003, the Commission granted a boundary amendment for the former Hualālai Village Development Project (2003 Decision & Order).

Bencorp's plan for the Petition Area was never fully built out, and the Petition Area was formally transferred to AEKO Hawaii, another affiliate of the University. AEKO Hawaii formally transferred the Petition Area to the U of N Kona in 2018. Since acquiring the Petition Area, U of N Kona revised the land use plan for the Petition Area to allow for the expansion of the Existing Campus (the Master Plan Update) to meet the long-term vision of the U of N Kona. The Master Plan Update is driven by current and upcoming mission-based learning priorities and includes the addition of a new PK-12 school, university-level classroom spaces, athletic facilities, meeting facilities, and housing for students and staff members. Buildings and facilities have been strategically located throughout the Petition Area to improve campus circulation. Facilities that are anticipated to be utilized by the community have been located closer to the entrance along Kuakini Highway to provide the community with easier accessibility to those facilities. Additionally, relocating buildings and facilities will preserve the natural environment and reduce extensive grading. A detailed description of the Master Plan Update is provided in *Chapter 2*.

The Master Plan Update includes key infrastructure improvements, including the expansion of the existing on-site spine road that bisects the Existing Campus and Petition Area, the addition of a secondary access point off of Kuakini Highway and necessary roadway improvements, and other upgrades to the existing utilities. As part of the Master Plan Update, necessary improvements for water supply and distribution, wastewater management, and drainage will be completed. Buildings and facilities will be designed and constructed to meet applicable building code standards as set forth in Chapter 5 of the Hawai'i County Code. All necessary permits and approvals will be secured prior to the commencement of construction.

## **ES.2 Summary of Purpose and Need**

The purpose of the Master Plan Update is to revise the land use plan for the Petition Area to reflect and fulfill the long-term vision of the U of N Kona's faith-based mission. U of N Kona is embarking on a project to expand the Existing Campus and enhance its training programs to continue serving the Lord's mission by educating emerging Christian leaders. The Master Plan Update addresses current and projected space and activity needs at the U of N Kona as enrollment is projected to gradually increase over the next three planning phases. Once fully built out, the U of N Kona will provide an enhanced learning and training facility. See *Section 2.2* for further discussion.

## **ES.3 Summary of Alternatives Considered to the Planned Project**

A range of potential alternative actions could be contemplated for the U of N Kona's future. For this Draft Environmental Impact Statement (EIS) alternatives analysis, several categories of alternatives to the Master Plan Update are evaluated in *Chapter 3*, including the following:

1. No-Action
2. Alternative Development Density
3. Alternative Land Uses
4. Alternative of Deferral of the Proposed Action

The Master Plan Update is envisioned as an extension of the Existing Campus. The alternatives to the Master Plan Update considered were assessed based on their ability to meet future space and facility needs, and compliance with the conditions in the 2003 Decision & Order granting a State Land Use District Boundary Amendment from the Agricultural District to the Urban District. The following is a summary of the evaluation of the range of alternatives and potential impacts associated with alternative actions, which are discussed in-depth in *Chapter 3*.

### **ES.3.1 No-Action Alternative**

Under the "No Action Alternative," the Petition Area would remain in its current vacant state and no new buildings or facilities to support U of N Kona would be constructed. The "No Action Alternative" would not adequately address current and projected space, facility, and activity needs. Ultimately, housing in the nearby vicinity could be impacted by the overflow of students and staff members. Additionally, U of N Kona may be limited to the Existing Campus and would not be able to grow to its projected enrollment levels and would fail to meet the long-term vision of the U of N Kona.

If no action is taken, U of N Kona would not satisfy the conditions of the 2003 Decision & Order and may be at risk of the LUC involuntarily reverting the Petition Area to the Agricultural District. Furthermore, the "No Action Alternative" would not be consistent with the Petition Area's Land Use Pattern Allocation Guide (LUPAG) Map designation as described in the County of Hawai'i General Plan and the policies guiding future land use development in the Kona Community Development Plan, which identify the Petition Area as within the "Urban Core".

### **ES.3.2 Alternative Development Density**

#### **Lower Density Development Alternative**

An alternative to the Master Plan Update is a lower density development alternative, which could entail developing Phase 1, Phase 1 and 2, or some other reduced version of the Master Plan Update.

Phase 1 would be of lower density than the full build out of the Master Plan Update, minimizing the overall use of the Petition Area. In comparison to the full buildout of the Master Plan Update, developing Phase 1 would result in an approximate 40% reduction in terms of building footprint in comparison to the full buildout of the Master Plan Update. Although Phase 1 would be of lower density than the full build out of the Master Plan Update, thereby minimizing the overall use of the Petition Area, Phase 1 would not accommodate future enrollment projections beyond the next 5-10 years.

Developing Phase 2 of the Master Plan Update alone is not a feasible option as it would not be provided with the proper support from Phase 1, including the infrastructure improvements proposed in Phase 1. Developing Phase 1 and 2 of the Master Plan Update would enhance the learning and training centers at the U of N Kona. Developing Phase 1 and 2 would result in an approximate 13% reduction in terms of building footprint in comparison to the full buildout of the Master Plan Update. Developing Phase 1 and 2 would increase the overall usage of the Petition Area by providing some of the needed space to accommodate future growth and also provide much needed athletic and meeting spaces in the greater Kailua-Kona region.

A “Lower Density Development Alternative” would reduce the overall scale and build-out of the Petition Area, which would reduce potential noise and privacy concerns to neighboring homeowners. However, because the Petition Area is not equipped with infrastructure, in order to support a “Lower Density Alternative”, infrastructure improvements such as a new sewer connection under Kuakini Highway and other improvements to provide water to the Petition Area would be required. Accordingly, a lower density alternative would require the same infrastructure improvements needed to support the full Master Plan Update but would not fully accommodate future growth over the next 30 years and would not fully optimize the Petition Area.

#### **Higher Density Development Alternative**

Planning the Petition Area to a greater density could include increasing the height and capacity of instructional buildings and dormitories or adding additional instructional buildings and dormitories beyond what is proposed in the Master Plan Update. Increasing the height and capacity of buildings and dormitories would infringe upon open space throughout the Petition Area and increase the footprint of the U of N Kona. As such, views and vistas may be impacted with larger buildings and additional infrastructure services would be needed to accommodate a greater capacity.

Developing the Petition Area to a greater density would allow the U of N Kona to carry a larger population on a per quarter basis. Increasing the population could potentially increase noise levels to an unacceptable level and put a strain on infrastructure services within the greater Kailua-Kona region. Furthermore, developing the Petition Area to a greater density would not comply with the LUPAG’s Map designation for the Petition Area.

### **ES.3.3 Alternative Land Uses**

#### **Consistency with the 2003 State Land Use District Boundary Amendment**

The plan for the Petition Area approved in the 2003 Decision & Order called for the development of the Hualālai Village condominiums, a multi-function cultural center, and a five-acre educational facility. Although previously approved by the LUC, the proposed use of the Petition Area was re-evaluated and a new plan in alignment with U of N Kona's long-term vision was crafted. Although the original plan approved in the 2003 Decision & Order would provide greater economic opportunities for U of N Kona, the original plan would not accommodate the U of N Kona's future enrollment trajectory and growth.

#### **Agriculture**

Another potential land use alternative evaluated for the Petition Area was agricultural use. Although U of N Kona currently operates a small farm and agricultural research facility on the Petition Area, the facilities' main purpose is to support education in nutrition, farming, and agricultural techniques, and is not intended to support large scale agricultural production. Additionally, according to the Land Study Bureau (LSB) classification, the soils located on the Petition Area are poorly suited for agricultural productivity. The Petition Area was granted a District Boundary Amendment from the State Agricultural District to the Urban District, and the U of N Kona may have to file a motion to revert the Petition Area back to the Agricultural District if widespread agricultural activity were to be pursued. Overall, pursuing agricultural opportunities on the Petition Area would not accommodate the U of N Kona's future enrollment trajectory and growth. Notably, the State Agricultural District designation is inconsistent with the County General Plan and Kona Community Development Plan, which designates the Petition Area within the "Urban Core".

### **ES.3.4 Alternative of Deferral of the Proposed Action**

Under the "Alternative of Deferral of the Proposed Action," the Master Plan Update would be deferred and the Petition Area would remain vacant and undeveloped despite the U of N Kona's need to expand its facilities to meet current and future enrollment projections. Similar to the "No Action Alternative", if the Master Plan Update is deferred, U of N Kona would not satisfy the conditions of the 2003 Decision & Order and may be at risk of the LUC involuntarily reverting the Petition Area to the Agricultural District. Furthermore, deferring the Master Plan Update would not be consistent with the Petition Area's LUPAG Map designation in the General Plan and the policies guiding future land use development in the Kona Community Development Plan.

Deferring expansion of the U of N Kona campus would not provide the needed space and facilities to support current and future enrollment. If U of N Kona defers any further action, public facilities and services including housing, schools, and recreational facilities in the nearby vicinity of the Petition Area may be strained. Deferring further action would be inconsistent with the 2003 Decision & Order and the County General Plan and Kona Community Plan, which help guide land use and development in the Kailua-Kona region.

## **ES.4 Summary of Impacts and Proposed Mitigation Measures**

Resources that may be potentially impacted by the Master Plan Update in the short- and long-term are identified in *Table ES-1* following this section. The table further identifies mitigation measures proposed to offset potential adverse impacts. In-depth discussion on each resource is provided in *Chapter 4*.

The Master Plan Update includes varying levels of activity ranging from clearing of existing vegetation, grading, excavation for building foundations, and construction of new buildings and associated utilities. Short-term construction related activity will generate short-term impacts on the environment. Potential short-term adverse impacts primarily relate to soil disturbance; dust and erosion during demolition and grading; increased noise during construction; and potential drainage and runoff during construction. Fiscal resources, labor, energy, and construction materials will be irretrievably committed to support construction of the Master Plan Update.

Fully built out, the Master Plan Update may generate some long-term adverse impacts to the natural and human environment, which will be mitigated to the extent reasonably possible and as required in accordance with law. Potential long-term impacts include effects on the following: drainage and runoff; archaeology, cultural and historic resources; noise; air quality; socio-economic conditions; and public infrastructure.

As part of the Master Plan Update, the Petition Area will be equipped with a new PK-12 school, university-level classroom spaces, athletic facilities, meeting facilities, and housing for students and staff members. Such improvements will provide much needed recreational facilities for the greater Kailua-Kona community as the U of N Kona intends to host various community events. A unified architectural theme will be established to ensure that the buildings are scaled to reflect a distinct sense of place. Landscaping will be carefully selected to reflect a Hawaiian sense of place. Xeriscape techniques may be implemented to complement the dry climate and pay tribute to Kona's agricultural past. Overall, implementation of the Master Plan Update will improve existing conditions at the Petition Area as it is currently overgrown, primarily with non-native vegetation.

In the long term, the Master Plan Update will expand urban growth and opportunities in the Kailua-Kona region, consistent with plans and policies guiding future urban opportunities. As identified in the General Plan, the LUPAG Map designation for the Petition Area is Medium Density Urban use (MDU). Furthermore, the Kailua-Kona Community Development Plan locates the Petition Area within the Kona Urban Area slated for future growth.

## **ES.5 Summary of Compatibility with Land Use Policies and Plans**

The Master Plan Update will serve as an extension of the Existing Campus and complement the existing urban environment surrounding the U of N Kona campus and in the greater Kailua-Kona region. The Master Plan Update will contribute to a wide range of benefits and will further a number of publicly-stated goals, objectives, and policies established by the State and County. In particular, the Master Plan Update is consistent with the LUPAG Map designation for the Petition Area in the General Plan and the Kona Urban Area identified in the Kailua-Kona Community Development Plan. *Chapter 6* contains an in-depth analysis of the relationship of the Master Plan Update to Federal, State, and County land use plans, policies, and regulatory controls.

