

South Gulf Cove Boat Lock



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- Built in the late 1970's
- Function
- Automation upgrade in early 2000's
 - Included switches at each end of the dock
- Automation upgrade in late 2005 / early 2006
 - Included remote system

South Gulf Cove Boat Lock

- Remote sales by SGC Yacht Club
 - Included remote, waterproofed container and laminated instructions
 - Challenges began over time; user dissatisfaction increased
 - Calls to Sheriff's Office then transitioned to Tom Adams Bridge after signs were installed

South Gulf Cove Boat Lock

- Majority of calls due to operator error versus mechanical issues
 - Users repeatedly attempting to activate remote
 - Users activating remote before coming into proper range
- Staff call outs
 - At least 45 times in an 18-month period when remote system was enabled
- Remote function was disabled in 2018

Operating Options

- Staff has researched the following options for the operation of the South Gulf Cove Boat Lock.

Option 1

- Modify existing manual process by eliminating middle pull chains and adding a control panel in the center of the lock
 - User frustration over pull chain
 - Eliminating due to overheating the electrical and hydraulic lock components
- Estimate for upgrade \$20,000

Option 2

- Create an application for phone/tablet use
 - Wifi controlled application ruled out
 - Security reasons linked to county network
 - Users could control lock with a Wifi connection anywhere
 - Bluetooth controlled application ruled out
 - Staff was unable to find any vendor who could create a Bluetooth application and anticipates not all users would have a smart device to activate the lock in this manner.
 - MSBU is not an appropriate funding source



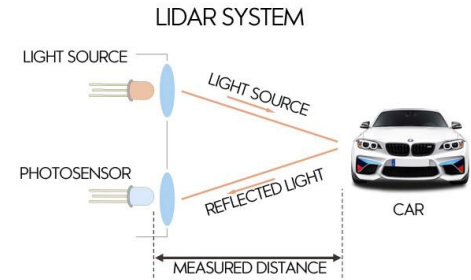
Option 3

- Enable Remote System
 - Policy, procedure, fee schedule implementation
 - Annual fee and reactivation
 - System ideally would fund itself but cost projections are unknown
 - Unknown costs
 - Additional upgrades may be required
 - Projected program costs are hard to define
 - MSBU is not an appropriate funding source

Option 4

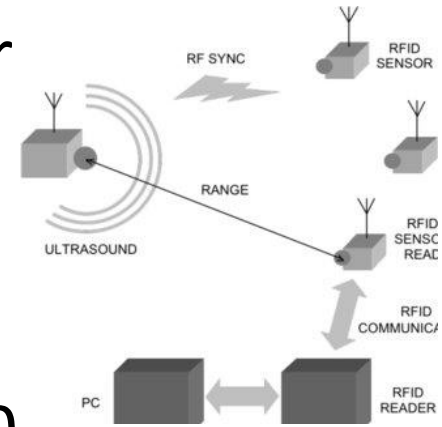
- Lidar Automation System

- Sensors could automate opening and closing of the gates
- Ability to see and detect vessels
- Estimate for implementation \$250,000 - \$300,000



Option 5

- Ultrasonic and RFID Automation System
 - RFID Technology provides more owner responsibility
 - This system could present numerous challenges
 - Estimate for implementation \$160,000



Option 6

- Tom Adams Bridge Tender remote access
 - Require hard-wired fiber optics
 - Includes CCTV, operator control panel, cameras at the Lock and an intercom system
 - Estimate for implementation \$200,000 plus the cost of running fiber optics if available at Westport Facility
 - 24 hour operation



Option 7

- Onsite Lock Tender

- Lease small self-contained trailer for staff person
 - Requires potable water and wastewater services
 - 12 hour shifts 7 days a week
- Estimate for annual costs \$270,000



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- South Gulf Cove Waterway Advisory Board Recommendation
 - Sept. 17, 2020 Meeting
 - 2 members absent
 - 3 members voted in favor of enabling the remote system

Moving Forward

- Staff proposes an onsite lock tender
- Benefits include:
 - Boater convenience
 - Safety
 - Reduced damage and maintenance to infrastructure components

Questions?