

MARGATE PROFESSIONAL STAFF RESPONSE TO BOARDWALK PROPOSAL

OCTOBER 16, 2019

INTRODUCTION

This report is designed to be an initial response to the proposal of a self-appointed Boardwalk Committee known as The Margate Boardwalk Committee Inc. On August 15, 2019 this group presented a report dated July 1, 2019 which is called “A Margate Boardwalk for the 21st Century” to the Margate Board of Commissioners. A large number of persons attended the meeting and many spoke both for and against the proposal. The Commissioners listened, accepted the report and indicated they would review it and respond.

The Margate Business Administrator was asked to coordinate a staff response to the report as written. No significant attempt has been made to independently verify information within the citizen boardwalk report nor to use outside resources to prepare an independent response. Rather, this initial response to the citizen submitted report is designed to raise questions, generate discussion and give the professional perspectives of Margate City planners, police, fire officials, engineers, public works maintenance managers, attorneys and financial officers.

From this document it is reasonable to conclude that considerable research would be necessary and considerable cost would be required to be incurred before any meaningful conclusion could be reached on the feasibility of constructing a boardwalk in Margate in the near future.

This response will not address the first one third of the Boardwalk Committee Report which begins with the opinion that the dune project caused great harm which can be overcome by building a boardwalk. At the beginning of page six (well into the report) the page title is “What went wrong? A Dune System forced on us by NJ and ACOE.”

As a premise to this response, the professional staff believes that the feasibility of constructing a boardwalk should be decided on its own merits. It should compete for valuable resources on its own independent value to the community rather than a negative reaction to the dune project controversy we have begun to put behind us.

The professional staff takes no position on the merits of this proposal. The purpose of this report is to shed light on some of the myriad of questions that remain unanswered as well as to point out many of the practical challenges and costs of normal operations associated with constructing a boardwalk.

LEGAL PERSPECTIVE

The legal right to construct a boardwalk on the beach area of Margate will depend in significant part upon ownership rights and agreements that run with the land.

Most of the beach area in Margate extending from the existing sea walls to the edge of the water is owned by the City of Margate. The ownership occurred by deeds primarily from the early 1900's but in some instances closer to current times. Prior to City ownership both the beach and boardwalk were established by a series of agreements. The boardwalk was built in the 1900's or in some areas prior to 1900 and most likely pursuant to written authorization, copies of which we do not have in our City records.

The agreements were made pursuant to an Ordinance dated September 16, 1926. These agreements run with the land and specify on page 3 "the right to maintain the elevated boardwalk as now constructed or hereafter constructed." The agreements also mention the right to keep the area open for public walk.

A number of properties were placed into title with the City of Margate after the date of these agreements. As such, these agreements are superseded by City ownership. However, there remain what has been estimated to be ten to twelve parcels not owned by the City of Margate.

The recent Shore Protection program involved issues of ownership whereby the New Jersey Department of Environmental Protection (DEP) by way of partial condemnation, gained the right to build the shore protection project including sand dunes by court order against both the City of Margate and approximately ten to twelve beach front parcels still in private ownership. For instance, the Osborne Beach Club on Osborne Avenue and the Margate Fishing Pier both remained in private ownership and thus were included in the partial condemnation taking. Perhaps the DEP and/or Army Corps of Engineers would furnish Margate its title research for the beach. This research will be extensive. If unavailable the City would have to undergo its own research at considerable cost to see if there is further older written authorization for a boardwalk for properties not already owned by the City.

Most likely there is recorded written authorization that allowed the original boardwalk to be constructed on private land. However, if there is not an enforceable boardwalk easement and one or more of the beach front property owner contests the use of their land for the purpose of the

boardwalk, the problem could be remedied by the partial condemnation similar to what the State of New Jersey did to the City of Margate and the remaining private property owners for the shore protection project.