**Table ES.1: Summary of Impacts and Mitigation Measures**

<b>Resources Affected</b>	<b>Potential Short-term Impacts</b>	<b>Potential Long-term Impacts</b>	<b>Mitigation and Best Management Practices (BMPs)</b>	<b>DEIS Section</b>
<b>Climate</b>	No adverse impact.	No adverse impact.	No mitigation measures required.	4.1
<b>Geology and Topography</b>	Land disturbing activities may result in soil erosion.	No adverse impact.	<ul style="list-style-type: none"> <li>• Obtaining grading, grubbing, and stockpiling permits as appropriate.</li> <li>• Obtaining a National Pollutant Discharge Elimination System (NPDES) permit.</li> <li>• Compliance with Hawai'i County Code Chapter 10.</li> <li>• Phasing of construction.</li> <li>• Balancing cut and fill material to minimize the need to import fill or export excavated material.</li> <li>• Implementation of BMPs, which may include, but not limited to, temporary sediment basins, temporary diversion berms or ditches, silt fences, dust screens, storm drain inlet protection, hydroseeding, stabilized construction entrances, truck and equipment wash-down areas, and periodic spraying of soils.</li> <li>• Following construction, permanent BMPs, which may include landscaping steep and open space areas and implementing "golf course" sumps, lava swales and injection wells, will be implemented.</li> </ul>	4.2
<b>Soils</b>	Land disturbing activities may result in soil erosion.	No adverse impact.	<ul style="list-style-type: none"> <li>• Phasing of construction.</li> <li>• Balancing cut and fill material to minimize the need to import fill or export excavated material.</li> <li>• Implementation of BMPs, which may include, but not limited to, temporary sediment basins, temporary diversion berms or ditches, silt fences, dust screens, storm drain inlet protection, hydroseeding, stabilized construction entrances, truck and equipment wash-down areas, and periodic spraying of soils.</li> <li>• Following construction, permanent BMPs, which may include landscaping steep and open space areas and implementing "golf course" sumps, lava swales, and injection wells, will be implemented.</li> </ul>	4.3

**Table ES.1: Summary of Impacts and Mitigation Measures**

<b>Resources Affected</b>	<b>Potential Short-term Impacts</b>	<b>Potential Long-term Impacts</b>	<b>Mitigation and Best Management Practices (BMPs)</b>	<b>DEIS Section</b>
<b>Surface Waters &amp; Drainage</b>	Construction may result in potential stormwater runoff.	Increased impervious surface areas may result in potential stormwater runoff.	<ul style="list-style-type: none"> <li>• Obtaining a NPDES permit.</li> <li>• Phasing of construction.</li> <li>• Adherence to State Department of Health (DOH) and County regulations to minimize increased stormwater runoff during construction.</li> <li>• Implementation of BMPs, which may include, but not limited to, temporary sediment basins, temporary diversion berms or ditches, silt fences, dust screens, storm drain inlet protection, hydroseeding, stabilized construction entrances, truck and equipment wash-down areas, and periodic spraying of soils.</li> <li>• Implementation of Low Impact Development (LID) measures where feasible.</li> <li>• Implementing xeriscape landscape techniques.</li> <li>• Implementing natural drainage conveyances.</li> </ul>	4.4, Appendix C
<b>Groundwater Resources/Hydrology</b>	Construction may result in potential stormwater runoff and erosion, which may decrease percolation to groundwater.	No adverse impact.	<ul style="list-style-type: none"> <li>• Obtaining a NPDES permit.</li> <li>• Phasing of construction.</li> <li>• Adherence to State DOH and County regulations to minimize increased stormwater runoff during construction.</li> <li>• Implementation of water meters.</li> <li>• Implementing xeriscape landscape techniques.</li> </ul>	4.5, Appendix D
<b>Natural and Manmade Hazards</b>				4.6
<b>Earthquakes</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>• Buildings and facilities will be designed in compliance with the County's Construction Administrative Code (Chapter 5 of the Hawai'i County Code).</li> <li>• Staff will receive proper training in assisting students and others on-campus in the event of an earthquake.</li> </ul>	4.6.1
<b>Lava Hazards</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>• Due to its location, the Existing Campus may be utilized as an evacuation site or shelter in an emergency.</li> </ul>	4.6.2



**Table ES.1: Summary of Impacts and Mitigation Measures**

<b>Resources Affected</b>	<b>Potential Short-term Impacts</b>	<b>Potential Long-term Impacts</b>	<b>Mitigation and Best Management Practices (BMPs)</b>	<b>DEIS Section</b>
<b>Hurricanes and Tropical Storms</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>Buildings and facilities will be designed and constructed in compliance with all applicable provisions of the Hawai'i County Code.</li> <li>Staff will receive proper training in assisting students and others on-campus in the event of a hurricane or tropical storm.</li> </ul>	4.6.3
<b>Flooding</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>Implementation of LID measures which may include minimizing impervious surface areas, incorporating the site's natural topography to reduce grading, designing narrow roadways and driveway lengths and widths, designing sidewalks on one side of the street, planting trees, minimizing conventional infrastructure and utilizing onsite lava rock sumps, swales, trenches, and detention and retention basins where feasible.</li> <li>Compliance with applicable standards articulated in Chapter 27 of the Hawai'i County Code.</li> </ul>	4.6.4
<b>Tsunami</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>Staff will receive proper training in assisting students and others on-campus in the event of a tsunami.</li> </ul>	4.6.5
<b>Wildfires</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>Removal of overgrown non-native vegetation and implementing native, drought-tolerant plants that will protect the campus from wildfire ignition and spread.</li> <li>Buildings and roadways throughout the Petition Area will comply with all fire code requirements.</li> </ul>	4.6.6
<b>Climate Change and Sea Level Rise</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>Implementation of green building design strategies where feasible.</li> <li>Implementation of LID measures where feasible.</li> </ul>	4.6.7
<b>Air Quality and Greenhouse Gases</b>	<ul style="list-style-type: none"> <li>Construction-related fugitive dust.</li> <li>Increase in GHG emissions produced from</li> </ul>	Increase in GHG emissions from campus operations.	<ul style="list-style-type: none"> <li>Construction-related activity will comply with the State DOH's Ambient Air Quality Standards, HAR §11-59, and HAR §11-60.1-33 relating to Fugitive Dust.</li> <li>Phasing of construction.</li> </ul>	4.7, Appendix E



**Table ES.1: Summary of Impacts and Mitigation Measures**

<b>Resources Affected</b>	<b>Potential Short-term Impacts</b>	<b>Potential Long-term Impacts</b>	<b>Mitigation and Best Management Practices (BMPs)</b>	<b>DEIS Section</b>
	construction-related activity.		<ul style="list-style-type: none"> <li>• Preparation of a dust control management plan prior to construction.</li> <li>• Implementation of BMPs, which may include, but not limited to, locating potential dust-generating equipment in areas of least impact, minimizing airborne and visible fugitive dust from shoulders and access roads, and controlling airborne and visible fugitive dust from debris being hauled away.</li> <li>• Construction materials will be sourced locally, when possible, to reduce emissions generated from the transportation of goods and materials.</li> <li>• Construction materials may be recycled and reused from other projects in the nearby vicinity.</li> <li>• Implementation of solar PV panels on buildings and facilities, LEED certification of buildings, implementation of low flow plumbing fixtures, and implementation of the campus wide recycling program.</li> </ul>	
<b>Biological Resources</b>				<b>4.8, Appendix F</b>
<b>Botanical Resources</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>• Existing overgrown non-native vegetation will be cleared and removed from the Petition Area. Construction equipment, materials, and personnel will be cleared of excess soil and debris to minimize the risk of spreading invasive species.</li> <li>• The Master Plan Update will maintain and preserve open spaces throughout the Petition Area.</li> <li>• Landscaping elements will reflect the natural and cultural landscape of the Kailua-Kona region.</li> </ul>	<b>4.8.1, Appendix F</b>
<b>Fauna</b>	Temporary construction-related lighting could pose potential impact to protected seabirds, who may become	Exterior lighting could pose potential impact to protected seabirds, who may become disoriented by lights during the nesting season.	<ul style="list-style-type: none"> <li>• Prior to the start of construction, the Petition Area will be surveyed to ensure Hawaiian Hawk nests are not present.</li> <li>• Construction will be limited to daytime hours to mitigate the need for nighttime lighting that could potentially disorient seabirds.</li> </ul>	<b>4.8.2, Appendix F</b>

**Table ES.1: Summary of Impacts and Mitigation Measures**

<b>Resources Affected</b>	<b>Potential Short-term Impacts</b>	<b>Potential Long-term Impacts</b>	<b>Mitigation and Best Management Practices (BMPs)</b>	<b>DEIS Section</b>
	disoriented by lights during the nesting season.		<ul style="list-style-type: none"> <li>Lighting installed to support the Master Plan Update will be shielded and in compliance with Hawai'i County Code §14-50.</li> </ul>	
<b>Mammalian Species</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>Prior to the start of construction, the Petition Area will be surveyed to ensure tree tobacco are not present. Should tree tobacco be identified, DLNR DOFAW will be contacted to determine proper inspection for the presence of the BSM.</li> </ul>	4.8.3, Appendix F
<b>Protected Species and Critical Habitats</b>	No adverse impact.	No adverse impact.	No mitigation measures required.	4.8.4, Appendix F
<b>Jurisdictional Waters</b>	No adverse impact.	No adverse impact.	No mitigation measures required.	4.8.5, Appendix F
<b>Noise</b>	Construction activities may increase noise levels at the Petition Area.	Campus activities may affect neighbors south of the Petition Area.	<ul style="list-style-type: none"> <li>Use of properly muffled construction equipment.</li> <li>Compliance with DOH construction noise regulations.</li> <li>Construction will not occur on Sundays and holidays, during early mornings, and late evenings and nighttime periods.</li> <li>Sound attenuating walls within the vicinity of the Lower School's South Play Field and High School Practice Field may be constructed.</li> <li>Neighbors will be notified if large events will be held and continuous efforts will be made to control noise generated at the U of N Kona campus.</li> </ul>	4.9, Appendix G
<b>Utilities and Infrastructure</b>				4.10
<b>Water</b>	No adverse impact.	<ul style="list-style-type: none"> <li>U of N Kona is in the process of securing water from a private well developer to support the Master Plan Update.</li> </ul>	<ul style="list-style-type: none"> <li>Open and green spaces will be landscaped with native plantings and LID design features, which may include xeriscape landscaping techniques to reduce water consumption.</li> <li>Implementation of water meters to track water consumption similar to what is utilized on the Existing Campus.</li> <li>U of N Kona will enter a Water Development Agreement with the private well developer and the Water Board.</li> </ul>	4.10.1, Appendix C

**Table ES.1: Summary of Impacts and Mitigation Measures**

<b>Resources Affected</b>	<b>Potential Short-term Impacts</b>	<b>Potential Long-term Impacts</b>	<b>Mitigation and Best Management Practices (BMPs)</b>	<b>DEIS Section</b>
<b>Wastewater</b>	No adverse impact.	It is anticipated the Kealahou Wastewater Treatment Plant will have the capacity to serve Existing Campus and Petition Area.	<ul style="list-style-type: none"> <li>U of N Kona will continue to consult with the Division of Environmental Management.</li> </ul>	4.10.2, Appendix C
<b>Power and Communication System</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>Coordination with Hawaiian Electric, Hawaiian Telcom, and Spectrum during the design phase of the project will be conducted to verify points of connection.</li> </ul>	4.10.3, Appendix C
<b>Hazardous Substances</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>Compliance with Federal, State, and County laws to minimize and mitigate inadvertent spills or release of fuels or lubricants.</li> </ul>	4.11
<b>Traffic and Mobility Analysis</b>	No adverse impacts.	No adverse impacts, however, intersection conditions may be evaluated throughout each phase of the Master Plan Update to determine if a traffic signal is warranted.	<ul style="list-style-type: none"> <li>Construction delivery will be scheduled Monday – Friday during off hours throughout the day.</li> <li>Addition of a second access point off Kuakini Highway.</li> <li>Implement an exclusive left-turn lane on the southbound approach and a striped south leg to accommodate a refuge lane serving the westbound left-turn vehicles at the second driveway.</li> <li>Preparation of a Transportation Management Plan (TMP) with a transportation demand management program for special events.</li> </ul>	4.12, Appendix H

