



# Draft Environmental Assessment

**Construct a Bunkhouse**

**at**

**J.N. "Ding" Darling National Wildlife Refuge**

**May 2025**

**Southeast Region**

**U.S. Fish and Wildlife Service**

**Project Code: 2025-0010666**

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This Draft Environmental Assessment (EA) (Service; 550 FW 3) regulations and policies, is consistent with the President's January 2025 Order and Memorandum. The Service has also voluntarily considered the Council on Environmental Quality's rescinded regulations implementing NEPA, previously found at 40 C.F.R. Parts 1500–1508, as guidance to the extent appropriate and consistent with the requirements of NEPA and Executive Order 14154. NEPA requires examination of the effects of proposed actions on the natural and human environment.

## **Proposed Action**

The Service is proposing to construct, operate, and maintain a 5,700-square-foot bunkhouse on Sanibel Captiva Road on J.N. "Ding" Darling National Wildlife Refuge (JNDDNWR, refuge) with approximately 10 bedrooms to support refuge management priorities and activities to replace facilities that were destroyed during Hurricane Ian in 2022. Part of the Southwest Florida Gulf Coast National Wildlife Refuge Complex (Refuge Complex), the refuge is located on Sanibel Island on Florida's southwest Gulf coast (see figures 1-2 in Appendix A). The proposed site is disconnected from the main part of the refuge; it is located along Sanibel Captiva Road (see Figure 3 in Appendix A). The previously disturbed and mostly cleared site is located less than a mile from the refuge's main entrance and about a quarter of a mile east of Rabbit Road on the south side of Sanibel Captiva Road; it is adjacent to Sanibel-Captiva Conservation Foundation (SCCF) lands to the south and east and bordered by the Embarq/Century Link telecommunications center to the west.

It is important for the Service to build career pathways and mentoring opportunities for youth and entry level professionals to engage and learn about fish and wildlife conservation, as well as to encourage volunteer engagement to enhance refuge management. Given the desirable island location of the refuge, housing and transportation are barriers to accomplishing this at JNDDNWR. Housing is also a barrier to hiring and maintaining needed support staff at JNDDNWR. Replacing five mobile homes that were serving as housing and destroyed during Hurricane Ian, the proposed bunkhouse, along with adequate parking, would provide a lodging option for short-term and professional support staff, volunteers, interns, and visiting researchers needed to support refuge management goals and objectives (see figures 3-6 in Appendix A).

A proposed action may evolve during the NEPA process as the agency refines its proposal and gathers feedback from the public, partners, Native American Tribes, and other agencies. Therefore, a final proposed action may be different from the original. The Proposed Action presented in this Draft EA may be finalized after the conclusion of the public comment period for the Environmental Assessment.

## **Background**

Located along Florida's Southwest Gulf coast in Lee and Charlotte counties, the Refuge Complex (Figure 1 in Appendix A) includes the JNDDNWR and four satellite refuges: Pine Island, Matlacha Pass, Island Bay, and Caloosahatchee National Wildlife Refuges (NWRs). The JNDDNWR (Figure 2 in Appendix A) was established in 1945 as Sanibel National Wildlife Refuge and later renamed in honor of Jay Norwood 'Ding' Darling, the

noted editorial cartoonist, conservationist, and first Chief of the U.S. Biological Survey, the founding agency of the U.S. Fish and Wildlife Service. The 6,406-acre refuge supports hundreds of species of wildlife and plants, providing protection for 15 Federally listed species, numerous migratory birds, and native wildlife and habitat diversity through a mix of habitats, including tropical hardwood forests, beaches, mangrove swamps, mixed wetland shrubs, salt marshes, open waters and seagrass beds, and lakes and canals.

The refuge holds several special designations, including Wilderness Area, Research Natural Area, Marine Protected Area, Florida Important Bird Area, and Outstanding Florida Water. Due to hurricane impacts and closures, visitation to the refuge in 2024 was 190,000, however average annual visitation has historically been over 800,000, which would be expected to continue.

National wildlife refuges are guided by the mission and goals of the National Wildlife Refuge System (NWRS, Refuge System); the purposes, goals, and objectives of an individual refuge; U.S. Fish and Wildlife Service and U.S. Department of the Interior policies; and laws and international treaties refined by administrative guidelines. Policies for management options of refuges are further refined by administrative guidelines established by the Secretary of the Interior and by policy guidelines established by the Director of the Service. Relevant guidance includes the NWRS Administration Act of 1966, as amended by the NWRS Improvement Act of 1997; Refuge Recreation Act of 1962; and selected portions of the Code of Federal Regulations and Fish and Wildlife Service Manual. Treaties, laws, administrative guidelines, and policy guidelines assist refuge managers in making decisions pertaining to soil, water, air, flora, fauna, and other natural resources; cultural resources; research; and recreation on refuge lands and provide a framework for cooperation between the Service and other partners.

The NWRS Improvement Act [16 USC § 668dd(a)] spells out wildlife conservation as the fundamental mission of the Refuge System; requires comprehensive conservation planning to guide management of the Refuge System; directs the involvement of private citizens in land management decisions; and provides that compatible wildlife-dependent recreation is a legitimate and appropriate use that should receive priority in refuge planning and management. Specifically, the Act directs the Secretary of the U.S. Department of the Interior to:

- Ensure that the mission of the NWRS described at 16 USC § 668dd(a)(2) and the purposes of each refuge are carried out,
- Recognize compatible wildlife-dependent recreational uses as the priority public uses of the NWRS through which the American public can develop an appreciation for fish and wildlife, and
- Ensure that opportunities are provided within the NWRS for compatible recreational uses.

The refuge was established in 1945 by agreement through a lease with the state of Florida "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds" (Migratory Bird Conservation Act, 16 USC §§ 715-715r, February 18, 1929, as amended).

Secondary purposes were subsequently applied to the refuge, as listed.

