

TOWN OF PALM BEACH

Office of the Town Clerk

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON JUNE 13, 1996

I. CALL TO ORDER

The meeting of the Shore Protection Board was called to order at 2:07 P.M. by Chairman Garrison Lickle.

II. ROLL CALL

On roll call, the following board members were found to be in attendance: Chairman Garrison Lickle, Vice Chairman George Moffett, II, Board Members Charles C. Isiminger, and Joel Martino. Absent from the meeting were Board Members Eileen Curran, Wayne Dimm, Edward Hennessy, Gerald Levy, and Richard Raffo. Also in attendance were: Town Councilman Sam McLendon, Town Manager Robert Doney, Assistant Town Manager Peter Elwell, Director of Public Works Al Dusey, and Town Clerk Secretary Jackie Reedy.

III. APPROVAL OF AGENDA

The Agenda was unanimously approved.

IV. PRESENTATION BY MR. ERIK J. OLSEN, PRESIDENT, OLSEN & ASSOCIATES

Mr. Elwell advised that Mrs. Curran had provided information regarding the Amelia Island Shore Protection Project based on her meeting with Erik Olsen of the firm of Olsen & Associates, who had designed the project. She had put together packets for each of the board members with the information included.

Mr. Erik Olsen addressed the Shore Protection Board, stating that his discussion today would be limited to coastal structures. He distributed written material on structural projects completed by Olsen & Associates, and reprints from Shore and Beach Magazine from the 1940's, with articles concerning beach restoration and preservation in Palm Beach. He mentioned that the options today were probably basically the same as they were in the 1940's, albeit at a much greater cost.

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

Mr. Doney asked Mr. Olsen to give background information regarding his credentials, as he was extremely well-recognized at both the State and National levels, and members of the Board would benefit from this information.

Mr. Olsen explained that he was a coastal and oceanographic engineer, educated at the University of Florida, and was a member of a small firm doing only coastal engineering. Projects had been done in Florida, South Carolina, Georgia, the Caribbean, and Mexico, with a significant amount of work done in resort communities. Mr. Olsen had been a consultant to the Palm Beach Countywide Beaches and Shores Council for 4-5 years. Mr. Olsen specified projects that had been engineered by his firm, such as Ocean Ridge, and South Lake Worth Inlet Sand Management Plan. He noted that he was a former director of Florida Shore & Beach Preservation Association, emeritus director of American Shore & Beach Preservation Association, and had practiced coastal engineering in Florida since 1971.

Mr. Olsen reported that groins were shore perpendicular structures that would result in accretion on one side and a deficit on the other side, and that Florida was probably the best example of the abuse of groins because the assumption had been that the groin fields themselves would solve the erosion problem. Mr. Olsen explained that typically, when talking about groins/beach erosion control structures, generally either terminal structures or structural fields would be addressed. Terminal structures could be at the end of a system; such as a reef, and predominantly had been west coast applications. The terminal structures were not designed to affect the hydraulic flow of the inlet, but were designed to retain the sand before it was lost. Groin fields, on the other hand, were designed to beneficially affect littoral transport over a larger area.

Mr. Olsen reviewed the successful implementation of a structural field--when the field was constructed it should be completely full in order to make the field transparent, i.e., to preclude any initial impacts associated with the groins. The structural field would have to be designed to allow for successful by-passing when it was full, i.e., the nature of the design and the types of structures used. Principally the design beach would be there either as a recreational beach or as a protective beach. He gave the example of the groin field at Sailfish Point, which was basically a protective system. Mr. Olsen mentioned that the groin field itself could not be a perturbation to the system such that the entire field causes perturbation to the point that the field interrupts littoral transport.

Mr. Olsen shared a slide presentation of projects, with the first one being the Tybee Island, Ga., project. He explained that basically there were two groin T-head structures, and one L-head structure, constructed of unique modular units, designed to stabilize the terminus of an island. The purpose of the project had been to protect the seawall, which protected the upland, which protected the infrastructure, as well as to expand recreational opportunities on the island.

