FINAL

Preliminary Demolition Assessment for the Former Pagoda Hilo Bay Hotel, Country Club Condominium/Hotel, and Reeds Bay Hotel

Island of Hawai'i, State of Hawai'i

VOLUME 1 OF 2

February 2018



Prepared For:

Department of Land and Natural Resources State of Hawai'i 1151 Punchbowl Street Honolulu, HI 96813



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Prepared by:

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1. BACKGROUND

The State of Hawaii, Department of Land and Natural Resources (DLNR) is considering the possible demolition of three hotels in Hilo on the Island of Hawaii, due to their advanced ages and various stages of deterioration. The three non-contiguous hotel properties, collectively referred to as the Project, include the former Pagoda Hilo Bay Hotel, which closed in June 2017 (also referred to as the former Uncle Billy's Hilo Bay Hotel, which closed in February 2016), Country Club Condominium/Hotel and Reeds Bay Hotel. R. M. Towill Corporation (RMTC) was contracted by DLNR to prepare a Preliminary Demolition Assessment to identify potential permits, approvals, technical studies, and preliminary costs that may be required, should the DLNR proceed with demolition.

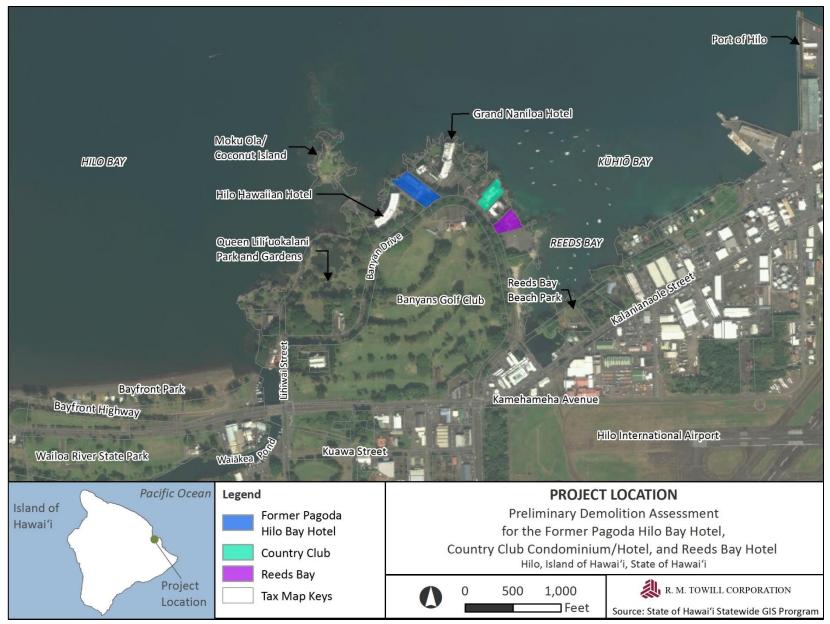
This assessment is based on reviews of available reports and construction plans provided by the DLNR, site visits conducted for the Project by the project team from January through March 2017, and coordination with the County of Hawaii, Planning Department.

1.1 **PROJECT LOCATION**

The Project is located along Banyan Drive in Hilo on the island of Hawaii, and is identified by the respective Tax Map Keys and addresses. All lands encompassing the Project are owned by the DLNR. See **Table 1, DLNR Hilo Hotel Summary** and **Figure 1, Location Map**.

	Table 1 o Hotel Summary	
Hotel	Tax Map Key	Address
Former Pagoda Hilo Bay Hotel (Former Uncle Billy's Hilo Bay Hotel)	(3) 2-1-005: 009, 012, 033, 034, 035 and 043	87 Banyan Drive Hilo, HI 96720
Country Club Condominium/Hotel	(3) 2-1-005:020	121 Banyan Drive Hilo, HI 96720
Reeds Bay Hotel	(3) 2-1-005:022	175 Banyan Drive Hilo, HI 96720

Figure 1 – Project Location Map



1.2 EXISTING AND SURROUNDING USES

The properties are located within Hilo's resort area, among other hotels along Banyan Drive, including the Hilo Hawaiian Hotel, Grand Naniloa Hotel, and Bayview Banyan Hotel. In addition, the Banyans Golf Club is located immediately mauka (south) of the properties.