"...wilderness areas...shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness..." 16 USC § 1131 (Wilderness Act)

"...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species" 16 USC § 460k-1 (Refuge Recreation Act) "...the Secretary...may accept and use...real...property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donors." 16 USC § 460k-2 (Refuge Recreation Act)

"...the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions." 16 USC § 3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act)

"...for the development, advancement, management, conservation, and protection of fish and wildlife resources" 16 USC § 742f(a)(4) (Fish and Wildlife Act) "...for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude." 16 USC § 742f(b)(1) (Fish and Wildlife Act)

## **Purpose and Need**

In September of 2022, Sanibel Island was hit by Hurricane Ian. The category 5 storm sent a 13-foot storm surge across the island and damaged nearly every facility on the refuge. At that time the refuge had five mobile homes with a total of 13 bedrooms supporting refuge housing needs, all of which were destroyed; these mobile homes housed interns and entry level employees that supported mission critical work for the refuge. The proposed bunkhouse facility would replace the previous aggregate square footage and bedroom capacity that was lost to the hurricane, with a single structure that would be easier to maintain.

The purpose is to address the current housing situation faced by refuge employees, interns, and volunteers following the loss of previous refuge housing. The need is evidenced by high refuge visitation, high support staff needs, limited available housing,

high housing costs, and longer commuting times that make recruitment and retention more difficult. Further, the need is also to meet the Service's priorities and mandates as outlined by 16 USC § 668dd(a)(4) in the NWRS Administration Act, as amended by the NWRS Improvement Act; serve refuge purposes; and serve refuge management goals and objectives.

As one of the nation's premier refuges with high visitation and numerous visitor services and environmental education program opportunities, JNDDNWR provides opportunities for compatible wildlife-dependent recreational activities and provides education and outreach opportunities to nearby communities and visitors from throughout the US and from all over the world. The refuge aims to teach the next generation of conservation leaders and volunteers through proper stewardship, restoration activities, and management of refuge habitats; hands-on learning about biological communities; and the connection with the surrounding community and related recreational opportunities. To provide high quality opportunities for visitors and environmental education, the refuge looks for opportunities to hire entry level and short-term staff, and to bring in interns and volunteers to support the refuge's and the Service's priorities.

The refuge is located on Sanibel Island, which is a remotely located tourist attraction. Given the small size of Sanibel Island, including the high percentage of the island protected in conservation; high housing costs; longer commuting times from off the island; and the composition of the population, housing on Sanibel Island is inherently limited. Sanibel Island is approximately 17.5 square miles with 2/3 of the island in conservation (Sanibel and Captiva Islands Chamber of Commerce undated). In October 2024, the median home sold price was \$850,000 for Sanibel Island (Realtor.com 2024c), \$580,000 for Fort Myers Beach (Realtor.com 2024b), and \$370,000 for Fort Myers (Realtor.com 2024a). As of December 1, 2024, median monthly rent was \$8,000 for Sanibel Island, \$5,000 for Fort Myers Beach, and \$2,300 for Fort Myers (Zillow.com 2024). Commuting times from nearby Fort Myers Beach range from 30 minutes to an hour, while commuting times from Fort Myers range from 45 minutes to well over an hour; however, wait times can extend to two to three hours to cross the causeway to enter or exit the island.

While the population of Sanibel Island was 6,420 in 2022 (Headwaters Economics 2024), the seasonal population (December through May) is approximately 30,000 (Sanibel and Captiva Islands Chamber of Commerce undated). Most residents in 2022 were age 65 or older with only 30% of the population classified as workers aged 16 and older (Headwaters Economics 2024). In 2022 for Sanibel Island, median income was \$111,683, while per capita income was \$114,484 (Headwaters Economics 2024). The population mix, seasonal population, and median and per capita incomes contribute to the limited housing availability and high housing costs.

The above factors make it difficult to recruit candidates for full-time, part-time, short-term, volunteer, and intern positions. Due to its island appeal, subtropical environment, unique biodiversity, recreation opportunities, and socioeconomic conditions, Sanibel

Island has high housing costs that are prohibitive for lower or no-pay positions. Furthermore, affordable short-term accommodations are not readily available. Refuge positions go unfilled due to difficulties finding viable lodging options that are furnished and inexpensive with short-term lease options. The lack of available lodging serves as a barrier to recruiting qualified candidates, interns, and volunteers.

## **Alternatives Considered**

### ***Alternative A – Continue Current Management (No Action Alternative)***

Under the No Action Alternative, current management would continue, and a new bunkhouse would not be constructed. There are currently two government quarters for long term employees and following hurricane Ian in 2022, there are no government quarters available for short-term workers at the JNDDNWR. Refuge staff would continue to attempt to identify off-site housing for interns, short term temporary staff, and researchers. Large and small homes or small apartment-style buildings off refuge in the open market could potentially meet the need and may be available in neighborhoods on or off the island, but the market is highly variable and expensive. In addition, the current lease market does not have suitable leased spaces necessary for the temporary workforce.

Due to the transient nature of the short-term workforce with highly variable periods and lengths of stay, it is difficult to find short-term, furnished housing for a group of people. Short-term home rental services, such as Airbnb, are limited, not in quantities necessary, and generally not in areas deemed desirable for staff safety or not within easy access to the refuge, with limited ability to assure building safety standards. The lack of affordable housing near the refuge makes it difficult to fill positions. Although current staff continue to implement programs, maintain refuge resources, and provide recreational opportunities given limited staff, additional human resources are needed to serve refuge purposes and management goals, objectives, and priorities.

Under Alternative A, the site location in Figure 3 in Appendix A would continue to serve as a portion of the overflow parking area for the tram tour, remain unused since the overflow parking need is already served west of the Proposed Action, and likely remain in its currently degraded state. Existing commuting conditions would continue with longer commute times, high priced tolls on the causeway, and little to no public transit options between the island and off island locations. Crossing the causeway on anything other than a motor vehicle is not currently allowed; this would be expected to continue. Limited availability and high housing costs, the need for a vehicle, daily tolls, and longer commute times would continue to make the refuge a less desirable option as a professional or short-term career or learning opportunity.

### ***Alternative B – Build a Bunkhouse on the Sanibel Captiva Road (Proposed Action)***

Under Alternative B, the Service would construct the proposed bunkhouse on Sanibel Captiva Road on a previously disturbed and cleared site currently used for overflow

parking for the Refuge's wildlife tram tour (see figures 3-6 in Appendix A). The Proposed Action for construction of a bunkhouse was developed based on internal meetings with engineers, facility managers, and refuge staff. The Proposed Action at the JNDDNWR would include the listed items.

