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Komitee: 29.09.92

Raad: 29.09.92

STABILIZATION OF PELICAN
ISLAND

(15/1/10)

(SI)

(15/1/17/1)

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2422

STABILIZATION OF PELICAN
ISLAND

(15/1/10) (SI)
(15/1/17/1)

1. PURPOSE

- 1.1 To recommend that the proposals for the stabilization of Pelican Island and the Bayside Area as set out in the report entitled "Pelican Island : First Phase Scheme for Stabilization - July 1992" and its Addendum further entitled "Financial Viability, Cost Implications and Programme - September 1992" as submitted by GFJ Inc., be accepted.
- 1.2 To recommend that GFJ Inc. be instructed to proceed with the detail design of the stabilization works and further to proceed with the letting of tenders for the construction thereof.
- 1.3 To recommend that the offer made by the Mhlatuze Water Board, to contribute a certain amount towards the stabilization of Pelican Island in lieu of their proceeding with a stand alone scheme of their own, be accepted.

2. BACKGROUND

Over the past number of years a number of studies have been undertaken regarding the future of Pelican Island and the implications thereof for the Bayside Area.

A number of reports have served before Council, the most recent of which was from GFJ Inc. and which was entitled "Pelican Island : First Phase Scheme for Stabilization - July 1992".

An offer was also received from the Mhlatuze Water Board whereby the Water Board expressed its willingness to contribute an amount of R5,643 million to a joint scheme provided that this scheme would include a permanent solution to intake problems being experienced at the Mhlatuze Water Board's sea water inlet.

The abovementioned items culminated in a report which served before the Council meeting of 28 July 1992 and at which meeting the following Resolutions were passed.

- "2334(7.) the report by Messrs GFJ Inc. titled "Pelican Island First Phase Scheme for Stabilization" be approved in principle for the purpose of negotiations with Mhlatuze Water Board in respect of their offer to financially contribute towards the stabilization of the Bay Area and Pelican Island;
- 2334(8.) a subcommittee be appointed to discuss the stabilization of the Bay Area and Pelican Island with the Mhlatuze Water Board, which committee be authorized to negotiate in respect of the Water Board's financial offer in (7.) above and the results of the negotiations be reported to Council:
- 2334(8.1) the amount of R5,643 million offered by Mhlatuze Water Board be considered as current value as at the date of the offer and such amount to be subject to escalation, as agreed;
- 2334(8.2) the amount in (8.1) above be applied for financing of the relevant expenditure in Council's current financial year, due to the necessary funds not being provided for on the current (1992/93) budget;
- 2334(10.) the Subcommittee in (8) above be authorised to negotiate with Portnet in respect of a possible contribution towards the stabilization of the Bay Area and Pelican Island and GFJ Inc. be requested to prepare a proposal for submission in this regard, if required; and

2334(11.) a report on the economic analysis of the Bay Area Development, with reference to capital outlay, possible sources of income and financial contributions by parties involved, be submitted to Council."

Arising from Resolution 2334(11) of 28 July 1992 as quoted above a further report entitled "Addendum to Report : Pelican Island : Phase I Stabilization - July 1992 : Financial Viability, Cost Implications and Programme - September 1992" was received on 12 September 1992. The executive summary accompanying this report is appended as Annexure F of this item.

The following discussion attempts to advise Council on the contents of the abovementioned report as well as to report on negotiations with the other bodies involved as required by subsections 2334(8), (10) and (11) of Resolution 2334 of 28 July 1992.

3. OUTCOME OF DISCUSSIONS OF SUB-COMMITTEES

3.1 Mhlatuze Water Board

A meeting of the sub-committee appointed in terms of Resolution 2334(8) as quoted above was held on Tuesday 28 August 1992. The notes taken at this meeting are appended as Annexure A to this item.

Without wishing to reproduce the entire contents of the Annexure the following extracts are deemed worthy of repeating:

"3. Discussion at length took place after which it was concluded that, with some refinements, the options tabled represented viable means of stabilising the bayside area as well as providing the required assured sea water inlet.

