

Section 1: Applicant Identification

1. Applicant's Name: Liborio 6 LLC Telephone #: (302) 426-0200
 Mailing Address: c/o Louis Ramunno Fax #: _____
903 N French Street E-mail: ramunnol@aol.com
Wilmington DE 19801
2. Consultant's Name: Evelyn Maurmeyer Company Name: CER, Inc.
 Mailing Address: PO Box 674 Telephone #: (302) 645-9610
Lewes, DE 19958 Fax #: (302) 645-4332
 E-mail: maurmeye@udel.edu
3. Contractor's Name: Mark Deere Company Name: Droney Marine Construction
 Mailing Address: 31322 Railway Road Telephone #: (302) 462-5859
Millville, DE 19967 Fax #: _____
 E-mail: markdeere324@gmail.com

Section 2: Project Description

4. Check those that apply:
 New Project/addition to existing project? Repair/Replace existing structure? (If checked, must answer #16)

5. Project Purpose (attach additional sheets as necessary):
Applicant proposes to construct a 115' long x 4' wide community wetland walkway; and community kayak launching facilities, consisting of a 20' long x 4' wide ramp/gangway; a 6' long x 6' wide floating pier; and two 11' long x 5'4" wide floating kayak docks.

6. Check each Appendix that is enclosed with this application:

<input checked="" type="checkbox"/> A. Boat Docking Facilities	<input type="checkbox"/> G. Bulkheads	<input type="checkbox"/> N. Preliminary Marina Checklist
<input type="checkbox"/> B. Boat Ramps	<input type="checkbox"/> H. Fill	<input type="checkbox"/> O. Marinas
<input type="checkbox"/> C. Road Crossings	<input type="checkbox"/> I. Rip-Rap Sills and Revetments	<input type="checkbox"/> P. Stormwater Management
<input type="checkbox"/> D. Channel Modifications/Dams	<input type="checkbox"/> J. Vegetative Stabilization	<input type="checkbox"/> Q. Ponds and Impoundments
<input type="checkbox"/> E. Utility Crossings	<input checked="" type="checkbox"/> K. Jetties, Groins, Breakwaters	<input type="checkbox"/> R. Maintenance Dredging
<input type="checkbox"/> F. Intake or Outfall Structures	<input checked="" type="checkbox"/> M. Activities in State Wetlands	<input type="checkbox"/> S. New Dredging

Section 3: Project Location

7. Project Site Address: Kearsarge Dr., County: N.C. Kent Sussex
Sophia's Landing Site owner name (if different from applicant): same
Frederica DE 19946 Address of site owner: "

8. Driving Directions: See Figures 1, 2, 3, and 4 for maps and directions.
 (Attach a vicinity map identifying road names and the project location)

9. Tax Parcel ID Number: 8-08-141.10-04- Subdivision Name: Sophia's Landing
99.00/000

WLS Use Only:		Permit #:								
Type	SP <input type="checkbox"/>	SL <input type="checkbox"/>	SU <input type="checkbox"/>	WE <input type="checkbox"/>	WQ <input type="checkbox"/>	LA <input type="checkbox"/>	SA <input type="checkbox"/>	MP <input type="checkbox"/>	WA <input type="checkbox"/>	
Corps Permit:	SPGP 18 <input type="checkbox"/> 20 <input type="checkbox"/>		Nationwide Permit #:				Individual Permit #:			
Received Date:			Project Scientist:							
Fee Received?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Amt: \$				Receipt #:			
Public Notice #:			Public Notice Dates:		ON		OFF			

Section 3: Project Location (Continued)

Murderkill

10. Name of waterbody at Project Location: River waterbody is a tributary to: Delaware Bay

11. Is the waterbody: Tidal Non-tidal Waterbody width at mean low or ordinary high water 160' ±

12. Is the project: On public subaqueous lands? On private subaqueous lands?*
 In State-regulated wetlands? In Federally-regulated wetlands?

*If the project is on private subaqueous lands, provide the name of the subaqueous lands owner:
Public subaqueous lands

(Written permission from the private subaqueous lands owner must be included with this application)

13. Present Zoning: Agricultural Residential Commercial Industrial Other

Section 4: Miscellaneous

14. A. List the names and complete mailing addresses of the immediately adjoining property owners on all sides of the project (attach additional sheets as necessary):
See attached sheets

B. For wetlands and marina projects, list the names and complete mailing addresses of property owners within a 1,000 foot radius of the project (attach additional sheets as necessary):
See attached sheets

15. Provide the names of DNREC and/or Army Corps of Engineers representatives whom you have discussed the project with:
Matt Jones: Telephone discussion with agent.

A. Have you had a State Jurisdictional Determination performed on the property? Yes No
 B. Has the project been reviewed in a monthly Joint Permit Processing Meeting? Yes No
 *If yes, what was the date of the meeting? _____

16. Are there existing structures or fill at the project site in subaqueous lands? Yes No
 *If yes, provide the permit and/or lease number(s):
No structures present

*If no, were structures and/or fill in place prior to 1969? Yes No

17. Have you applied for or obtained a Federal permit from the Army Corps of Engineers?
 No Pending Issued Denied Date: _____

Type of Permit: SPGP-20 eligibility Federal Permit or ID #: _____
 (community structure)

18. Have you applied for permits from other Sections within DNREC?
 No Pending Issued Denied Date: _____ Permit or ID #: _____

Type of permit (circle all that apply): Septic Well NPDES Storm Water

Other: _____

- 14A. List the name and mailing address of immediately adjoining property owners on all sides of the project. Project site: Tax Map Parcel #8.08-141.10-04-99.00/000 (see Tax Office Bill), a 67.10 acre Open Space parcel, part of larger parcel, SM-08-141.10-01.00-000 and SM-08-141.00-01-000 (deed attached).**

<u>Parcel</u>	<u>Name, address of owner</u>
01.01	Kent County, 555 Bay Road, Dover, DE 19901
02	Kevin Evans, PO Box 519, Frederica DE 19946
02.01	Rebecca Toner, PO Box 202, Frederica DE 19946

Parcels 01 to 09 and 87 to 98: Vacant lots in Sophia's Landing along Kearsarge Drive, all owned by applicant, Liborio 6 LLC, 903 N. French Street, Wilmington, DE 19801

- 14B. For wetlands projects, list the name and complete mailing address of each property owner within a 1,000 foot radius of the project.**

All of the above, and:

<u>Parcel #</u>	<u>Name, address of owner</u>
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Vacant Lots in Sophia's Landing:

Parcels 50-52; 69-74; 02-07; 23-29; 46-51; 69-71; and 98: West of Kearsarge Drive, all owned by applicant, Liborio 6 LLC, 903 N. French Street, Wilmington, DE 19801

Parcel 53: NVR, Inc., 2500 Wrangle Hill Road, Bear, DE 19701

Parcels along S. Market Street (west side):

90	Leland Madge, Jr., PO Box 13, Frederica DE 19946
91	Phil Green, PO Box 29, Frederica DE 19946

Parcels along S. Market Street (east side):

1	MOAB Properties LLC, 1056 S. State St., Dover DE 19901
2	Rockaway Likeness LLC, c/o Carolyn Debermand, Esq., 234 S. Market Street, Camden Wyoming DE 19934
3	Alexander Donovan, PO Box 545, Frederica DE 19946
4	Michael Bennett, PO Box 221, Frederica DE 19946
5	Garfield Reid, 240 S. Market St., Frederica DE 19946
6	Brandon Yerkie, PO Box 20, Frederica DE 19946
7	Terrena Giles-Brown, 345 Turkey Point Rd., Viola DE 19979
8	Liborio Frederica LLC, 903 N. French Street, Wilmington, DE 19801
9	Wendy Hall, PO Box 36, Frederica DE 19946
10	Douglas Anania, PO Box 422, Frederica DE 19946

- 11 Douglas Anania, PO Box 422, Frederica DE 19946
- 12 Christiana Johnson, 268 Banning Rd., Camden Wyoming DE 19934
- 13 Bowers Group LLC, 16 Fleming St., Harrington DE 19952
- 14 Robin Lee Fisher, PO Box 160, Frederica DE 19946
- 15 Cromer Management LLC, 101 Grapevine Alley, **Milford DE 19963**

Across the waterway within 1000' (west of project site):

<u>Parcel</u>	<u>Name, address of owner</u>
1.02	State of Delaware, PO Box 778, Dover, DE 19903
1.03	State of Delaware, 89 Kings Highway, Dover, DE 19901
18	Daryl B. Nashold, 4712 Dot Street, Milford DE 19963

Section 5: Signature Page

19. Agent Authorization:

If you choose to complete this section, all future correspondence to the Department may be signed by the duly authorized agent. In addition, the agent will become the primary point of contact for all correspondence from the Department.