Governmental permitting is a significant issue. The DEP and the Army Corps of Engineers have jurisdiction over the construction of the boardwalk along Margate's beach. The current DEP Commissioner is Katherine McCabe who publically has spoken about the high priority she gives for public access to state waters. An initial meeting with the DEP could be arranged, same being referred to as a pre-application conference. A high profile project such as reconstructing the Margate boardwalk may warrant a meeting directly with Commissioner McCabe.

Mention has been made about the existing easements and rights of the DEP and Army Corps for the storm water piping system. Some concerns have been raised about building a boardwalk over those pipes. There are a number of communities such as Atlantic City and Ocean City which have boardwalks built over storm water pipes. The storm water pipes in Margate are now considered to be owned by the City of Margate, This ownership issue of the pipes should be confirmed. The construction of the boardwalk over pipes could be resolved in conjunction with the DEP and Army Corps permitting process.

A survey of the proposed boardwalk location will ultimately be needed. The real estate atlases show a 20' wide boardwalk. The 1926 Agreement does not give dimensions. We suspect that there are much older turn of century agreements which do specify the location and dimensions of the boardwalk. Again, this issue only applies to those few parcels the City of Margate does not already own. Each section of Margate's beach would have to be plotted and legal rights ascertained to the ground area so as to confirm the legal right of Margate to build the boardwalk at a specific location.

A boardwalk has not existed in Margate to the extent proposed since 1944. Since 1944 much beachfront development has occurred and streets were improved northeastward of Atlantic Avenue. This trend has continued throughout the decades after 1944 to present day Margate. Many of the properties along beach blocks today did not exist when the boardwalk was in use. Atlantic Avenue was a trolley route and partially paved. Today the boardwalk may be considered non-essential as Atlantic Avenue is 4 lanes with bike lanes and parking lanes in both direction.

PLANNING AND ENGINEERING

Any expenditure for a boardwalk would need approval from the Planning Board. From a planning perspective, the past 2 or 3 Master Plans have not mentioned replacement for the beach front boardwalk. It is not mentioned anywhere in the capital plan for the past 4 years and likely long before that.

The promenade along Amherst Avenue has been an integral part of the master plan and has been incorporated into the master plan and in turn on the recent development proposals along Amherst Avenue.

The pedestrian and bicycle Study performed by Urban Engineers for Margate, Ventnor, Longport in 2016 also does not mention anything about utilizing a boardwalk in Margate as a bike route. The discussion was to utilize the existing width of Atlantic Avenue to accommodate wider bike lanes and provide possible road diet to make Atlantic Avenue safer for both pedestrians and bicyclists.

Adding two miles of timber boardwalk along the beachfront will require engineered openings in the boardwalk for beach maintenance equipment to access the beaches. The proposed boardwalk does not take in consideration any future beach replenishment projects and the access required for equipment. The proposed boardwalk does not take into consideration annual maintenance and labor costs requiring staff be available on weekends for boardwalk repair.

The proposed boardwalk is based on using Black Locust as the principal decking material which is expensive and prone to warping. Ocean City considered using black locust and had to return the entire shipment due to the job lots warped and unusable.

What about the substructure? What material will be used to attach the decking? Extensive ramps would also be required to provide public access at each street end providing additional costs. It is presumed that welded aluminum railing would be used for boardwalks and the ramps.

Grants for the boardwalks have been mentioned. Atlantic City received a grant to repair the north end boardwalk that has been in disrepair for decades as part of a resiliency grant to build a seawall. The seawall protected the north end of Atlantic City and the boardwalk. NJDOT Transportation trust fund money may include boardwalk replacement projects and will likely be very competitive. Repairing and replacing existing boardwalk will likely garner more weight than building completely new boardwalk that has never been included in any City Master Plan analysis.

The cost estimates presented in the document to construct the three (3) versions of the boardwalk appear to be reasonable preliminary costs for budgetary purposes. It is unclear if these estimates include soft costs, such as engineering design, environmental studies, preparation of permits, permit fees, and construction management. Further costs for restrooms, pavilions and utilities will be considerable.