The former Pagoda Hilo Bay Hotel is situated on 1.7 acres, which includes 146 hotel rental units, former restaurant and retail uses, other associated buildings constructed from 1966 to 1970, parking, swimming pool, and landscaped grounds. Constructed in 1969, the Country Club Condominium/Hotel is situated on 1.2 acres which includes one, six-story building with 152 hotel rental units, meeting facilities, restaurant, parking, swimming pool, and landscaped grounds. The Reeds Bay Hotel is situated on 1.05 acres, including three structures, a total of 65 hotel rental units, parking, swimming pool, and landscaped grounds. The original construction date is unknown; however, building permit records indicated that the building has undergone various alterations since 1969. See **Photographs 1 through 3.**

Notably, the Project is situated within the Banyan Drive resort area, for which a long-term conceptual plan will be developed by the Banyan Drive Hawaii Redevelopment Agency (BDHRA). The BDHRA was established by the Hawaii County Council with broad oversight to include both the development and implementation of a redevelopment plan for the revitalization and redevelopment of resort properties along Banyan Drive on the Waiakea Peninsula, including the Project. The BDHRA is organized under the supervision of the County of Hawaii, Planning Department.

Photograph 1 Former Pagoda Hilo Bay Hotel



Photograph 2 Country Club Condominium/Hotel



Photograph 3 Reeds Bay Hotel



2. TECHNICAL STUDIES

Technical studies including structural, electrical, environmental and cost engineering assessments were prepared to evaluate the existing conditions at the Project. In addition, an Archaeological Literature Review and Field Inspection (LFRI) conducted to identify any existing surface archaeological and historic resources, and a Biological and Water Quality Survey were to identify terrestrial flora and fauna resources, and nearshore water quality. Results of the technical studies provided a basis to determine the demolition requirements and preliminary costs estimates for the Project. Excerpts of the studies are included below, while the studies in their entirety are provided in **Appendices A through E**, under separate cover.

2.1 STRUCTURAL ENGINEERING

A Demolition Plan was prepared for the project by KAI Hawaii, Inc. in March 2017, to provide a recommended approach for the construction activities, including all physical abatement, demolition, and waste generating activities (see **Appendix A**). The plan identified potential hazardous materials, removal and abatement procedures, loading of waste materials, and material disposal. In addition, the plan included a recommended approach to safely execute the removal and abatement activities and avoid impacts to surrounding areas and operations, and the work sequenced to optimize the schedule while taking into account the site space constraints and limitations.

2.2 ELECTRICAL ENGINEERING

An electrical engineering assessment was prepared by Wallace T. Oki, P.E., Inc., in April 2017 to summarize the existing electrical, telephone, and CATV systems, and identify components to be removed prior to the demolition of the existing buildings within the Project. The services should be capped at the Banyan Drive property line (see **Appendix B**).

2.3 ENVIRONMENTAL ENGINEERING

A Phase 1 Environmental Site Assessment (ESA) was prepared by Element Environmental LLC in April 2017 to evaluate potential sources of contamination at the Project (see **Appendix C**). Recognized environmental conditions (RECs) are present at each site. Notable findings include a possible 1,000 gallon underground storage tank at the former Pagoda Hilo Bay, and hazardous materials for all sites. Potential environmental concerns were also identified within the Project including lead, pesticides, asbestos-containing materials (ACM), and PCBs. Based on the findings, a Phase 2 ESA is recommended for the next phase of the project.

2.4 ARCHAEOLOGICAL RESOURCES

An Archaeological Literature Review and Field Inspection (LFRI) report was prepared for the Project by Cultural Surveys Hawaii in February 2017 (see **Appendix D**). Findings in the report were based on a historical, cultural, and archaeological background research, as well as a field inspection to determine the likelihood that historic properties may be affected by the project.