Mr. Olsen mentioned that Palm Beach County was in a very unique situation--authorization went back to the 1950's saying that Palm Beach County was eligible for federal participation, but

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

could do the construction themselves. Broward County was the same way, and those were the only two counties on the east coast having that type of authorization. All other counties, municipalities, and states were dictated to by the Federal Government as to when, how and what in designing structural stabilization projects. In order to change this, the county or municipality would have to ask the court to sit in judgment to change it themselves, but the easier way would be to obtain a congressional bill.

Mr. Lickle asked if it would be fair to say that, historically, there would be a difference of opinion in design between hiring locals to design a project, versus the Corps of Engineers--then, by the time it got through the congressional process there would be total disagreement with the design? He explained that he understood that with budget cutbacks, etc., the Corps was getting out of the business, and coming back to the States, and he was asking for a historical perspective regarding conflict with the Corps designs, versus the designs that were desired to be implemented.

Mr. Olsen replied that there was a difference in freedom of design and fiscal implications to the local sponsor. The renourishment of Tybee Island by the Savannah District was proposed to be \$10,000,000. The renourishment of Amelia Island placed 2.3 million cubic yards for \$3,500,000. In doing business with the Federal Government, there were fiscal and administrative constraints. In the private sector there could be 2-3 engineers involved with the design of a project, whereas, with the government every aspect of the design was handled by different branches, and often the intent of the project could change.

Mr. Olsen remarked that in dealing with a module, foundation requirements became very important especially with respect to the longevity and maintenance of the structures. In the case of Tybee Island, a tensor mattress had been used, which was a plastic webbing material. Mr. Olsen displayed before/after pictures of the groin field.

Mr. Martino asked how the structures could be adjusted?

Mr. Olsen responded that the top portion of the pyramid structure could be removed, which was considered adjustable by the DNR of Georgia.

Mr. Lickle asked if the adjustability concern was vertical or horizontal?

Mr. Olsen replied it was generally vertical, as the retention of a profile was desired--adding to it to bring the profile up, and reducing it to allow the profile to recede.

Mr. Olsen referred to the Amelia Island project, which included low-cost structures called Longard tubes (sand-filled geotextile tubes). The Longard brand was the Danish brand, which had been around since 1960, and was basically a terminal type application to reduce the losses from the beach fill project. It was not permitted and constructed with the beach fill project for purposes of

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

insuring that permits would be issued for beach fill. There was some fear that by virtue of adding a groin field at the end of that beach fill project there would be challenges that would hold up the entire beach fill process. The fill project itself was constructed in 1994. He displayed photographs of the conditions on Amelia Island. A three fold approach had been taken, with the short term solution being to put down 10,000 ft. of geotube along the bluff of the dune to limit further recession. Once the fill project had been constructed the plan called for the reduction of losses at the south end of the island. The proposal was that a groin field be generated to limit the losses.

Mr. Olsen reported that the only beach fill project constructed to date using aragonite was Fisher Island in Dade County. Permitting aragonite had not been easy. The project had also used structures, and included the stabilization of 3,000 ft. of shoreline. The structures were configured relative to the wave climate associated with the site. The purpose of the structures was to reverse the directionality of littoral transport within the groin field so that sand was redirected back into the groin field itself, retaining the sand for as long as possible.

Mr. Olsen pointed out that at Deerfield Beach there was actually a groin field that functioned very well, and stayed very transparent. At times, when the sand was by-passed at Boca Raton Inlet the groin field could be buried; at other times when the sand was short to the north of the groin field the field became exposed.

Mr. Lickle questioned if aragonite was still available?

Mr. Olsen replied that Dade County had forced the Corps of Engineers to pose the question to the Bahamian government in order to seek aragonite. It was necessary to get around the "Buy American" Act, and it would also have to be a permissible opportunity before they could ask for bids. The Bahamian government said there was no interest in selling the aragonite to the Federal Government. Mr. Olsen pointed out that did not mean that aragonite was not available. It was a political issue that was not insurmountable, and there was a good possibility that the material could be acquired with an associated fee.