The proposed boardwalk would require a significant permitting process through the New Jersey Department of Environmental Protection (NJDEP). It is unclear if the Coastal Zone Management Rules (NJAC 7:7) would permit construction of a boardwalk along the Atlantic Ocean beach in Margate. Permitting may also be required through the United States Army Corps of Engineers (USACE). A pre application conference with the NJDEP is required to clarify design conflicts, determine regulatory jurisdiction and compliance, and determine if any unforeseen regulator issues might be discovered.

There is a Local Cooperative Agreement in place between the NJDEP and the City of Margate related to the dune project. That agreement requires adoption of a beach species management plan. The draft management plan prepared by the NJDEP Division of Fish and Wildlife, and the US Fish and Wildlife Service, includes a Precautionary Zone from Fredericksburg Avenue (where the Ventnor Boardwalk ends) to Barclay Avenue. According to the draft plan, Precautionary Zones are areas that are not known to currently be frequented by federally or State-listed species that use beach habitats (including piping plover), but that are believed to be of sufficient quality to support those species, should they occur. Limited uses permitted within this zone include emergency access, hand cleaning of debris, outfall pipe and beach/dune maintenance, and inspections when necessary. Additional information is required to determine if the designation of this Precautionary Zone would prohibit construction of a boardwalk.

Construction of the proposed boardwalk may conflict with recently installed storm water management system, related to the dune project. That system includes a storm sewer main installed along the beach from Fredericksburg Avenue to Douglas Avenue; from Exeter Avenue to Iroquois Avenue; from Jerome Avenue to Mansfield Avenue; Nassau Avenue to Quincy Avenue; and from Rumson Avenue to Vendome Avenue. There is also an existing storm sewer system at Mansfield Avenue that may conflict with the proposed boardwalk.

Construction of the proposed boardwalk pavilions with restrooms would require connection to the sanitary system. Depending upon locations of the proposed pavilions, conflicts may exist, and the depth of existing sanitary sewer utilities may necessitate installation of a pump system.

Construction of the proposed boardwalk may conflict with existing jetty rock material in place at various locations along the beach

Due to the limited space between the dunes and the street ends, access ramps for the proposed boardwalk may require switchbacks to meet accessibility requirements. This could increase costs and expand the footprint of the proposed structure.

The proposed boardwalk would create a significant temporary disturbance during construction for property owners within the project limits, including noise and vibrations. The duration of construction could be impacted by timing restrictions imposed through the permitting process.

MAINTENANCE

On page 6 the report references “five huge storm water outfalls (consisting of pipes and pumps) that reach out to the sea”. The Dune system and the drain system that has been constructed works well and **has no pumps** to move the storm water.

The dunes on our beaches protect Margate and the street ends. Since completion of the dunes project Public Works has not had to spend significant time and money moving sand from the street ends or on the beach side of the bulkheads as was done in the past. Previously during

storms or full moon cycles there would be hundreds of hours spent moving sand back from the bulkhead to help prevent street end flooding.

The location of the boardwalk at the back toe of the dune is where the drainage system is located. If a boardwalk were to be built at this location it would make it very difficult to properly maintain and repair this system. Currently we have equipment that enables us to maintain the “dead zone” behind the dunes (Purchased after the dune construction) but this would not be possible once the boardwalk and ramps were constructed.

The Public Works Department estimates a boardwalk would increase the operational budget by a minimum of \$250,000 annually.

- 3 Employees \$150,000
- Equipment \$25,000
- Tools \$25,000
- Supplies \$25,000
- Utilities \$25,000

POLICING

A boardwalk is not the same type of road as other roads. Most roadways are governed by Department of Transportation guidelines regarding engineering such as width, travel lanes and other variables. The proposed dimensions of a boardwalk are not conducive to mother vehicle traffic such as police vehicles or fire department ambulances. Oversized vehicle access points are required to safely enter and exit a boardwalk, not every street end would have this access.