**Table ES.1: Summary of Impacts and Mitigation Measures**

<b>Resources Affected</b>	<b>Potential Short-term Impacts</b>	<b>Potential Long-term Impacts</b>	<b>Mitigation and Best Management Practices (BMPs)</b>	<b>DEIS Section</b>
<b>Socio-Economic Characteristics</b>	No adverse impact.	<ul style="list-style-type: none"> <li>• Increase in population with growth in student enrollment, staff, and mission builders.</li> <li>• Additional students, staff, and mission builders at the U of N Kona will generate an increase in demand for goods and services which could potentially increase competition for resources, potential shortages, or lead to price hikes.</li> </ul>	<ul style="list-style-type: none"> <li>• Housing will be provided through the Master Plan Update to accommodate growth at the U of N Kona campus to mitigate the need for students, staff, and mission builders to seek housing off-campus.</li> </ul>	4.13
<b>Public Facilities and Services</b>				4.14
<b>Educational Facilities</b>	No adverse impact.	No adverse impact.	No mitigation required.	4.14.1
<b>Recreational Facilities</b>	No adverse impact.	No adverse impact.	No mitigation required.	4.14.2
<b>Police</b>	No adverse impact.	No adverse impact.	No mitigation required.	4.14.3
<b>Fire</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>• Removal of existing overgrown non-native vegetation and implementing native, drought-tolerant plants that will protect the campus from wildfire ignition and spread.</li> <li>• Buildings and roadways throughout the Petition Area will comply with all fire code requirements.</li> <li>• Careful selection of building materials to reduce the risk of wildfire spread.</li> </ul>	4.14.4

**Table ES.1: Summary of Impacts and Mitigation Measures**

<b>Resources Affected</b>	<b>Potential Short-term Impacts</b>	<b>Potential Long-term Impacts</b>	<b>Mitigation and Best Management Practices (BMPs)</b>	<b>DEIS Section</b>
			<ul style="list-style-type: none"> <li>Continued consultation with HFD for conformance with Federal, State, and County regulations.</li> </ul>	
<b>Emergency Medical Services</b>	No adverse impact.	No adverse impact.	Continued operation of an on-campus health center.	4.14.5
<b>Solid Waste Management</b>	No adverse impact.	No adverse impact.	Implementing a campus wide recycling program.	4.14.6
<b>Archaeological Resources</b>	Potential for iwi kūpuna (Native Hawaiian ancestral remains), historical, and/or cultural finds to be encountered during construction.	An Archaeological Inventory Survey (AIS) identified significant historic properties.	<ul style="list-style-type: none"> <li>Implementing short- and long-term preservation measures identified in the 2003 Burial Treatment Plan to preserve Site 23686, 23684, and 23685.</li> <li>Preparation of an Archaeological Data Recovery Report in 2007.</li> <li>Implementing short- and long-term preservation measures identified in the 2013 Preservation Plan to preserve Site 6302 and 23681.</li> <li>Adhering to measures described in the 2019 Dismantling and Restoration Plan to preserve and restore Kuakini Wall.</li> <li>Preparation of an archaeological monitoring plan.</li> <li>Implementing native plantings representative of the cultural landscape.</li> <li>Working in conjunction with a specialist to move/handle iwi kupuna, if it is necessary.</li> <li>In the event of an inadvertent discovery of ancestral remains during the phased buildout of the Master Plan Update, SHPD will be notified immediately, and all work will cease until further mitigation is recommended.</li> </ul>	4.15, Appendix I
<b>Cultural Resources and Practices</b>	Potential for iwi kūpuna (Native Hawaiian ancestral remains), historical, and/or cultural finds to be encountered during construction.	<ul style="list-style-type: none"> <li>Preparation of a Cultural Impact Assessment (CIA) and Ka Pa‘akai o ka ‘Āina Analysis</li> </ul>	<ul style="list-style-type: none"> <li>See mitigation measures listed above.</li> </ul>	4.16, 4.17, Appendix J, and Appendix K

**Table ES.1: Summary of Impacts and Mitigation Measures**

<b>Resources Affected</b>	<b>Potential Short-term Impacts</b>	<b>Potential Long-term Impacts</b>	<b>Mitigation and Best Management Practices (BMPs)</b>	<b>DEIS Section</b>
		<ul style="list-style-type: none"> <li>• No impacts to past or ongoing traditional or customary practices.</li> <li>• Potential of encountering iwi kupuna during development activity.</li> </ul>		
<b>Visual Resources</b>	No adverse impact.	No adverse impact.	<ul style="list-style-type: none"> <li>• Buildings and facilities planned for the Petition Area will not exceed the height of buildings on the Existing Campus.</li> <li>• Integrating the natural topography of the Petition Area in the design of buildings and facilities.</li> </ul>	4.18

## **ES.6 Summary of Public Benefits**

Students and staff at the U of N Kona have and continue to be active members in the Kailua-Kona community. Notably, during the Covid-19 lockdown, staff worked with the Aloha Urgent Care to help screen vulnerable populations for Covid and worked closely with the State of Hawai'i Department of Human Services (DHS) to provide foster children with families and provided childcare services at U of N Kona. Students and staff at U of N Kona take part in various volunteer opportunities ranging from environmental cleanup and restoration activities to volunteer services for the homeless community. The U of N Kona campus provides afterschool, recreational, and tutoring services for students, at local schools. The Master Plan Update will allow for an increase in enrollment at the U of N Kona and therefore increase U of N Kona's capacity to provide these services to the Kailua-Kona community. Such services will continue to be beneficial for the community. Additionally, the Master Plan Update will provide much needed recreational facilities for the greater Kailua-Kona community, as the U of N Kona has full intentions on hosting various community events.

## **ES.7 Unresolved Issues**

Below are identified issues that are actively being addressed, but which are currently unresolved:

The County of Hawai'i Department of Water Supply (DWS) has indicated that U of N Kona will need to obtain a new water source to serve the Petition Area. U of N Kona identified two potential well sites, and is in the process of finalizing an agreement with a private developer (See Section 5.6). The developer will need to enter into a Water Development Agreement with the Water Board to ensure the water source and supporting infrastructure will adequately meet the demand of operations. Subsequent permits will be filed with the Commission of Water Resource Management to test the well(s) for the availability of freshwater. If freshwater is available and can be drawn at the proposed location, infrastructure to connect the well to the County's existing water system will need to be designed and constructed. U of N Kona understands water will need to be secured prior to the commencement of a change in zoning with the County. Following completion of the environmental review process, U of N Kona will need to obtain approval for the Master Plan Update from the LUC and thereafter obtain a change in zoning from the County, both of which may be subject to additional unknown conditions. U of N Kona will be seeking to rezone the Petition Area to either the County's Project District or another appropriate zoning district. U of N Kona will continue to consult with the Planning Department to determine the zoning district suitable to support the Master Plan Update.

## **ES.8 List of Relevant Environmental Assessments and Impact Statements Considered in the Analysis of the Preparation of this DEIS**

The following documents have been considered and reviewed in preparation of this DEIS.

- *Draft Environmental Assessment for Kuakini Highway Improvements, Phase II, Hualālai Road to the Proposed Ali'i Highway.* Prepared by Parsons Brinckerhoff, March 2013.
- *Final Environmental Assessment for Kuakini Highway Improvements Between Palani and Hualalai Roads,* April 1998.
- *Final Environmental Assessment North Kona Mid-Level Exploratory Well.* Prepared by Planning Solutions, November 2020.
- *Draft Environmental Assessment North Kona Sewer Pump Station.* Prepared by Wilson Okamoto Corporation, April 2021.



# Introduction



## Chapter 1

# Introduction

This Draft EIS was prepared in accordance with the requirements of Hawai'i Revised Statutes (HRS), Chapter 343 and Hawai'i Administrative Rules, (HAR) Chapter 11-200.1, in support of a Motion to Amend the Findings of Fact, Conclusions of Law, and Decision and Order for a State Land Use District Boundary Amendment filed with the State of Hawai'i LUC (Docket No. A02-737 (*Appendix A*)). As determined by the LUC, due to the project's proposed use of County of Hawai'i lands for infrastructure improvements to support the revised the land use plan and development proposal for approximately 62 acres of land in Kailua-Kona, the applicant must comply with HRS Chapter 343 and may proceed with the preparation of an EIS (*Appendix B*).

### 1.1 Project Information Summary

<b>Name of Action:</b>	University of the Nations, Kona, Inc. 2020 Master Plan Update
<b>Applicant/Landowner:</b>	University of the Nations, Kona, Inc. 75-5851 Kuakini Highway Kailua-Kona, HI 96740
<b>Accepting Authority:</b>	Hawai'i State Land Use Commission P.O. Box 2359 Honolulu, HI 96813
<b>Prepared By:</b>	G70 111 S. King St., Suite 170 Honolulu, HI 96813 Contact: Jeff Overton, Principal Phone: (808) 523-5866
<b>Project Location:</b>	University of the Nations, Kona, Inc. 75-5943 & 75-5911 Kuakini Highway Kailua-Kona, HI 96740 ( <i>Figure 1-1</i> )
<b>Tax Map Keys (TMK):</b>	(3) 7-5-010:085 and (3) 7-5-017:006 ( <i>Figure 1-2</i> )
<b>Project Area:</b>	Approximately 62-acres
<b>State Land Use District:</b>	Urban (Reclassified from Agricultural to Urban in 2003) ( <i>Figure 1-3</i> )

<b>County of Hawai'i Zoning:</b>	TMK (3) 7-5-010:085, A-1a, Agricultural District TMK (3) 7-5-017:006, RD-3.75 and RS-7.5, Residential District ( <i>Figure 1-4</i> )
<b>County of Hawai'i General Plan:</b>	Medium Density Urban Development
<b>Special Management Area:</b>	Not Within SMA
<b>Flood Zone:</b>	Zone X (Outside 500-year Floodplain)
<b>Hawai'i Revised Statutes (HRS) 343 Triggers:</b>	Use of County Lands, Utility and Infrastructure Improvements
<b>Existing Use</b>	The Petition Area is primarily vacant and undeveloped, with the exception of a small research farm
<b>Proposed Action</b>	The University of the Nations, Kona, Inc. is proposing to expand its existing campus in three (3) phases over the next 30 years on lands adjacent to the existing campus. Fully built out, the campus expansion will support future enrollment projections and provide facilities to support the University of the Nations, Kona, Inc.'s mission.

## 1.2 Project Background

U of N Kona, a Hawai'i 501(c)(3) non-profit corporation that operates a mission-based educational institution, was founded in 1978 at its Existing Campus in Kailua-Kona on the Island of Hawai'i (*Figure 1-1*). U of N Kona is an innovative degree-granting training institution. It is globally networked, and collaborates with other non-traditional university-level educational campuses, recognized by the Global Accrediting Association. U of N Kona is one of approximately 600 locations with programs in over 90 languages around the world that offers transformational learning opportunities for emerging Christian leaders.

