

ERIK J. OLSEN, P.E.

Principal Engineer; President
OLSEN ASSOCIATES, INC.

Education

Master of Engineering, 1972. Coastal and Oceanographic Engineering. University of Florida.

Bachelor of Science in Civil Engineering, 1970. University of Florida.

Fields of Competence and Experience

Coastal and oceanographic engineering; civil engineering in the marine environment; including complete site assessment, design, construction management and implementation, and physical monitoring of marine projects involving

- coastal, estuarine and insular shorelines (sandy, mangrove / marsh, rock & ironshore),
- coastal protective structures (beach nourishment, groins, revetments, breakwaters, etc.),
- beach erosion control investigations and hydrographic studies,
- navigation (waterways, inlets, marinas, harbors),
- coastal development, siting, and regulation, and
- regulatory permitting and expert-witness testimony for complicated, multi-faceted coastal projects.

Professional Experience

General - Mr. Olsen has been engaged full-time in professional coastal engineering work since the early 1970's. He founded Olsen Associates, Inc. in 1982. Mr. Olsen's general experience includes the design and implementation of numerous coastal protective structures -- including beach nourishment, groins, revetments, jetties -- beach erosion control investigations, tidal inlet stability analyses, flood insurance studies, hydrographic studies, marina design, navigation projects, and impact assessment of coastal development. His consulting services span all aspects of engineering problems in the marine coastal environment; including site assessments and surveys, engineering design, formulation of project funding, regulatory permitting, and complete construction management from bid through acceptance. He is particularly active in the evaluation and solution of large scale beach erosion problems, beach restoration, the assessment of effects of stabilized inlets on beaches, and the permitting of complex coastal projects. His experience has included diverse and challenging projects: including numerous marina designs throughout the southeastern United States, the Caribbean and Mexico; review of analytical methodologies employed for coastal zone regulation; dredge and fill projects; and unique work such as that related to a floating nuclear power plant and preliminary design criteria for an ocean airport in the Virgin Islands.

Mr. Olsen has acted as special consultant to Erosion Control Districts and Inlet Districts, counties, municipalities, States and governmental agencies. He routinely acts as an expert witness on coastal engineering topics for both the private and public sector. Similarly, Mr. Olsen frequently makes educational presentations regarding Coastal Construction Regulations and other related matters to groups such as the Florida Bar, the State Chamber of Commerce Environmental Seminar, Engineering and Architect Professional Societies, Public Bodies, Homeowner Groups, etc.

Specific Highlights - Mr. Olsen has directed numerous General Design Memorandums, Detailed Project Reports and special studies for various Districts of the U.S. Army Corps of Engineers. He has likewise participated in the formulation of four favorable Section 1-11 studies involving federal navigation project mitigation of adjacent shoreline damage. He was the Engineer-of-Record for the first privately-funded, large-scale beach restoration project design in the southeastern United States at South Seas Plantation, Captiva Island, FL. Other non-federal projects include Fisher Island, FL; Hilton Head Island, SC; Amelia Island Plantation, FL; Bonita Beach, FL, Gulf Shores, AL and Bald Head Island, NC.

Mr. Olsen's record and reputation for securing regulatory permits for complicated coastal projects is unparalleled. These projects have included dredge and fill activities, marinas, coastal structures such as revetments and groins, inlet dredging for improved navigation and sand management, underwater excavations for marine archaeological research, among others.

As a pioneer in the development of coastal engineering as a unique discipline, Mr. Olsen's background is well-founded in all aspects of coastal engineering practice. His practical experience includes comprehensive development of site investigation plans -- including bathymetric, beach profile and hydrographic surveys (tide, current flow, and dye-tracing), geotechnical surveys (vibracore and seabed sampling, sidescan, and sub-bottom), magnetometer and cultural resources surveys, objectives-planning for environmental assessment surveys, controlled aerial photography, real-estate issues, and sediment transport analyses (impoundment structures, wave measurement, fluorescent and radioisotope tracers, etc.). Mr. Olsen is knowledgeable of a wide range of photographic and graphic reproduction methods central to effective interpretation of engineering survey data. He has directed and/or personally prepared the formulation of conceptual design reports for dozens of project topics including inlets, beach erosion control, coastal construction set-back issues, marinas, coastal structures, etc. He has likewise directed and or authored the preparation of Plans & Specifications, Solicitations, and other Construction Documents for the implementation of these projects. On numerous occasions, Mr. Olsen has personally directed all construction management aspects of a project, or has acted as the Owner's representative in technical and regulatory issues regarding a project's construction.

Professional Affiliations and Activities

Mr. Olsen is a member of the American Society of Civil Engineers, the Florida Engineering Society, the National Society of Professional Engineers, and is a registered professional engineer in the states of Florida, Georgia, South Carolina, Alabama and North Carolina. Mr. Olsen is likewise certified as a Diplomat in Coastal Engineering and Navigation Engineering by the Academy of Coastal, Ocean, Port and Navigation Engineers. He is a former Director of the Florida Shore and Beach Preservation Association, and the American Shore and Beach Preservation Association.

Mr. Olsen has acted as a contributing professional to the State of Florida Comprehensive Beach Management Task Force, the State of Florida Inlet Management Task Force, the State of Florida Task Force to Re-Evaluate the Coastal Construction Control Line Methodology, the Palm Beach County Beaches and Shores Council, the Florida Sea Grant program, and numerous other advisory and blue-ribbon committees. In 99/00, Mr. Olsen served on the Executive Committee for The Dennis Jones Beach Management Workshop Series for the State of Florida.