Currently, the City of Margate has four (4) access points to the beach, Washington Avenue, Decatur Avenue, Granville Avenue, and Delavan Avenue. Three (3) of these points are constructed to handle large, oversized equipment. The beach is easily accessible at these points.

Most patrol activity on a boardwalk is conducted by police officers on bicycles. During the summer months, these officers are usually Special Law Enforcement Officers Class Two. A boardwalk would require the City of Margate to employ additional Class Two Officers during the summer months. It is estimated this would require an additional four (4) Officers. Margate officers currently patrol the beach on all-terrain vehicles (ATV's) during the summer season. A boardwalk would increase the number of officers needed to patrol a beach and a boardwalk.

The Boardwalk Committee report states that a boardwalk is likely to increase informal surveillance (from individuals who are biking, walking, jogging or sitting) and “*act as a protective factor against burglaries to those houses directly on the beach as well as beach blocks.*” This is especially important in Margate where 95% of the beach blocks are second

homes that are unoccupied most of the year- and thus perfect targets. Dr. Levy argues that these properties in particular will actually experience **vastly improved security**.

Although we agree with Dr. Levy that informal surveillance could be increased, the Margate Police believe that safety would not necessarily improve. Formal surveillance would be significantly better for individuals wanting to commit crimes. The ability to bike, walk, jog or sit, unnoticed, could contribute to better intelligence being collected regarding unoccupied beach block properties. The Margate City Police Department currently patrols the beach block areas where homes are unoccupied during the winter months. This contributes to a better familiarization of vehicles and individuals accessing these properties. The level of security is already high in these areas with current patrol concepts. Therefore, we believe the level of security would remain the same.

Margate, historically, sees a significantly higher percentage of bicycles thefts during the summer season. Typically, the suspects are transient from larger urban areas of Atlantic City. This trend was present again during the summer of 2019 with the suspect in numerous bicycle thefts utilizing the boardwalk for a direct path to Margate. A boardwalk would grant easier access to perpetrators of petty theft into the area. During winter months, the availability of direct access would lead to greater surveillance of unoccupied homes in the beach block areas.

The report submitted by The Margate Boardwalk Committee does not address the potential issues of parking. The addition of a boardwalk in the City of Margate would exacerbate this issue. With the potential of additional patrons utilizing the boardwalk as well as the beach, there is a limited amount of safe parking space. The enforcement of "site triangles" on Atlantic Avenue has been a concern for motorists and pedestrians. There has recently been a concerted effort to enforce parking regulations. The addition of a boardwalk would bring more vehicles and pedestrians into an already congested area. The City of Ventnor allows beach block parking, however, the City of Margate does not during the summer season. The lack of adequate parking would be a concern for the police department and the citizens of Margate. There would have to be additional hiring of Special Law Enforcement Officers and a plan would have to be developed for additional vehicle parking. An estimated annual operating budget for the enforcement would be \$100,000 for manpower and equipment.

FIRE PREVENTION AND BEACH PATROL OPERATIONS

There is a potential for increased Fire Load because the boardwalk would be composed of combustible material. The material selected should consider fire risk. Access to the Boardwalk would be from the street side only due to the dune structure in front of it. This creates a serious threat of fire advancement and potential issues of beach block homes becoming exposed.

The boardwalk must be designed to carry the weight of Fire Apparatus and EMS vehicles which requires a significant sub structure support. Without this support and the associated added costs, the Fire Department would be forced to acquire additional lighter weight specially designed vehicles.