The Existing Campus identified by Tax Map Key (TMK) (3) 7-5-010:003 has been preparing followers for Christian services for over 40 years. Adjacent to the Existing Campus is the Petition Area identified by (TMKs) (3) 7-5-10:085 and (3) 7-5-17:006 (*Figure 1-2*). Prior to 2018, various entities affiliated with the University, including the University's Benefit Corporation, held title to the Petition Area and prepared a plan that would generate revenue for the U of N Kona. The plan prepared by the University's Benefit Corporation included market-rate condominiums, a for-profit Pacific Cultural Center, which included an outside performance arena, a museum complex, a restaurant and shops, and a small educational facility. This formerly-proposed use, identified as the Hualālai Village Development Project, would not have been permissible under the State's Agricultural Land Use District designation (HRS §205-4.5) and required the University's Benefit Corporation to petition the LUC for a district boundary amendment. In 2002, the University's Benefit Corporation filed a petition to reclassify the Petition Area from the Agricultural District to the Urban District, and on August 8, 2003, the Commission granted a boundary amendment for the former Hualālai Village Development Project (*Appendix A*).

In 2004, the University's Benefit Corporation re-evaluated U of N Kona's needs and crafted a revised plan for the Petition Area that would realign with the University's mission. The revised plan proposed to replace the market-rate condominiums with subsidized housing for students and staff and provide academic and research facilities to enhance educational programs. The University's Benefit Corporation filed a Motion to Amend the 2003 Decision & Order (2006 Motion to Amend) to implement the revised plan for the Petition Area. Subsequently, the University's Benefit Corporation's Plan for the Petition Area was never fully built out, and the Petition Area was formally transferred to AEKO Hawaii, another affiliate of the University. AEKO Hawaii formally transferred the Petition Area to the U of N Kona in 2018.

In March 2020, U of N Kona withdrew the 2006 Motion to Amend and filed an updated Motion to Amend the 2003 Decision & Order to revise the land use plan and development proposal for the Petition Area (2020 Motion to Amend) to fulfill the long-term vision of the U of N Kona. In support of the 2020 Motion to Amend, G70 prepared the 2020 Master Plan Update (Master Plan Update) and an Environmental Planning Report analyzing the potential environmental effects with the revised plan fully built out. Technical studies and investigations were prepared to support the Environmental Planning Report, including a flora fauna study, a traffic study, a preliminary infrastructure assessment, a water supply study, a cultural impact assessment, and a Ka Pa'akai O Ka 'Aina analysis. Additionally, in June 2020, a Conceptual Infrastructure Master Plan was prepared to prioritize the infrastructure improvements necessary to support the Master Plan Update and revealed a new sewer connection under Kuakini Highway would need to be installed to support the updated plan. However, because Kuakini Highway is owned and maintained by the County of Hawai'i, U of N Kona must first comply with HRS Chapter 343 before the LUC can take action on the 2020 Motion to Amend.

In compliance with HRS Chapter 343, U of N Kona filed a motion requesting the LUC to serve as the accepting authority for an EIS and to determine, through its judgment and experience, that an EIS is likely warranted and allow U of N Kona to move forward with the preparation of an Environmental Impact Statement Preparation Notice (EISPN). The LUC granted the request to serve as the accepting authority for an EIS and ordered U of N Kona to proceed with the preparation of an EISPN (*Appendix B*). That environmental review process was initiated with the publication of the EISPN in the Environmental Review Program's (ERP's) bi-monthly bulletin, *The Environmental Notice*, on March 8, 2021, and a public scoping meeting was held on March 25, 2021.

### **1.3 Project Location**

The Petition Area is located on the west coast of the Island of Hawai'i, approximately one mile southeast of the town center of Kailua-Kona, in the North Kona District (*Figure 1-1*). The Petition Area is approximately 62 acres and identified by TMKs (3) 7-5-010:085 and 7-5-017:006 (*Figure 1-2*). The Petition Area is within the traditional moku of Kona and ahupua'a of Wai'aha 1<sup>st</sup> on the lower western slopes of Mount Hualālai (*Figure 1-3*).

The Petition Area is bordered by Kuakini Highway on the west, Queen Ka'ahumanu Highway, Hualālai Village, and Hualālai Road on the east, U of N Kona's Existing Campus to the north, and the Kona Hillcrest subdivision to the south (*Figure 1-4*). As depicted in *Figure 1-4*, the area surrounding the Existing Campus is generally urban with various housing subdivisions and commercial uses. Originally part of the Hualālai Development Project, Hualālai Village is located on five (5) acres subdivided from U of N Kona's original 45-acre Existing Campus and consists of eight residential apartment buildings with a total of one hundred and five (105) condominium units. Units in three of the Hualālai Village buildings were sold in fee simple on the open market and the remaining five buildings have been transferred to Ka 'Ohana Wai'aha, a non-profit land trust management company whose purpose is to arrange for the acquisition and provision of affordable housing for faculty and staff of the U of N Kona.

### **Existing Conditions**

The Petition Area is comprised of two parcels classified in the State Land Use Urban District (*Figure 1-5*) and the County of Hawai'i A-1a, Agricultural District, and the RD-3.7 and RS-7.5, Residential Districts (*Figure 1-6*). The Petition Area is generally gently sloped at an elevation ranging from approximately 100 to 360 feet, rising in elevation from approximately 100 feet at Kuakini Highway to 360 feet with steeper slopes on the upper mauka side just below Hualālai Road. The Petition Area is primarily undeveloped and overgrown with non-native vegetation. The Petition Area is not equipped with infrastructure, including any on-site or off-site water sources or wastewater services.

A driveway along Kuakini Highway provides accessibility from Kuakini Highway to the Existing Campus. A series of on-site roadways and parking lots provide accessibility throughout the Existing Campus. A spine road is located along the southern property line separating the Existing Campus and northern boundary of the Petition Area and will be utilized in the future to connect the Existing Campus and the Petition Area.

Buildings and facilities on the Existing Campus include the following:

- 10 dormitories and classroom spaces
- Lokahi transmedia center
- Broadcast studio
- Innovision media studio
- Global outreach center
- Outdoor recreational facilities
- Basketball courts
- Gym/fitness space
- Ni'ihau library
- Café
- Dining facility
- Concert hall
- Storyhouse cinema
- Health and impact center
- Prayer room
- Sand volleyball courts
- Soccer fields
- Pool
- Mail room
- Parking areas

Current enrollment is approximately 774 students per quarter. Approximately 78% of students live on-campus totaling an estimated 609 students. In addition to student enrollment, the number of full-time equivalent (FTE) staff is approximately 602, about 280 of which reside on-campus. Staff who do not currently reside on-campus reside in either the Hualālai Villages, Kama'āina Hale, or have sought housing in the greater Kailua-Kona area, often from individuals associated with U of N Kona. Additionally, U of N Kona invites mission builders and guest speakers each quarter to facilitate and support the various programs at the U of N Kona. Mission builders devote their craftsmanship skills helping with the maintenance and upkeep of the Existing Campus. Guest speakers are versed in a variety of programs offered at the U of N Kona, all of which are tailored to training emerging Christian leaders. Mission builders and guest speakers are provided with temporary overnight accommodation on the Existing Campus or at an off-site apartment complex owned and maintained by the U of N Kona during their visits. The de facto day time population at the Existing Campus is approximately 1,401 people.

## **1.4 Compliance with Hawai'i Environmental Review Laws**

This Draft EIS has been prepared in support of U of N Kona's 2020 Motion to Amend, which was filed with the LUC to implement the Master Plan Update. To support the Master Plan Update, a Conceptual Infrastructure Master Plan was prepared and revealed that in order to fully support the Master Plan Update, a new sewer connection will need to be installed under Kuakini Highway, which is owned and maintained by the County of Hawai'i. Due to the proposed use of County lands, under HRS §343-5, U of N Kona must first comply with HRS Chapter 343 before the LUC can take action on the 2020 Motion to Amend.

As previously discussed, the LUC is serving as the accepting authority and determined through its judgment and expertise that an EIS is likely warranted and ordered U of N Kona to prepare the EISPN. The environmental review process was initiated with the publication of the EISPN in *The Environmental Notice* on March 8, 2021, and a public scoping meeting was held on March 25, 2021. A summary of comments from the Scoping Meeting is located in *Chapter 8*. The Draft EIS is being prepared pursuant to HRS Chapter 343 and HAR Chapter 11-200.1.

## **1.5 List of Relevant Environmental Assessments and Environmental Impact Statements Considered in the Analysis of the Preparation of this Draft EIS**

The following documents have been considered and reviewed in preparation of the Draft EIS.

- *Draft Environmental Assessment for Kuakini Highway Improvements, Phase II, Hualālai Road to the Proposed Ali'i Highway*. Prepared by Parsons Brinckerhoff, March 2013.
- *Final Environmental Assessment for Kuakini Highway Improvements Between Palani and Hualalai Roads*, April 1998.
- *Final Environmental Assessment North Kona Mid-Level Exploratory Well*. Prepared by Planning Solutions, November 2020.
- *Draft Environmental Assessment North Kona Sewer Pump Station*. Prepared by Wilson Okamoto Corporation, April 2021.

## **1.6 Related Actions, Public and Private, Existing or Planned in the Region**

The following actions have been considered as part of the analysis for this project.

- *Final Environmental Assessment – Natural Energy Laboratory of Hawaii Authority Innovation Center and Hale Wawaloli Visitor Center*. July 2022.
- *Final Environmental Assessment Royal Vistas Housing Project*. September 2021.
- *Draft Environmental Assessment Kona Community Hospital Redundant Wastewater Treatment System*. June 2023.

## 1.7 List of Required Permits and Reviews

The following list identifies the anticipated State and County approvals and permits required for the implementation of the Master Plan Update (*Table 1-1*).

Table 1-1: List of Permits and Reviews	
Agency	Permits and Reviews
<b>State of Hawai'i</b>	
Land Use Commission (Accepting Authority)	HRS, Chapter 343 Environmental Impact Statement, Acceptability Determination; Amendment of Decision & Order in Docket No. A02-737
Department of Land and Natural Resources, State Historic Preservation Division (SHPD)	Historic Preservation Review, Chapter 6E
Department of Health, Clean Water Branch	National Pollution Discharge Elimination System (NPDES) Permit
Department of Health, Environmental Management Division	Construction Noise Permit, Fugitive Dust, Wastewater System, Safe Drinking Water Permit
Department of Transportation, Highways Division	Highways Review, Turning Lane, Driveways and Private Storm Drain Connection
<b>County of Hawai'i</b>	
Planning Department	Zone Change, Plan Approval
Planning Department Leeward Planning Commission	Zone Change
Department of Planning, Planning Division: Kailua Village Design Commission	Zone Change
County Council Approval	Zone Change
Department of Public Works, Engineering Division	Grading, Grubbing, Stockpiling Permits, County Right-of-Way Permit, Sewer Connection
Department of Public Works, Building Division	Building Permits



