



TOWN OF PALM BEACH

Town Manager's Office

TENTATIVE -
SUBJECT TO
REVISION

SPECIAL TOWN COUNCIL MEETING

TOWN HALL
COUNCIL CHAMBERS-SECOND FLOOR
360 SOUTH COUNTY ROAD

AGENDA

WEDNESDAY, SEPTEMBER 11, 2013

1:30 PM

I. CALL TO ORDER AND ROLL CALL

Gail L. Coniglio, Mayor
David A. Rosow, President
Robert N. Wildrick, President Pro Tem
William J. Diamond
Richard M. Kleid
Michael J. Pucillo

II. PLEDGE OF ALLEGIANCE

III. APPROVAL OF AGENDA

A. Coastal Protection Program.

1. Level of Protection Provided by Pilings, Seawalls, and Groins.
[H. Paul Brazil, Director of Public Works]

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2. Financing Options.
[Peter B. Elwell, Town Manager, and Jane Struder, Director of Finance]

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IV. ANY OTHER MATTERS

V. ADJOURNMENT

PLEASE TAKE NOTE: The progress of this meeting may be monitored by visiting the Town's website (www.townofpalmbeach.com) and selecting "Your Government" and then selecting "Live Meeting Audio". If you have questions relative to these two features, please contact the Office of Information Systems (561) 227-6315.

Disabled persons who need an accommodation in order to participate in the Town Council Meeting are requested to contact the Town Manager's Office at 838-5410 or through the Florida Relay Service by dialing 1-800-955-8770 for voice callers or 1-800-955-8771 for TDD callers, at least two (2) working days before this meeting.

TOWN OF PALM BEACH

Information for Special Town Council Meeting on: September 11, 2013

To: Mayor and Town Council
Via: Peter B. Elwell, Town Manager
From: H. Paul Brazil, P.E., Director of Public Works
Re: Level of Protection Provided by Pilings, Seawalls, and Groins
Date: August 26, 2013

STAFF RECOMMENDATION

Staff recommends that the Town Council provide any direction as deemed necessary.

GENERAL INFORMATION

At the August 13, 2013 regular Town Council meeting, Town staff was directed by Town Council to provide additional information on pilings, seawalls, and groins in preparation for a Special Town Council meeting regarding the Coastal Protection Program on September 11, 2013.

PILE FOUNDATIONS

A pile foundation is used to support a heavily loaded structure to assure that it does not settle. A pile can be a precast concrete element or can be cast in place on-site. The strength of a pile is derived through a combination of side friction and end bearing. A multi story structure in this area would most likely need to be founded on pile foundations because of the existing soil conditions. In some cases a specially designed structural slab may be sufficient to support a multi story structure if the soil conditions allow.

The following are some typical situations here in Palm Beach:

- A typical one or two story residential structure on a site with good soil conditions most likely would not require pile foundations.
- The Central Fire Station is a 3 story building with good soil conditions and a structural slab was sufficient to support the building.
- The Par 3 Clubhouse is a 2 story, relatively lightly loaded building on marginal soils and it was determined that pile foundations were needed.

The Coastal Construction Control Line (CCCL) is line set by the State of Florida Department of Environmental Protection (FDEP). It is the line that estimates the limits of erosion from a 100 year storm (a storm that has a 1 in 100 chance of occurring any given year). Land west of this line is not anticipated to be impacted by erosion from that magnitude of storm. Any habitable structure east of this line must be supported by piles. The purpose is to assure that the structure would still be supported even if some amount of erosion occurred. The structure may or may not be habitable after this erosion occurs even if the building is still standing. Buildings constructed east

of the CCCL before March 17, 1985 were not required to be supported by pile foundations. The presence of piles would have been based solely on the weight of the structure and the soil conditions at the site.

SEAWALL PROTECTION

The primary purpose of a seawall is to prevent erosion and other damage due to wave action. A seawall is a physical barrier that provides a last line of defense to the upland properties.

A beach and dune system waterward of the seawall provides a much more stable condition. Unfortunately this is not always possible. Exposed seawalls can accelerate erosion downdrift of the wall. Remedial work to offset erosion may be necessary as seawalls become exposed due to lack of sand. Two typical examples are as follows:

- Additional walls immediately waterward of the existing seawall (and deeper than the original wall) have been constructed in many areas. This additional new wall protects against the older wall from being scoured out and possibly failing. This secondary wall is typically called a “toe wall”.
- In some cases revetment (stone boulders) has been placed at the toe of an existing wall also to protect it against scour. The Town has done this at both the Mid-Town Beach seawall and the North Ocean Boulevard seawall.

