

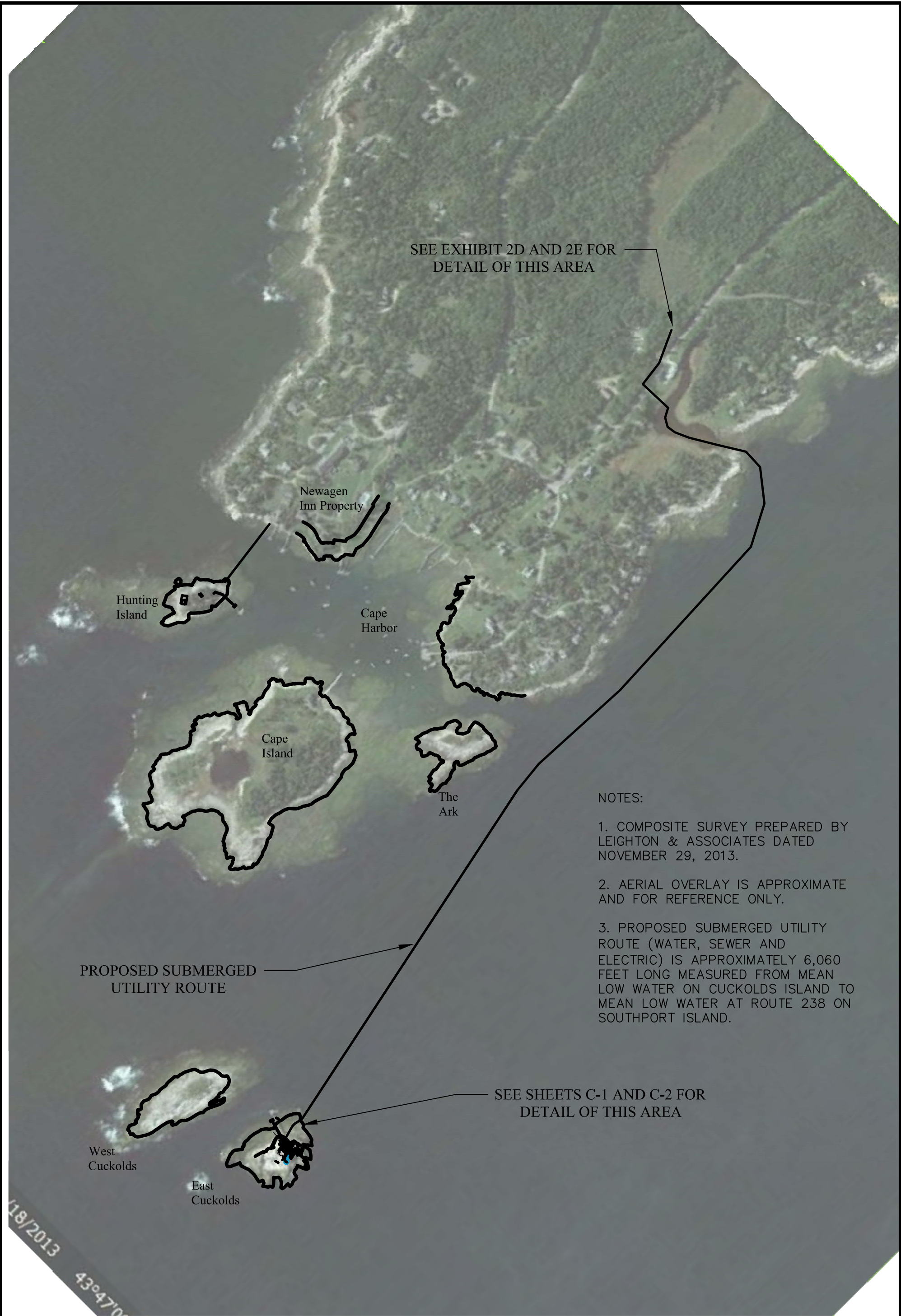
**PUBLIC NOTICE:  
NOTICE OF PUBLIC SITE WALK**

Please take notice that Cuckolds Fog Signal and Light Station Council, PO Box 150, Southport, Maine 04576, Phone 207-633-6563 (Agent Danielle Betts, Knickerbocker Group) will be holding a public site walk to review the Cuckolds Island Proposed Submerged Utility Plan.

The public site walk will take place on Monday, May 12<sup>th</sup> at 4 pm at 737 Newagen Road in Southport, Maine.

The Proposed Submerged Utility Plan includes placement of a 2" water, 2" sewer and 1-3/4" electric cable from Cuckolds Island, through a mapped Cable Area in the Atlantic Ocean, through Cape Pond, and then underground to the 737 Newagen Road property.