Jolly Harbor, Antigua was the next project presented by Mr. Olsen. The purpose of the project was to mitigate damages resulting from Hurricane Marilyn two years ago, calling for the construction of eleven T-head structures. The groin field was very effective in collecting and maintaining sand.

Mr. Olsen presented the Canaveral Harbor project which used technology for cost effective groin construction. Sand tightening an existing jetty on the south side of Canaveral Harbor had been successful. Mr. Olsen pointed out that basically a groin was being constructed parallel to an existing Federal jetty, which was leaking about 60,000 cubic yards of sand off the beach into the inlet, then getting dredged away, mixed with mud, and taken off shore. The purpose of the structure was to preclude that, keeping the sand in the system. He noted that Canaveral Harbor had no flow going

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

in and out, and the off shore areas were completely different from Palm Beach. A great deal of mud and organic material settled out in this project, and the majority of what was dredged was undesirable material. Any material lost off the beaches mixed with the undesirable material, contaminating it so that it could not be used as renourishment. That material could be used for nearshore renourishment.

Mr. Olsen remarked that Canaveral Port Authority had paid for the project, since the Corps of Engineers would not do it. The groin that would be constructed adjacent to the north jetty would be Federal. Olsen Associates had designed and permitted it, and had given it to the Corps of Engineers to implement. Because of the "Buy American" Act they could not put Longard tubes in, so an American tube had been specified that would be compatible.

In response to a question about the tubes being resistant to vandalism, Mr. Olsen said that the tubes would be theoretically subject to vandalism, but could be patched. A hole could be picked in the tubes with a pocket knife, but the material would not come out. He noted that the tubes were white, not black, for UV protection, and were also painted with protective paint.

Mr. Martino inquired if the use of these devices was a temporary measure?

Mr. Olsen replied affirmatively. He did not consider the Amelia Island structure permanent, but with proper maintenance it could last 10 years.

Mr. Lickle asked if it would make sense to create a project whereby these could be placed temporarily, solely for starting the protection of the beach, and then replacing them with permanent structures in the future.

Mr. Olsen responded that was possible, but it depended on the application. In a beach fill project there would be some concerns that would have to be evaluated and resolved.

Mr. Lickle explained that he was talking about purely a cost standpoint.

Mr. Olsen replied that the economics of it would have to be studied. He added that the Town of Palm Beach would have other aesthetic considerations in this regard.

Mr. Olsen addressed the Ocean Ridge project, mentioning that this was a beach fill project, with near shore rock being a very important aspect of the project. The rock gradually had become exposed as a result of erosion, becoming habitat and gaining importance. The area was a classic hot spot in that it was adjacent to and downdrift of an inlet. Sand could be placed there, but because of the erosional stress and high levels of energy the material would be taken away very rapidly. This was one of the few inlets where one could literally go out to the beach and see where the by-passing bar attached to the beach. There was not a maintained channel, so there actually was an ebbtidal platform allowing for the by-passing of sand. The area was stressed not only as a result of sand starvation, but

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

also during periods of littoral reversal.

Mr. Olsen addressed the Sailfish Point project which involved a section of shoreline on the updrift side of an inlet that had a problem as a result of a navigation project, having to do with the reef system, a leaking jetty, and the way material was excavated by the Federal Government inside the inlet. Olsen Associates had been retained to resolve the erosion problem, and had presented a two-fold solution: one was to sand tighten the north jetty, and the second part of the solution was a groin field updrift from the jetty itself. The analytical studies had indicated that with sand tightening the accretion fillet will be changed. The fillet would not be substantial enough to benefit an area of high erosional stress on the beach. The only way to resolve the situation was with a groin field.

Mr. Martino asked if the main problem was the fact that the sand at the south end of the jetty was getting through that jetty, and sand was by-passing outside of the reef area?

Mr. Olsen replied that it was either by-passing or was hung up; when sand was released, it was released in an episodic event, to the point that the downdrift beach did not get enough sand consistently to maintain a healthy width.

Mr. Olsen remarked that the project was moving forward in a fairly rapid manner. The Corps of Engineers was moving toward a very favorable resolution, part of which included better maintenance of the inlet, and more by-passing to Jupiter Island. It was a marriage of convenience between two entities, north and south of an inlet, which had historically been very antagonistic.