- Construction of an approximate 5,700-square-foot elevated bunkhouse on property already owned by the Service (GPS location at 26.4410417, -82.1045460).
- A location less than a mile from refuge's existing administration building, allowing for easy, economical, and environmentally friendly commute options.
- An elevated standard bunkhouse design based upon the bunkhouse at National Key Deer Refuge (Figure 5 in Appendix A).
- A campus-style building design that includes:
  - intern housing [3,112 square feet (sf)],
  - 2 professional housing units (1,661 sf and 927 sf)
  - a screened community room (1,425 sf), and
  - a courtyard.
- The building will be situated on the south side of the existing parking lot so public parking on the remainder of the site would continue.
- Extension of nearby water, sewer, and electric utilities consistent with designs and implementation that facilitate minimum disturbance (such as underground placement).
- Use of an existing single-lane access road, with an entrance and exit, to accommodate two-way traffic.
- Hard-surfaced parking areas underneath the buildings (Figure 6 in Appendix A) to reduce the footprint and impacts.

The proposed bunkhouse would be an integral component for implementing the refuge's stewardship responsibilities. Inclusion of housing for entry level employees would help meet responsibilities and promote conservation careers. Also, short-term housing would support Staff, volunteers, interns, and researchers, that are both economical and integral to the success of the refuge. The proposed site is on Sanibel Captiva Road, and the building site is the former location of the Island Water Association Headquarters (Figure 3 in Appendix A) and less than a mile east of the refuge entrance. It is surrounded by private property and SCCF property. Overflow parking for the existing refuge wildlife tram tour would continue west of the proposed bunkhouse. The proposed project area is located close to existing utility infrastructure on an already disturbed site that includes an existing access road and dirt parking area. To minimize impacts, the design of the bunkhouse would only include the removal of a minor amount (< 0.1 acres) of existing trees and shrubs; some of the vegetation to be removed would be nonnative and invasive species. The site was selected to minimize costs, loss of wildlife habitat, and wildlife impacts. No changes in refuge regulations would be associated with this proposal.



While the Proposed Action would indirectly support all refuge management goals and objectives, it would specifically support the listed goals and objectives (USFWS 2010b).

- **Refuge Management Goal 1.** Refuge Operations and Management. Provide sufficient infrastructure, operations, volunteers, and staff to implement a comprehensive refuge management program to protect and manage refuge resources and the natural and cultural values of Sanibel and Captiva Islands.
  - Refuge Management Objective 1.a(2). Within 10 years of CCP approval, hire four additional refuge-specific staff: biologist, biological science technician, law enforcement officer, and park ranger (environmental education/outreach).
  - Refuge Management Objective 1.b(1). As staff are added to the Refuge Complex, as visitation increases, and as facilities and other infrastructure are expanded, ensure that office, support facilities, and other infrastructure are sufficient to support Refuge Complex management, programs, staff, and volunteers.
- **Refuge Management Goal 2.** Partners. Foster strong and effective working relationships with existing and new governmental and non-governmental partners for the purposes of accomplishing refuge management goals and objectives and protecting the natural and cultural resources of Sanibel and Captiva Islands.

## **Affected Environment and Environmental Consequences**

The site of the Proposed Action is a previously disturbed, mostly cleared area with little vegetation currently used for overflow parking for the refuge's wildlife tram tour (Figure 3 in Appendix A). The site is located along Sanibel Captiva Road across the street and less than a mile east of the refuge entrance, between private business properties and SCCF property. Including numerous commercial properties, Sanibel Captiva Road is one of the main island roads, with Causeway Boulevard and Periwinkle Way being the other two main roadways. During peak season, nearly 13,000 vehicles enter Sanibel Island daily with high resultant congestion (City of Sanibel 2016).

Existing vegetation on the site includes native, non-native, and invasive species, consisting of mostly grass and weeds. The site has an existing u-shaped drive area and a dirt parking lot with sparse shrubs and trees. The proposed building would be approximately 5,700 square feet and would be placed to the south of the site to allow for continued use of the existing overflow parking for the refuge's tram tour. The small construction project would have a limited area of influence of 200 yards around the construction site, and any impacts such as noise and dust would be limited in spatial and temporal scopes to this 200-yard distance and limited to time of construction. Construction would occur during daytime hours. Since the structure itself would be raised onto pilings and would be located on disturbed land, minimal ground disturbance would be expected.

The effects and impacts of the Proposed Action considered here are changes to the human environment, whether adverse or beneficial, that are reasonably foreseeable and have a reasonably close causal relationship to the Proposed Action or alternatives. This EA includes the written analyses of the environmental consequences on a resource only when the adverse impacts on that resource could be more than negligible and therefore considered an “affected resource.” Any resources that would not be more than negligibly impacted by the action have been dismissed from further analyses. Table 1 below identifies those resources that either do not exist within the project area or would either not be affected or only negligibly adversely affected by the Proposed Action; as such, these resources are not further analyzed in this EA. Table 1 also identifies those resources that have the potential for greater than negligible adverse impacts; those resources are further analyzed in this EA.