No archaeological sites were identified within the Project; however, the inspection was limited to a brief surface inspection. The parcels comprising the project area have been substantially

disturbed due to the existing hotel development, and very little if any of the original ground surface is thought to remain. Notably, four historic-era banyan trees planted in the 1930s and 1960s are located adjacent to the former Pagoda Hotel and Reeds Bay Resort entrances along Banyan Drive.

Archaeological materials such as cultural layers potentially containing artifacts, human burials, and/or other features could occur subsurface in undisturbed portions of the project area. If and when specific plans are made for development involving ground disturbance, it is recommended that the State Historic Preservation Division be consulted to determine the appropriate scope for further archaeological investigation and mitigation, if appropriate. Further archaeological investigations may include an Archaeological Inventory Survey, Archaeological Monitoring Plan, Archaeological Monitoring during construction, and/or Archaeological Monitoring Report.

2.5 BIOLOGICAL RESOURCES

A Biological and Water Quality Survey report was prepared for the project by AECOS, Inc. in March 2017, and included surveys of terrestrial flora and fauna resources, and nearshore water quality (see **Appendix E**).

During the survey, plants observed on-site primarily consisted of natural and typical landscape species. No terrestrial plant species that are proposed or listed as threatened or endangered as set forth in the Endangered Species Act of 1973, were observed during the survey conducted in February 2017. Two species of banyan trees were identified, primarily fronting the former Pagoda Hilo Bay Hotel. While the trees are not protected, they are very old specimens, and it is recommended that preservation be considered after inspection by a certified arborist.

Terrestrial animals and avifauna observed on site included introduced and native species including a single mongoose, a pair of Mallard ducks, as well as Kōlea (Golden Plover), Spotted Doves Zebra Doves, and Red-crested Cardinals throughout the Project area. No terrestrial animal species that are proposed or listed as threatened or endangered were observed on site.

Hilo Harbor is classified as a Class A Marine per the Water Quality Standards Map set forth by the State of Hawai'i, Department of Health (DOH). Locations within Hilo Bay are included on the DOH 2014 list of impaired waters in Hawai'i, prepared under Clean Water Act §303(d). These impaired listings indicate that Hilo Harbor may not meet the Hawai'i water quality standards for certain parameters, specifically for turbidity. Water quality samples were collected at six stations along the shoreline of the Project, and evaluated for physical, chemical, and biological parameters. The sampling indicated mixed results as selected parameters met the State's water quality standards, while other parameters were exceeded.

3. CIVIL ENGINEERING

3.1 EXISTING CONDITIONS ASSESSMENT

3.1.1 Site Access

Vehicular access to the sites is provided via existing driveways along Banyan Drive. In addition, shoreline access to the Project is located adjacent to Hilo Bay and is supported by seawalls located along the shoreline.

3.1.2 Flood Zones

The flood zone designations for the Project include Zones X, AE, and VE. Zone X is an area outside the 0.2% annual chance floodplain. Zone AE is the area for which the base flood elevation has been determined for a 1% annual chance flood event. Zone VE is the coastal flood zone with velocity hazard and base flood elevations determined. The flood zone designations will affect any future building construction and filling within those sites. See **Figure 2**.

3.1.3 Utilities

Each property is serviced by a 4-inch water connection and a sewer lateral. Within Banyan Drive, there is an existing 15-inch sewer line and a 12-inch water line. The water line is under the jurisdiction of the County of Hawaii (CoH), Department of Water Supply, and the sewer line is under the jurisdiction of the CoH Department of Environmental Management.

3.1.4 Drainage

Terrain on each site is relatively level and slopes toward the ocean. The elevation of the former Pagoda Hilo Bay Hotel is approximately 13 feet above mean sea level (msl), while the elevations of the Country Club Condominium/Hotel and Reeds Bay Hotel are approximately 3 feet above msl (Source: Google Maps). With the exception of landscaped areas, each property is covered primarily with impervious surfaces consisting of asphalt concrete pavement and concrete walkways. Runoff onsite is collected in swales and discharges into the ocean.