Mr. Olsen referred to the Bonita Beach project In Lee County, stating that the first part of the solution had been to build a terminal groin field for purposes of retaining a beach fill. There was no way to build a beach fill at the location and have it kept in place to protect the properties without a terminal field. In this case, two structures were used--very conventional structures of rubble mound--very low cost, using local lime rock. The beach fill was then placed to the south of the structures and the purpose of the northern most groin was to act as a template to maintain the configuration of the beach. The purpose of the second groin was to catch the sand that by-passed, to maintain some equilibrium beach at that location, and to reduce the probability of closure of the pass. This had been a very difficult project from a permit viewpoint because it was private property, and there was some fear that a beach renourishment project built adjacent to the pass would close it. Water quality people wanted the water from the pass to continue to flush the aquatic preserve in the background and did not want the pass to close. The beach people had not opposed the pass closing, because it would then nourish the adjacent shore line. It was a classic regulatory dilemma where one group wanted one thing, and another group wanted something else. Ultimately the solution had satisfied everyone. Lee County had stipulated that if the pass was closed as a result of the nourishment project, a pilot channel would have to be dug in order to re-open it.

Mr. McLendon asked why it was so expensive to eject epoxy into the south jetty at the Palm

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

Beach Inlet, in order to make it sand tight?

Mr. Olsen replied that there was probably a better way to do it, and that he understood that the epoxy injection had been experimental, and it had not worked. He suggested that an ancillary structure or other more conventional approaches may be better. If those did not work, a parallel structure would probably have to be built.

Mr. McLendon asked if tube insulation would be the less expensive approach?

Mr. Olsen agreed, stating that maintenance of that structure would have to be accepted.

Mr. Martino asked if the south jetty had to be sand tightened because of the reverse littoral drift to the north of any sand that got caught in the swirl?

Mr. Olsen responded that sand tightening would not necessarily resolve the swirl, as it was due to the configuration. A structure could break up that swirl. The other problem was the leaking of the structure itself, whereby the tidal currents transported material through, either strictly by tidal current, or by suspension breaking waves. He remarked that the Inlet Management Plan should have addressed that issue.

Mr. McLendon mentioned that Dr. Kuvin had observed some mud going back through the south jetty into the Inlet.

Mr. Lickle pointed out that there were two issues--one was placement of sand. Discussion today had indicated that the sand should be placed further south than it was currently being placed. The secondary problem was if the sand material was placed to the south then there was no nourishment of the existing area, so whatever sand was there had to be retained as best as possible by sealing up the Inlet jetty.

Mr. Olsen stated that there was a dilemma--if sand was put there it would resolve the shoreline problem, but would probably exacerbate the losses through the secondary phenomena.

Mr. Moffett clarified that this was where the groins were located in the Ocean Ridge project.

Mr. Olsen agreed, commenting that was the purpose of the groin field.

Mr. McLendon asked if Mr. Olsen had an opinion on the average movement of a grain of sand from north to south?

Mr. Olsen replied that it was episodic, occurring in storms. He believed it was probably far less than current beliefs.

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

Mr. Martino commented that if all episodic events were added up, then divided, an annual average rate could be found, and asked if a mile per year would be accurate?

Mr. Olsen responded that was possible, depending on the composition of the beach--heavy shell content would move very slowly. It would depend on the slopes, and how eroded the beach was. There were many variables.

Mr. McLendon remarked that during storm Gordon a 200' wide river of sand could be seen moving southerly at 2-3 knots.

Mr. Olsen said that the Coastal Lab in Gainesville had done a lot of florescent sand tracing in the State of Florida during the 1960-70 era, and there was probably some indication of sand movement in that literature.

Mr. McLendon asked if an existing bottom had been pre-determined?

Mr. Olsen responded that a design grade had been used in the upland--in most instances very little grading was done beyond the mean high water line.

Mr. McLendon asked how much angle of repose there was in a beach area?

Mr. Olsen replied that it varied all around the State, and it was a function of the grain size of the material. The coarser material could have a slope of 1 on 7--fine beaches would have 1 on 15, 1 on 20, or 1 on 30.