I do not wish to authorize an agent to act on my behalf

I wish to authorize an agent as indicated below

I, Louis Ramunno, Liborio ⁶ LLC hereby designate and authorize Evelyn Maurmeyer, CER, Inc. (Name of Applicant) (Name of Agent) to act on my behalf in the processing of this application and to furnish any additional information requested by the Department.

Authorized Agent's Name: Evelyn Maurmeyer Telephone #: (302) 645-9610
Mailing Address: CER, Inc. Fax #: (302) 645-4332
PO Box 674 E-mail: maurmeye@udel.edu
Lewes DE 19958

20. Agent's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application.

[Signature]
Agent's Signature

7/27/2009
Date

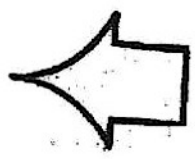
21. Applicant's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge and that I am required to inform the Department of any changes or updates to the information provided in this application. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application. I grant permission to authorized Department representatives to enter upon the premises for inspection purposes during working hours.

[Signature]
Applicant's Signature

6/13/24
Date

Louis Ramunno
Print Name



SIGN & DATE

22. Contractor's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge, and that I am required to inform the Department of any changes or updates to the information provided in this application. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application.

Droney Marine Construction
Contractor's Name

Date

Print Name

BOAT DOCKING FACILITIES

Any boat docking facility for more than four (4) vessels is considered a marina facility (see definitions and explanations section) and requires the applicant to complete Appendices N and O, and make application to the U. S. Army Corps of Engineers for approval.

Please make sure answers to all of the questions in this appendix correspond with information on the application drawings.

1. Briefly describe the project. (Attach additional sheets as necessary.)

Applicant proposes to construct community kayak launching facility, consisting of a 20' long x 4' wide ramp; a 6' long x 6' wide floating

2. Please provide numbers and dimensions as follows: pier; and two 11' long x 5'4" wide docks.

Structure Type	Number of Support Pilings	Dimensions (Channelward of MHW or OHW)		Dimensions (Channelward of MLW- n/a for non-tidal water)		New, repair or maintain
		Width ft.	Length ft.	Width ft.	Length ft.	
Dock, Pier, Lift, gangway						
Ramp/gangway	0	4'	20'	4'	15'±	new
Fl. pier	2±	6'	6'	6'	6'	"
Fl. docks	@2	@ 5'4"	@ 11'	@ 5'4"	@ 11'	"
Freestanding Pilings	Number 0					

Mooring Buoy: How many moorings will be installed? _____
 What will be used for the anchor(s)? _____
 Anchor/Mooring Block Weight _____
 Anchor Line Scope (Length or Ratio) _____
 Water Depth at Mooring Location _____

- Approximately how wide is the waterway at this project site? 160± ft. (measured from MLW to MLW)
- What will be the mean low water depth at the most channelward end of the mooring facility? 3± ft.
- What type of material(s) will be used for construction of the mooring facility (e.g. salt treated wood, aluminum, fiberglass floats, etc.) Use of creosote-treated wood is prohibited.
 Aluminum ramp/gangway; poly floats; wood or composite decking; plastic &
- Circle any of the following items that are proposed over subaqueous lands: EPS foam filled docks
 Fish Cleaning Stations/Benches/Ladders/Water Lines/ Satellite/Electric Lines/ Handrails/Other (Describe)

If any of the items are circled above, include their dimensions and location on the application drawings.

7. What will be the distance from the most channelward end of the docking facility to the edge of any natural or man-made channel? 30± ft.

8. Describe the vessels that will be berthed at the docking facility. Please draw proposed vessel locations on plans and drawings. **Kayaks and canoes will be launched from the docks.**

	Canoes/ _____			
Make/model	<u>Kayaks</u>	length	<u>10'±</u>	width <u>4'±</u> draft <u>< 1'</u>
Make/model	_____	length	_____	width _____ draft _____
Make/model	_____	length	_____	width _____ draft _____
Make/model	_____	length	_____	width _____ draft _____

9. Please provide a copy of the current state registration or Coast Guard Certificate of Documentation for each motorized vessel listed above.

Not required for non-motorized vessels

10. Give the number and type of each Marine Sanitation Device (e.g. MSD III, Portable toilet) that will be used on vessels to be docked at the facility.

None

11. Is there currently a residence on the property? Yes No

Sophia's Landing residential community to be built

12. Do you plan to reach the boat docking facility from your own upland property? Yes No If "No", explain your proposed means of access and provide documentation of easement or documentation authorizing access if you intend to cross someone else's property.

13. Will any portion of the structure be located in privately owned underwater land (such as a pond or lagoon) owned by someone other than the applicant? Yes No.

If yes, written permission of the underwater land owner must be provided with this application.

14. What is the width of the waterfront property frontage adjacent to subaqueous lands? 1,000 ft. +

Will any portion of the structure or any vessel be placed within 10 feet of your neighbor's property line?

Yes No

If yes, a letter of no objection from the adjacent property owner must be included with this application.

ACTIVITIES IN STATE WETLANDS

Please make sure that all answers in this appendix correspond to information on the application drawings.

1. Project description and explanation of need.

Applicant proposes to construct a 115' long x 4' wide community walkway elevated +4' over DNREC-regulated wetlands to provide access to a proposed kayak launch dock.

2. What is area of impact for each activity in state wetlands?

Wetlands Walkways/Other Structures:

Length 115 ft. Width 4 ft.

Piles 28-30± Height +4' ft. over marsh

3. What is volume of fill or excavated material involved in this project?

Fill 0 cubic yards

Excavation 0 cubic yards

4. Map number of state wetland map where project is located: DNR # 243 (see Figure 6).

ENVIRONMENTAL SUMMARY - PLEASE SUBMIT AN EVALUATION OF IMPACT OF THE PROPOSED ACTIVITY (ATTACH ADDITIONAL SHEETS AS NEEDED): SEE ATTACHED REPORT

5. State reasons that structures cannot feasibly be located on lands other than wetlands.
6. Detail temporary and permanent changes which would be caused by the proposed project and the impact of these changes on the project area and adjacent areas.
7. Describe alternatives to the proposed action which would reduce or avoid environmental damage.
8. Describe all measures to be taken during and after the completion of the proposed project to reduce detrimental effects.
9. Describe all permanent environmental impacts which cannot be avoided.