**Table 1. Potential for Adverse Impacts from the Proposed Action and No Action Alternatives**

<b>Resources*</b>	<b>Not Applicable: Resource does not exist in project area</b>	<b>No/Negligible Adverse Impacts: Exists but no or negligible impacts</b>	<b>Greater than Negligible Adverse Impacts: Impacts analyzed in this EA</b>
Threatened and Endangered Species and Other Special Status Species		X	
Other Wildlife Species			X
Habitat and Vegetation (including vegetation of special management concern)		X	
Geology and Soils			X
Air Quality		X	
Water Quality		X	
Floodplains	X		
Wetland/Aquatic Species	X		
Wilderness	X		
Visitor Use and Experience		X	
Cultural Resources		X	
Indian Trust Resources	X		
Refuge Management and Operations		X	
Socioeconomics*		X	

*\*1Executive Order 14154, Unleashing American Energy (Jan. 20, 2025), and a Presidential Memorandum, Ending Illegal Discrimination and Restoring Merit-Based*

*Opportunity (Jan. 21, 2025), require the Department to strictly adhere to the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq. Further, such Order and Memorandum repeal Executive Orders 12898 (Feb. 11, 1994) and 14096 (Apr. 21, 2023). Because Executive Orders 12898 and 14096 have been repealed, complying with such Orders is a legal impossibility. The U.S. Fish and Wildlife Service verifies that it has complied with the requirements of NEPA, including the Department's regulations and procedures implementing NEPA at 43 C.F.R. Part 46 and Part 516 of the Departmental Manual, consistent with the President's January 2025 Order and Memorandum. The U.S. Fish and Wildlife Service has also voluntarily considered the Council on Environmental Quality's rescinded regulations implementing NEPA, previously found at 40 C.F.R. Parts 1500–1508, as guidance to the extent appropriate and consistent with the requirements of NEPA and Executive Order 14154.*

Since floodplains, wetlands and aquatic species, Wilderness, and Indian Trust resources are not on the site or within the region of influence, they would not be adversely impacted and are not further analyzed in this EA. Further, since no or negligible adverse impacts would be anticipated for habitat and vegetation (including vegetation of special management concern), air quality, water quality, visitor use and experience, cultural resources, refuge management and operations, and socioeconomics, these impact topics are also not further analyzed in this EA. Any impacts related to construction, including construction vehicles and transportation of materials, would be short-term. According to Florida's Department of Traffic (FDOT) in a 2023 traffic count for Sanibel Captiva Road, the annual average daily transportation count was 13,800 (FDOT 2023). If the equivalent of 4 daily vehicles were used for construction, the addition would be less than 0.03% and would be short-term. Long-term adverse impacts from the additional vehicles regularly using the site would also be minimal, representing less than 1% of the average daily transportation on Sanibel Captiva Road.

No or negligible adverse impacts would be anticipated for cultural resources; while they are not further analyzed in this EA, additional context is provided. As a federal land management agency, the Service is responsible for locating and protecting all historic resources, specifically archeological sites, historic landscapes, and historic structures eligible for, or listed in, the National Register of Historic Places. This applies not only to refuge properties, but also to properties affected by refuge activities. For compliance with Section 106 of the National Historic Preservation Act, the Service, during the early planning stages of a proposed new action, coordinates with the Regional Historic Preservation Officer, including providing a description and the location of all projects, activities, routine maintenance, and operations that affect ground and structures, details on requests for compatible uses, and the range of alternatives considered.

The Service's Regional Historic Preservation Officer analyzes proposed undertakings for their potential to affect historic and prehistoric sites, and consults with the State Historic Preservation Officer, the relevant Native American Tribes, and other parties as appropriate. Under either alternative, we evaluated the potential for impacts on

archeological, prehistoric, and historical resources. This care ensures that the refuge complies with Section 106 of the National Historic Preservation Act, regardless of the alternative. Both alternatives would work to protect cultural resources and would follow the same laws, regulations, and policies in relation to cultural resource protection, including during any planning, earth moving, maintenance, and management activities. Neither alternative would be anticipated to have adverse impacts to cultural resources.

No or negligible adverse impacts would also be anticipated for socioeconomics; while they are not further analyzed in this EA, additional context is provided. Sanibel Island is largely an affluent older community. More than 59% of the island's population was reported to be between the ages of 65 and 84 (Headwaters Economics 2024). Almost all areas of Lee County report higher than the national average in education, including high school diplomas and higher degrees of learning (Headwaters Economics 2024). More than 95% of Sanibel's population identifies as white alone and only 2% of the populations do not speak English well (Headwaters Economics 2024). Most of Sanibel's population report incomes of \$50,000 or more, and more than 22% report over \$200,000 annually, double the nationwide average (Headwaters Economics 2024). Given the affluence of the surrounding community and the small size of the Proposed Action, the Service does not anticipate any adverse socioeconomic impacts.

#### *Threatened and Endangered Species and Other Special Status Species*

Certain threatened and endangered species and other special status species have the potential for greater than negligible adverse impacts under the Proposed Action. The Service conducted a Section 7 Endangered Species Act biological evaluation with draft findings of "No Effect" and "May Affect but Not Likely to Adversely Affect."

The draft Section 7 included findings of "No Effect" for the following species: Aboriginal prickly apple cactus [*Harrisia* (= *Cereus*) *aboriginum* (= *gracilis*)], beautiful pawpaw (*Deeringothamus pulchellus*), Florida bonneted bat (*Eumops floridanus*), tricolored bat (*Perimyotis subflavus*), West Indian manatee (*Trichechus manatus*) or its critical habitat, Florida panther (*Puma concolor coryi*), American crocodile (*Crocodylus acutus*), American Alligator (*Alligator mississippiensis*), Eastern indigo snake (*Drymarchon couperi*), green sea turtle (*Chelonia mydas*), Kemp's ridley sea turtle (*Lepidochelys kempii*), Gulf sturgeon (*Acipenser oxyrinchus*), piping plover (*Charadrius melodus*) or its designated critical habitat, rufa red knot (*Calidris canutus rufa*) or its proposed critical habitat, eastern black rail (*Laterallus jamaicensis ssp. jamaicensis*), Everglade snail kite (*Rostrhamus sociabilis plumbeus*), because they are not known to occur in the project area, nor does the project area contain suitable habitat for these species.

**American Alligator:** Alligators are known to occur in the freshwater sand cordgrass marshes to the south of the project area. This project could cause a temporary disturbance to loafing or feeding individuals near the project area due to construction activity noise. However, alligators are highly adaptable and mobile and will likely seek less disturbed habitat in adjacent areas during the construction activities. Once construction activities are complete it is expected that alligators will resume normal

behaviors. Alligators occur throughout the island and are very habituated to human disturbances due to the urban interface and the high number of seasonal visitors to the island. This species was included in this evaluation due to the similarity of appearance to the threatened American Crocodile. The proposed project will have no effect on the American alligator.