Mr. McLendon asked if there was an expected 4% grade in Palm Beach?

Mr. Olsen responded that it would depend--the nourished beach could be flatter than the insitu, or original, beach, because eroded beaches tended to have very high shell concentrations. The groin fields would also affect the slope of the beach.

Mr. Martino stated that he had heard comments that when the old Sand Transfer Plant was operational there was always plenty of sand, and the beaches were nice and wide. He remarked that it was a paradox--it seemed on one hand the old Sand Transfer Plant operated to make good beaches; yet now it was indicated that could not be depended on in the future.

Mr. Olsen replied that the anecdotal information had to be filtered out. The same issue had been addressed in the late 1940's, with some of the judgment being as accurate today. Palm Beach County was grossly sand starved from one end to the other.

Mr. Martino pointed out that filling was a very expensive part of the groin building program,

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

and questioned if groins could be built into the existing profile, expecting it to be maintained--therefore, money would not have to be expended to bring in fill.

Mr. Olsen explained that could be possible, but from a regulatory sense it could be a very difficult alternative. In order to build groins there must be a Comprehensive Plan and a comprehensive commitment to maintain it.

Mr. Isiminger mentioned that it was interesting that in the precepts mentioned by Mr. Olsen he had noted that the groins should be transparent, which had been addressed by acknowledgment that any groins would have to be pre-filled. It was also mentioned that the entire field could not become a perturbation in and of itself, which had been addressed by using the phrase "inlet to inlet". He asked that Mr. Olsen address the merits of the concept of pre-filling and the inlet to inlet concept, in addition to whether the transparent groins would make by-passing a more episodic event.

Mr. Olsen said that a comprehensive groin field would be addressed in the conditions of the permit, with the possibility of liability for maintenance on an episodic frequency, in addition to the overall maintenance.

Mr. Isiminger remarked that it could encourage the sand moving in slugs, more so than a natural beach, as it would change the timing. In over 100 years, the same amount of sand could be by-passed, but in discrete slugs. He asked if that was a concern?

Mr. Olsen responded that it could be a concern. Most proposals would be more modest in project limits than the geographic limits in Palm Beach. He mentioned that Broward County was about to fund a study for the purpose of looking at adding groins to their ongoing beach nourishment project. The reason for this was that Congressional and State representatives continued to comment on the amount of money for the project, asking if there was some way that the requirement could be reduced to improve the economy of the system. The study would make a determination as to the propriety of structures and how it could be incorporated into the Federal scheme of things.

Mr. Isiminger said that he got the impression that everywhere groins had been used had been either at the end of a system or in a self-contained system, such as Tybee Island.

Mr. Olsen agreed that was the case with most of the applications.

Mr. Isiminger proposed that no matter how the groins were tapered or the field designed, in a terminal structure in a by-passing area to the south, the southernmost structure would then become the terminal structure. He asked if there would be an offset formed at the terminal structure?

Mr. Olsen replied that would be difficult, except with the appropriate application of nourishment. A feeder beach may be needed in order to preclude that from happening.

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

Mr. Isiminger asked if there was some inherent merit to the inlet to inlet concept?

Mr. Olsen responded that it merited investigation.

Mr. Moffett remarked that the question before the Board was what was the best way to handle and manage shore protection?

Mr. Olsen explained that the more that could be done in a systems approach in a coastal engineering application, the better off it would be.

Mr. Martino asked if there was a requirement in the permitting process to re-fill groins if it was determined by the State or Federal government?

Mr. Olsen said that it was reasonable to assume that would be a typical condition, usually determined by the DEP.

Mr. Elwell stated that the condition existed within the permit for the Mid-Town Beach project, however, DEP would have its finger on that button. The Town would probably beat DEP to the punch, because of the monitoring being done. DEP would have the authority to require the Town to do maintenance if it was not taken care of locally.

Mr. Lickle asked how T-head groins could be compared with what had been done in Palm Beach?