10. Submit detailed evaluation of impact of the proposed project on the following:

a. Value of tidal ebb and flow

- i. Production Value: carrying organic matter to adjacent estuaries and coastal waters which serve as breeding areas for certain animal species (especially fish and shellfish).
- ii. Value as a natural protective system of absorption of storm wave energy, flood waters, and heavy rainfall, thereby decreasing flood and erosion damage.
- iii. The prevention of silting in certain harbors and inlets thereby reducing dredging.
- iv. Removal and recycling of inorganic nutrients.
- v. Effect on the estuarine waters.

b. Habitat Value

- i. Habitat for resident species of wildlife including furbearers, invertebrates, finfish.
- ii. Habitat for migratory wildlife species including waterfowl, wading birds, shorebirds, shorebirds, passerines, finfish, shrimp.
- iii. Rearing area, nesting area, breeding grounds for various species.
- iv. Habitat for rare or endangered plants.
- v. Presence of plants or animals known to be rare generally, or unique to the particular location.
- vi. Presence of plants or animals near the limits of their territorial range.
- vii. Presence of unique geological or wetland features.

c. Aesthetic Effect - Consideration of the aesthetic effect may include:

- i. Presence of plants or animals of a high visual quality.
- ii. The presence of an associated water body.
- iii. Wetland type of topographic diversity.

d. Impact of Supporting Facilities

The supporting facilities to be considered include any public or private construction, whether or not the construction occurs in the wetlands, which would be required for construction or operation of the proposed wetlands activity, such as roads, sewage disposal facilities, electric lines, water supply systems, and schools. Effects shall be separately determined for the lands neighboring such facilities.

- e. Effect on Neighboring Land Uses
 - i. The effects of the proposed wetland activity on neighboring land use are to be considered whether or not the neighboring lands are wetlands.
 - ii. The environmental, aesthetic and economic effects of the proposed wetlands activity on land uses neighboring the lands on which supporting facilities will be located may be considered.

- f. Federal, State, Regional, County and Municipal Comprehensive Plans.
Compliance of the proposed activities with the plans of the jurisdiction in which it is proposed to take place, and its impact on the plans of other affected jurisdictions.

- g. Economic Impact

Economic Impact shall include a short and long-term evaluation of the following factors to the extent the effect is directly attributable to the proposed activity:

- i. Jobs created or lost and the net income effect of jobs.
- ii. Increases in revenues to or increases in expenditure by State, County and local governments (e.g., increased taxes from an increased tax base and increased expenditure for maintaining supporting facilities).
- iii. Increases or decreases in the value attributable to the wetland as a source of nutrients to finfish, crustacea and shellfish and as habitats of such species or other flora or fauna of significant actual or potential economic value.
- iv. Increases or decreases in the value of the land as a recreational area.
- v. Increases or decreases in the cost of flood control or expected flood damage which might be caused by the effect of the activity on the natural capacity of the wetland to reduce flood damage.
- vi. Increases or decreases the costs of maintaining navigable harbors and waterways which would result from altering the capacity of the wetlands to absorb silt.
- vii. The net economic effect, both public and private, or any contemplated supporting facilities.
- viii. The net economic effect, both public and private, of the proposed activity on neighboring land uses.



COASTAL & ESTUARINE RESEARCH, INC.

Marine Studies Complex
P.O. Box 674
Lewes, Delaware 19958
302-645-9610

June 2024

**APPENDIX M:
CONSTRUCTION IN STATE-REGULATED WETLANDS**

Applicant

Liborio G, LLC
c/o Louis Ramunno
903 N. French Street
Wilmington, DE 19801
(302) 426-0200 (office); (302) 229-7362 (cell)
ramunnol@aol.com

Site Location and Description

The project site is located off of Kearsarge Drive, **Sophia's Landing**, Frederica, Kent County, Delaware. See Figures 1, 2, 3, and 4 for maps and directions. The site is depicted on the U.S.G.S. topographic map, Frederica, Delaware quadrangle, and is adjacent to the Murderkill River (see Figure 5). The site is shown on State of Delaware DNREC Wetlands Map #243, 1988 photobase (Figure 6), and is mapped **M** (marsh) and **W** (water). The site is depicted on the National Wetland Inventory Map (figure 7). Wetlands are mapped **PEM5R** (palustrine emergent, *Phragmites australis*, freshwater tidal, seasonally flooded); Murderkill River is mapped **R1UBV** (Riverine tidal, unconsolidated bottom, freshwater tidal, permanently flooded). See Figure 8 for aerial photograph of site, and Figure 9 for ground-level photograph.

Proposed Project

The applicant proposes to construct a 115' long x 4' wide community wetland walkway, elevated +4' above the marsh surface, and a community launching facility, consisting of a 20' long x 4' wide ramp/gangway; a 6' long x 6' wide floating pier; and two 11' long x 5'4" wide floating kayak dock launches (see Figures 10 and 11, and Appendix A). Purpose of the walkway is to provide access to the waterway, Murderkill River. Purpose of the access ramp (gangway), floating pier, and floating kayak dock launches is to provide launching facilities for kayaks and other non-motorized vessels (canoes, paddleboards, etc.) for residents of the Sophia's Landing community.

ENVIRONMENTAL SUMMARY

5. The project cannot feasibly be located on lands other than wetlands because the purpose of the elevated walkway is to provide access from upland community open space across wetlands to a proposed community kayak launching facility in the Murderkill River for residents of Sophia's Landing. There are no uplands directly adjacent to the waterway on the applicant's property (see Figure 6 and site survey).

6. Temporary changes resulting from the project may include short-term impacts to wetlands during construction of the walkway. Prior to initiating construction, a 115' long x 20'± wide swath of the giant reed, *Phragmites australis*, will be cut above ground level and sprayed with a herbicide approved for use in an estuarine environment to clear the work site. Work will be conducted starting at the uplands, and will continue in a channelward direction. Construction equipment will consist of a mini-excavator supported on mats. Support pilings will be 10" to 12" diameter salt-treated wood at 8' spacing, installed by a vibratory hammer. Stringers, walers and decking will be installed by hand, and will consist of salt-treated wood. Permanent changes to the area include elimination of a 115' long x 20' wide swath of the invasive giant reed, *Phragmites australis*, and the presence of a walkway in the wetland area. It is anticipated that once the shading effect of the giant reed is eliminated, the area adjacent to and under the walkway will be colonized by more desirable wetland vegetation.

7. The proposed project has been minimized to reduce environmental impacts to the greatest extent feasible. The walkway will begin in uplands in community open space, and will continue to the waterway (Murderkill River), to access proposed kayak launching facilities. The distance of wetlands to be crossed is fairly uniform. The "footprint" of the 115' long x 4' wide walkway will be 460 sq. ft., but since the walkway will be elevated 4' above the wetland surface, shading effects will be minimal. The only alternative to construction of a walkway is to walk across the wetlands, which is neither practical nor safe.

8. The proposed walkway has been designed to reduce environmental impacts to the greatest extent feasible by incorporating recommendations set forth in the WSLs Docking Facilities Guidance Document (July, 2005). These include the following:

- Locating the walkway where the length of vegetated wetlands to be crossed is 115' (less than the WSLs limit of 150').
- Keeping the width of the community walkway at 4', to minimize shading effects.
- Elevating the walkway 4' above the wetland surface, also to minimize shading effects.

9. As stated in (6), above, permanent environmental impacts include elimination of a 115' long x 20' wide swath (2,300 sq. ft.) of the invasive giant reed, *Phragmites australis*, and the presence of a 115' long x 4' wide (460 sq. ft.) elevated walkway in the wetland area. It is anticipated that once the shading effect of the giant reed is eliminated, the 2,300 sq. ft. area adjacent to and under the walkway (elevated 4' above the marsh surface) will be colonized by more desirable wetland vegetation. The support pilings will result in a permanent loss of a small area of vegetated wetlands (23± sq. ft.). It should be noted that this represents a small fraction the total wetland area surrounding the walkway, therefore wetland functions (as described in the following sections) should continue undiminished.