GROINS

A groin is a structure that extends perpendicular from the shoreline out into the water. It can be made of rocks, steel panels, or other material. The purpose of a groin is to trap sand that is moving in the system (typically from north to south). The amount of sand it holds is based on the height, length, and porosity of the structure as well as the amount of sand moving in the system. If there is no sand moving in the system, the groin will have nothing to trap and hold. A groin does not add sand into the coastal system.

A groin can minimize erosion when combined with a healthy beach and dune but does not necessarily provide direct storm protection. The Town has constructed a groin field as part of the Mid-Town Beach project. At times of severe erosion or when the project is nearing the end of its planned life, the groin field is effective at holding sand in the project area. Sand provides protection to the seawall.

Since 2009, three (3) coastal engineering firms have inventoried and evaluated the groins within the Town. Recommendations have been suggested to prioritize and rehabilitate several of the groins as part of the Town’s comprehensive long term beach management plan.

cc: Shore Protection Board
Robert Weber, Coastal Coordinator

TOWN OF PALM BEACH

Information for Special Town Council Meeting on: September 10, 2013

To: Mayor and Town Council

Via: Peter B. Elwell, Town Manager

From: Jane Struder, Finance Director

Re: Financing Options for the Coastal Protection Program

Date: August 30, 2013

STAFF RECOMMENDATION

Staff requests direction regarding the financing plan for coastal protection.

GENERAL INFORMATION

At the August 12, 2013, Finance and Taxation Committee meeting a conceptual assessment program was introduced. On August 13, 2013, the full Town Council discussed the assessment program and financing coastal with ad valorem taxes. Staff was requested to return with a simplified explanation of the effect of the financing alternatives on property owners.

There are three ways to finance the \$84,189,000 coastal program:

1. Ad valorem taxes only
2. Mix of ad valorem taxes and assessments for properties that receive special benefits
3. Assessments only, with all properties receiving benefits paying a share of costs proportional to their share of benefits

The remainder of this memorandum will focus on the first two options. There is currently no sample methodology applicable to Option 3 and, in any event, there are some costs in this program that should properly be classified as “community benefits.”

We have reviewed various borrowing scenarios and the use of coastal protection reserves to determine the lowest cost alternative for the annual amount necessary to fund the coastal program whatever financing option is chosen. We have estimated that the annual cost of the 10 year program would be \$4,500,000 and would increase by 2.5% per year. This is based on a total cost of \$84,189,000 less current coastal reserves (\$20,358,913) and less the portion of the coastal program currently funded through the General Fund (\$8,133,000).

Ad Valorem Taxes Only

If the coastal program was financed with ad valorem taxes only, the cost per million dollars of taxable value would be \$378 in the first year. Slide 1 on the attached powerpoint presentation shows examples of the tax impact for properties with various taxable values.

Mix of Ad Valorem Taxes and Assessments

In the conceptual plan for funding coastal management projects prepared by Dr. Stronge, the total 10 year project cost of \$84,189,000 was broken down between costs that had a community-wide benefit (\$44,101,029) and costs that would provide a direct benefit to private properties (\$40,087,971).

Because of the use of \$20,358,913 in current coastal reserves (which have been accumulated from the community-wide general revenues of the Town) and the approximately \$800,000 annual “run rate” for coastal protection that is already included in the General Fund, implementation of Dr. Stronge’s methodology would require \$900,000 of additional ad valorem taxes to fund the annual cost of the community-wide benefits.

The annual cost allocation for the assessment portion is \$3,600,000. These costs would be allocated proportionally among the properties that will receive a direct benefit from particular storm protection projects. The assessment methodology described by Dr. Stronge in his report is one method to allocate the costs. Other options or variations of Dr. Stronge’s method can be discussed and pursued at the request of the Town Council. For purposes of this memorandum, we are using Dr. Stronge’s methodology.

Slide 2 shows the estimated ad valorem tax increase for various taxable values to pay for the community-wide benefits in a mixed financing program. Slides 3, 4 & 5 show the assessment cost by market value for the properties in the three assessment areas (Mid-Town, Reach 7, and Reach 8). The properties in the assessment area would also pay ad valorem taxes for their share of the community-wide benefit.