Of greater concern is bringing water sources sufficient in pressure to fight fires on or from the boardwalk. The cost to install a hydrant system along the entire length of the proposed boardwalk is estimated to be in excess of \$2.5 million dollars. A more cost effective solution might be a dry standpipe from street ends under the boardwalk ramps from which the Fire Department would make connection. To do this every other block would require 21 such standpipes at an estimated cost of about one half million dollars. On top of the initial capital cost there is a cost of annual maintenance for these standpipes and pressure tests periodically and capital replacements.

Based on experiences in both Ventnor and Atlantic City, sand buildup under the boardwalk is a logistical problem. The Beach Patrol shacks would be located on the opposite side of the boardwalk from the beach stands making access for both vehicles and personnel impossible with excessive sand buildup

INSURANCE

The City of Margate will need a designated boardwalk employee assigned from Public Works to perform inspections. As a requirement of the Joint Insurance Fund Boardwalk Program, a constant inspection program will need to be in place. When deficiencies are noted corrective action must take place immediately to reduce potential liability. The Maintenance will not be limited to the structure itself, but also any lighting that will be in place. It is anticipated that there will be increased legal action against the City with Tort Claims pertaining to trip and fall accidents and bicycle accidents.

FINANCIAL CONSIDERATIONS

Obviously there is a significant financial impact.

Assumptions:

Total cost for a "Unique Margate" boardwalk	\$24,000,000
Average property value in Margate	\$534,800
2019 Municipal Tax Rate	.618

Funding would come from a capital ordinance to be approved by the Board of Commissioners. A capital ordinance would require a five per cent down payment from the then current operating budget. The initial budgeted cost to fund the five percent (5%) down payment to authorize the capital ordinance would be \$1,200,000. In the first year, this would be a one-time cost of an average of \$173 per Margate property. Each year thereafter when bonds are issued the cost of permanent financing would be between \$252 and \$287 additional taxes per year for an average residential household.

The balance of the project costs would require bonded indebtedness. The maximum term a boardwalk can be financed is fifteen years due to its estimated useful life. The future tax impact to bond \$22,800,000 (\$24 million less the down payment) is illustrated below:

**Margate City Boardwalk
Bond and Interest Requirements**

**Financed Over Fifteen Years
With An Estimated Interest Rate of 3.0 Percent**

Year	Proposed Issue		\$ 22,800,000.00	Tax Rate Per \$100.00 of Assessed Valuation	Tax on Property Assessed at \$ 534,800.00
	Principal	Interest 3.00%			
2021	1,200,000.00	684,000.00	1,884,000.00	0.051	271.62
2022	1,250,000.00	648,000.00	1,898,000.00	0.051	273.64
2023	1,300,000.00	610,500.00	1,910,500.00	0.052	275.44
2024	1,400,000.00	571,500.00	1,971,500.00	0.053	284.23
2025	1,450,000.00	529,500.00	1,979,500.00	0.053	285.39
2026	1,500,000.00	486,000.00	1,986,000.00	0.054	286.32
2027	1,550,000.00	441,000.00	1,991,000.00	0.054	287.04
2028	1,600,000.00	394,500.00	1,994,500.00	0.054	287.55
2029	1,600,000.00	346,500.00	1,946,500.00	0.052	280.63
2030	1,600,000.00	298,500.00	1,898,500.00	0.051	273.71
2031	1,650,000.00	250,500.00	1,900,500.00	0.051	274.00
2032	1,650,000.00	201,000.00	1,851,000.00	0.050	266.86
2033	1,650,000.00	151,500.00	1,801,500.00	0.049	259.72
2034	1,700,000.00	102,000.00	1,802,000.00	0.049	259.79
2035	1,700,000.00	51,000.00	1,751,000.00	0.047	252.44
Total	22,800,000.00	5,766,000.00	28,566,000.00		

There also will be additional costs to repair and maintain the boardwalk, provide security, pay insurance premiums, pay utility costs, clean and supply bathrooms, provide lighting etc. Depending on materials selected there will be capital costs for re-decking every five to twelve years unless expensive, environmentally controversial rainforest wood is chosen.