Mr. Olsen responded that would depend on the long term intent. Expansion would change the configuration and design intent--what existed was a discrete segment with a desire to minimize end effects, therefore, it would be tapered, and as the end of the project was propagated, then the taper would be propagated. In all probability, the groins would be replaced, enhanced, or modified to be full groins to extend the project.

Mr. Lickle asked if the T-head groins would be an application in a different area?

Mr. Olsen replied that the T-head groins could perform the function, but the groins were much more successful in retaining sand between them--not only during normal littoral transport occasions, but during storms. The design of them would need to take that into account. Modifying the groins would involve stretching them out, making a less dense field. He noted that T-head groins would minimize storm effects. The best example would be the Deerfield Beach groin field.

Mr. Lickle established that with the use of T-heads the concern over the existing design would be the downdrift effect at the end of the project, because of the stinginess of the T-heads versus the graded reduction of the existing groins.

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

Mr. Olsen agreed that was the biggest concern.

Mr. Moffett stated that he was concerned about having to maintain the filled groins. He explained that if the groins were no longer filled, the sand would be south. He questioned if the people to the south could be asked to give the sand back?

Mr. Olsen replied that was a legal question.

Mr. Lickle thanked Mr. Olsen for his presentation.

V. CONSIDERATION AND DISCUSSION OF SHORE PROTECTION BOARD DRAFT FINAL REPORT, WITH RECOMMENDATIONS--PLEASE SEE MR. LICKLE'S "SUGGESTED VIEWPOINTS FOR THE TOWN OF PALM BEACH-BEACH SHORE PROTECTION BOARD WRITTEN REPORT"

Mr. Lickle established that there should be no problem with the Sunshine Law if the nine points, and any additions, are answered, and handed in at the next meeting, where each item would be discussed point by point. Mr. Lickle would take notes and put together a draft report. He anticipated that 6-7 of the points would not be debated, because all members would most likely agree. The other points would then be discussed in order to arrive at a conclusion.

Mr. Elwell confirmed that was the scenario that had been agreed to at the last meeting, with one clarification--if everyone could submit the written responses by June 27, it would give time to have them assembled and re-distributed to board members, so that each member could read each other's thoughts before the next meeting.

Mr. Isiminger asked if there was any documentation as to what the Sand Transfer Plant actually had done up until the time it was shut down? He explained that he was trying to obtain evidence/documentation of what the Sand Transfer Plant used to do, as it was critical to know what might be expected of the Sand Transfer Plant in the future.

Mr. Dusey stated that there were numbers telling how much sand was by-passed. The Inlet Management Plan called for a change in the transfer of sand across the inlet. Consultants recommended that 175,000 cubic yards of sand be pumped in; the plan was to increase the capacity of the Plant to pump about 100,000 cubic yards of sand, and have the Corps of Engineers come in to make up the difference.

Mr. Isiminger stated that he was trying to determine if the Sand Transfer Plant would give enough sand, based on its past history.

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

Mr. Dusey replied that it had not. The average annual transfer of the Plant had been about 67,000 cubic yards, and the Corps of Engineers transferred a similar amount on average. Since the Plant stopped, there had been some big numbers dredged and placed on the beach.

Mr. Lickle pointed out that as much sand as possible must be pumped in order to slow the erosion and maintain the current sand. Then, renourishment or building hard structures to trap the sand could be looked into.

Mr. Isiminger asked if there was an agreed number between what the Sand Transfer Plant would give, and what would be needed to maintain?

Mr. Dusey replied that the plant was planned to transfer about 100,000 cubic yards per year and pump it south. The Corps of Engineers could then make up the difference of about 70,000 cubic yards per year. The consultant had considered the dynamics of the inlet, the historical dredging, the accumulation on the north side, and had come to the conclusion that the annual transport to the south naturally, without the inlet, would be 170,000 cubic yards.

Mr. Isiminger asked if expectations from the Sand Transfer Plant could be considered, at best, a maintenance process?

Mr. Dusey agreed, stating that to take more than that from the system would have implications on Singer Island, which would not be palatable to the State or anyone.

Mr. Isiminger asked if the Shore Protection Board was interested in maintaining or increasing?

