

RESOLUTION OF THE CITY COUNCIL

No. 87

Approved February 26, 1997

WHEREAS, the Department of Pubic Works of the City of Providence has determined that the Providence Hurricane Barrier is in need of renovation, rehabilitation, improvements and equipment and also that engineering or other studies may be necessary in connection with such renovation, rehabilitation improvements and equipment (the "Project"); and

WHEREAS, the City may finance the Project through the issuance of Bonds or Notes of the Providence Public Buildings Authority, or by issuing of General Obligation Bonds and Notes of the City, or through the imposition of special assessments to pay for the Project.

NOW, THEREFORE, BE IT RESOLVED,

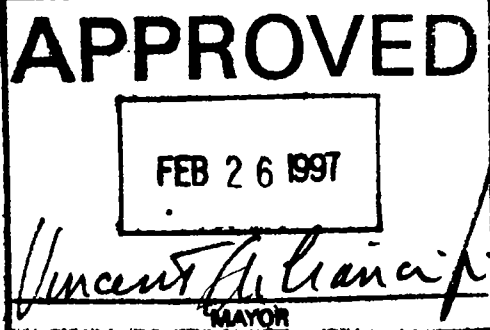
This Resolution is an affirmative action of the City Council towards the issuance of Bonds and/or Notes of the Providence Public Buildings Authority or of the City of Providence in accordance with the purposes of the laws of the State. This Resolution constitutes the City's declaration of official intent, pursuant to Treasury Regulation § 1.150-2, to reimburse its General Fund in an amount not to exceed Five Hundred Thousand Dollars (\$500,000) for certain capital expenditures for the Project paid on or after the date which is sixty (60) days prior to the date of this Resolution but prior to the issuance of the Authority's or the City's Bonds and/or Notes. Amounts to be reimbursed shall be reimbursed not later than eighteen months after (a) the date on which the expenditure is paid or (b) the date the Project is placed in service or abandoned, but in no event more than three (3) years after the date the expenditure is paid.

IN CITY COUNCIL

FEB 20 1997
READ AND PASSED

Enoch V. Fargnoli
PRES.

Michael S. Clement
CLERK



THE COMMITTEE ON

Finance

Recommends

approval

Michael X. Clement

Feb 10, 1997

Clerk

EB 103

Ferdinand C. Ihenacho, P.E.

Director



VINCENT A. CIANCI, JR.

Mayor

Department of Public Works

"Building Pride In Providence"

December 12, 1996

FYI
SW

Stephen Woerner
City Council Auditor
City Hall
Providence, RI 02903

RE: Fox Point Hurricane Barrier
(Short/Long Term Needs Assessment)

Dear Mr. Woerner:

Thank you for the letter requesting information on the Hurricane Barrier Needs Assessment.

Attached for use and reference, is a copy of a report prepared for the Honorable Mayor Vincent A. Cianci, Jr. (regarding the same issues) dated August 6, 1996.

As a caveat, recent unpredictable breakdowns with pumps number two (2), three (3) and four (4) seem to indicate that the attached estimate is conservative. Thus, the attached estimate is a minimum cost estimate and perhaps \$5.0 Million should be used for Long-term repairs and \$430,695.00 for Short-term repairs.

Should you have any questions or need further assistance, please feel free to contact me.

Very truly yours,

Ferdinand C. Ihenacho, P.E.
Director

FCI:cs

cc: Mayor Cianci
Frank Corrente

5.5 million @ 20 @ 6% =>
60,000 Annually =>
20 yrs

5.5 million
annually
basis

cost
rate
nper 20(240)
PV
type

109,015 760 = 550,000
950,000

Ferdinand C. Ihenacho, P.E.

Director



VINCENT A. CIANCI, JR.

Mayor

Department of Public Works

"Building Pride In Providence"

MEMORANDUM

TO: Mayor Vincent A. Cianci, Jr.

FROM: Ferdinand C. Ihenacho, P.E., Director *FCI*

DATE: August 6, 1996

RE: Hurricane Barrier Needs Assessment
(Short and Long Term)

As requested, I am forwarding this correspondence as my proposed long term and short term maintenance plan for the Fox Point Hurricane Barrier.

The short-term maintenance plan is based on an assessment of personnel and materials needed to keep the Barrier functional on a day-to-day basis. The long-term plan is based on the capital needs required to ensure the viability of the Barrier into the twenty first (21st) century.