10. Evaluation of the impacts of the proposed project on the following:

a. **Value of tidal ebb and flow**

i. The proposed project will have minimal effects on production value. The processes by which organic matter is carried to the adjacent waters (tidal ebb and flow) should not be impeded by the proposed project, as the height of the elevated structure will continue to allow tidal inundation of wetlands underlying the proposed walkway.

ii. The presence of a tidal wetland buffer along the Murderkill River serves as a natural protective system for absorption of storm wave energy, flood waters, and heavy rainfall (thereby decreasing flood and erosion damage). Daiber and others (1976) state that the large size of wetlands enhances their value as storm surge buffers. With the exception of the narrow swath of *Phragmites australis* to be cut for construction of the walkway, the width of the wetland fringe along waterway in the vicinity of the project site will remain the same after completion of the structure, so that its function as a buffer will not be affected. (It should be noted that recolonization of the cleared area is anticipated, and will likely consist of more desirable wetland vegetation.) The presence of vegetated wetlands will continue to attenuate wave and flood waters at the project site upon completion of the project.

iii. Although there may be minor scouring at the base of the pilings, it is not anticipated that this will lead to silting of the adjacent waterway and necessitate dredging. Based on studies of the Holland Glade marsh by Stumpf (1983), much of the entrained sediment in the wetlands area is expected to settle on the lower and upper marsh during flood tidal conditions and storm events, respectively, or become trapped by biological processes (adhesion onto stems and leaves of the vegetation; filtration by the ribbed mussel, *Geukensia demissa*). Thus, the proposed project is not likely to contribute to siltation in the waterway.

iv. The proposed project will have a minimal effect on the removal and recycling of inorganic nutrients, since the elevated structure will permit natural wetlands processes (tidal ebb and flow) to continue.

v. The elevated walkway is not expected to have adverse impacts on estuarine waters. Construction materials will consist of materials approved for use in estuarine environments (salt-treated wood, galvanized hardware).

b. Habitat Value

The marsh at the project site is classified as palustrine emergent, freshwater tidal, seasonally flooded, dominated by the giant reed *Phragmites australis* (see Figure 6). Daiber and others (1976) characterized wetlands along this reach of the Murderkill River as a transition marsh that occurs wherever drainage patterns extend far inland and water becomes essentially fresh. This type of wetland provides excellent conditions for many ducks, rails, and for muskrat for food, nesting, and shelter. The tall reeds can serve as a deer refuge cover. Gallagher (1999) noted that small mammals, such as nutria and muskrats, as well as a variety of small birds, such as grackles, sparrows, and finches utilize some stands of *P. australis*. Perry (1985) states that red-winged blackbirds and other songbirds may “sound off from its swaying stalks” and that glossy ibis and black-crowned herons often nest on the ground in dense stands of the reed, but is generally of little value to wildlife. Daiber (1986) refers to *P. australis* as an “ubiquitous weed”. Bailey (1997) notes that there is an obvious decrease in plant diversity in *P. australis* stands because of its tall, dense growth which shades or physically excludes other species.

The elevated walkway should not adversely affect wetland habitats once the structure is in place, as most species should be able to continue to utilize the area after project completion. Banning and others (2006) examined how construction of long (>100') structures across vegetated tidal wetlands in Worcester County, Maryland influenced bird use of the marsh habitat, and found that herons, egrets, gulls, terns, grackles, fish crows, and red-winged blackbirds used these sites more, slightly more, or equally as often as control sites (only obligate marsh birds used control sites more often). The walkway should not obstruct passage for small migratory mammals, as these animals will easily be able to pass beneath the 4' high elevated walkway. Larger mammals, such as deer (if present) will be able to leap over the 4' structure. There are no known rare or endangered plants or animals, nor any unique geologic or wetlands features in the project area.

C. Aesthetic Effect

There should be minimal adverse impacts to the aesthetics of the wetlands and estuarine area as a result of the proposed project. To the (future) residents of Sophia's Landing, the proposed walkway will add to the aesthetics of the area by allowing them, their family members, and friends to utilize the structure to enjoy the beauty of their surroundings.

D. Impact of Supporting Facilities

The walkway is for private use by the (future) residents of Sophia's Landing, their family, and friends. No other supporting facilities (roads, sewage disposal facilities, etc.) will be constructed in association with this project.

E. Effects on Neighboring Land Uses

The walkway should not have adverse effects on neighboring land uses.

F. Federal, State, Regional, County, and Municipal Comprehensive Plans

The project will be constructed in compliance with all federal, state, county, and local regulations.

G. Economic Impact

The proposed project will provide employment for the contractor, and will contribute to product sales for suppliers of construction material. Once the structure is completed, it will allow the (future) residents of Sophia's Landing access to navigable waters for boating (kayaks, canoes, and other non-motorized vessels), fishing, sightseeing, and other water-related activities. These pursuits will increase spending on boating supplies; fishing supplies; recreational equipment; and other purchases, all of which will benefit the local economy.

References Cited

- Bailey, A. R., 1997. Detecting and Monitoring *Phragmites* Invasion of Coastal Wetlands: A Comparison of Remote Sensing Techniques. Master's thesis, College of Marine Studies, University of Delaware, Newark, DE, 112 p.
- Banning, A., J. Bowman, and B. Vasilas, 2006. The Effects of Long Piers on Birds Using Marsh Habitat in Worcester County, Maryland, in 2006 Delmarva Wetland Conference: Integrating Wetland Restoration and Protection onto the Landscape, Dover, DE, Oct. 11-12, 2006.
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PROPOSED 115' LONG x 4' WIDE COMMUNITY WETLAND WALKWAY; 20' LONG x 4' WIDE RAMP/GANGWAY; 6' LONG x 6' WIDE FLOATING PIER; AND TWO (2) 11' LONG x 5'4" WIDE FLOATING KAYAK DOCK LAUNCHES
IN: Murderkill River (tributary of Delaware Bay)
AT: Kearsarge Drive, Sophia's Landing, Frederica
 Kent County, DE 19946
 Tax Map Parcel 8-08-141.10-04-99.00/000
APPLICANT: Liborio 6 LLC, c/o Louis Ramunno
DATE: June 27, 2024