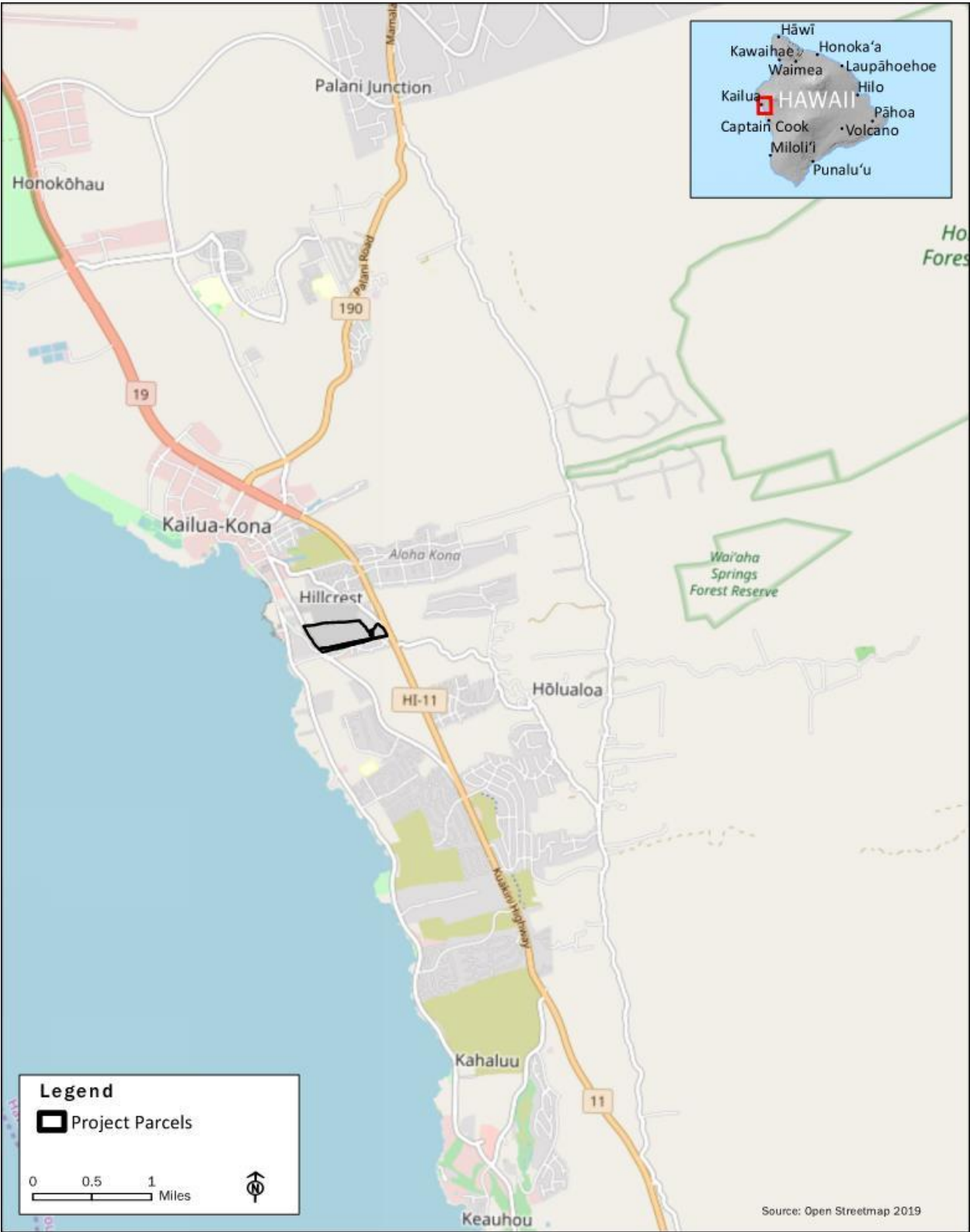


Figure 1-1

Project Location



Figure 1-2

TMK Map



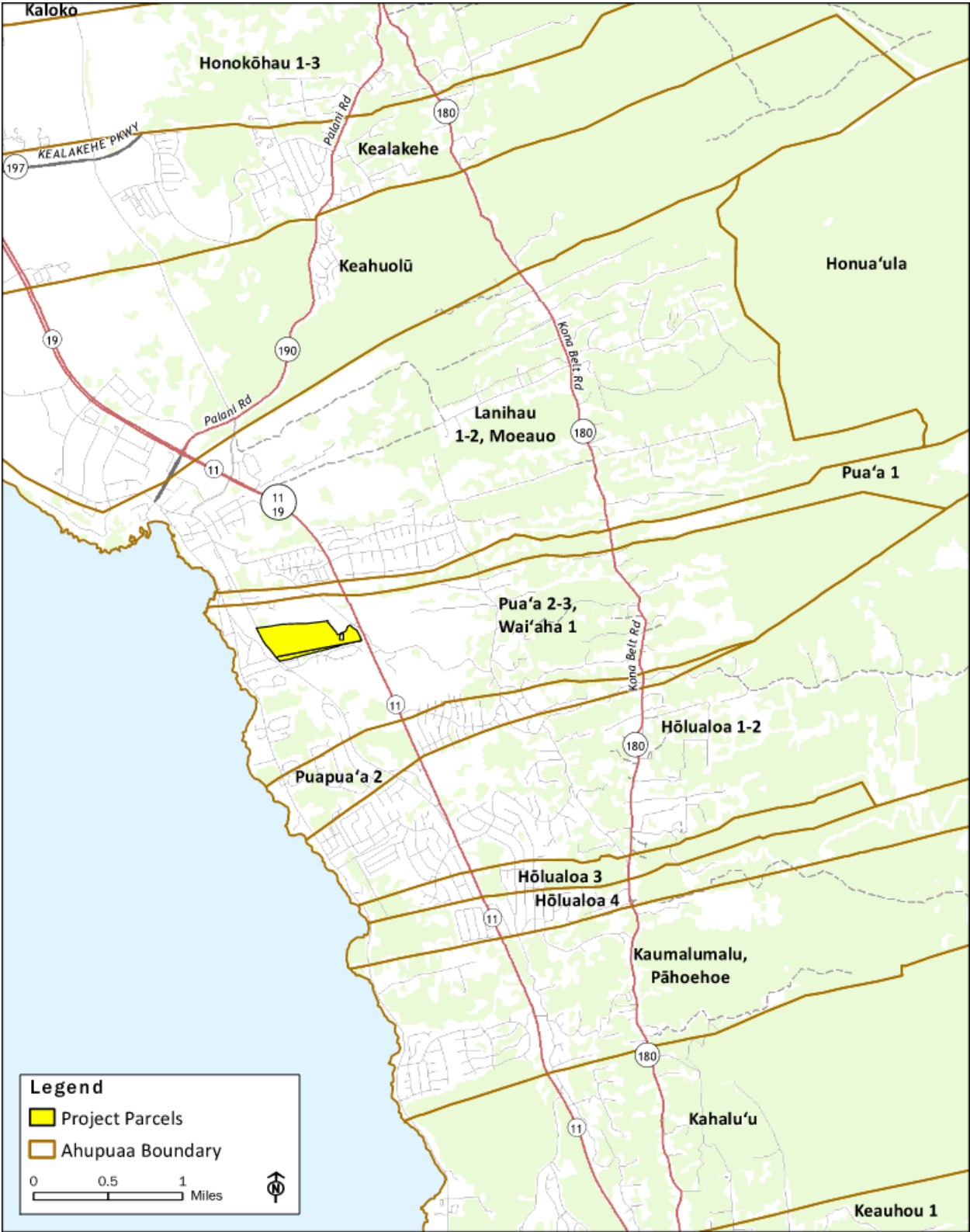


Figure 1-3

Ahupua'a Map



**Figure 1-4**

**Adjacent Land Usage Map**



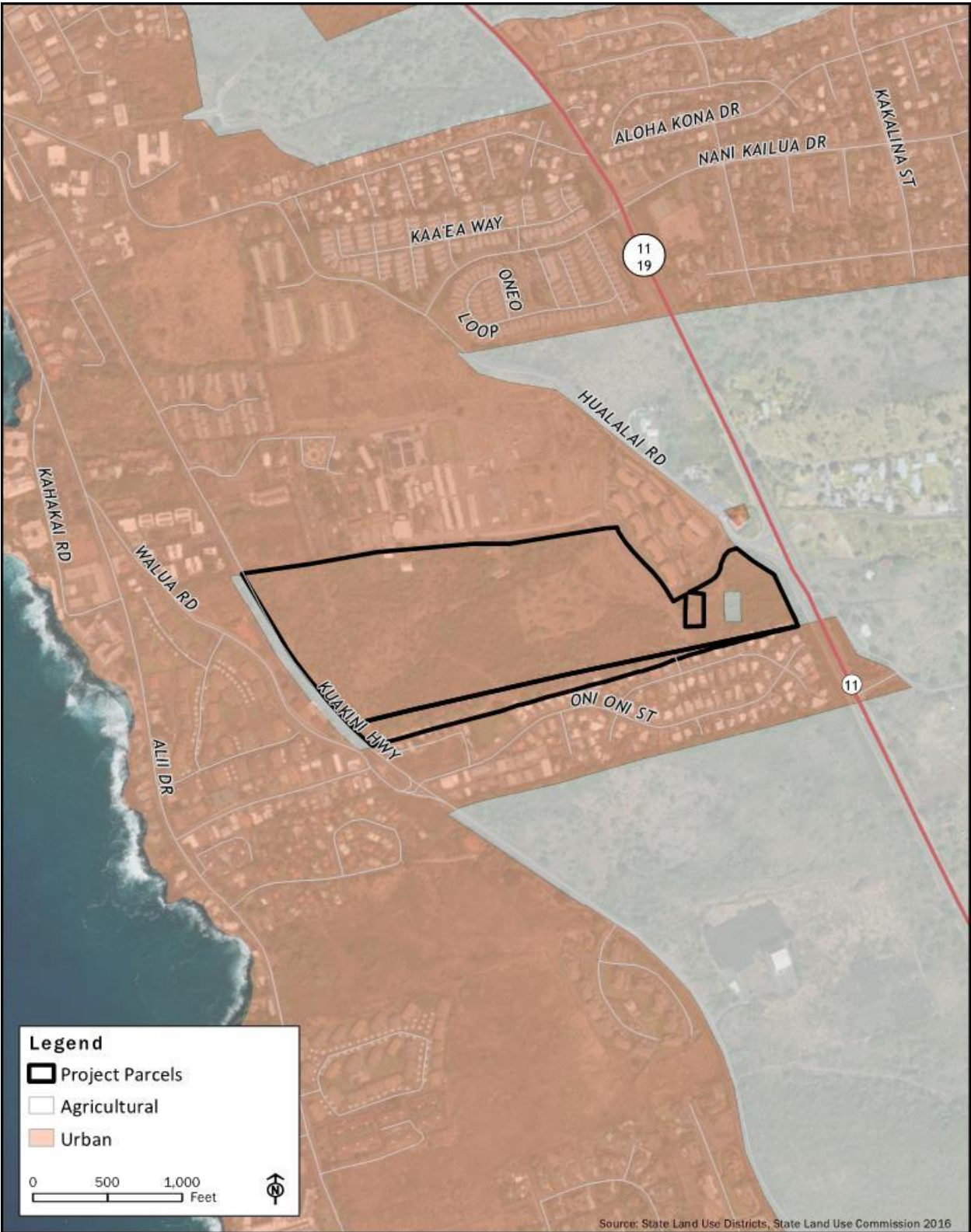


Figure 1-5

State Land Use District Designation Map





**Figure 1-6**

**County of Hawai'i Zoning Map**



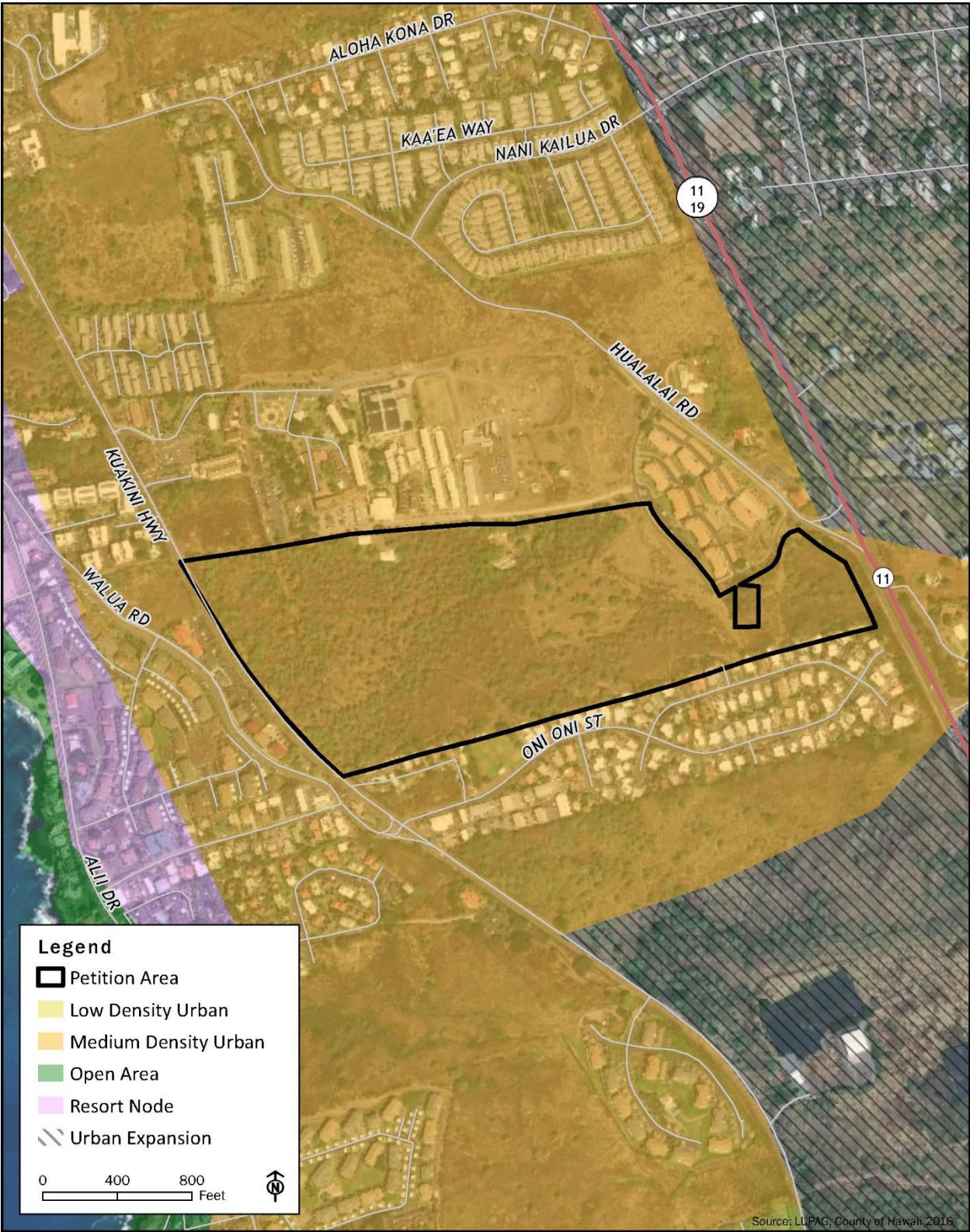
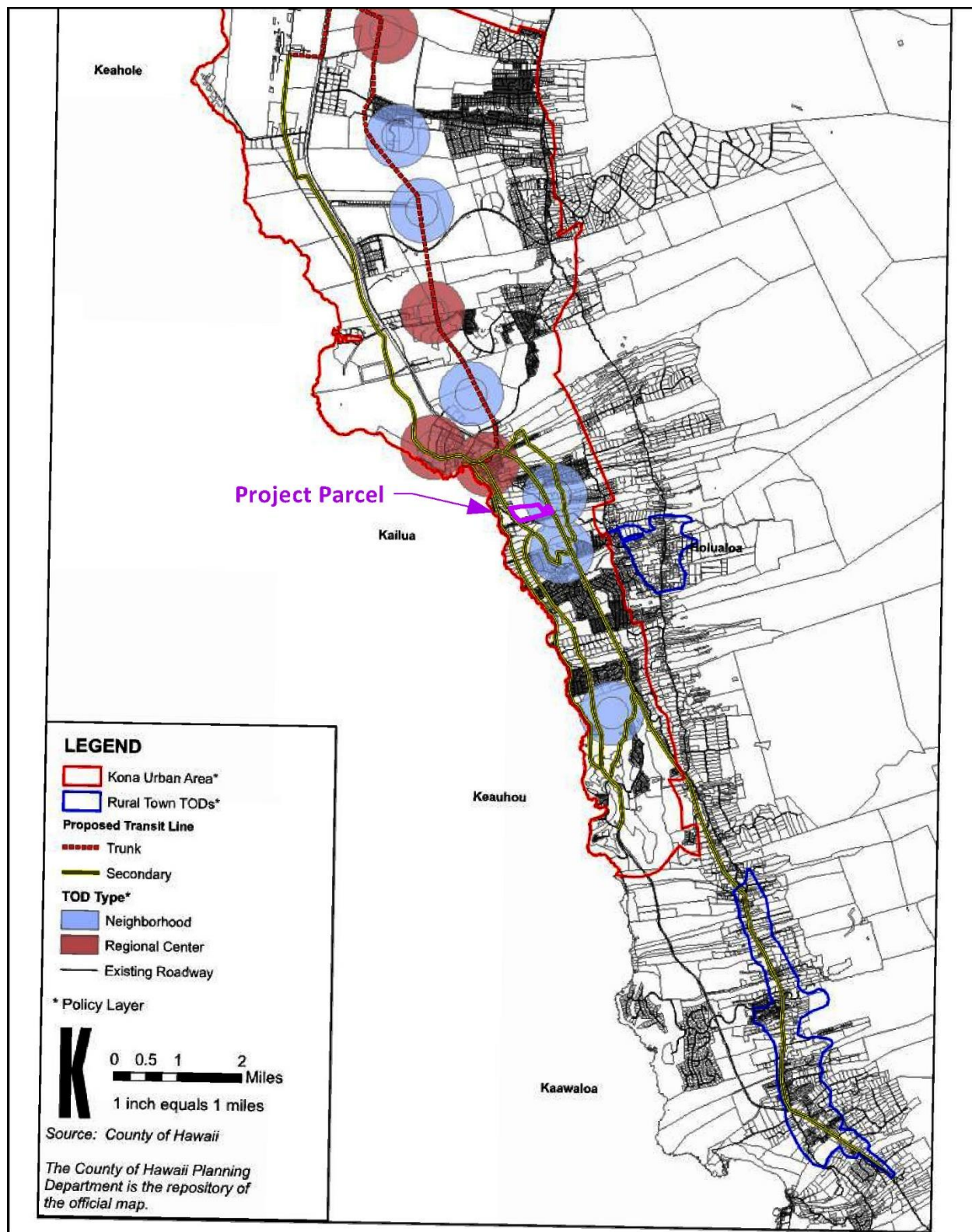


Figure 1-7

Land Use Pattern Allocation Guide





### Figure 1-8

## Kailua-Kona Community Development Map



# Project Description



## Chapter 2

# Project Description

### 2.1 Proposed Action

U of N Kona is proposing to revise the land use plan for the Petition Area. The Master Plan is designed over a 30-year planning program, in three (3) development phases with 5-10 years allocated for each phase (*Table 2-1*). This chapter explains the purpose and need for the Master Plan Update.

Table 2-1: Planning Program, Master Plan Update	
<b>Phase 1: 5-10 Years</b>	Planning program projects anticipated for development with the next 5-10 years.
<b>Phase 2: Beyond 10 Years</b>	Planning program projects anticipated for development beyond the 10-year period.
<b>Phase 3: Beyond 20 Years</b>	Planning program projects anticipated for development beyond the 20-year period.

Since the establishment of the U of N Kona in 1978, the U of N Kona has served the Lord’s mission by educating and training emerging Christian leaders. The long-term vision of the U of N Kona is to continue serving the Lord’s mission through education. As such, U of N Kona has revised the plan for the Petition Area to continue educating emerging Christian leaders in an enhanced learning environment. The Master Plan Update includes the addition of a new PK-12 school, university-level classroom spaces, athletic facilities, meeting facilities, and housing for students and staff members (*Figure 2-1*). Buildings and facilities have been strategically located throughout the Petition Area to facilitate efficient on-site circulation, enabling safe and smooth movements for students, volunteer staff, and visitors. Overall, the strategic location of buildings and facilities optimizes the functionality and accessibility throughout the Petition Area. Additionally, locating buildings and facilities will preserve the natural environment and reduce extensive grading. Facilities that are anticipated to be high-traffic and frequented by both U of N Kona affiliates and the public, including recreational and meeting spaces, are located closer to the entrance along Kuakini Highway. By locating high-traffic facilities on the lower portion of the Petition Area near the entrance along Kuakini Highway, the privacy and security of students and staff dorming on the Petition Area will be maintained.

The Master Plan Update includes key infrastructure improvements, including the expansion of the existing on-site spine road that bisects the Existing Campus and Petition Area, the addition of a secondary access point off of Kuakini Highway, and other upgrades to the existing utilities. As part of the Master Plan Update, necessary improvements for water supply and distribution, wastewater management, necessary roadway improvements, and drainage will be completed. Details of the infrastructure improvements are located in *Section 4.10*. Buildings and facilities will be designed and constructed to meet all applicable building code standards set forth in in Chapter 5 of the Hawai’i County Code. All necessary permits and approvals will be secured prior to the commencement of construction.