For reference, the average market value has been calculated by assessment area and is shown in the tables on the following page:

Reach 7		
Land Use	Number of Units	Average Private Property Market Value
Condominium	1473	\$360,517
Single Family	20	\$2,589,972
Hotel	2	\$39,617,759

Reach 8		
Land Use	Number of Units	Average Private Property Market Value
Condominium	1392	\$368,603

Mid Town		
Land Use	Number of Units	Average Private Property Market Value
Condominium	1018	\$837,614
Single Family	53	\$11,898,909
Multi Family	2	\$16,384,665
Commercial	3	\$3,374,471
Hotel	2	\$83,049,195
Vacant	4	\$7,547,968

Attachments

jls

cc: H. Paul Brazil, Director of Public Works
Robert Weber, Coastal Coordinator
Dr. William Stronge

Coastal Financing Options



Special Town Council Meeting

September 11, 2013

1:30 PM

Cost to Finance Coastal Ad Valorem Taxes Only

Total Cost of 10 Year Coastal Program	\$84,189,000
Less: Reserves and Administration Costs Paid through General Fund	(\$28,491,913)
Annual Revenue Required	\$4,500,000
Millage Rate	0.3780

Ad Valorem Taxes	
Taxable Value	Annual Taxes for Coastal Protection
\$250,000	\$95
\$500,000	\$189
\$750,000	\$284
\$1,000,000	\$378
\$3,000,000	\$1,134
\$5,000,000	\$1,890
\$10,000,000	\$3,780

Slide No. 1

Cost to Finance Coastal – Taxes & Assessments

Ad Valorem Taxes for Community Benefits

10 year Cost of Community Benefit Portion of Program	\$44,101,029
Less: Reserves and Administration Costs Paid through General Fund	(\$28,491,913)
Annual Revenue Required	\$900,000
Millage Rate	0.0756

Ad Valorem Taxes	
Taxable Value	Annual Taxes for Coastal Protection
\$250,000	\$19
\$500,000	\$38
\$750,000	\$57
\$1,000,000	\$76
\$3,000,000	\$227
\$5,000,000	\$378
\$10,000,000	\$756

Cost to Finance Coastal – Taxes & Assessments

Mid Town Assessments for Private Benefits

Total Project Costs	\$27,927,000
Private Benefit Portion (75.33%)	\$21,037,409

Mid Town Annual Assessments			
Units	142	938	2
Market Value	Beach Fill No Seawall	Beach Fill w/Seawall	Dune Fill w/Seawall
\$250,000	\$633	\$316	\$79
\$500,000	1,266	633	158
\$750,000	1,899	949	237
\$1,000,000	2,532	1,266	316
\$3,000,000	7,595	3,797	949
\$5,000,000	12,658	6,329	1,582
\$10,000,000	25,316	12,658	3,164

Cost to Finance Coastal – Taxes & Assessments

Reach 7 Assessments for Private Benefits

Total Project Costs	\$19,527,000
Private Benefit Portion (71.34%)	\$13,930,562

Reach 7 Annual Assessments					
Units	93	1,106	16	280	
Market Value	Beach Fill No Seawall	Beach Fill w/Seawall	Dune Fill No Seawall	Dune Fill w/Seawall	
\$250,000	\$1,059	\$529	\$265	\$132	
\$500,000	2,117	1,059	529	265	
\$750,000	3,176	1,588	794	397	
\$1,000,000	4,235	2,117	1,059	529	
\$3,000,000	12,704	6,352	3,176	1,588	
\$5,000,000	21,174	10,587	5,294	2,647	
\$10,000,000	42,348	21,174	10,587	5,294	

Cost to Finance Coastal –Taxes & Assessments

Reach 8 Assessments for Private Benefits

Total Project Costs	\$4,920,000
Private Benefit Portion (100%)	\$4,920,000

Reach 8 Annual Assessments			
Units	293	1099	
Market Value	Dune Fill No Seawall	Dune Fill w/Seawall	
\$250,000	\$361	\$181	
\$500,000	\$723	\$361	
\$750,000	\$1,084	\$542	
\$1,000,000	\$1,445	\$723	
\$3,000,000	\$4,336	\$2,168	
\$5,000,000	\$7,226	\$3,613	
\$10,000,000	\$14,452	\$7,226	