3.1 Council would need to react formally to MWB's previous correspondence.

3.1.3 MWB's acceptance would form the basis of recommendations to Council's September meeting.

Item 3.1 above was addressed in a letter to the Mhlatuze Water Board, a copy of which is appended as Annexure B of this item, in which Council's anticipated response to the Mhlatuze Water Board was detailed.

Subsequent to the abovementioned meetings representatives of the Mhlatuze Water Board met with the Management Committee on 15 September 1992 at which meeting an amended offer from the Mhlatuze Water Board was tabled.

This amended offer was remade via a letter dated 16 September 1992, Annexure C of this item.

The essence of this amended offer is that the Mhlatuze Water Board would prefer to reduce their contribution to the Phase I stabilization to R4 million, this representing one-half of the costs of the envisaged works, rather than contribute the full amount of what their stand alone scheme would have cost ie. ±R5,643 million.

The reasoning behind this reduced offer would appear to be that whereas Council would be saving R5,643 million by accepting the Mhlatuze Water Board's offer there is no saving to the Mhlatuze Water Board in making the offer.

Although on the surface this reasoning appears attractive it should not be forgotten that the Mhlatuze Water Board has stipulated that Council must take full responsibility for the design and success of the stabilization scheme. The Mhlatuze Water Board would thus, by means of a simple financial transaction, not only obtain a guaranteed solution to their salt water intake problems, but would free itself of a considerable design, administrative and operational burden, as well as any risk entailed in the failure of their proposed least-cost stand alone scheme. It should also not be forgotten that the proposed least-cost stand-alone scheme of the Mhlatuze Water Board would probably entail a good deal of inconvenience to the users of the North-eastern side of the Bay Area. The stabilization of Pelican Island obviates this inconvenience, to the Mhlatuze Water Board's benefit.

It is therefore recommended that the anticipated wording of Council's response to the Mhlatusu Water Board's offer as set out in Annexure B of this item be retained verbatim.

3.2 Portnet

Also arising from Resolution 2334(10) the Sub-Committee also met with representatives of Portnet on 18 August 1992. The proceedings of the meeting are appended as Annexure D of this item.

In a letter dated 3 September 1992, Portnet indicated their acceptance of the contents of these proceedings with the following amendment.

"Portnet will undertake maintenance of the Mzingazi canal in the immediate vicinity of Pelican Island to assure that the canal acts as a stormwater drain, prior to the gap between the Bayside and Pelican Island being closed. Based on the project programme it is anticipated that this maintenance will be necessary in March/April 1993.

Nevertheless Portnet will table its proposed maintenance work for discussion by the end of September 1992."

The work described in this letter will provide some relief for yachting access but should not be taken to mean that a final decision has been taken regarding Portnet's participation in the stabilization of the Bay Area. In terms of the maintenance agreement between Portnet and the Borough of Richards Bay, Portnet is obliged to maintain the canal until a certain stage is reached in the development of its catchment area and the Borough is obliged to contribute to the costs of this maintenance according to a certain formula.

The terms of this agreement contain a clause stating that it must be renewed every five years until the stage of development mentioned above has been reached or for 20 years from the date of the agreement (14 August 1984) whichever first shall occur, which clause is taken to infer that although the renewal has not formally been recorded it nevertheless remains in force, nothing to the contrary having been received from Portnet.

Portnet has recently contended that the size of the original canal was in excess of what is required in terms of successful drainage of the canal's catchment areas and that Portnet is not obliged to restore the canal to anything more than its hydrological/hydraulic minimum.

It must be noted however, that preliminary but substantial calculations by GFJ Inc. indicate that dredging to the full -6m msl level (i.e. original size) will be required to provide adequate drainage of the catchment areas draining into the Mzingazi Canal.

In either event it can be expected that Portnet will argue that, whatever work is done the Borough will be expected to contribute its share.

Based on a weighted average of development over time it can be expected that the Borough will currently have to contribute in the order of 6% to 10% of the costs of restoring the canal to its required dimensions and of any capital works required to lessen future maintenance burdens.

It can also be expected that Portnet will argue that the development of the Bay Area, particularly the proposed bridge to Pelican Island will interfere with the effectiveness of the Mzingazi Canal as a drainage path and that any costs resulting from this should be for the Borough's account.