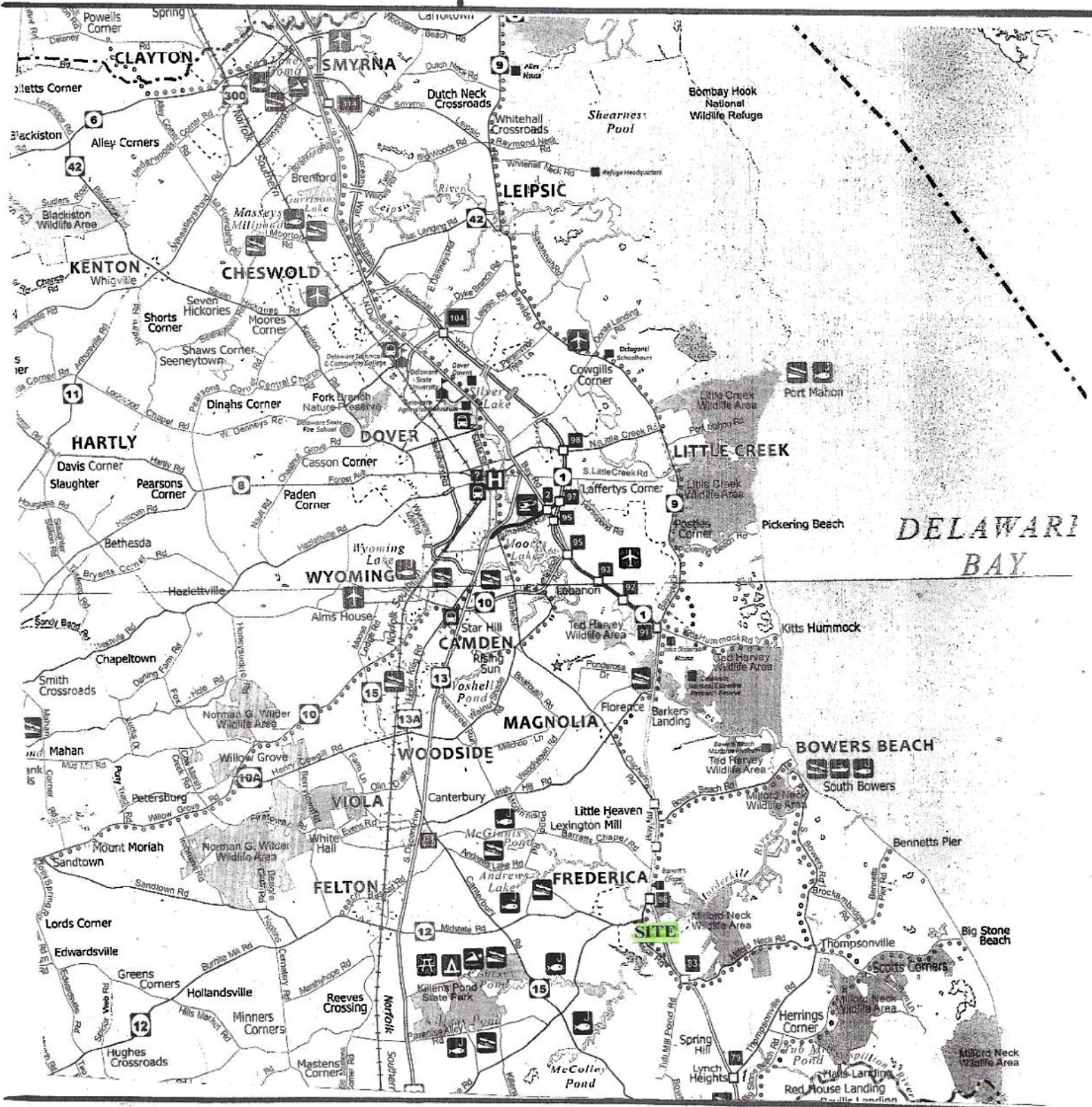


Figure 1. Map of Kent County, Delaware showing site location, Frederica.

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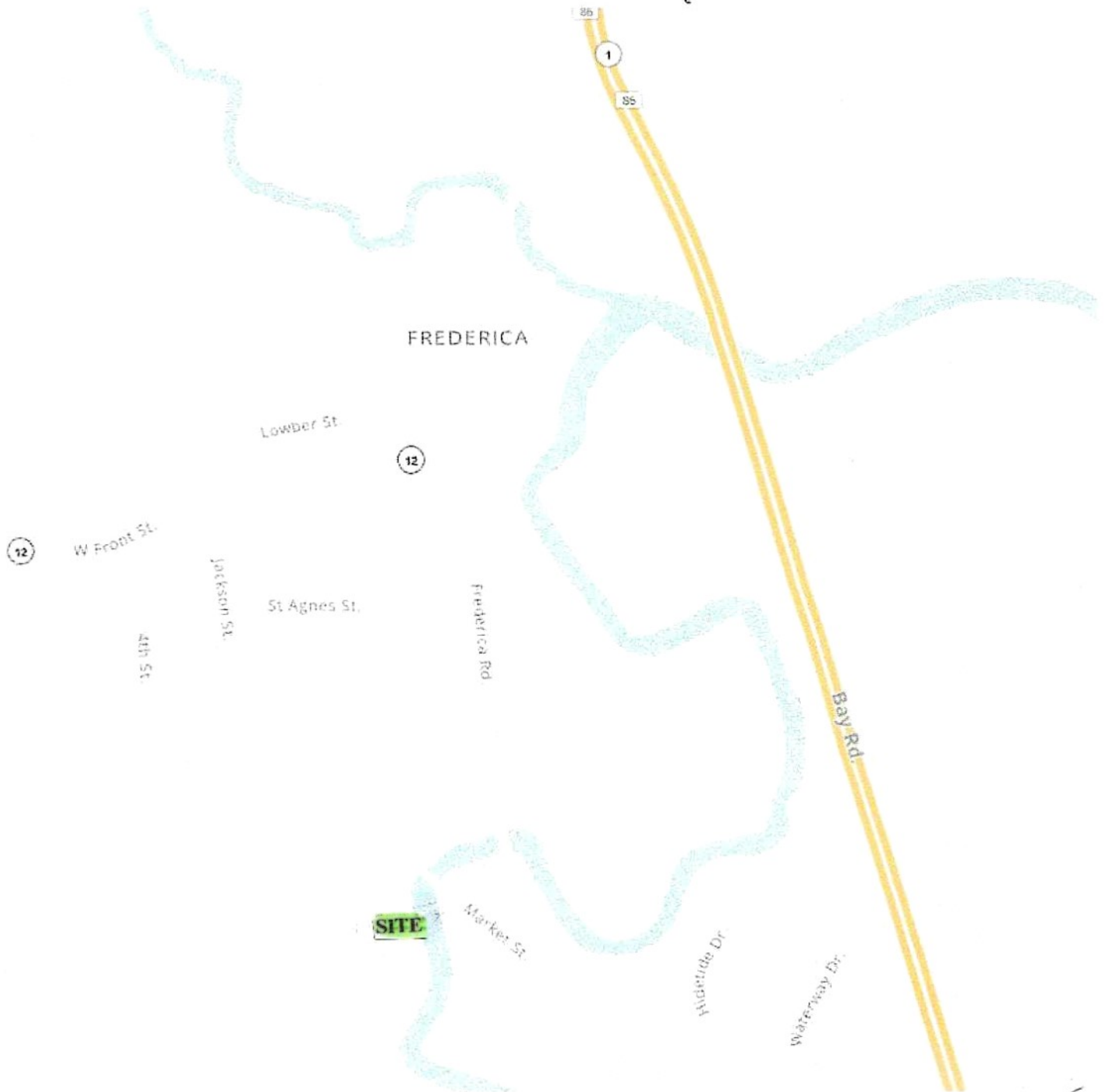


Figure 2. Map of Frederica and vicinity showing site location. Directions to site (from Dover, DE): SR-1 southbound to Frederica; bear right onto Frederica Road; bear right onto N. Market Street; continue through Frederica to S. Market Street; right into Sophia' Landing on Antietam Drive; first left onto Kearsarge Drive; continue about 500', site is on left. Also see Figures 3 and 4.

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Figure 3. Aerial photograph and plat of Sophia's Landing showing site location, off of Kearsarge Drive.

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Figure 4. Street map of portion of Sophia's Landing showing site location, off of Kearsarge Drive.