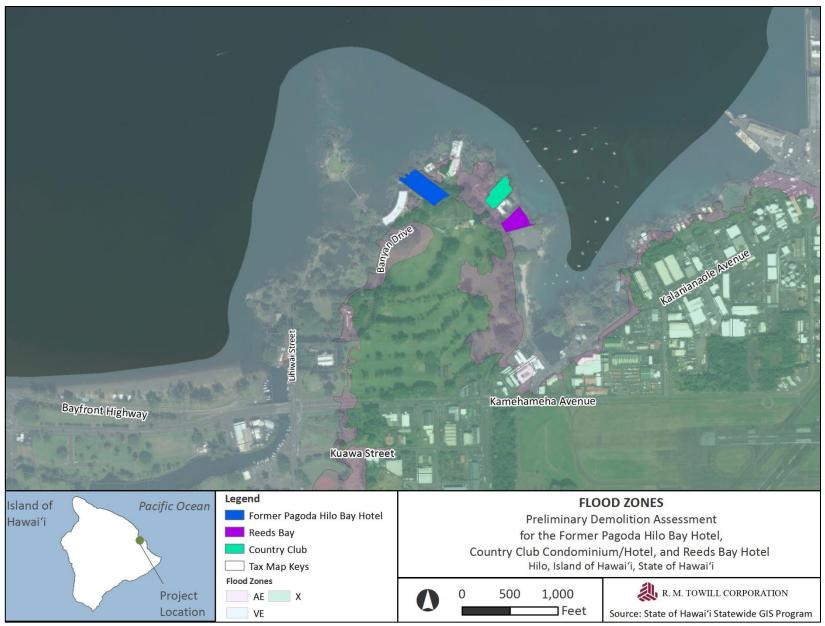
3.2 DEMOLITION REQUIREMENTS

Prior to the start of demolition, the existing onsite utilities should be removed and capped at the Banyan Drive property line. Since the sites are located within flood zones, the finish grade elevation onsite should not exceed existing ground elevations. Onsite areas that are paved and/or located within the building footprint will be backfilled to existing grade. The backfilled areas should be stabilized with grass.

3.3 CONSTRUCTION DOCUMENTS

Construction documents and permits for each site will be needed prior to demolition. This effort should begin with a topographic and shoreline survey of all sites. Concurrently, the Phase 2 ESA, geotechnical engineering, as well as archaeological and biological studies should be conducted. The Phase 2 ESA will determine the locations of contaminated soils and hazardous materials onsite and recommendations for remediation and handling of these materials during construction. After all of the studies are complete, construction documents should be prepared,

Figure 2 – Flood Zone Map



consisting of plans and technical specifications. The construction plans will include civil and electrical engineering. Environmental engineering plans and specifications will be prepared as needed depending on the results of the Phase 2 ESA. A separate set of construction documents will be prepared for each site. The contractor will be responsible for obtaining building, grading and landfill permits for the demolition of each site. Demolition waste will be hauled to the West Hawaii landfill. The last load of the day is noon. Therefore, hauling may need to begin early in the morning. The contractor may need to obtain a noise permit if they plan to begin or end work prior to normal working hours.

3.4 **DEMOLITION WORK**

Demolition work at each site will occur separately and may be done in two phases depending on the availability of funding. Phase 1 will involve the above ground demolition work and Phase 2 will involve the at-grade and below ground demolition work. **See Figures 3 through 5** for the demolition work limits for each site.

Prior to the start of work, the project site should be protected by installing appropriate Best Management Practices (BMPs) around the perimeter of the site. Dust screens and silt fencing should be installed around the perimeter of the project site. Enhanced BMPs may be required to mitigate potential impacts, particularly given the Project's proximity to the shoreline. Limited utilities should be removed for Phase 1 demolition. Electrical service should be disconnected and equipment should be removed. Water and sewer service should be cut and capped at the Banyan Drive property line.