Mr. Lickle responded that something would have to happen in hot spots with some sort of renourishment with retention.

Mr. Dusey pointed out that it was necessary to define what was to be achieved. Storm protection would be different from recreational beaches.

Mr. Isiminger suggested that the Shore Protection Board should pinpoint what should be accomplished.

Mr. Lickle remarked that it would be up to engineers to suggest a profile. He suggested that the Board stick to storm protection, letting the Town Council decide whether or not recreation was to be included.

Mr. Moffett commented that there were segments of the shoreline requiring shore protection, and segments used for recreation. It was desired to place sand in the system at the north end that would create storm protection throughout the shoreline.

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

Mr. Doney stated that the Palm Beach shoreline was approximately 12.1 miles, with 1 mile being owned by the Town, and the rest being privately owned.

Mr. Moffett asked what portion of the shoreline could be considered for recreational purposes?

Mr. Dusey replied approximately 1 mile or less.

VI. CONFIRMATION OF DATE & TIME FOR THE NEXT MEETING (JULY 11, 1996, AT 2:00 p.m.) AND THE SCHEDULE OF FUTURE MEETINGS OF THE SHORE PROTECTION BOARD

It was confirmed that the next Shore Protection Board Meeting would be held on July 11, 1996, at 2:00 P.M.

Mr. Elwell stated that Mr. Kirby Green may be at the meeting. However, he had been called to Federal Jury Duty so his schedule was in flux. Mr. Elwell expressed that it was very important for the Board to hear from Mr. Green before the creation of a Final Draft.

Mr. Lickle noted that the nine points would be debated at the meeting, and if Mr. Green could not appear, the outline would then be discussed.

Mr. Elwell reminded the Board that the written material should be submitted to the Town Manager's office by June 27, 1996, for re-distribution prior to the July 11, 1996, meeting so that discussion could take place at that meeting.

Mr. Lickle remarked that any additional points that developed could also be included at the meeting.

VII. ANY OTHER MATTERS.

Mr. Doney stated that he would like to enter into the record the following: Mrs. Curran's memorandum dated May 28, 1996, regarding the Inlet Management Plan and Beach Renourishment Study - Broward County Department of Natural Resource Protection; Mrs. Curran's memorandum dated June 12, 1996, regarding Shoreline Stabilization Project - Amelia Island; Mr. Doney's memorandum dated June 3, 1996, to Mr. Lickle, Mr. Hennessy, and Mr. Levy regarding the May 23 Shore Protection Board Meeting, including three particular enclosures (Mr. Raffo's report and

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96

recommendations, Mrs. Curran's memorandum dated May 23, 1996, regarding Groin Project - City of Deerfield Beach; and the suggested viewpoints for the Town of Palm Beach - Beach Protection Board written report; the memorandum dated June 10, 1996, to all Shore Protection Board Members (including six enumerated items that were attached to the June 10, 1996, memorandum: the Agenda; the Shore Board Meeting Schedule; Mrs. Curran's memorandum dated May 28, 1996, to the Shore Protection Board Members; Mrs. Schrafft's letter dated June 6, 1996, regarding the proposed Mar-A-Lago Marina; the Florida Shore and Beach Preservation Association newsletter "Frontline" - May & June edition; a newspaper article entitled "A Vital Resource Slips Through Our Hands---Sand" from the Miami Herald).

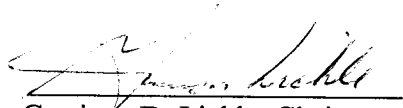
Regarding the nine points for discussion, Mr. Lickle stated that the goal was to be as concise as possible, making the presentation a working document that any Town Council member could look at and digest within a half hour.

Mr. Isiminger asked for clarification on Item 7, "Town Supervision Staff Engineers on Contract."

Mr. Lickle explained that was the "beach czar" concept--whether supervision was necessary, and should it be done by existing Town Staff, or a new position created, etc.

VII. ADJOURNMENT

The meeting was adjourned at 4:55 P.M.


Garrison D. Lickle, Chairman

REPORT OF THE SHORE PROTECTION BOARD MEETING HELD ON 6/13/96