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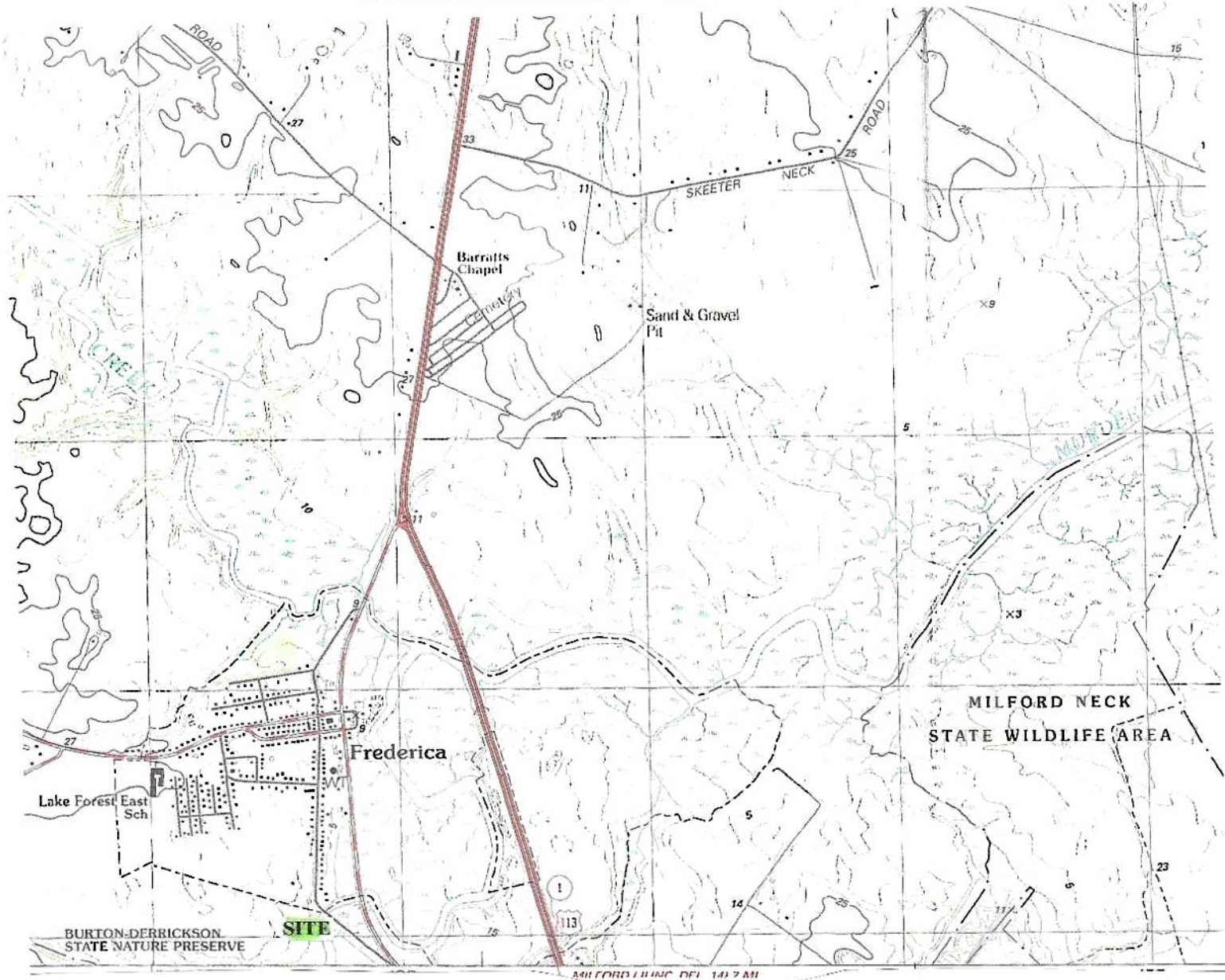


Figure 5. Site location on U.S.G.S. topographic map, Frederica, Delaware quadrangle. Site is adjacent to the Murderkill River. Scale: 1" = 2,000'.

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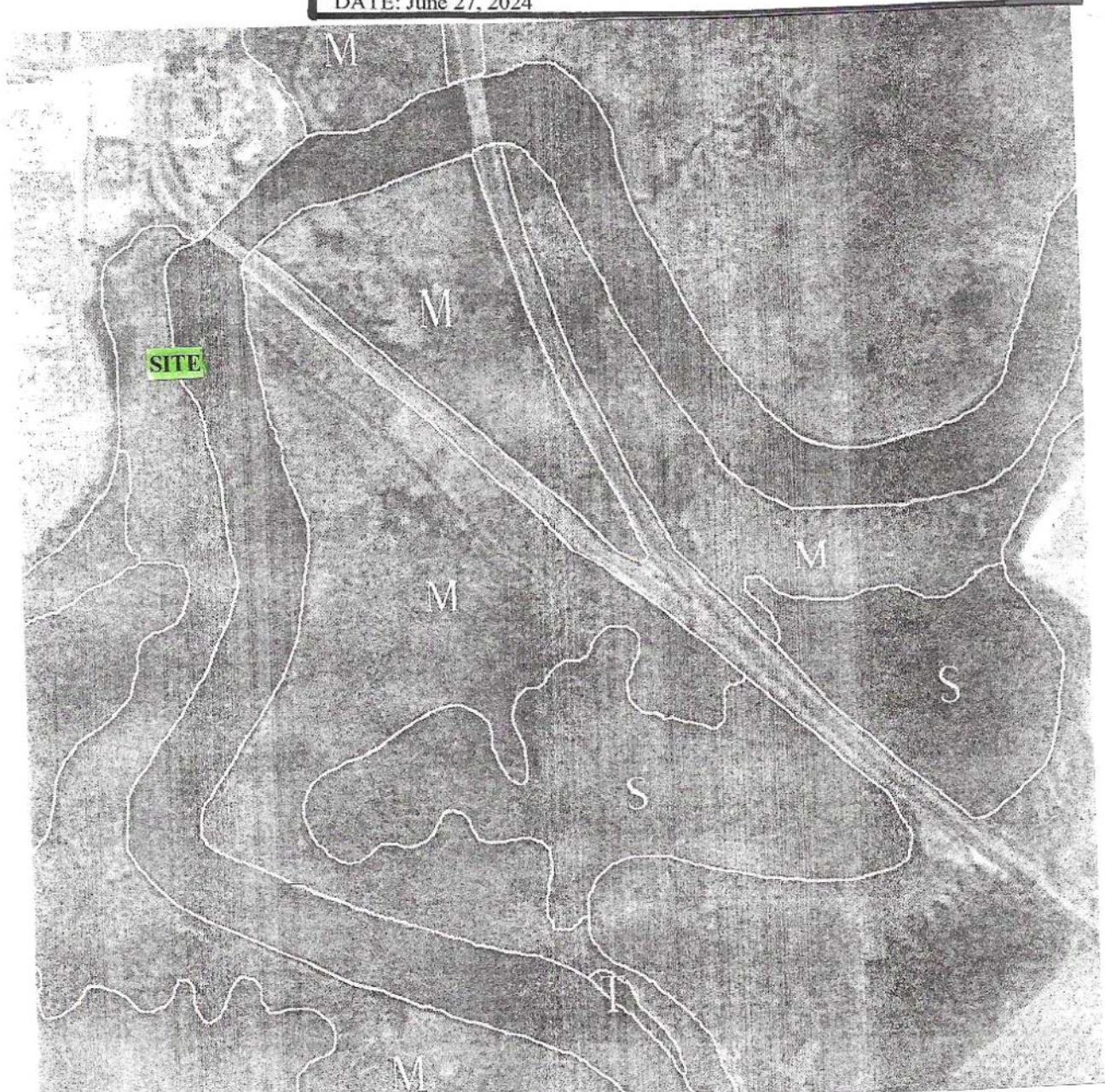


Figure 6. Site location on State of Delaware DNREC Wetlands Map #243 (1988 photobase). Project site is mapped **M** (marsh) and **W** (water).