As a part of the entitlement process, the LUC will need to approve the Master Plan Update and thereafter a change of zone will need to be processed with the County to implement the Master Plan Update. The majority of the Petition Area is currently zoned A-1a, Agricultural District, with a small portion split zoned RD-3.75 and RS-7.5, Residential Districts (*Figure 1-6*). An application for a change of zone will be submitted to the County for the anticipated Project District designation or other suitable zoning designation.

## **2.2 Purpose and Need for the Proposed Action**

The purpose of the project is to revise the land use plan for the Petition Area to reflect and fulfill the long-term vision of the U of N Kona's faith-based mission. U of N Kona is embarking on a project to expand the Existing Campus and enhance its training programs to continue serving the Lord's mission by educating emerging Christian leaders. The U of N Kona was born out of the Youth With a Mission movement, which is led by Christian leaders dedicated to training and equipping followers of Jesus Christ. U of N Kona is an innovative degree-granting training institution. It is globally networked, and collaborates with other non-traditional university-level educational campuses, recognized by the Global Accrediting Association. U of N Kona is one of approximately 600 locations with programs in over 90 languages around the world that offers transformational learning opportunities for emerging Christian leaders

With students enrolling from around the world, U of N Kona provides housing for its students and staff and their dependents. Presently, each quarter there are approximately 757 students enrolled, of which approximately 62% or roughly 463 students are university-level. The remaining 38% or roughly 294 students are PK-12 students, which are predominantly children of students or staff members. Throughout the entire school year, there are approximately 600 staff members supporting campus operations. In addition to staff members, each quarter, U of N Kona is supported by mission builders and guest speakers to support its educational programs.

Currently, students and staff and their dependents and mission builders and guest speakers are housed on the Existing Campus. On a per quarter basis, the Existing Campus houses approximately 900 to 1,100 people. Of those dorming at the U of N Kona, approximately 60% are university-level students and their families, and approximately 30% are staff members and their families. Notably, all university-level students are housed in dormitories at the U of N Kona. Staff members who do not reside on-campus generally reside at the Hualālai Villages, which is adjacent to the Existing Campus, or reside off-campus, often in accommodations provided by people associated with the U of N Kona. As previously discussed in *Section 1.3*, mission builders and guest speakers are housed at the Existing Campus or at an off-site apartment complex owned and maintained by the U of N Kona.

In the next 5-10 years, enrollment at the U of N Kona campus is projected to increase to a total of approximately 1,058 students per quarter. The university-level enrollment is projected to increase to approximately 718 students, accounting for roughly 67% of the total student population. The PK-12 enrollment is projected to increase to approximately 340 students, accounting for roughly 32% of the total student population. To accommodate the projected student enrollment, Phase I will include additional dormitories and educational facilities to support campus operations as described in *Section 2.5*. Housing at the Existing Campus and Petition Area will be made available to students and staff members and their dependents, as space permits.

