ACORN ENGINEERING, INC.

Island Nursing Home
Attn: Skip Greenlaw, Board President
587 North Deer Isle Road
Deer Isle, ME 04627

December 12, 2023

Subject: Due Diligence Findings & Conceptual Site Planning
Island Nursing Home parcel, Deer Isle, Maine

Dear Skip,

Acorn Engineering, Inc. (Acorn) is pleased to provide this memorandum of due diligence findings, Existing Site Plan, and Concept Site Plan for Island Nursing Home's (INH) potential redevelopment project. The parcel is located at 587 North Deer Isle Road and is wholly within the Inland zone in Deer Isle, Maine. The parcel totals approximately 19.6 acres and contains the approximately 30,000 square foot former Island Nursing Home and the associated septic field, access drive, and parking areas.

It is our understanding that the client is considering renovating the existing 1-story former nursing home structure into affordable residential units and constructing an additional residential building on the property. Additionally, we understand that a key project goal is to optimize the development's unit count for the utilization of the site's existing subsurface wastewater disposal system without requiring expansion of the system. With these goals in mind, we offer the following findings to assist the INH Board in their goal to redevelop and enhance their property and serve the Deer Isle-Stonington region through increasing affordable housing unit count.

Site History and Characteristics:

It is our understanding that this property, the site of INH from the mid-1980s – October 2021, has been an asset to Island communities through the past decades, and that the Board wishes to ensure the site continues to meet the communities' needs. In the time since INH's closing, the Board has continued to maintain the property and heat the building, in addition to keeping the existing septic system and wells online.

During a November 30th site visit, INH staff assisted Acorn through offering a tour of the property, providing valuable insight on the septic system layout and operations, and providing construction and as-built documents for the existing building and septic system. Also on November 30th, Acorn staff reviewed State of Maine Subsurface Wastewater Disposal System forms (HHE-200 forms) and local plumbing inspections on file at the Deer Isle Town office.

During this site visit, Acorn staff also walked the undeveloped portions of the property to observe drainage patterns and presence of delineated wetlands shown in the provided 2015 topographic survey by Sage Collins Survey, Inc. In addition to the delineated wetlands, Acorn staff noted potential wetland areas, which are identified on the Existing Site Plan.

The access drive and paved areas of the site are in fair condition, with some areas of joint and block cracking and prior patch repair noted. The currently paved portions of the site consist of gentle slopes less than 5%, excepting portions of the access drive which reach approximately 8%. The undeveloped portions of the site are forested and consist of areas of upland conifer with approximate slopes between 5-12% and areas of mixed forest and possible wetland with slopes <5%. All site drainage flows generally west across the site. Approximately half of the site's area drains directly to the Route 15 corridor, with the remainder draining toward adjacent properties along Route 15. All drainage is ultimately conveyed west by culverts beneath Route 15.

If INH wishes to move forward with formal site design, particularly if new construction is proposed, it is recommended that a site, boundary, and topographic survey be completed for the property by a Professional Land Surveyor in the State of Maine. Additionally, a natural resource delineation should be conducted by a professional proficient in USACE resource delineation on the portion of the property proposed for new development. It is recommended that this investigation be conducted within the spring amphibian breeding season (late April/early May) to confirm or deny the presence of vernal pools.

It appears the site is served by aboveground three-phase power from Route 15, and that a large (>500-gallon) propane tank exists onsite. No additional utility services to the site were observed by Acorn.

Existing Septic System and Wells:

Through review of HHE-200 forms for the site, it is our understanding that the current engineered septic system is permitted to treat up to **8,800 gallons per day (GPD)**. The existing system was constructed piecemeal between 1982 and 1994, and contains a total 10,000 gallons of tank capacity, a 2,000-gallon grease trap, a lift station manhole with duplicate pumps, and the various disposal beds as detailed in the attached Existing Site plan. Through conversations with long-time INH maintenance staff, we understand the system was fully operational at the time of the facility's closing in October 2021 and continues in operation at low flow rates. INH staff have indicated that the grease trap and septic tanks were last cleaned in July 2023.

Four wells of varying depths exist on the property. Three of the four wells are currently active, and it is Acorn's understanding that these three wells provided adequate flow to the INH facility at full capacity. All four wells are greater than 300-feet from the disposal beds and greater than 150-feet from any treatment tanks, exceeding the setback requirements for wells with greater than 2000 GPD and public water system wells.

Regulatory Overview:

Local Regulation:

It is Acorn's understanding that the Town currently enforces an Emergency Growth Moratorium on the acceptance of applications for subdivisions and multiplex or attached dwelling units, and this Moratorium is applicable to a project of this scope. In conversations with development partners and with Town staff, it is our understanding that the Moratorium will be lifted in January 2024. Furthermore, in conversations with Town staff, it is our understanding that a formal Site Plan Review process may be adopted by the Town as early as March 2024, and would govern any new construction on the site.

At current, the Town of Deer Isle Subdivision Regulations would allow a maximum of **36 dwelling units** on the 19.6-acre site. For multi-unit developments, Subdivision Regulations permit unit density

at a rate of 1 unit per half acre of lot size, with the first unit accounting for 2-acres of the lot. However, the Town is required to update and adopt its land use ordinances to incorporate LD 2003 standards by July 1, 2024. LD 2003 was enacted in 2022 to increase housing opportunities in Maine, and it is possible that a higher housing density of 2.5x the Town's allowed residential density would be achievable on this site. Note that this 2.5x density "bonus" is contingent upon the parcel being within a "locally-designated growth area", and the proposed housing meeting affordability criteria.