The existing parking lots at the former Pagoda Hilo Bay and Reeds Bay have adequate room for staging during the demolition work. For Country Club, additional staging area may be needed within the golf course property across Banyan Drive.

Phase 1 demolition of the building structures will begin with removal of hazardous materials from the building structures. After the hazardous material removal from the building structure is completed, demolition of the building structure will begin using an excavator or similar equipment with a long stick attachment. Phase 1 demolition work will remove the building structure and down to the at-grade building slabs. Pools will also be removed and backfilled. Parking lot pavement and walkways will remain in place. The building removal sequence will be as described in the structural engineering technical report.

Phase 2 demolition includes removal of the at-grade pavement, walkways, building slabs, building foundations, and basements. The results of the Phase 2 ESA will determine if the soil surrounding the structure will need to be remediated during construction. Phase 2 demolition will begin with removal of underground water, sewer, and electrical lines, which will be terminated in Phase 1. After the utilities are removed, the remaining building structure and pavement will be removed. The site will be backfilled to match existing ground elevations in accordance with the geotechnical engineer's recommendations. Filling onsite above the existing ground elevation will not be allowed since the sites are within designated flood zones. All exposed areas onsite will be stabilized with grass.

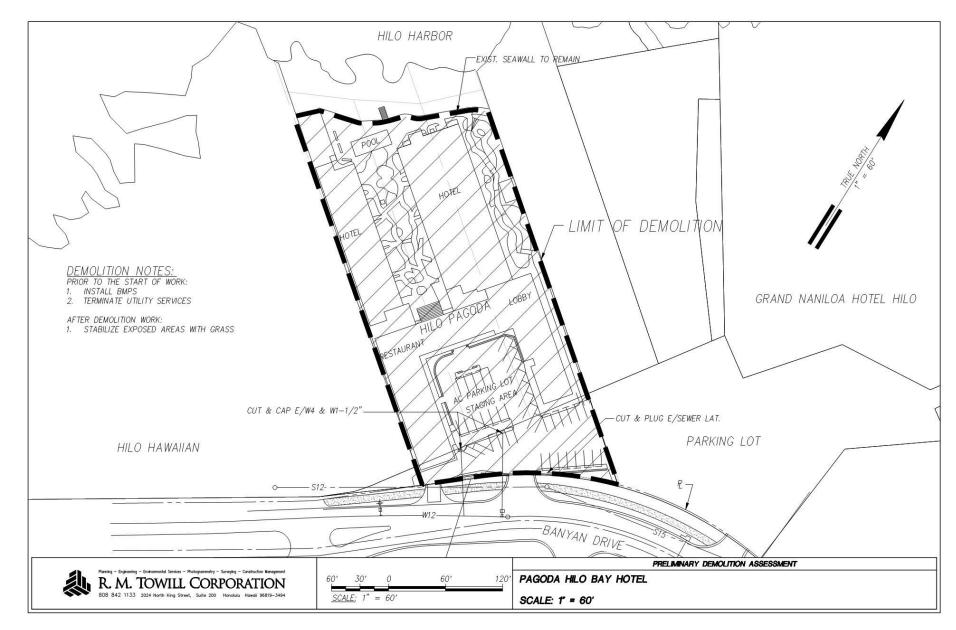
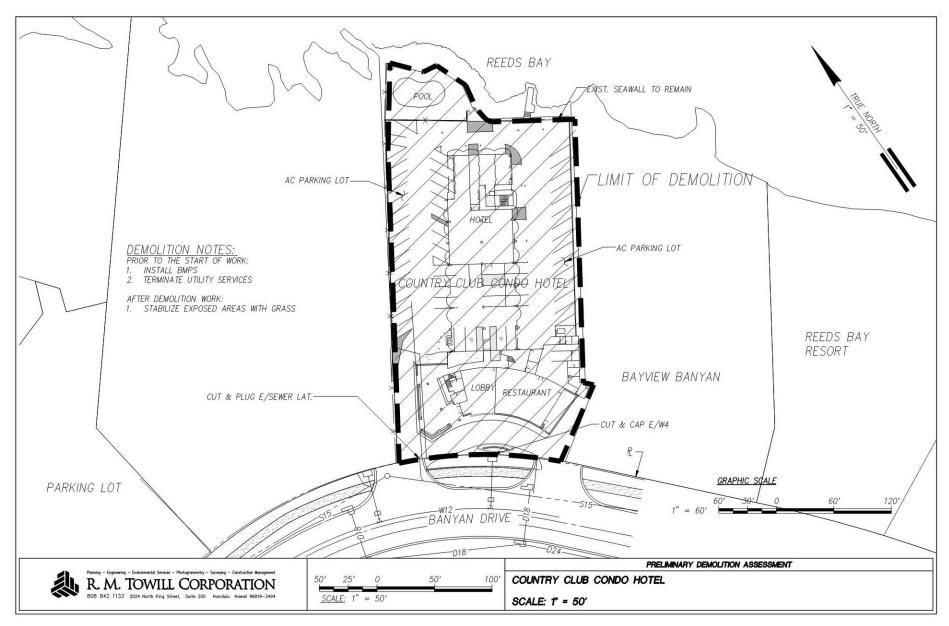
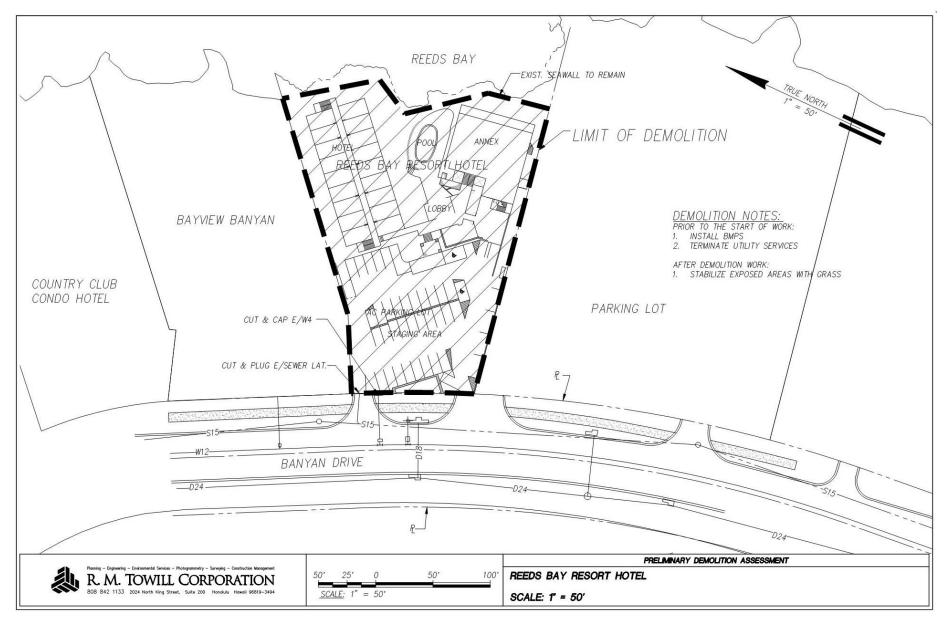


Figure 3 - Limit of Demolition – Former Pagoda Hilo Bay Hotel









4. ENVIRONMENTAL REGULATORY REQUIREMENTS

4.1 FEDERAL REQUIREMENTS

4.1.1 Section 402, U. S. Clean Water Act (CWA)

Pursuant to Section 402 of the Clean Water Act, all projects involving one acre or more of land disturbance are subject to a National Pollutant Discharge Elimination System (NPDES) permit for discharges of storm water associated with construction activities, which is administered by the State of Hawaii, Department of Health, Clean Water Branch (DOH CWB). The type of NPDES permit is determined by the classification of the receiving waters. Hilo Bay is identified as the receiving water and is designated as Class A Marine, therefore, a Notice of Intent (NOI) will be required prior to ground disturbance.