For Phase II, student enrollment is projected to increase to a total of approximately 1,424 students per quarter. The university-level enrollment is projected to increase to approximately 955 students, accounting for roughly 67% of the total student population. The PK-12 enrollment is projected to

increase to approximately 469 students accounting for roughly 32% of the total student population. With growth in student enrollment, it is projected that U of N Kona will invite approximately 200 volunteer mission builders per quarter to support program operations. To accommodate the growth in enrollment, Phase II will include the construction of additional dormitories and educational facilities to support campus operations as described in *Section 2.5*. Housing will continue to be made available to students and staff members and their dependents, and volunteer mission builders and guest speakers, as space permits.

For Phase III, student enrollment is projected to increase to a total of approximately 1,775 students per quarter. The university-level enrollment is projected to increase to approximately 1,200 students accounting for roughly 67% of the total student population. The PK-12 enrollment is projected to increase to approximately 575 students accounting for roughly 32% of the total student population. With growth in student enrollment, it is projected that U of N Kona will increase the total number of volunteer mission builders to approximately 300 volunteers per quarter. By the end of Phase III, the Petition Area will be fully built-out to provide the additional space needed to accommodate the projected growth in enrollment. Upon completion of Phase III, dormitories at the Existing Campus and Petition Area will be able to house all students and most, if not all, staff and their dependents and volunteer mission builders and guest speakers, as space permits.

The Master Plan Update addresses current and projected space and activity needs as enrollment is projected to gradually increase over the next three planning phases. Once fully built out, the campus will provide an enhanced learning and training facility for emerging Christian leaders.

## **2.3 Objectives of the Proposed Action**

The purpose of the Master Plan Update is to revise land use plan for the Petition Area to expand and enhance the learning and training facilities at the U of N Kona. U of N Kona has been educating and preparing followers of Christ for service throughout the world. Over the last four decades, through both educational and physical development, tens of thousands of lives have been impacted, and have in turn identified with and invested in the mission and vision of the University. This investment has generated a large growing community that has labored and donated time and money towards the growth of the University. Realigning the planning principles and concepts for the Petition Area with its faith-based mission, U of N Kona is proposing to expand its Existing Campus to provide an enhanced learning and training facility to continue serving the Lord's mission by educating followers of Jesus Christ.

## **2.4 Master Plan Update**

Located within the ahupua'a of Wai'aha 1<sup>st</sup> on the lower western slopes of Mount Hualālai within the traditional moku of Kona (*Figure 1-3*), U of N Kona serves as a premier globally-networked learning center to prepare followers of Jesus Christ for service throughout the world. Wai'aha – which means “gathering water” in Hawaiian – reflects the ideas, hopes and dreams of what the University's founders and representatives envisioned during the planning and design phases of the Master Plan Update. The U of N Kona is envisioned as a place for coming together or “gathering” to broaden the scope of evangelistic endeavors and prepare followers for Christian service with spiritual, cultural, intellectual, and professional training.

While providing an enhanced, mission-based educational environment for students, the Master Plan Update incorporates the unique topographic features and historical and cultural legacy specific to the area, Wai'aha Ahupua'a, and the greater Kailua-Kona region. Preservation and restoration of

significant cultural resources within the Petition Area are highlighted and interpreted as focal features in the design. The central gathering area at the Chapel is envisioned as the “Piko” of the campus. The design of the Chapel may include a stepped water feature complemented with a natural, terraced seating area for gathering, offering beautiful views of the campus and Kona Coast (*Figure 2-2*).

The Master Plan Update has been carefully crafted with attention given to the Petition Area’s natural and cultural features. As part of the Master Plan Update, cultural and archaeological features have been identified and measures have been established to preserve identified archaeological features. Preservation measures include the installation of rock walls along permanent preservation easements and buffers at each identified archaeological site. Buildings and facilities have been relocated throughout the Petition Area to reduce extensive grading and preserve the natural topographic setting. Additionally, a unified architectural theme for the Petition Area will be established to ensure that the buildings are scaled to reflect a distinct sense of the Kailua-Kona region. Buildings and facilities planned for the Petition Area will comply with all Building Code standards set forth in Chapter 5 of the Hawai’i County Code. Green building design measures will be incorporated and may include the installation of photovoltaic panels, green roofs, and other water and energy efficient features. Landscaping throughout the Petition Area will be carefully selected for the Kailua-Kona region. Xeriscape techniques may also be implemented to complement the dry climate, pay tribute to Kona’s agricultural past, and incorporate planting of native vegetation.

Much of the proposed design for the Petition Area reflects and capitalizes upon the beauty of the surrounding Kona region. The spaces between buildings are envisioned as either “outdoor rooms” functioning in concert with indoor spaces as venues for learning, gathering, and recreation, or as outdoor corridors. Outdoor open spaces or “outdoor rooms” linked through a pedestrian access network are envisioned to create outdoor learning environments that promote interaction between students and faculty. The Master Plan Update strives to embrace all elements of sustainability, and its architecture, open space, and landscape will work together to foster a Hawaiian sense of place that is also reflective of the Kailua-Kona region, both its natural attributes and its cultural history.



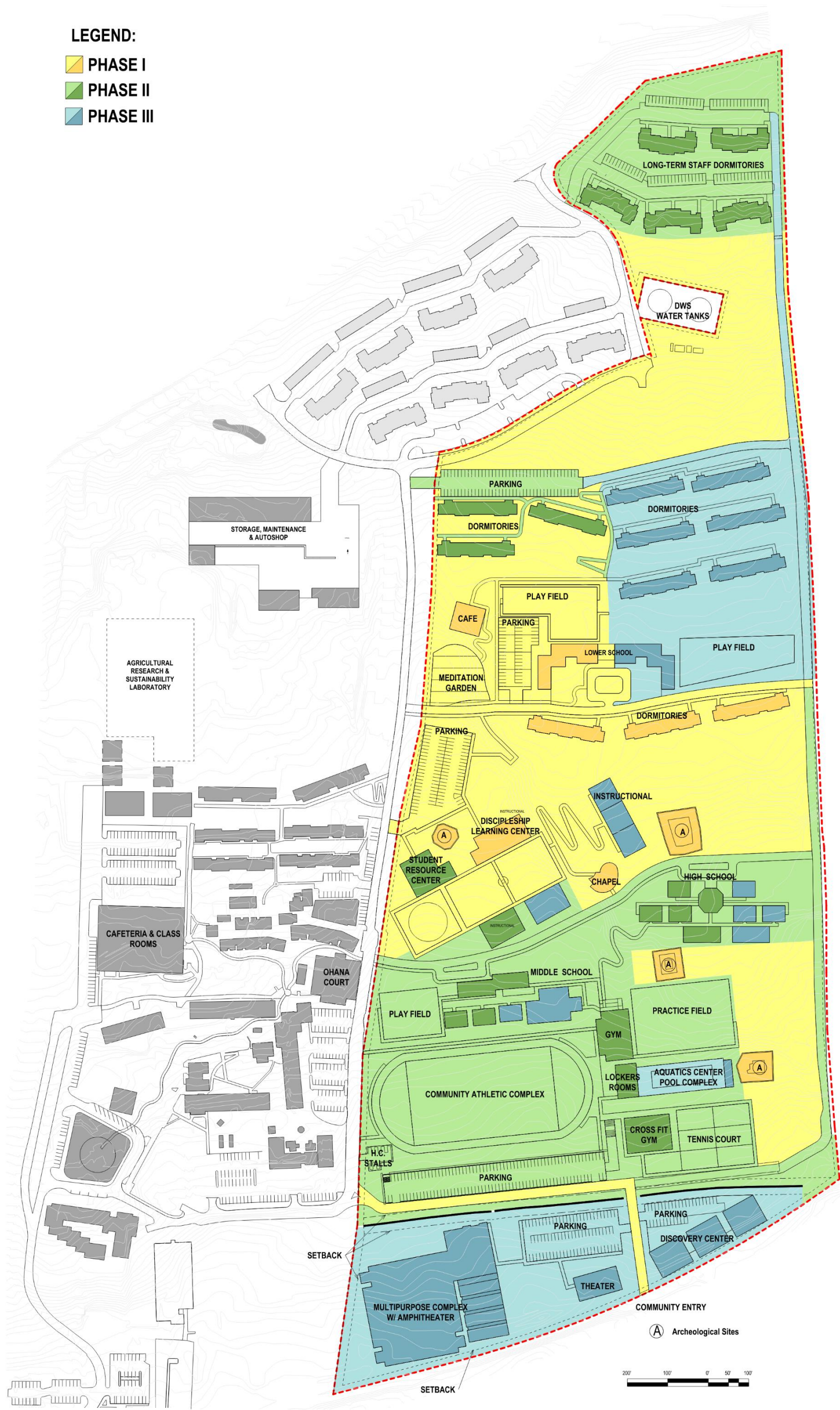


Figure 2-1



Table 2-2: Proposed Projects for Petition Area								
Petition Area Proposed Projects Phase 1 – Within 5-10 Years	Foot Print (SqFt)	Acreage	Petition Area Proposed Projects Phase 2 – Beyond 10 Years	Foot Print (SqFt)	Acreage	Petition Area Proposed Projects Phase 3 – Beyond 20 Years	Foot Print (SqFt)	Acreage
Discipleship Learning Center			Discipleship Learning Center			Discipleship Learning Center		
Chapel	3,629	0.1	Student Resource Center	8,770	0.2	Instruction Building (2)	17,718	0.4
Instruction Building	9,056	0.2	Instruction Building	6,198	0.1	Student Resident Dormitory Buildings (6)	38,284	1.4
Student Resident Dormitory Buildings (3)	19,117	0.4	Student Resident Dormitory Buildings (3)	19,127	0.14	Community Athletic Complex		
Lower School			Long-Term Staff Dormitories (5)	31,103	0.7	Aquatic Center Pool Complex	17,100	0.4
Instruction Building	8,096	0.2	Community Athletic Complex			Multipurpose Complex with Amphitheatre		
Cafe	5,250	0.1	Athletic Courts	31,384	0.7	Complex	68,889	1.6
Maintenance/Storage Facilities			Gym	9,800	0.2	Amphitheatre	17,817	0.4
Maintenance/Storage Warehouse	3,136	0.07	Locker Rooms	4,345	0.1	Theatre	6,599	0.2
SUBTOTAL BUILDING FOOTPRINT AREA	42,080	1.0	Crossfit Gym	9,856	0.2	Discovery Center		
Roadways & Pathways			Middle School			Exhibit Buildings	19,008	0.4
Roadway Connections to Existing Campus Site & Access Points	32,653	0.7	Instruction Building	11,354	0.3	Lower School		
ADA Compliant Pathways	21,121	0.5	High School			Instruction Building	8,096	0.2
SUBTOTAL ROADWAY & PATHWAY AREA	54,774	1.3	Instruction Building	13,599	0.3	Middle School		
Parking Areas			Maintenance/Storage Facilities			Instruction Buildings	11,412	0.2
Parking Area for Instruction & Dormitory Buildings	29,197	0.7	Maintenance/Storage Warehouses	5,000	0.1	High School		
Parking Area for Café, Meditation Garden & Lower School	16,832	0.4	Garage/Storage Warehouse	5,208	0.1	Instruction Buildings	10,400	0.3
Parking Area for Upper Dormitory Buildings	24,735	0.6	Food & Supply Storage Warehouse	18,120	0.4	SUBTOTAL BUILDING FOOTPRINT AREA		
SUBTOTAL PARKING AREA	150,000	3.4	SUBTOTAL BUILDING FOOTPRINT AREA			215,293		
Open Space Areas			Roadways & Pathways			Roadways & Pathways		
Areas above Upper Dormitories, Café, Meditation Garden, Lower School Instructional, and Campus Courtyard	839,871	19.3	Roadways & Pathways	163,425	3.8	SUBTOTAL ROADWAY & PATHWAY AREA		
Discipleship Learning Center Courtyard	45,000	1.0	SUBTOTAL ROADWAY & PATHWAY AREA			36,442		
Lower School Play Field	22,774	0.5	Parking Areas			SUBTOTAL ROADWAY & PATHWAY AREA		
Archaeological Preservation Sites	31,250	0.7	Parking Area for Upper Dormitory Buildings	24,735	0.6	Parking Areas		
SUBTOTAL OPEN SPACE/PERVIOUS AREA			Parking Area for Community Athletic Complex	61,130	1.4	Parking Area for Multipurpose and Discovery Center	46,644	1.1
TOTAL PHASE 1 AREA			Parking for Handicap	3,287	0.1	SUBTOTAL PARKING AREA		
			SUBTOTAL PARKING AREA			46,644		
			Open Space/Pervious Area			SUBTOTAL PARKING AREA		
			Community Athletic/Soccer Field	102,249	2.3	Open Space/Pervious Area		
			Practice Field	39,853	0.9	SUBTOTAL OPEN		
			Middle School Play Field	16,560	0.4	TOTAL PHASE 3 AREA		
			Lawn Areas and Landscaping	520,978	12.0	611,309		
			SUBTOTAL OPEN SPACE/PERVIOUS AREA			16		
			TOTAL PHASE 2 AREA					
			1,106,081					
			25					