As these costs will have some effect on the cash flow situation of the stabilization project it is of importance that an agreement be reached as soon as possible.

3.3 Zululand Yacht Club

On 19 August 1992 a meeting was held with representatives of the Zululand Yacht Club and the NSRI to inform the Club of recent developments.

The club highlighted the problems being caused to yachting activities by the silted up conditions of the channel between Pelican and Naval Islands. The problems being experienced by the NSRI were also highlighted.

Further to this meeting a letter was received from the Yacht Club (appended as Annexure "E") expressing appreciation for the meeting and providing statistics of Yachting activities.

The letter also contains an offer to contribute R30 000 towards the stabilization project as a gesture of good faith and appreciation.

This amount represents the amount which the Club had, in desperation, allocated for their own dredging project, in order to be able to maintain some semblance of access.

It should be noted that this amount represents approximately one-third of the Club's financial reserves and the offer consequently can be seen as a considerable gesture.

It is recommended that Council note the offer with thanks but resolve not to take advantage of it acknowledging that the Club could find a greater need for it in upgrading of its facilities.

DISCUSSION OF CONSULTANT'S REPORT

4.1 Introduction

As previously recorded (in this item and elsewhere), the Mhlatauze Water Board has made a firm offer to Council to contribute R5,643 million towards a joint stabilization scheme for Pelican Island and the Bayside Area which scheme will cost ± R8,559 million in its first stage, a further ±R3,872 million for its second phase and possibly a further R12,927 million to complete. (See Annexure H:2 and Figure 1.) These costs are as at July 1992 and make no provision for escalation and differ from those previously stated in that financing costs for cash flow shortfalls have been included.

Also included in these figures are a provision for professional fees for stage 2 which will become due during the design of stage 1. For this reason these figures differ marginally from those shown on Figure 1.

The core question which lies before Council can thus be summed up very simply as follows:

"Should Council resolve to accept this offer (together with its implications) or not, (again with the counter implications of not accepting it)?"

4.2 Implications of accepting the Mhlatuze Water Board's offer

4.2.1 Physical Implications

The physical implications are that the processes required to arrive at the construction of the first phase of the stabilization of Pelican Island and the Bayside area must now be set in motion. These processes are listed as follows:

- a. Approval for the consultant to proceed with detail designs and calling of tenders.
- b. Construction of the following items:
 - Temporary causeway to Pelican Island.
 - Pelican Island East Groyne (first section)*
 - Pelican Island West Groyne (first section)*
 - Eastern Breakwater at southern end of Skiboat Club
 - Revetments at pump station
 - Eastern Bay dredging and reclamation
- * Provision can be made in the construction of these items to accept the smaller amount of sand that will arise from Portnet's maintenance dredging. (See Section 3:2 above).

4.2.2 Financial Implications

The Mhlatuze Water Board has undertaken to finance the initial items to be constructed from its contribution whereafter the remainder is to be financed by Council.

According to the cash flow programme supplied by GFJ Inc. this will mean that Council's contribution will only commence after the end of the current financial year (± August 1993) and is estimated at ±R2,874 million (excluding escalation) for the 1993/94 financial year (for stage 1 of Phase I only).

It is of great importance to note that the costs mentioned in section 4:1 above make no provision for services or sales of erven on the island. Consideration of Annexure H:1 and H:2 will show that a nett shortfall occurs unless sales of erven take place, starting in the 1993/94 financial years.

It is therefore essential that Town Planning, Environmental and Provincial approval proceedings be started as a matter of urgency, whether by Council or a private developer.

4.3 Implications of refusing the Mhlatuze Water Board's offer

4.3.1 Interdependence of Financial and Physical implications.

The physical and financial implications of not accepting the Mhlatuze Water Board's offer are not as clear cut and easy to split as the implications of accepting the offer. The implications are thus listed below in the time order in which they are considered likely to occur:

4.3.1.1 First Implication: Loss of Mhlatuze Water Board's offer.

The Mhlatuze Water Board has made it very clear that the urgency of their problem will result in their almost immediately proceeding with their stand-alone scheme on receipt of Council's rejection of their offer.