The proposed demolition activities are anticipated to encompass more than one acre at each of the hotels. In addition, the proposed work will be conducted separately, although the implementation schedules are undetermined at this time. Thus, it is anticipated that separate NOIs will be obtained. A single NOI will be obtained, however, should DLNR pursue the simultaneous demolition of all three hotels.

4.1.2 Sections 404 and 401, CWA

Permits may be required from the U. S. Army Corps of Engineers (COE) pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act, as well as from the DOH pursuant to Section 401 of the CWA for the removal of shoreline structures fronting the hotels, including rock walls, boat ramps, and remnant concrete structures.

Until plans are prepared for the proposed redevelopment of the properties, it is recommended that the shoreline structures remain in place throughout the demolition process as removing the structures will destabilize and expose the shoreline area to unnecessary erosion. Retaining the structures in place will stabilize the shoreline, and preclude shoreline permit requirements until the plans for redevelopment can proceed. Should DLNR pursue the removal of the shoreline structures as part of the demolition process, it is recommended that the COE and DOH be consulted to confirm any applicable permit requirements.

4.2 STATE REQUIREMENTS

4.2.1 Chapter 343 Hawaii Revised Statutes & Title 11, Chapter 200, Hawai'i Administrative Rules

Pursuant to Chapter 343, Hawai'i Revised Statutes (HRS), and Title 11, Chapter 200, Hawai'i Administrative Rules (HAR), Department of Health, State of Hawai'i, the project will be subject to the State environmental review process based on the following actions:

- 1. Use of state or county lands or the use of state or county funds; and
- 2. Use within a shoreline area as defined in section 205A-41 HRS.

Given the scope and magnitude of the proposed demolition activities, it is recommended that an environmental assessment (EA) be prepared to evaluate the potential impacts that may occur as a result of the project.

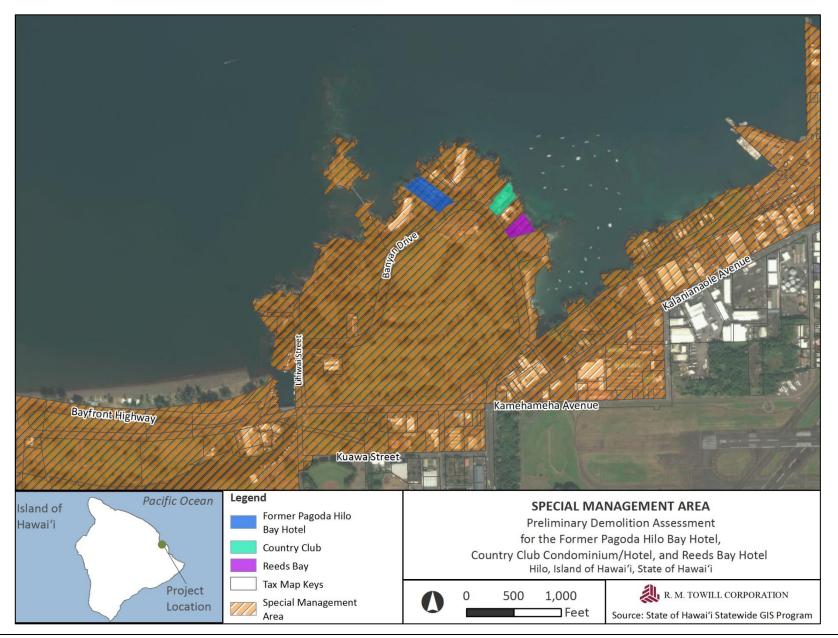
The proposed work will be conducted separately, although the implementation schedules are undetermined at this time. Thus, it is anticipated that separate EAs will be processed for each hotel. A single EA would be recommended, however, should DLNR pursue the simultaneous demolition of all three hotels.

