



## GALVESTON COUNTY OFFSHORE BREAKWATER/SAND NOURISHMENT DEMONSTRATION PROJECT END GALVESTON SEAWALL WEST

**BREAKWATERS:** Rubble mound using concrete poured bags, limestone or granite rock, or concrete tetrapods. Each 150 foot long with reef shell or limestone blanket over plastic filter cloth. Spaced 450 to 750 feet parallel to shore. 200 to 250 feet offshore from existing shoreline.

**SAND SUPPLEMENT:** Nourish with beach quality sand trucked to site equal to 70 cu. yd. per 100 foot of beach. Place sand after each breakwater completed. Sand available from Big Reef, and or San Luis Pass Flats of West Bay by trucking to site.

**EXPECTED PERFORMANCE:** Protect the shore, prevent undermining of seawall foundation, stop future washout of Texas Farm Mark 3005, stop further erosion, form a tombolo behind breakwater, provide a dune area with 9 foot crest, provide 200 feet of beach for recreation, breakwater planned to retain sand supplement in place, minimal maintenance in future, to not interrupt littoral transport of sand, and to not cause any adverse affects to adjacent beaches on ends of breakwater.

**EXPECTED COST:** Similar project at Holly Beach in Louisiana is costing approximately \$100,000.00 per breakwater that include trucked in sand supplement. Bolivar four breakwaters/sand supplement \$500,000.00 and 35 breadwater/sand supplement \$3,500,000.00.

**SEAWALL WEST**  
**FINANCING:** U. S. Government, State of Texas, Galveston County, City of Galveston, or local interests forming conservation district to tax themselves to pay off bonds.

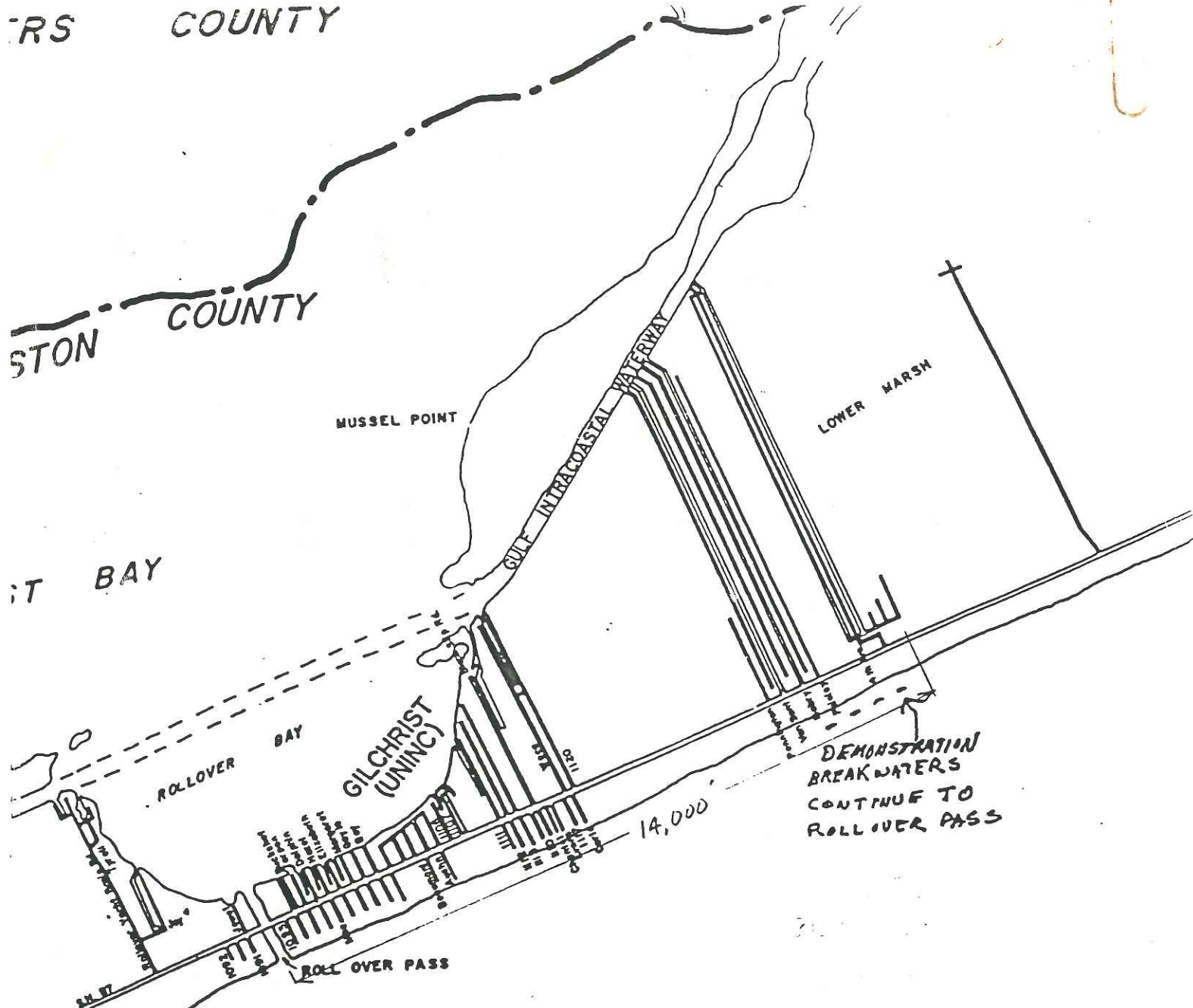
**SPONSOR:** Galveston County Conservation and Preservation Committee, Pat Hallisey Co Chair for County with Co Chair Russ Eitel for City of Galveston.