As this scheme will have to proceed almost immediately the funds involved or any benefit deriving therefrom will be totally and irrevocably lost to Council.

The stand alone scheme proposed will have very little benefit to anyone other than the Mhlatuze Water Board and in all probability will cause major disruptions to, amongst others, the Skiboat Club and other users of the North-eastern shoreline of the Bay Area.

4.3.1.2 Next Implication: Loss of Pelican Island

Unless some other means of stabilizing Pelican Island can rapidly be found or unless Council is able to otherwise fund stage 1 of the proposed Phase I Stabilization thereof, Pelican Island will be completely eroded away in the very near future. Already at an advanced stage this erosion will accelerate dramatically once the remaining vegetation on the Island is lost. This vegetation not only serves to bind the sand of the Island with its roots but, possibly more importantly, acts as a wind break which limits wave generation on the downwind side of the Island during South Westerly gales. Once this vegetation is lost the erosion of the remainder of the Island and the remaining Bayside Area will accelerate rapidly.

It can not be too strongly emphasized that time for stabilizing Pelican Island is no longer running out; it has run out. Unless determined action is taken within the very close future the Island will be lost.

4.3.1.3 Further consequences of the Erosion of Pelican Island

Aside from the disappearance of the Island itself the following consequential damages will result:

- a. The recreational and development potential of the island will be gone forever unless otherwise restored at a later date.
- b. Protection of the Bayside Area becomes problematic. Unless otherwise addressed the Bayside Area will probably be reduced to an unpleasant mudflat area.

- c. Total loss (unless otherwise addressed) of Marina access via the Bayside Area. (Not only important as an access for boating activities this could potentially have serious implications for circulation of tidal water through the Marina channels).
- d. The Mzingazi Canal will silt up to a greater extent with the following further consequential effects:
 - Total loss of access to Yachts.
 - Reduced (if not effectively total loss of) access for skiboats.
 - Total loss of Marina access via the Canal.
 - Possible flooding of surrounding areas depending on degree of siltation and development in catchment areas.

3.2 Summary of Implications.

In broad strokes, the effect of not accepting the Mhlatuze Water Board's offer will thus mean:

- a. The Mhlatuze Water Board contribution of R5,643 million will be lost to Council.
- b. Pelican Island will be lost (See 4.3.1.2)
- c. Council will have to fund the development of the Bay area on its own at a later stage and taking into account the consequential effects of allowing the loss of Pelican Island.

3.3 Financial Implications.

The financial implications of not proceeding now with the works recommended for the stabilization of Pelican Island are extreme.

In addition to their original brief GFJ Inc. were asked to project a realistic alternative sequence of events assuming that these works were not commenced now.

The reply received is appended as Annexure G of this item, from which only the conclusion is quoted.

"4. CONCLUSION

From the assessment it is obvious that, based on the assumptions as stated, the total erosion of Pelican Island will place the Borough in an embarrassing position with its future Marina and Bayside development. In financial terms a potential Income of R18,2 million reverses to a potential loss of R17,5 million."

It must be noted that these figures include provision for escalation, both in costs and in land sale values. With these provisions removed these values read "a potential surplus of R12,93 million reverses to a potential loss of R7,18 million."

The cash flows which support this conclusion are appended as Annexure H:1 of this item.

3.4 Conclusion

The foregoing lengthy discussion leads inescapably to the following conclusions:

- a. The construction of the works needed to stabilize Pelican Island can not be avoided if the Marina is ever to become an economic reality.
- b. Even if a "loss" is incurred in building the minimum works and not providing for services and sale of erven in the short term, the commencement of said construction can not be delayed any longer.
- c. The contribution of the Mhlathuze Water Board is essential to the economics of the first phase of the stabilization programme and contributes to a large extent to the ultimate profitability of the Marina development.