In our review of the Draft Deer Isle 2024 Comprehensive Plan, it does *not* appear that the INH parcel is within a proposed growth area, but this Comprehensive Plan has not yet been accepted and there may be opportunity to identify a growth area in the parcel locus if acceptable to the Steering Committee and the community. **If affordability and growth area criteria are met, the LD 2003 density bonus would allow for up to 90 affordable units on this parcel, considering the Town's current density standards.** Note that the existing septic system would need to be expanded to support a unit count of 90. See the table and analyses within the *Reuse of Existing Septic System and Wells* section for more details.

If renovations to the existing building are proposed, a Town Building Permit Application would need to be submitted. Additionally, any new proposed construction would be subject to the regulations of any Land Use or Site Plan ordinances anticipated for adoption by the Town in 2024.

State Regulation:

If the project is limited to renovations on the existing building, it is unlikely that any Maine Department of Environmental Protection permitting would be needed. In the same vein, improvements to the site which do not add impervious area, such as repaving existing paved areas, are considered maintenance activities and are exempt from Maine DEP stormwater permitting, provided that no regrading occurs to alter the hydrology and drainage patterns on the site.

If an additional building or buildings and associated parking were proposed for the site, submission of a Maine DEP Stormwater Permit-By-Rule (PBR) application would be required if **greater than one acre** of area is disturbed by the proposed project. A Stormwater PBR is the lowest tier of DEP Land Permitting review. Projects proposing under one acre of disturbance are not subject to Stormwater Law review by Maine DEP. If one acre or more of **impervious** area or five acres or more of **developed** area is proposed, higher levels of DEP Stormwater permitting would be required.

Given the proposed change in use, Acorn recommends that a pre-application meeting be conducted with Maine DEP Land Bureau staff during the design phase to confirm that the existing portions of the site are exempt from Maine DEP review.

Given our current understanding and knowledge of the site, it is assumed that proposed development can be sited to avoid impacting protected natural resources, and that this project would not be subject to Maine DEP Natural Resources Protection Act or US Army Corps of Engineers permitting.

Reuse of Existing Septic System and Wells:

If the project is limited to renovations on the existing building, continued use of the system will require inspection by the Local Plumbing Inspector, as well as by a Licensed Site Evaluator, to assess functionality. Be aware that the findings of these inspections may require updates or renovations to the system unforeseen by Acorn, or abandonment of portions of the system that would reduce the permitted daily flow. Be aware that as the tank layout at the existing building is zoned (receives

distinct flows from different regions of the building) any proposed septic routing for renovated units may need to preserve this drainage scheme.

Adding an additional building or buildings to the site would require inspections as mentioned above, as well as installation of new septic tanks upstream of the existing pump station manhole. Please reference the attached Concept Site Plan for a potential layout. Installation of new treatment tanks at the new building would require submission of HHE-200 and HHE-220 forms and design by a Professional Engineer, who may consult with a Licensed Site Evaluator to assist with design and permit submission.

In either development case, it is recommended that due to the proposed change in use of the engineered system (nursing home to multi-unit residential), outreach with State Subsurface Wastewater Team staff be conducted during design phase in tandem with engaging a Professional Engineer to ensure State agreement with continued use of the system.

Below is a table of maximum unit counts on the site using the existing treatment field's maximum permitted capacity of **8,800 GPD.** These calculations reference the applicable design flows for multi-family developments for engineered systems from the Subsurface Wastewater Disposal Rules. Multi-family development generates 120 GPD for one-bedroom units and 90 GPD per bedroom for units with multiple bedrooms.

Number of 1-br units	Number of 2-br units	Total units	Total bedrooms	Total GPD
73	-	**73**	**73**	8,760
13	40	**53**	**93**	8,760
1	48	**49**	**97**	8,760
35	25	**60**	**85**	8,700
20	35	**55**	**90**	8,700

Note that these unit counts are higher than currently allowed by the Town but are presented as upper limits for use of the existing system. Note also that unit counts shown on the Concept Site Plan are subject to the applicability of LD 2003 to this project in tandem with any density bonuses applicable to this site in future Land Use Ordinances adopted by the town.

None of the wells on the property are listed in the State of Maine's database of Public Water Systems (PWS) and it is unknown to Acorn whether the existing wells or system have been operated as a PWS in the past. An individual well is subject to state PWS standards and testing requirements if it serves a population of at least 25 people per day. For apartment and multi-unit housing developments, the State calculates a well's served population as: Living Units x 2.5. **Thus, any single existing well which serves greater than 9 dwelling units is subject to PWS regulation, testing, and inspection requirements.** Further, wells are only considered "separate" if **all** parts of their system, including pumping, treatment, storage, and distribution are separate.

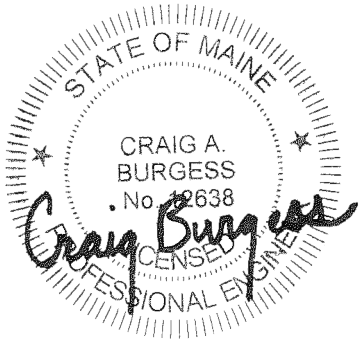
It is recommended that State Drinking Water Program staff be consulted during the design phase to provide information about PWS compliance. At a minimum, any wells included in proposed renovations or development should be tested for quality and flow.

Conclusion:

Acorn greatly appreciates the opportunity to provide you with this summary of findings and included Existing Site Plan and Concept Site Plan. We recognize the importance of this site to the Deer Isle-Stonington community and the INH Board's commitment to providing the community with feedback opportunities as they navigate future uses of this parcel.

Acorn would be pleased to provide a proposal for engineering and permitting assistance for future endeavors the Board wishes to pursue at this site, if requested. Please do not hesitate to reach out with any questions or comments.

Sincerely,



Finn A. Bondeson, E.I.
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Craig A. Burgess, P.E.
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Acorn Engineering, Inc.

Attachments:

C-EX: Existing Site Plan
C-01: Concept Site Plan