**SITE SELECTION CONDITIONS:** First of thirty five breakwaters/sand supplement would be placed 500 feet from end of existing seawall extending west 32,000 feet. Project would have long range plan of continuing to offshore of 12 mile road. Beach area has erosion occurring over 10 feet per year. Intention of preserving recreational beach.

ERS COUNTY

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**GALVESTON COUNTY OFFSHORE BREAKWATER/SAND NOURISHMENT DEMONSTRATION PROJECT BOLIVAR PENINSULA**

**BREAKWATERS:** Rubble mound using concrete poured bags, limestone or granite rock, or concrete tetrapods. Each 150 foot long with reef shell or limestone blanket over plastic filter cloth. Spaced 450 to 750 feet parallel to shore. 200 to 250 feet offshore from existing shoreline.

**SAND SUPPLEMENT:** Nourish with beach quality sand trucked to site equal to 70 cu. yd. per 100 foot of beach. Place sand at each breakwater completed. Sand available from North Jetty area by trucking from sand build up in this area.

**EXPECTED PERFORMANCE:** Protect the shore, stop further erosion, form a tombolo behind breakwater, provide a dune area with 10 foot crest, provide 200 feet of beach for recreation, breakwater planned to retain sand supplement in place, minimum maintenance in future, to not interrupt littoral transport of sand, and to not cause any adverse affects to adjacent beaches at ends of breakwater.

**EXPECTED COST:** Similar project at Holly Beach in Louisiana is costing approximately \$100,000.00 per breakwater that includes trucking in sand supplement.

**FINANCING:** U. S. Government, State of Texas, Galveston County, City of Galveston, or local interests forming conservation district to tax themselves to pay off bonds.

**SPONSOR:** Galveston County Conservation and Preservation Committee, Pat Hallisey Co Chair for County with Co Chair Russ Eitel, City of Galveston.

**SITE SELECTION CONDITIONS:** First of four breakwaters would be placed 14,000 feet east of Rollover Pass on Bolivar Peninsula. Project would have long range plan of continuing to offshore of Rollover Pass. Beach area has erosion occurring over 100 feet per year. Intention of preserving recreational beach.