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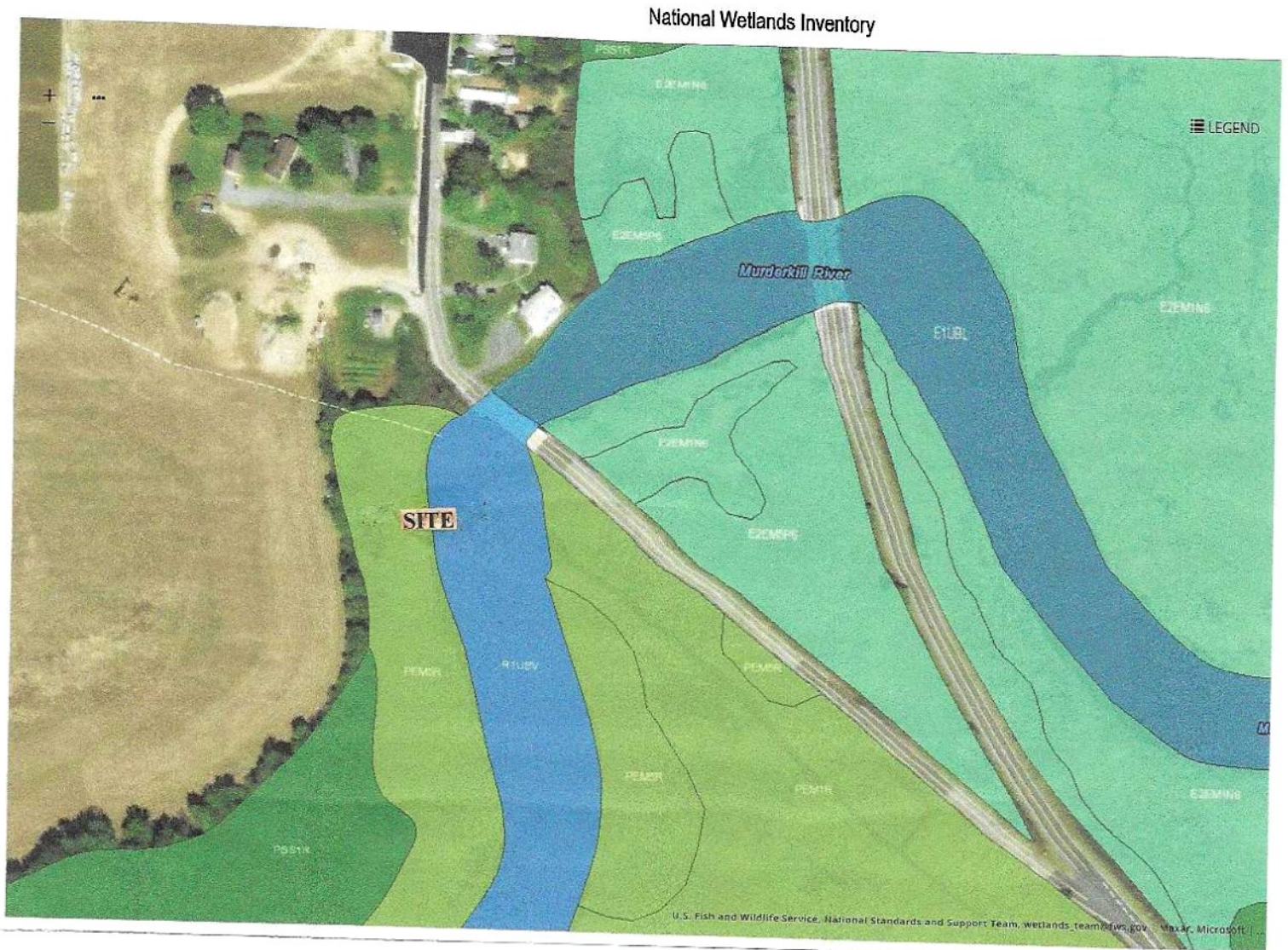


Figure 7. Site location on National Wetland Inventory Map. Wetlands are mapped **PEM5R** (palustrine emergent, *Phragmites australis*, freshwater tidal, seasonally flooded); Murderkill River is mapped **R1UBV** (Riverine tidal, unconsolidated bottom, freshwater tidal, permanently flooded).

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Imagery ©2024 Airbus, Maxar Technologies, Map data ©2024 50 ft

Figure 8. Aerial photograph of site and vicinity, Kearsarge Drive, Sophia's Landing, Frederica, Kent County, Delaware, adjacent to the Murderkill River. Width of marsh at project site = 115'±. Width of Murderkill River at project site = 160'±. Applicant proposes to construct a 115' long x 4' wide community wetland walkway, elevated +4' above the marsh surface; and community kayak launching facility, consisting of a 20' long x 4' wide ramp/gangway; a 6' long x 6' wide floating pier; and two 11' long x 5'4" wide floating kayak dock launches. See Figure 10 for plan view and cross-section sketches.

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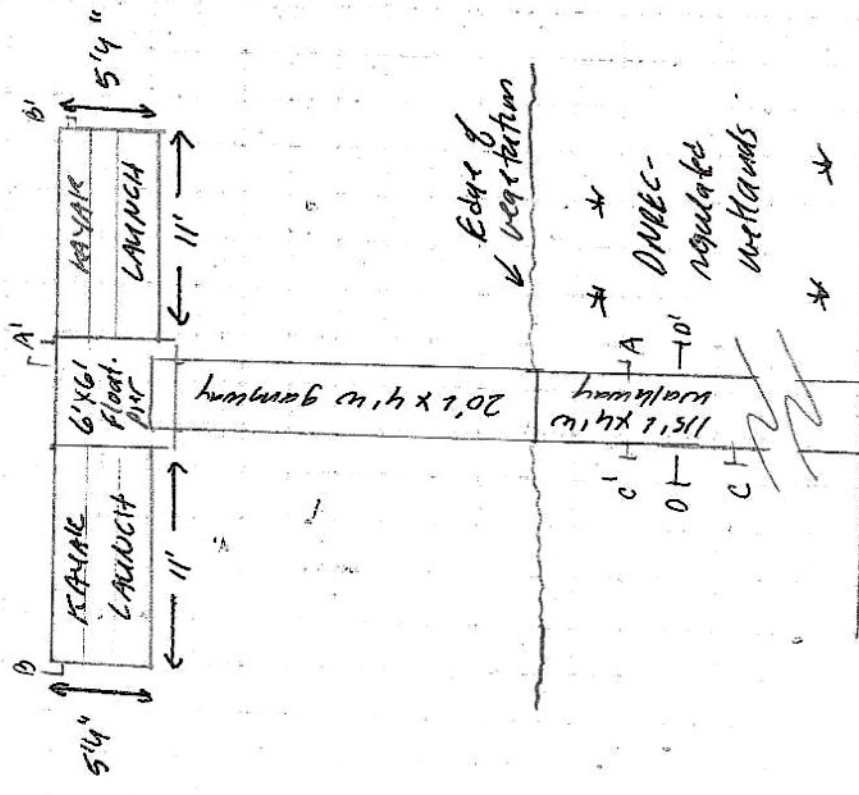
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Figure 9. Ground-level photograph of site, *Phragmites australis*-dominated marsh adjacent to the Murderkill River. Applicant proposes to construct a 115' long x 4' wide community wetland walkway, elevated +4' above the marsh surface; and community kayak launching facility, consisting of a 20' long x 4' wide ramp/gangway; a 6' long x 6' wide floating pier; and two 11' long x 5'4" wide floating kayak dock launches. See Figure 10 for plan view and cross-section sketches.