**American Crocodile:** There are two (2) American crocodiles known to be living on Sanibel Island at this time and both are females. However, these 2 individuals are frequently spotted in the Dunes Golf and Tennis Club approximately six (6) miles east of the project area. There have been no verified sightings of crocodiles within refuge boundaries since 2010 despite suitable habitat being present. If crocodiles are present in the adjacent wetlands, they are highly mobile and will be able to move from any areas of disturbance to more suitable areas nearby since the species is highly mobile and adaptable. Therefore, the proposed action will have no effect on the American Crocodile.

**Eastern Indigo Snake:** Although the Eastern indigo snake historically occurred on the Refuge and on Sanibel, and were once considered common, none have been sighted within the Refuge in more than 24 years, last verified sighting was a road killed individual in 1999. Survey efforts for Indigo snakes have been undertaken by Refuge biologists and partner conservation organizations since 2003 and no individuals have been encountered on the island during these efforts. Indigo snakes have been recently documented on Captiva and North Captiva Islands, approximately 9 miles northwest of the project area but that was prior to the landfall of Category 5 Hurricane Ian in September 2022. There have been no documented sightings of eastern indigo snakes on these islands since this event. Although known to cohabitate with gopher tortoises, no gopher tortoise burrows have been documented in the vicinity of the project footprint. Historically indigo snakes were found on the highest forested ridges and coastal scrub habitat within the Refuge. The project footprint lies within a disturbed area that once was the headquarters for a local utility provider and the surrounding areas are characterized by interior freshwater sand cordgrass marsh which is not a known habitat for the eastern indigo snake. USFWS standard protection measures for the eastern indigo snake will be used throughout the duration of this project despite the absence of the species for some time as an additional protection measure. Therefore, this proposed activity will have no effect on the eastern indigo snake.

**Green Sea Turtle:** The proposed project will have no effect on the green sea turtle due to the project location being over a mile from any marine or estuarine habitats.

**Kemp's Ridley Sea Turtle:** The proposed project will have no effect on the Kemp's ridley sea turtle due to the project being over a mile from any marine or estuarine habitats.

**Gulf Sturgeon:** The proposed project will have no effect on the Gulf sturgeon due to the project being located over a mile from any marine or estuarine habitats and the project location is well south of the species documented range.

**Aboriginal Apple Cactus:** This species nearest known location is on Buck Key nearly 6.5 miles to the north and west of the proposed project location. This species is known to only occupy shell middens and carbonate dredge spoil mounds and there is no similar habitat type within the project vicinity. Therefore, the proposed project will have no effect on the aboriginal apple cactus.

**Beautiful Pawpaw:** The proposed project will have no effect on the beautiful pawpaw. This species has never been documented on Sanibel Island or the Refuge. This species inhabits poorly drained and xeric flatwoods, and this habitat type does not occur on Sanibel Island. The nearest known location of occurrence for this species is approximately 8.5 miles to the north/northwest on Pine Island.

**Crested Caracara:** The crested caracara has not been documented on Sanibel Island nor within refuge boundaries. This species inhabits open plains and savanna habitats typically found inland of coastal Lee County and therefore is not expected in the project vicinity. Therefore, there will be no effect on the species from the proposed project.

**Eastern Black Rail:** The eastern black rail has not been documented within refuge boundaries nor on Sanibel Island. Dr. Kara Lefevre, Florida Gulf Coast University, conducted standardized surveys for eastern black rails in April of 2022. The survey efforts failed to produce any indications of the presence of eastern black rails on the island. Habitats adjacent to the project location could be utilized by eastern black rails but is unlikely due to their historical absence from occurring on Sanibel Island. Therefore, since the presence of eastern black rails within the vicinity of the project footprint is highly unlikely there will be no effects to this species from the proposed project.

**Everglade Snail Kite:** The Everglade snail kite has not been documented on Sanibel or within refuge boundaries. This species is typically found inland from the SW coast of Florida inhabiting freshwater lake and marsh habitats where it feeds exclusively on species of snail in the genus *Pomacea spp.* These habitat types and prey items are not found on Sanibel Island. Therefore, no effect to this species is expected from the proposed activity.

**Piping Plover:** The proposed project will have no effect on the piping plover. Piping plovers are found on beach habitats managed by the refuge and the nearest available habitat type to be utilized by this species is nearly 3.0 miles to the SE of the project vicinity. This species is a wintertime resident that utilizes the beach habitats for foraging and loafing. There is no suitable foraging or loafing habitat for this species in the project area.

**Rufa Red Knot:** The proposed project will have no effect on the rufa red knot. This species can be found within refuge boundaries in habitat types typically found in beach and estuarine mudflats where it forages and loafs. This species is a winter migrant and does not nest on Sanibel Island. The project vicinity does not support any rufa red knot habitat.

**Florida Bonneted Bat:** The Florida bonneted bat has not been documented on Sanibel Island nor within refuge boundaries. The island does not support suitable roosting habitats for this species. Partner biologists with the Sanibel Captiva Conservation Foundation (SCCF) have been conducting acoustic surveys for bats on the island for several years and this species has not been documented during these efforts. Previous to those more recent efforts, SCCF had conducted additional surveys and this species was not encountered. Therefore, due to the absence of this species and lack of suitable roosting habitat the proposed project will have no effect on the Florida bonneted bat.

**Tricolored Bat:** The tricolored bat is a candidate species for listing under the ESA. The species has not been documented on Sanibel Island at this time. Partner biologists with the Sanibel Captiva Conservation Foundations (SCCF) have been conducting acoustic surveys for bats on the island for several years and the tricolored bat has not been observed/encountered during these efforts. Therefore, this project will have no effect on this species.

**Florida Panther:** The proposed project will have no effect on the Florida panther. This species has not been documented on Sanibel Island nor within refuge boundaries. The nearest known Florida panther sightings are in central and eastern Lee County, approximately 20 miles to the east at the closest documented observations. Sanibel Island does not support the needed habitat size or type required for this species nor the prey base required for the survival of the Florida panther.

**West Indian Manatee:** The West Indian manatee is found within refuge boundaries occupying estuarine waters where it feeds on seagrasses, mangrove leaves, and macro algae. The proposed project is not located within this habitat type. Therefore, there will be no effect to this species from the proposed project.