As you are well aware, the barrier was constructed in 1966 (\$16,000,000.00) and though its technology is based on sound civil and electro-mechanical engineering principles, the rapid pace of technological advancement has rendered its thirty year old operational components obsolete. Subsequently, the expertise and spare parts needed to keep this facility operational have become either rare, expensive, customized or non-existent/disceased. A major capital outlay will be required to evaluate the structural integrity of the barrier walls, gates and dikes (above and below seas level) and to overhaul/replace all main electro-mechanical components such as the control room, main and secondary gates and the pumps.

Presently, the only funding sources that the City can leverage are as follows:

1. Federal Funds
2. State Funds
3. General Obligation Bonds (City and State)
4. The Downtown Businesses Association (protected by the Barrier)
5. Private Funds

700 Allens Avenue • Providence, Rhode Island 02905

(401) 467-7950 (Voice) • 751-0203 (TDD) • 941-2567 (Facsimile)

Mayor Vincent A. Cianci, Jr.
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RE: Hurricane Barrier Needs Assessment

12.	Dewatering Chamber - Repair vertical construction joint	14,000.00
13.	Remove log-boom protection for river gates	850.00
14.	40-Ton Pump room crane defective	200.00
15.	Cathodic Protection System for cooling water canal wall	72,000.00

Mayor Vincent A. Cianci, Jr.
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RE: Hurricane Barrier Needs Assessment

I am working with our State Legislators (Senator Chaffee, Senator Pell, Congressman Kennedy, Congressman Reed) to program major capital funding in the future, and also working with Narragansett Electric Company (NEC) on a Government/Private Business partnership that will result in about \$140,000.00 cost participation by NEC in 1996 and 1997.

The Short-Term Maintenance Plan:

<u>Item</u>	<u>Description</u>	<u>Estimated Cost</u>
1.	Daily Operation Maintenance Personnel	25,000.00
2.	Annual Equipment Maintenance Parts	1,000.00
3.	Annual Outside Vendor Repairs	20,000.00
4.	Four (4) Annual Mandatory Tests/Full Barrier Energized (8 hrs., 4 staff each)	5,000.00
5.	Four (4) Annual Tidal Surge Events (15 hrs., 4 staff each)	<u>9,000.00</u>
Sub-total Annual Costs		60,000.00

Repairs:

1.	Replace fire alarm panel - defective zone on the board	1,879.00
2.	Pump #1 - 119" Worthington Pump -Defective high temperature, upper bearing	3,500.00
	-Backwater Closure not setting on cone	350,000.00
3.	Pump #3 - 119" Worthington Pump -Relay not resetting for electric field	300.00
4.	Pump #5 - 119" Worthington Pump -Defective high temperature, upper bearing	2,236.00
5.	1141 Trans. nitrogen pressure tank, very low	200.00

Mayor Vincent A. Cianci, Jr.

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RE: Hurricane Barrier Needs Assessment

42.	Trash Rack - sand-blast and painting	1,960.00
43.	Sandblast and paint webbing and top of street gates	480.00
44.	Vegetation Clearing of dikes	1,800.00
45.	Unplug Allens Avenue recess well	480.00
46.	Missing guard railing, blast and repaint all	2,460.00
47.	Emergency back-up lights - replace one and bulbs	175.00
48.	Replace fire hoses	1,200.00
49.	Repair false readings - #4 dewatering valve	150.00
50.	Main overhead door upper limit switch	250.00
51.	Adjust and reset sump and dewatering pumps	50.00
52.	Control room indicators for upstream/downstream canal level and canal gates	1,900.00
53.	Navigation light standards at River Gates	1,490.00

Sub-total Short-term REPAIRS (No. 1 thru 10, 51,52,53) \$370,695.00 + \$60^K Annual Cost.

Sub-total Long-term REPAIRS (No. 11 thru 50) \$531,716.00

Total Short-Term \$430,695.00

In addition to the sub-total long-term REPAIRS above, an estimated \$4,000,000.00 shall be added as cost for the design, construction and construction management to upgrade the barrier control room operations, structural integrity and overhaul of all five (5) vertical pumps. Total long-term, \$4,531,716.00.

Based on the recent history of incidents, Hurricane Bertha (7/13/96), Hurricane Bob (1991) and a Noreaster (February 1996), the Fox Point Hurricane Barrier continues to fulfill its main purpose of protecting downtown Providence from flooding. Fortunately or unfortunately, this has lulled the business community into a false sense of safety predicated on a maintenance free flood protection.

In 1938 and 1954 (Hurricane Carol), business and commerce was completely destroyed in downtown Providence due to tidal flooding and this plan has been developed to ensure that this does not occur during and long after this Administration.

Should you have any questions, please feel free to contact me.

FCI:cs