He is a frequent speaker at the annual and technical meetings of the Florida Shore and Beach Preservation Association, and at specialty coastal engineering conferences (Coastal Engineering Practice '92; Coastal Sediments '91; I.C.C.E. et al.). In 1999, Mr. Olsen was requested to appear before a Select Subcommittee of the North Carolina Legislature and to make a presentation on the *Efficacy of Beach Restoration*. Similarly, in 1999, Mr. Olsen was requested by the Jacksonville District, COE to make a presentation to the U.S. Army Coastal Engineering Research Board (CERB) regarding the topic of *Sediment Management At Inlets - Federal Navigation Project Mitigation*. 1995, Mr. Olsen was appointed to a Peer Review Group comprised of six nationally known coastal engineers for purposes of reviewing the State of Florida's methodologies utilized for Coastal Construction Control Line establishment. For over six years, he presented the coastal construction permitting portion of the Florida State Chamber of Commerce Environmental Permitting Annual Workshop and was an invited speaker at the 1996 meeting of the International Erosion Control Association. Mr. Olsen is frequently retained by the Tensar Corporation to participate in regional technical seminars presented to engineers and other professionals regarding coastal engineering design innovations utilizing geotextile products.

Publication Highlights (partial listing)

Olsen, Erik J., 1982. *South Seas Plantation Beach Improvement Project*. J. American Shore and Beach Preservation Association.

Olsen, Erik J., 1996. *Tybee Island South Beach Stabilization Project*. Proceedings of the 1996 National Conference on Beach Presentation Technology, St. Petersburg, FL.

Henry, Vernon J., Dean, Robert G. and Olsen, Erik J., 1987. Short Course - *Coastal Engineering: Processes, Practices and Impacts*, Assn. of Engineering Geologists, 3rd Annual Meeting, Atlanta, Georgia.

Bodge, K., Ph.D.; Olsen, Erik J. *Aragonite Beach Fill At Fisher Island Florida*. J. American Shore and Beach Preservation Association, Vol. 60, No.1. July, 1992.

Olsen, Erik J., Richard W. Stevens *The Privately Funded Beach Project - What To Do When There's No Government Funding*. Paper Presented at Annual Conference on Beach Preservation, Oct.3-5, 1979, Bal Harbour, FL. (Printed by Fla. Sea Grant College, Marine Advisory Program; Compiled by Stan Tait and Thomas Leahy; Tech. Paper No. 16).

Olsen, Erik J., 1988. *Physical Design Considerations for Beach Nourishment*, Proceedings of Beach Technology '88, Florida Shore and Beach Preservation Association, pp 29-40.

Olsen, Erik J., 1992. *Experience With Beach Fill Equilibration And Recommended Design Guidelines*. Coastal Engineering Practice '92, ASCE, Long Beach, CA. March 9-11, 1992.

Olsen, Erik J., 1993, *Beach Management Through Applied Inlet Management*, Proceeding of the 1993 National Conference on Beach Preservation Technology, St. Petersburg, FL.

Olsen, Erik J.; Wayne, Mark H. *Beach Erosion Control Structural Foundation Enhancement*, Proceedings of Geosynthetics '97, Long Beach, CA.

Creed, C. G.; Olsen, E.J.; Bodge, K.R., *Performance of an Interim Sand Tightening Measure At An Inlet Jetty*. Proceedings of the 1994 National Conference on Beach Preservation Technology, St. Petersburg, FL.

Creed, C. G.; *Relocation of a Tidal Chanel for Shore Stabilization and Protection*, Proceeding of Coastal Sediments '99, American Society of Civil Engineers, Long Island, N.Y. June 20-24, 1999.

Bodge, K.R., E.J. Olsen, C.G. Creed, 1993. *Performance of Beach Nourishment at Hilton Head Island*, South Carolina, Proc., Eighth Symposium on Coastal and Ocean Management (Coastal Zone '93); New Orleans, LA July 19-23, 1993.

Bodge, K.R. and E.J. Olsen, 1992. *Beach Nourishment with Aragonite and Tuned Structures,* Proc., Coastal Engineering Practice '92, ASCE, Long Beach, CA; 73-90.

Bodge, K.R. and E.J. Olsen, 1989. *Navarre Navigation Project: Designing an Inlet for No Net Impact to Adjacent Shorelines*, Coastal Zone '89, Charleston, SC; June, 1989.

Bodge, K.R. and E.J. Olsen, 1993. *"The Environmental Permitting of the Wreck,"* in: *The Maple Leaf; An Extraordinary American Civil War Shipwreck*, ed. By K. Holland, L. Manley, J. Towart; St. Johns Archaeological Expeditions, Inc., Jacksonville, FL.

Olsen, E.J. Bodge, K.R., and Creed, C.G., 1994. *Shore Protection Design Alternatives Downdrift of an Inlet*, Proc. Beach Preservation Technology '94, FSBPA, Tampa, FL.

Olsen, E.J. and Bodge, K.R. (2006). "Application of Porous ("Leaky") Rock Terminal Structures". Proceedings of the 30th International Conference on Coastal Engineering. COPRI, American Society of Civil Engineers.

Expert Witness Experience

Mr. Olsen has well over 30 years experience in expert witness testimony -- from pre-trial preparations to sworn depositions to court appearances -- in the field of coastal construction regulation, dredge-and-fill projects, shore protection, and other related marine issues. His reputation for successful and insightful contributions to legal or administrative proceedings in these matters is well-respected. A partial listing of cases in which Mr. Olsen has participated as an expert witness can be provided upon request.