The draft Section 7 included findings of “May Affect but Not Likely to Adversely Affect” for the following species: Monarch butterfly (*Danaus plexippus*).

**Monarch Butterfly:** This species is a candidate for listing under the authorities of the ESA. Monarch butterflies may be found within refuge boundaries. This species is highly migratory and mobile, and it is most likely using refuge lands in a transitory fashion. The refuge does not support any suitable foraging/egg laying habitats since species of milkweed that the species is reliant upon are not found in abundance due to the somewhat saline soils. Due to the species highly motile life history there is the possibility that individuals may encounter dust, equipment, or other hazards while

navigating the project site during construction activities which could result in mechanical injury to the organism.

While construction, operation, and maintenance of the proposed bunkhouse could have minor adverse impacts, the Service is unaware of any adverse environmental trends or planned actions that would adversely impact Federally listed species or other special status species. No significant short-term, long-term, direct, indirect, or cumulative adverse impacts would be expected for Federally listed species, critical habitat, or other special status species under the Proposed Action; only limited insignificant short-term impacts would be expected.

Other non-listed wildlife species were also considered. The killdeer (*Charadrius vociferus*) has been seen loafing and nesting around the Proposed Action. Killdeer get their name from their distinct call that sounds like their name — a shrill, high-pitched “kill-deer.” They are visually striking, with tan-brown and white plumage, two black bands across their chests, and bright orange eye rings. This plover species can be found year-round in Florida and across most of the United States, Central America, and the Caribbean. Killdeer can be found near water along with other shorebirds, as well as in dry areas (SCCF 2023). Killdeer are known to loaf and nest around the proposed construction area; construction of the Proposed Action could have minor adverse short-term impacts to the behavior, causing individuals to shift their use areas away from the construction activity. After construction, the killdeer could resume loafing and nesting behaviors in nearby open grassy areas of unimproved parking lots adjacent to the facility. The Service is unaware of any adverse environmental trends or planned actions that would adversely impact non-listed wildlife species. No known significant short-term, long-term, direct, indirect, or cumulative adverse impacts would be anticipated for any other wildlife species under the Proposed Action, including the killdeer. If any species were to be observed during construction in the project footprint the Service would take immediate actions to minimize adverse impacts.

Geology and soils have the potential for greater than negligible adverse impacts under the Proposed Action. While geology and soils would be adversely impacted by the construction of the proposed bunkhouse facility, the site was previously disturbed and had a municipal water supply tank on the site for several decades. The adverse impacts represented by the Proposed Action would be minor and limited to a small portion of the site. The geology, soils, and soil formation processes would be disturbed during construction for the proposed building’s footprint and a small area surrounding the footprint by construction equipment and operation. However, since the structure itself would be raised onto pilings, minimal ground disturbance would be expected.

Since the site was previously disturbed, the proposed building would be elevated on pilings, and the building footprint area was previously a municipal water supply tank operated by Island Water Association, so adverse impacts to geology and soils previously occurred; therefore, no significant short-term, long-term, direct, indirect, or cumulative adverse impacts would be anticipated for geology and soils under the



Proposed Action. Following the construction of the facility, planting native landscaping vegetation would help improve the site's soils surrounding the structure. Planting native plants would improve stormwater run-off and retain soils. The Service is unaware of any adverse environmental trends or planned actions that would adversely impact geology and soils in the project area.

### **Mitigation Measures and Conditions**

No mitigation measures would be required since there would be no anticipated long-term adverse environmental consequences. Best management practices, such as sediment/silt containment fencing and water runoff retention, would be developed during engineering and design planning and followed as part of site preparation and construction activities to minimize any adverse impacts.

### **Monitoring**

Refuge staff would monitor construction daily to identify any adverse impacts arising from the Proposed Action. On an ad hoc basis, refuge staff would monitor any adverse impacts that occur during operation and maintenance. As appropriate, measures to minimize adverse impacts would be undertaken if any unacceptable impacts were to be observed.

### **Summary of Analysis**

The EA briefly provides sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). Below is a summary of the analysis presented above.

#### ***Alternative A – No Action Alternative***

Under the No Action Alternative, no bunkhouse facility would be constructed to replace the lost facilities, and staff, volunteers, interns and researchers would continue to pursue lodging options off site and off Sanibel Island. Before Hurricane Ian, five mobile homes provided housing for refuge staff, interns, volunteers, and researchers; however, those were destroyed during the storm. The Service would continue to experience a reduced pool of short-term and volunteer staff for the refuge due to commuting needs and expenses. The Service would continue to struggle to recruit and retain short-term staff, interns, and volunteers with positions and needs continuing to go unfilled. No significant direct, indirect, short-term, long-term, or cumulative adverse impacts would be anticipated under the No Action Alternative.

#### ***Alternative B– Proposed Action Alternative***

Alternative B is identified as the Proposed Action because it best serves the stated purpose and need and would best promote the national environmental policy expressed in Section 101 of NEPA. The Proposed Action best addresses the housing situation faced by the refuge since high refuge visitation, high support staff needs, limited available housing, high housing costs, and longer commuting times make recruitment and retention of full-time, part-time, short-term, volunteer, and intern positions more

difficult. The Proposed Action would have minor potential adverse impacts due to associated construction activities. These impacts would be expected to be minimal and short-lived. The costs would be a one-time cost with minimal administrative costs and monthly utilities. No or negligible impacts would be expected for habitat and vegetation (including vegetation of special management concern), air quality, water quality, visitor use and experience, cultural resources, refuge management and operations, and socioeconomics. Minor adverse impacts would be expected under the Proposed Action for threatened and endangered species and other special status species, other wildlife, and geology and soils. However, these impacts would be minor and limited in spatial and temporal scope; no significant short-term, long-term, direct, indirect, or cumulative adverse impacts would be anticipated for these or any resources.