Written public comments may be sent to the applicant's agent at the following address: Danielle Betts, Knickerbocker Group, P.O. Box 142, Boothbay, ME 04537 or by email at [dbetts@knickerbockergroup.com](mailto:dbetts@knickerbockergroup.com). All public comments related to the Proposed Submerged Utility Plan obtained by the applicant's agent via mail, email or at the public hearing on or before May 9<sup>th</sup> 2014 will be transmitted to the Maine Department of Environmental Protection, U.S. Army Corps of Engineers and the Bureau of Parks and Lands.




PROPOSED SUBMERGED  
UTILITY ROUTE

SEE EXHIBIT 2D AND 2E FOR  
DETAIL OF THIS AREA

SEE SHEETS C-1 AND C-2 FOR  
DETAIL OF THIS AREA

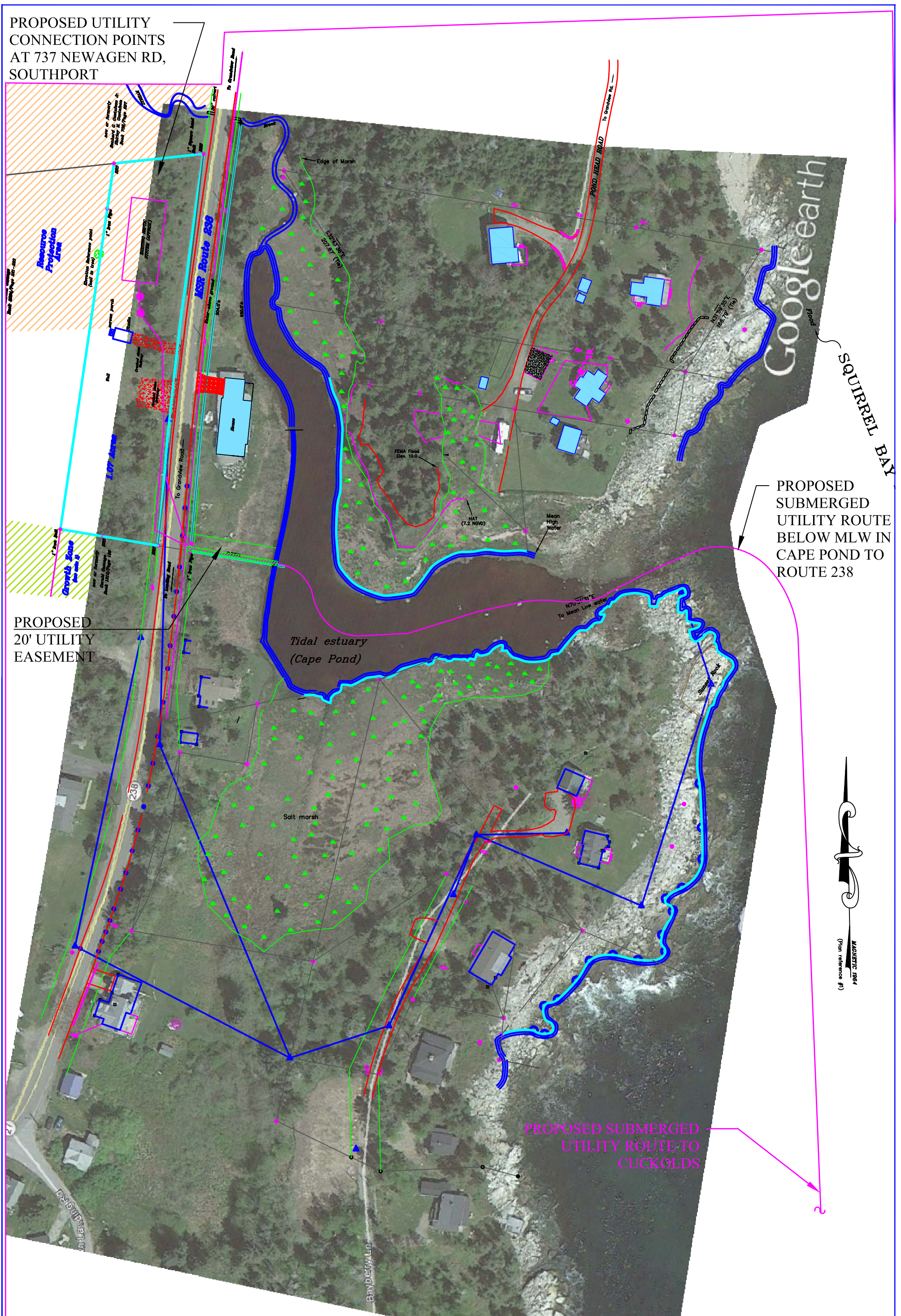
NOTES:

1. COMPOSITE SURVEY PREPARED BY LEIGHTON & ASSOCIATES DATED NOVEMBER 29, 2013.
2. AERIAL OVERLAY IS APPROXIMATE AND FOR REFERENCE ONLY.
3. PROPOSED SUBMERGED UTILITY ROUTE (WATER, SEWER AND ELECTRIC) IS APPROXIMATELY 6,060 FEET LONG MEASURED FROM MEAN LOW WATER ON CUCKOLDS ISLAND TO MEAN LOW WATER AT ROUTE 238 ON SOUTHPORT ISLAND.

<div><div>KNICKERBOCKER GROUP</div><div><div>Knickerbocker Design</div><div><div>P.O. Box 142</div><div>Boothbay, Maine 04537</div><div>Ph: (207) 633-6563 e-mail: kgroup@knickerbockergroup.com</div></div></div></div>	SUBMERGED UTILITY ROUTE – OVERALL		SCALE: 1"=500'
			DATE: 04-10-14
	LOCATION: OFF SOUTHPORT, MAINE	FOR: CUCKOLDS FOG SIGNAL AND LIGHT STATION	SHEET: <b>EXHIBIT 2B</b>



# PROPOSED UTILITY CONNECTION POINTS AT 737 NEWAGEN RD, SOUTHPORT



## SUBMERGED UTILITY ROUTE – CAPE POND AREA

LOCATION:  
OFF SOUTHPORT,  
MAINE

FOR: CUCKOLDS FOG SIGNAL AND  
LIGHT STATION

SCALE: 1"=100'

DATE: 04-10-14

SHEET:  
**EXHIBIT 2D**



## **INSTALLATION PLAN AND CONSTRUCTION SEQUENCE**

### **Cuckolds – Submerged Utilities**

**May 7, 2014**

#### **Prior to the day of installation:**

- Coast Guard is notified and “Notice to Mariners” is issued; Marine Patrol is notified; Local Harbormaster is notified; notice to fishermen is placed in local newspaper. Many local fishermen with gear in the area will be personally notified, giving them enough notice prior to install day to temporarily relocate their gear from the proposed route.
- HDPE water and sewer pipes will be fused into 1000’ lengths in upland area on shore.
- High wave activity areas are identified at Cuckolds Island and at the natural dam at Cape Pond (within the intertidal and shallow subtidal to depths of 30 feet below mean low water (MLW) at both locations). In these high activity areas, a 6” HDPE pipe will be used to bundle all three utilities (2” water, 2” sewer and 1-3/4” electric). The 6” sleeve will be pre-installed and partially weighted.
- Temporary buoys are placed marking the path to be taken within the mapped cable area (path to be located by GPS).
- Cable reel and pipe sections are staged in upland gravel area at 737 Newagen Road (or other upland location within 5 miles of the site).
- Within the intertidal area on Cuckolds Island, studs will be positioned using a handheld electric rock drill every 8’-10’ and grouted into the ledge. These studs will be used for anchoring once the HDPE piping is installed. A 4”-6” square trough will be hammered out of the ledge for the electric cable which will be encased in concrete (Central Maine Power Company requirement) after installation. Wherever possible, the electric cable will be fit into natural crevasses in the ledge (see photographs of cable route in the Alternatives Analysis). All work will happen in the dry, at low tides.

#### **Day of installation**

- Installation target dates are between May 20 and June 20, 2014, as the opening day at Cuckolds Light is scheduled for June 27, 2014. The following agencies have approved the installation between the dates of April 1 and July 1, 2014: Maine Department of Marine Resources, Atlantic Salmon Commission (DMR), Maine Department of Inland Fisheries and Wildlife.
- Within the targeted date range, weather is the determining factor in when the installation occurs, as it will need to occur on a very calm day. The intertidal and subtidal installation will happen in one day. All work on Cuckolds Island will happen in the dry at low tides. All work within Cape Pond will be done in one low tide cycle.
- On the installation day, there will be approximately 25 persons involved. There will be a 20’x40’ barge and 6 other boats involved: 1 push boat, 2 control assist boats, and 3 patrol boats. The barge will have a crew of 14, and there will be persons ashore to assist with fusing, and subsequently pulling the bundle through the sleeves. Boats will be positioned for traffic control and bundle control.