(A) PLAN VIEW SKETCH (1" = 10')

MURDERKILL RIVER
Ebb → Flood ←



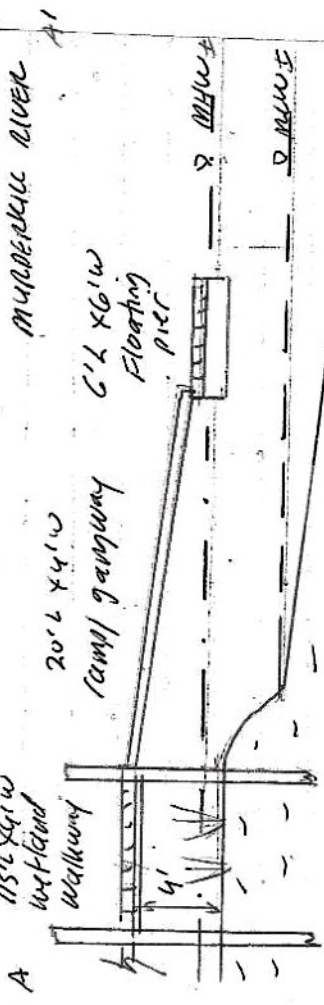
NOTE: WALKWAY MAY EXTEND INTO CIPLANDS (not in OPREC jurisdiction)

PROPOSED 115' LONG x 4' WIDE COMMUNITY WETLAND WALKWAY; 20' LONG x 4' WIDE RAMP/GANGWAY; 6' LONG x 6' WIDE FLOATING PIER; AND TWO (2) 11' LONG x 5'4" WIDE FLOATING KAYAK DOCK LAUNCHES

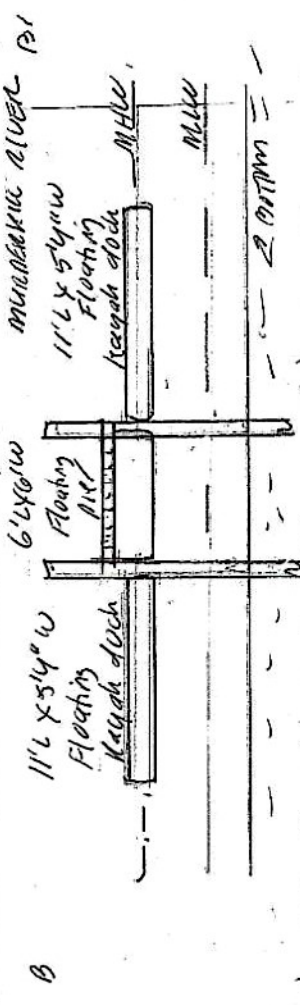
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APPLICANT: Liborio 6 LLC, c/o Louis Ramunno
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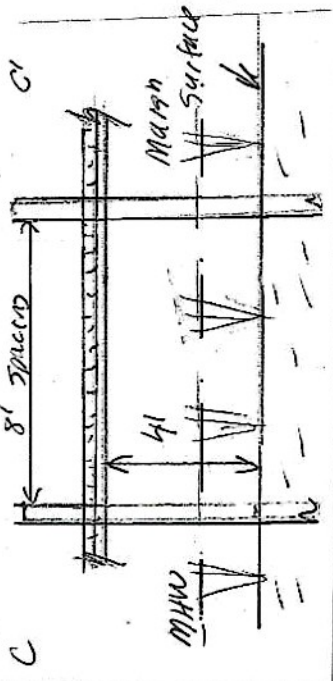
(B) CROSS-SECTION A-A' (1" = 10')



(C) CROSS-SECTION B-B' (1" = 10')



(A) CROSS-SECTION C-C' (1" = 5')



(E) CROSS-SECTION D-D' (1" = 4')

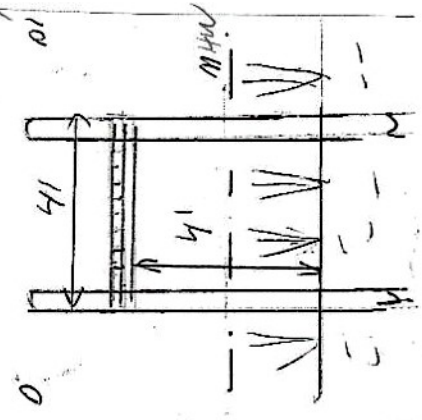


Figure 10. Plan view and cross-section sketches of proposed project. Sketches for permit application purposes only.

PROPOSED 115' LONG x 4' WIDE COMMUNITY WETLAND WALKWAY; 20' LONG x 4' WIDE RAMP/GANGWAY; 6' LONG x 6' WIDE FLOATING PIER; AND TWO (2) 11' LONG x 5'4" WIDE FLOATING KAYAK DOCK LAUNCHES

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Kayak Dock Launch

Product Description

Our Kayak drive on docks provide easy access for you and your kayak. Our low profile entry way ensures that you can effortlessly pull yourself onto the dock. Furthermore, connecting to either a floating or fixed dock is a breeze with a optional hot dipped galvanized Z bracket kit and (not included)4" PVC pipe. If for fixed dock installations the ground is extra hard, you can drive down smaller HDG pipe and then cover it with 4" PVC. The 1" PVC Handrails are not included!

Our kayak launch is constructed from durable, UV-protected, low density polyethylene, and filled with EPS foam to ensure that it remains unsinkable. To prevent slips and falls, we've incorporated a textured, non-slip surface. Our docks are also versatile, and can be connected to other drive-on docks and extensions.

Whether you're using a kayak, or canoe, our launch is perfect for you.

Kayak Dock Launch Features:

- Great for Kayak / Canoes
- UV protected Plastic Outer shell
- Unsinkable, EPS foam filled
- Works great in floating or fix dock
- Beige color kind to bare feet & non slip textured surface
- Zero maintenance

Dock Specifications:

- Length: 11'
- Width: 5'4"
- Height: 9"
- Weight: 225 lbs
- Weight Capacity: 1400 lbs.

Home/Drive on Docks/Kayak Dock Launch

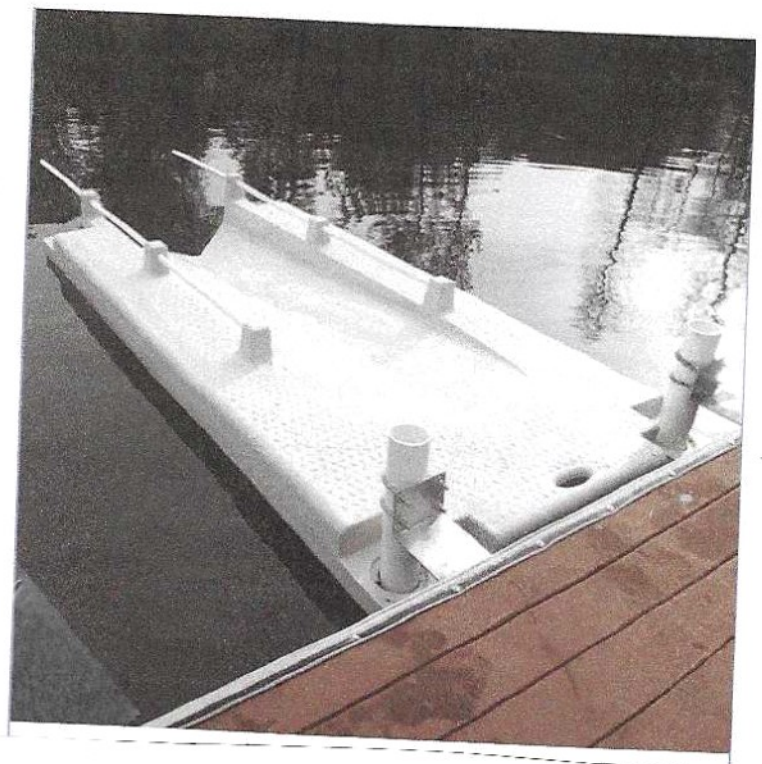


Figure 11. Image and description of proposed floating Kayak Dock Launch.