This alternative would help the Service serve the visiting public and refuge purposes, goals, and objectives with additional staff and volunteers. Without housing as proposed in Alternative B, reaching preservation, conservation, restoration, recreation, education, and other refuge management goals and objectives would continue to be constrained. As one of the nation's top visited NWRs with more than 800,000 visitors annually, that offers many sought after recreational opportunities, and that is home to diverse and unique habitat and species, J.N. "Ding" Darling NWR could better provide opportunities for entry level career path employees and volunteers, support outreach and educational activities, and improve and implement refuge priorities with the addition of the proposed bunkhouse. No significant direct, indirect, short-term, long-term, or cumulative adverse impacts would be anticipated under the Proposed Action.

## **List of Preparers and Reviewers**

### **U.S. Fish and Wildlife Service**

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## Consultation and Coordination

The Service coordinated with governmental agencies during design of the Proposed Action and during public review and comment on this Draft EA, including the City of Sanibel (including Planning and Code Enforcement Department, Public Works Department, and Natural Resources Department) and the State of Florida Clearinghouse. Native American Tribes were also consulted, including the Miccosukee Tribe of Indians of Florida, the Muscogee Nation, Seminole Nation of Oklahoma, and Seminole Tribe of Florida. The Draft EA will be made available for public review and comment for 30 days. A Public Information Bulletin will be posted on the JNDDNWR website.

All comments received will be reviewed in the development of final documents and any decision. All comments received become part of the official public record. We will handle all requests for such comments in accordance with the Freedom of Information Act and NEPA regulations in 40 CFR § 1506.6(f).

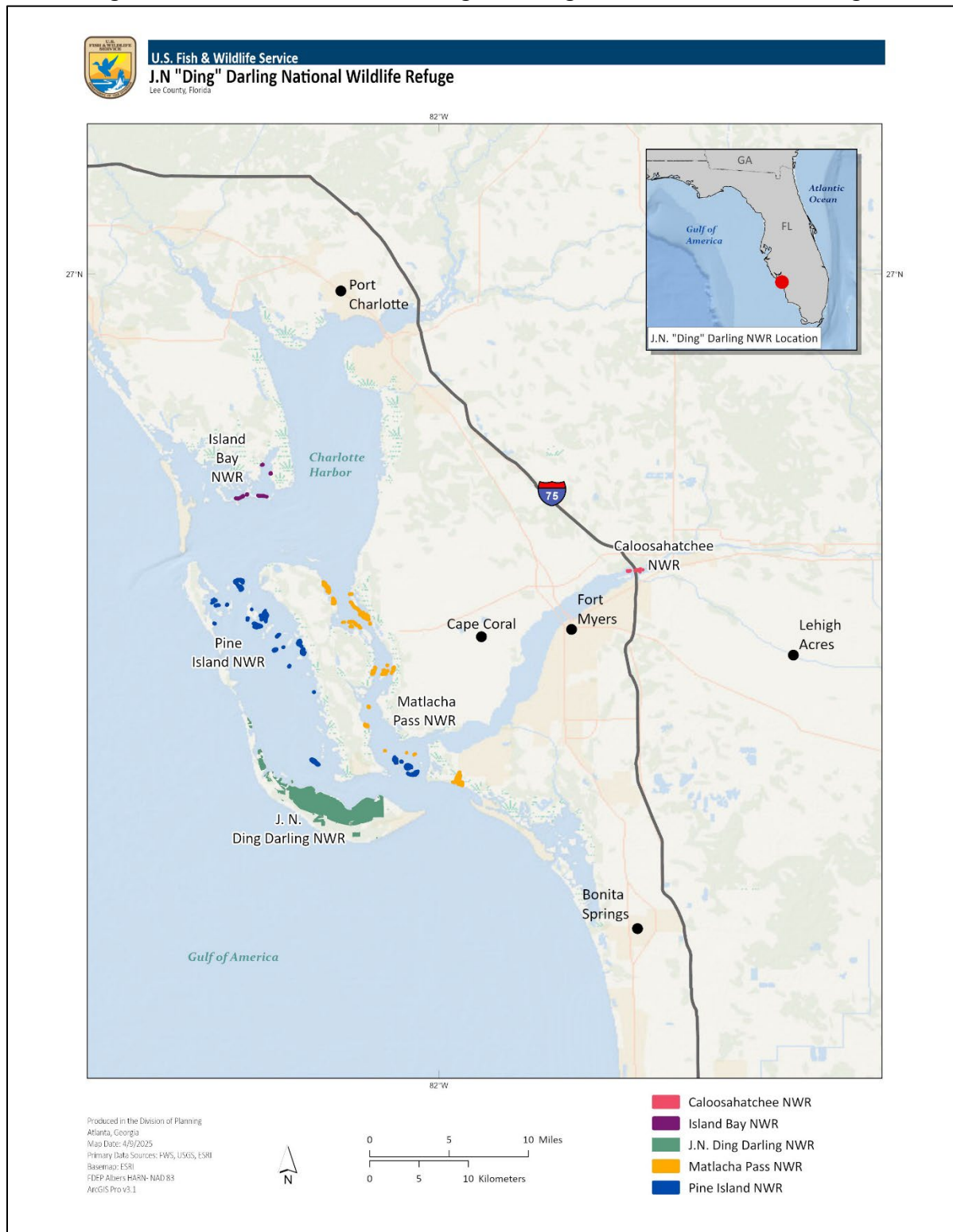
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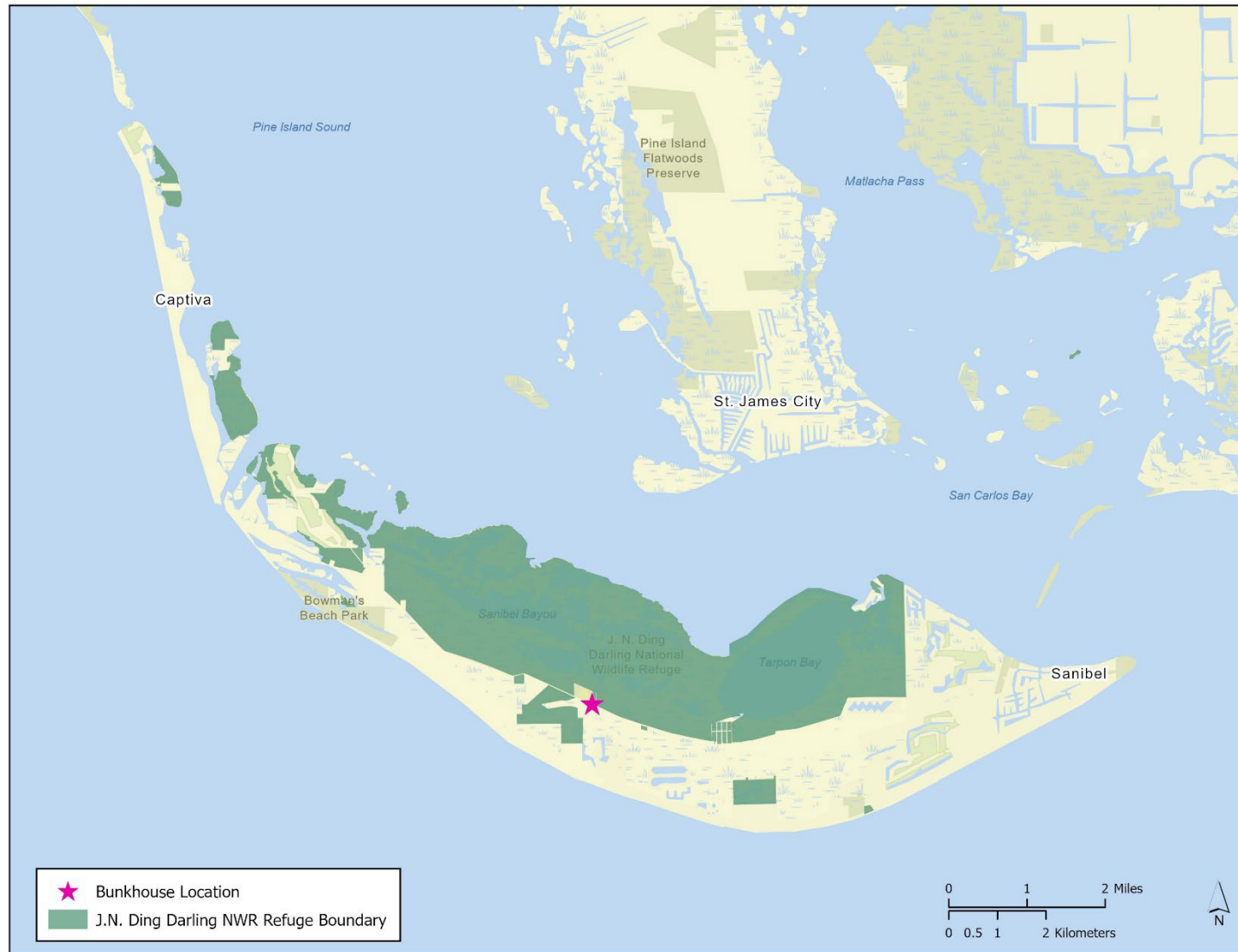
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## Appendix A. Figures