- 5 fuses need to be made on the day of installation as the pipes are pulled into the water. The pipes are sealed so their buoyancy keeps the cable afloat.
- As the sections are fused together and pulled into the water, the pipes will be firmly strapped together into a bundle.
- At Cuckolds, the leading end of the bundle is attached to pre-positioned pull-lines leading through the 6" sleeve and up to the Keeper's Quarters. The bundle is then pulled through the sleeve within the high activity area and then positioned along the ledge until it reaches its termination point at the building.
- At that time, the bundle is anchored to the ledge in the intertidal and above tidal by means of stainless steel straps bolted to the pre-installed studs grouted into the ledge.
- When the intertidal anchoring is complete, the barge will begin to run out the pipes as a bundle.
- Weights are installed every 10' on the 6" sleeve. At the end of the sleeve, the straps that hold the bundle together are removed and weights are installed around the three utility pipes every 10' (see Concrete Anchor Details).
- The weights, cable and pipes are gently lowered to the seafloor. It takes approximately 2 minutes for 3 teams to install 3 weights, including forward movement time. As every 3 weights are installed, the barge moves forward 30'. The weights, cable, and pipes are fed slowly off the back of the barge as work progresses.
- The catenary curve in the pipe as it is lowered results in approximately 120' of pipe and cable suspended in the water column while working in the deepest section. This allows a slow, controlled installation of the pipes along the bottom, as each weight will take approximately 8 minutes to reach the bottom. This method of installation will greatly minimize any potential impacts to fish and other marine life. No turbidity will be created by the lines as they drop. Minimal turbidity is anticipated on the ocean floor due to the slow rate of pipe placement. No noise will be created (other than typical boat noise) as there will be no underwater equipment or machinery used in the installation.
- When the barge is approximately 800' from the Southport side, the opposite end of the bundle is attached to a pre-positioned pull-line through the 6" sleeve at the natural dam on the Southport side. The bundled pipes are pulled through the sleeve that is east of and across the dam, and then through Cape Pond, onto land and to the termination point.
- Outside of Cape Pond, the barge team will continue weighting the pipes and cable until reaching the 6" sleeve on the easterly side of the dam where weights are placed on the 6" sleeve below mean low water.
- Pipes are then filled with water.

#### **Days after install**

- Additional anchors are attached by hand in intertidal areas which barge could not access.
- Weighting / anchoring and camouflage of pipes across the dam and through Cape Pond will be completed as follows:
  - A smaller rubber-footed excavator will be off-loaded by ramp via the barge onto the rocks at the natural dam area. The excavator will lift and/or roll rocks to the side to

allow placement of the 6" sleeve below the rocks. As the pipe is laid, the rocks will be placed over the pipe in their original locations, maintaining the pre-installation elevations as much as possible. Placing the pipe below the rocks will minimize the potential for any visual impacts from neighboring properties.

- For the water and sewer lines in Cape Pond, 3" steel sleeves (approximately 3' long) will be installed by hand at 10'-12' on center to provide a low profile weighting of the pipes within the pond. The armored electric cable will not require additional weighting through the pond.
- Approximately 100-150 feet of Cape Pond (nearest the dam) consists of a firmer substrate which transitions to soft mud along the majority of the utility route within the pond. Within the firmer substrate areas, a 4"-6" deep V-trench will be scraped out using hand held tools for each pipe. The pipes will then be re-covered with substrate materials. Approximately 2/3 of the route within the pond is expected to settle naturally within the soft substrate. The pipes will be checked and, where necessary, walked on until the pipes are pushed below the substrate surface.
- Burial work across upland on Southport is completed:
  - Within the coastal wetland above mean high water (within the easement area), silt fence will be installed along downgradient boundary and 4' x 15' timber mats will be installed below equipment to protect the wetland. Along the utility route, the sod will be flipped to the side or stockpiled in an upland area. The trench will be excavated, pipes installed and then backfilled with excavated materials. Wetland sod will then be returned to the original location over the trench.
  - Water meters will be installed in upland areas.
  - Electric cable will be routed to a utility pole on the east side of Route 238.
  - Sewer line will be trenched under Route 238. On the west side of Route 238, the 2" sewer line will be laid on the ground surface through the delineated wetland area (approximately 150 feet). The pipe will then be buried under the gravel driveway and through previously disturbed upland areas to the existing septic system. Two septic tanks and an Alternative Treatment Unit will be installed upstream of the system in previously disturbed upland areas.
- Post installation SCUBA survey is completed to make sure the submerged utilities are not resting on any rock outcrops.
- Post installation topographic survey is completed across the dam, for comparison with pre-installation elevations. Rocks along dam will be adjusted, if needed, to match pre-installation survey locations and elevations.