The EA would be processed as an agency action, with DLNR as the accepting authority.

4.2.2 Chapter 205A, HRS

The Project is located within the Special Management Area (SMA) boundary and is subject to Hawai'i Revised Statutes (HRS), Chapter 205A, which requires that the Project be evaluated with respect to SMA objectives, policies and guidelines (see **Figure 6, Special Management Area Map**). Consultation with the County of Hawaii Planning Department confirmed that an SMA Major Permit will be required prior to demolition, as the preliminary cost estimate for each hotel far exceeds the \$500,000 threshold for a SMA Minor Permit. Acceptance of a Final EA/Finding of No Significant Impact will be required prior to the acceptance of an SMA application by the County of Hawaii, Planning Department. It is anticipated that separate SMA applications will be processed for each hotel property.

Figure 6 – Special Management Area



5. COST ESTIMATES

A summary of the preliminary cost estimate for demolition is shown in **Table 2** below, and detailed cost estimates are is included in **Appendices F and G.**

The development of the preliminary cost estimate was based on the following assumptions/qualifications:

- Permit and approvals will be procured separately for each hotel property.
- Hazardous material remediation costs for the interior and exterior of the structure may vary widely. Therefore, specific costs will be developed as part of the Phase 2 ESA.
- Mobilization and installation of BMPs will be paid for twice.
- Demolition work will terminate mauka of the shoreline, and will not include existing shoreline structures such as seawalls, boat ramps, and remnant concrete structures.

Summary of Cost	Table 2 Estimates for Der	nolition	
ltem	Former Pagoda Hilo Bay Hotel	Country Club Condo/Hotel	Reeds Bay Hotel
Ph. 1 - Above Ground Demolition Work	\$4,442,569	\$3,106,726	\$2,120,509
Ph. 2 - Below Ground Demolition Work	\$1,747,048	\$1,538,103	\$1,165,219
Consultant Fees	\$470,900	\$374,400	\$332,600
Permit Fees	\$14,100	\$10,100	\$7,100
Subtotals	\$6,6,74,617	\$5,059,329	\$,575,428
Tax and 20% Contingency	\$1,612,988	\$1,215,388	\$876,121
Total Per Hotel	\$8,287,605	\$6,244,717	\$4,501,549
Total Estimated Demolition Cost		\$19,033,871	

6. PROJECT SCHEDULE

Demolition of each site may range from approximately 40 to 44 months, including design, permitting, and construction (see **Figures 7 through 9**). Key durations in the schedule include:

- Phase 2 Environmental Site Assessment 4 months
- Archaeological Inventory Survey (if needed) 5 months
- Environmental Assessment 6 months
- SMA and NPDES Permits 8 months
- Construction Documents 12 months
- Bidding and Award 4 months for each phase
- Phase 1 Demolition 9 months
- Phase 2 Demolition 9 months

Factors that could affect the schedule include:

- Hazardous material removal/remediation both inside and outside of the structure
- Inadvertent discoveries of archaeological or historical resources
- Presence of threatened or endangered flora or fauna species
- Groundwater
- Government agency review times
- Public opposition
- Coordination with tenants

Figure 7 – Estimated Schedule – Former Pagoda Hilo Bay Hotel

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Figure 8 – Estimated Schedule – Country Club Condominium/Hotel

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Figure 9 – Estimated Schedule – Reeds Bay Hotel

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APPENDICES

(PROVIDED UNDER SEPARATE COVER)

Appendix A Building Demolition Plan KAI Hawaii, Inc.

Appendix B Electrical Assessment Wallace T. Oki, P.E., Inc.

Appendix C Phase I Environmental Site Assessment Element Environmental LLC

Appendix D Archaeological Literature Review and Field Inspection Cultural Surveys Hawaii

> Appendix E Biological and Water Quality Surveys AECOS, Inc.

Appendix F Banyan Drive Demolition Project Cost Estimates Rider Levett Bucknall

> Appendix G Summary of Estimated Costs R. M. Towill Corporation