**Figure 2-2** **Conceptual Rendering of the Discipleship Learning Center**

## 2.5 Description of the Proposed Improvements

Proposed buildings and facilities are as follows:

### ***Discipleship Learning Center:***

The Discipleship Learning Center is the training center for students to train, learn, build connections with their peers, and establish a deeper connection with the gospel message of Jesus Christ. Facilities within the Discipleship Learning Center will provide necessary training spaces for students to carry out the mission of the University on a global scale. The following facilities are planned in the buildout of the Discipleship Learning Center.

#### *Classroom Spaces:*

Instructional buildings are envisioned as flexible classroom spaces. Classroom buildings are envisioned to have enclosed spaces on the ground level with stairs leading to an open rooftop space for students and staff to gather and study. As illustrated in *Figure 2-1*, buildings will form a central outdoor quadrangle area for students to safely gather. New flexible classroom spaces will provide modern learning environments that accommodate new interactive forms of teaching and learning, and spaces needed to support future growth at the U of N Kona.

*Chapel:*

The Chapel is planned to function as the central gathering space. Consisting of approximately 3,600 square feet, the Chapel is envisioned to be an iconic, round structure. The architectural character of the facility will create a centralized gathering space fitting with its surroundings. The proposed structure may also include a stepped-level entry with an outside seating area and a courtyard to create a welcoming and pleasant outdoor meeting space (*Figure 2-2*).

*Student Resource Center:*

The Student Resource Center will provide a modern study space that accommodates new interactive forms of teaching and learning for both students and faculty. The Student Resource Center is envisioned as a two to three-story structure, with an architectural character reflective of the Kailua-Kona region. The Student Resource Center may also include an entry courtyard with landscaped pavers and a variety of new plantings to create welcoming and pleasant outdoor meeting, study, and informal gathering spaces for students, faculty, and visitors.

*Identity Icon:*

The Identity Icon will provide a transition space from the Existing Campus to the Petition Area. Filled with art and photography from campuses throughout the globe, the space will reflect upon the greater worldwide mission of the University, and serve as a space for students to reflect on their journey. From the existing 'Ohana Court, students and staff may easily meander to the Identity Icon, which connects to the pathway leading to the Chapel. The Identity Icon will provide a transition space to the "Piko" of the campus.

***Dormitories:***

U of N Kona is one of 600 affiliated campuses offering formal and non-formal education with a commitment to worshipping God in spirit and truth. Each quarter, students from around the world train at the U of N Kona campus. Similar to any University, U of N Kona provides housing in the form of dormitories for its students, staff members, and their dependents, and will increase its capacity to do so through the Master Plan Update. The following dormitories will be constructed as part of the Master Plan Update.

*Student/Staff Dormitories:*

The Petition Area will be equipped with twelve (12) new dormitory buildings. The current dormitories on the Existing Campus are over thirty (30) years old and additional dormitories are needed to accommodate future enrollment projections. The twelve (12) new dormitory buildings will be three (3) stories high and have approximately 100 beds per building. The new dormitories will house both students and staff. Residents will enter on the first floor from the makai side of the buildings and enter on the second floor from the mauka side of the buildings in order to integrate the natural topography of the Petition Area. Common areas will be provided on each floor and parking areas are planned to accommodate residents with motor vehicles.

### Family Dormitories:

U of N Kona provides housing for students and staff with families and dependents. To accommodate students and staff with families, five (5) family dormitory buildings containing one (1)-, two (2)-, and three (3)- bedroom units will be provided on the mauka portion of the Petition Area. Each building will have a total of approximately 100 beds. Units are planned to be module, “lock-off” style to accommodate various family sizes. Each family dormitory building will be three (3) stories high and contain an entrance to the first floor on the makai side of the building and an entrance to the second floor on the mauka side of the building. Common areas will be provided on each floor and parking areas are planned to accommodate residents with motor vehicles.

The additional dormitories provided through the Master Plan Update will accommodate projected enrollment at the U of N Kona. Moreover, at each phase of the Master Plan Update, the number of staff, faculty, and dependents residing off campus, if any, will continue to be reduced and potentially eliminated.

### **PK-12 School:**

The new PK-12 School is envisioned to include a multi-phased development of a Lower School, Middle School, and High School. The new PK-12 school will help to address the demand for educational facilities for students and volunteer staff with families enrolled at U of N Kona. Additionally, the new PK-12 School will provide an additional PK-12 school for residents of the greater Kailua-Kona region.

#### Lower School

The Lower School will accommodate students ranging from Preschool to Grade 5. A rectangular pick-up/drop-off area is planned as an entry way to the Lower School. Additionally, a parking lot for parents to walk in with their children will be provided. The Lower School is envisioned to include two (2) new instructional buildings and open space areas to function as an outdoor learning environment. A new playfield dedicated to Lower School students is planned to provide a safe outdoor space for recess and outdoor educational activities.

#### Middle School

The Middle School will accommodate students ranging from Grade 6 to 8. The Middle School includes the addition of five (5) new instructional buildings clustered near one another to form a central open gathering space that will lead to a playfield. Similar to the playfield planned for the Lower School, the playfield near the Middle School will be dedicated to middle schoolers.

#### High School

The High School will accommodate students ranging from Grade 9 to 12. Eight (8) new instructional buildings are envisioned to fully build out the High School. The new instructional buildings will form a central quad area allowing students to study and gather outdoors.

### ***Meditation Garden:***

The Meditation Garden will provide a peaceful and serene experience for students and staff members. The Meditation Garden is envisioned as a garden space with open grass seating areas and benches for students and staff members to gather. A pathway connecting the Meditation Garden and the Chapel will provide students and staff members with a peaceful way to meander throughout the campus.

### ***Café:***

The Café is expected to provide quick food service and an outdoor dining space. The courtyard setting is envisioned as a casual outdoor dining area for students and staff to study and gather.

### ***Athletic Facilities:***

U of N Kona is expanding its athletic facilities to support program operations and provide additional facilities for competitive sports and events in the Kailua-Kona region. Athletic facilities planned for the Petition Area include an outdoor athletic stadium with supporting facilities, an outdoor artificial turf practice field, a new state of the art gymnasium, a practice gymnasium, outdoor courts, a pool, and locker rooms. The outdoor athletic stadium will be able to host various sporting events and provide an outdoor venue for U of N Kona and the community. Parking areas are planned to accommodate a variety of sporting events. Because U of N Kona plans on hosting competitive sporting events and various community events, facilities to host such events have been placed within the lower portion of the Petition Area, near the entrance along Kuakini Highway. Placing athletic and event facilities near the entrance along Kuakini Highway will improve on-site circulation and provide a sense of security and privacy for residents, as the public will not be meandering throughout the entire Petition Area.

### ***Discovery Center:***

The Discovery Center is intended to house the Discipleship Learning Center's expansive language library and informational resources, and function as an instructional and research facility with administrative and staff office spaces. The Discovery Center will allow the U of N Kona to showcase its mission and research as the facility will be open to the public. As such, the facility is planned within the lower portion of the Petition Area near the entrance along Kuakini Highway for public accessibility. A parking lot will be provided for the Discovery Center.

### ***Multi-Purpose Building and Theatre***

The Master Plan Update includes a state-of-the-art Multi-Purpose Building and a new Theatre to support program operations. U of N Kona currently lacks a covered and enclosed facility for large events. The new Theatre is an opportunity to upgrade and provide a modern venue for performative arts. The Multi-Purpose Building and Theatre are intended to provide additional meeting and gathering facilities in the Kailua-Kona region, and U of N Kona has full intentions of hosting events for the community. As such, these facilities have been placed within the lower portion of the Petition Area near the entrance along Kuakini Highway for public accessibility.



### ***Archaeological Preservation Sites:***

An Archaeological Inventory Study (AIS) was prepared to identify historic cultural and archaeological resources on the Petition Area. With the identification of historic, cultural, and archaeological features, buildings are intentionally situated at a distance from identified sites to ensure the proper preservation and protection. To protect the sites and resources identified on the Petition Area, interim and permanent preservation measures set forth in the 2003 Burial Treatment Plan, the 2007 Archaeological Data Recovery Report, the 2013 Preservation Plan, and the 2019 Dismantling/Restoration Plan described in *Section 4.15* will be implemented under the supervision of a qualified archaeologist.

### ***Roadways and Parking:***

The overall design concept of the roadways and parking for the Petition Area is to give priority to pedestrian circulation. Vehicular arrival points such as parking lots and driveways are located on the periphery of the Petition Area. The peripheral design of the roadways and parking areas provides significant areas for pedestrian use and open space in the interior of the Petition Area. .

### ***Landscape, Open Space and Pathways:***

Landscaping throughout the Petition Area will be carefully selected to reflect a Hawaiian sense of place, in both its natural beauty and cultural history. Plant selections will include, but may not be limited to, native and drought-tolerant plants. A system of pathways is planned to allow for safe day and night travel for pedestrians, including persons with disabilities. The pathways will begin at arrival and parking areas, lead to major walking pathways, and connect to active and functional gathering places, such as outdoor courtyards and sitting areas fronting buildings. Walking surfaces will be permeable whenever possible.

### ***Infrastructure Improvements:***

Infrastructure improvements include expansion of the existing on-site spine road that bisects the Existing Campus and Petition Area, the addition of a secondary access point off of Kuakini Highway and necessary roadway improvements, and other upgrades to the existing utilities. Within the Petition Area, on-site infrastructure facilities to be expanded include circulation roadways, water transmission lines, wastewater collection lines, drainage systems, and electrical/communication systems. All infrastructure improvements will be designed and sized to accommodate the Master Plan Update. Construction will begin with development of infrastructure after applicable grading permits have been issued. Details on the infrastructure improvements and the phasing of the improvements are located in *Section 4.10*.

## **2.6 Project Cost and Schedule**

In total, the Master Plan Update is expected to cost approximately \$157,500,000. Construction of the Master Plan Update is planned in three phases, spanning approximately 30 years. Each phase is anticipated to span approximately 5-10 years. Construction for Phase I is expected to commence in 2030, following approval of the Master Plan Update by the LUC and successful completion of a change of zone application with the County. U of N Kona has successfully established the 360,000 square foot Existing Campus through its traditional non-profit financing model and will continue to use that model to complete the buildout of the Petition Area over a 30 year period.

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