Figure 1: Location of J.N. "Ding" Darling National Wildlife Refuge



*Figure 2: Location of J.N. “Ding” Darling National Wildlife Refuge*





**Figure 3: Proposed Work Area within J.N. “Ding” Darling National Wildlife Refuge**

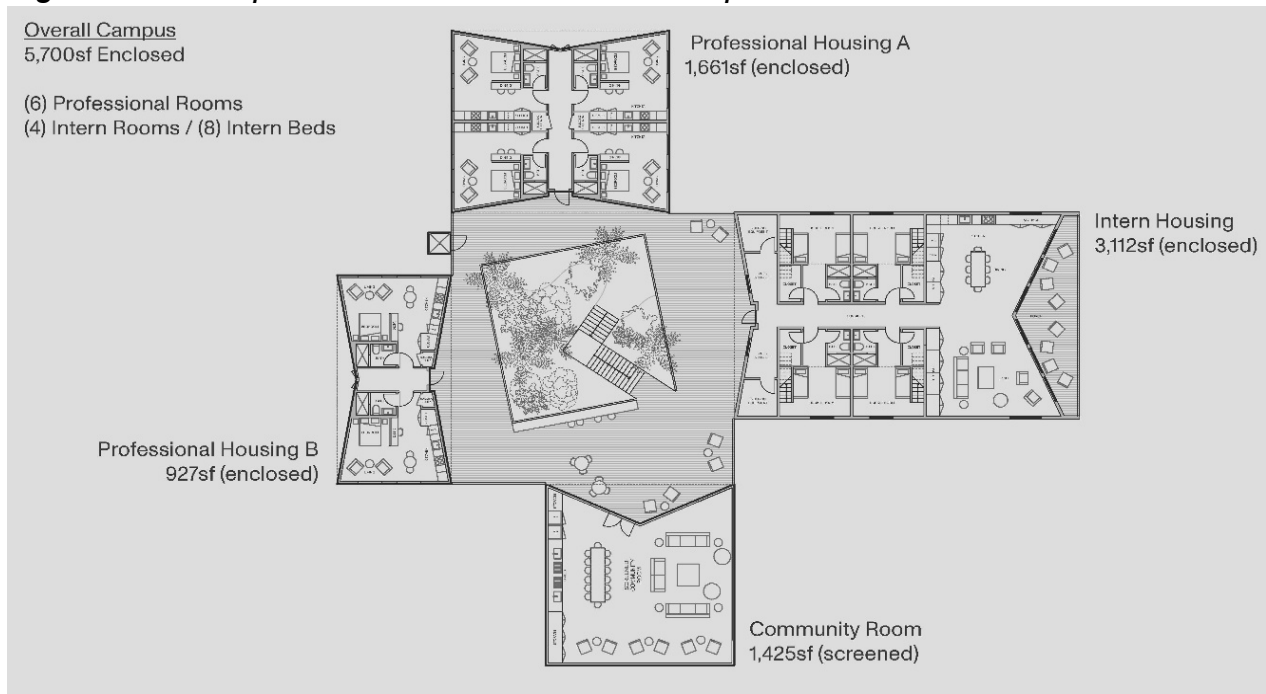


**Figure 4: Conceptual Site Plan, Bird's Eye View**





**Figure 5: Conceptual Overall Floor Plan/Concept**



**Figure 6: Parking Level Plan/Design**