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STABILIZATION OF PELICAN ISLAND (15/1/10 x 15/1/17/1) (SI)
-----RESOLVED THAT:

1. the proposals for the stabilization of Pelican Island and the Bayside Area as set out in the report submitted by GFJ Inc. titled "Pelican Island: First Phase Scheme for Stabilization - July 1992" be accepted and the Addendum thereto titled "Financial Viability, Cost Implications and Programme - September 1992" be accepted in principle;
2. GFJ Inc. be instructed to proceed with the detail design of the stabilization works and to proceed with the calling for tenders for the construction of stage 1 thereof, subject to the prior approval of all parties concerned;
3. Council accepts the offer of a financial contribution from the Mhlatuze Water Board subject to:
 - 3.1 the value of the Mhlatuze Water Board's financial contribution being the estimated cost of the Mhlatuze Water Board's Least Cost Alternative (LCA), which estimated cost shall include the following:

estimated construction cost, including professional fees, supervision costs and project management costs, calculated at prevailing prices at the time of commencing the stabilization project and containing escalation for a realistic estimated construction period for the LCA;
 - 3.2 the works being programmed to maximise the earliest benefit to the Mhlatuze Water Board;
 - 3.3 the initial financing of the stabilization project being from the Mhlatuze Water Board's contribution by means of payments in respect of contractors' certificates and consultants costs up to an accumulated amount equal to the LCA as set out in 3.1 above, or 30 June 1993, whichever is the first to occur, whereafter the Borough's contribution will commence. Mhlatuze Water Board to receive an interest credit at a rate to be agreed upon for the above, based on their LCA pro rata payments during the execution of the work and such payments to be made as and when certificates are presented;
 - 3.4 that in return for the above payments, Council undertakes and guarantees the completion and performance of the project and any future works that may be required to maintain the stated performance requirements of the Mhlatuze Water Board insofar as it was in the Borough's power to have prevented such need for the said works;
4. the subcommittee appointed in terms of Council Resolutions 2334 dated 28 July 1992 and 2348 dated

Maintenance work on the Mzingazi Canal and the
division of costs pertaining thereto;

5. the offer of the Zululand Yacht Club to contribute R30 000 to the stabilization project be noted with appreciation but not be taken advantage of; and
6. a progress report in respect of the development of the Bayside and Marina be submitted to Council.

4. COMMENTS OF TOWN TREASURER

While the stabilization is supported as a joint project with the Water Board, any future maintenance or responsibility for ensuring an open intake to the Board should also be a joint responsibility in financial terms.

It is also feasible that the Borough could fund its portion of phase 1 and thus the total cost could be split pro-rata and therefore the credit interest may not be required as a condition. The cashflow however, is extremely difficult to forecast without a full capital program review including the latest trends with regard to Alusaf. Further consideration of future phases has not been included in these comments.

While land prices are estimated to be in the region of R180 - R200/m² the project is feasible as substantial portions of the cost should be recoverable from the sale of land for the Marina. The final price can be determined together with the construction tenders. The Marina project must now be implemented in earnest and without further delay.

RECOMMENDED THAT:

1. the proposals for the stabilization of Pelican Island and the Bayside Area as set out in the report entitled "Pelican Island : First Phase Scheme for Stabilization - July 1992" and its Addendum further entitled "Financial Viability, Cost Implications and Programme - September 1992" as submitted by GFJ Inc. be accepted; *in principle respectively*
2. ~~that~~ GFJ Inc. be instructed to proceed with the detail design of the stabilization works and further to proceed with the letting of tenders for the construction of stage 1 ~~thereof~~, subject to the prior approval of all parties concerned;
3. ~~that~~ Council accept the offer of a financial contribution from the Mhlathuze Water Board subject to:

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- 3.1 *being* The value of the Mhlathuze Water Board's contribution ~~will be~~ the estimated cost of the Mhlathuze Water Board's Least Cost Alternative (LCA), ~~This~~ *which* estimated cost ~~will~~ *shall* include the following:
- e* Estimated construction cost, including professional fees, supervision costs and project management costs. ~~These costs would be calculated at~~ *prevailing* ~~prices~~ *reigning* at the time of commencing the stabilization project and would contain escalation for a realistic estimated construction period for the LCA.
- 3.2 *being* The works ~~would be~~ programmed to maximise the earliest benefit to the Mhlathuze Water Board.
- 3.3 Initial financing of the stabilization project ~~would be~~ *being* from the Mhlathuze Water Board's contribution by means of payments *in respect of* of contractors' certificates and consultants costs up to an accumulated amount equal to the LCA as set out in 3.1 above, or 93-06-30 whichever is the first to occur whereafter the Borough's contribution will ~~start~~ *commence*. Mhlathuze Water Board ~~would~~ receive a interest credit at a rate to be agreed upon for the above based on their LCA pro-rata payments during the execution of the work. *And such* Payments to be made as and when certificates are presented.
- 3.4 *that* In return for the above payments Council ~~would~~ undertake and guarantee the completion and performance of the project *and* Any future works that may be required to maintain the stated performance requirements of the Mhlathuze Water Board will be the Borough's responsibility only insofar as it was in the Borough's power to prevent such need for said works ~~from arising~~.
4. the sub-committee nominated in terms of Council Resolution 2334(8 + 10) be authorized to negotiate with Portnet regarding a programme for outstanding maintenance work on the Mzingazi Canal and the division of costs pertaining thereto; and
5. that the offer of the Zululand Yacht Club to contribute R30 000 to the stabilization project be noted with appreciation but not be taken advantage of.
6. *A progress report on the Mhlathuze Water Board's development be submitted to Council*

NOTES TAKEN AT MEETING BETWEEN THE BOROUGH OF RICHARDS BAY
AND MHLATUZE WATER BOARD ON TUESDAY 92-08-18 AT THE COUNCIL
CHAMBERS, MEERENSEE

PRESENT: Aldr G Engelbrecht

T Tolmay	- Town Clerk
FG Bosman	- Town Engineer (Chairman)
H Kirsten	- Deputy Town Engineer
D Vorster	- MWB
G Taylor	- MWB
F Kapp	- Kapp Prestege Retief
I Barker	- GFJ (Inc)

	ACTION
1. The Chairman welcomed all to the meeting	
2. Mr Kapp gave a short presentation highlighting various options available for the stabilisation of the bayside area and the provision of an assured water inlet for the MWB sea water pump station.	
3. Discussion at length took place after which it was concluded that, with some refinements, the options presented represented viable means of stabilising the bayside area as well as providing the required assured sea water inlet.	
It was agreed that the following actions needed to be taken:	
3.1 Council would need to react formally to MWB's previous correspondence. This would be preceded by:	
3.1.1 The Borough will indicate via a letter the substance of Council's anticipated response.	BRB
3.1.2 This would be presented to MWB's manco and Board meetings for acceptance.	MWB
3.1.3 MWB's acceptance would form the basis of recommendations to Council's September meeting.	BRB

	ACTION
4. Other points that were raised were:	
4.1 . MWB would require their contribution to be limited to what their least cost alternative would have cost at time of construction.	
4.2 Capitalised maintenance costs to be included in abovementioned contribution.	
4.3 The first stages of construction up to 1993-06-30 would be bridge financed from MWB's contribution. MWB would receive a prorata interest credit for this.	
4.4 The first construction stages would be programmed such that the MWB would benefit as soon as possible.	
4.5 MWB contribution would be paid on consultants and contractor's certificate.	
4.6 It was mooted that a company could be formed to deal with the project. MWB representatives stated that the MWB would not be likely to be interested in this option.	
4.7 A tentative programme was presented by Mr Kapp. This was found to be acceptable in principle by all present.	

12/3/4/28

The Chief Executive
Mhlatuze Water Board
PO Box 1264
RICHARDS BAY
3900

Sir

STABILIZATION OF BAYSIDE AREA

With reference to Item 3.1 of the "Notes taken at a meeting between the Borough of Richards Bay and Mhlatuze Water Board at the Council Chambers, Meerensee on 92-08-18" (Copy attached) the following recommendation will be made to Council in this regard.

Council accepts the offer of the Mhlatuze Water Board subject to:

1. The value of the MWB contribution will be the estimated cost of the MWB Least Cost Alternative (LCA). This estimated cost will include the following:

Estimated construction cost including professional fees, supervision costs and project management costs. These costs would be calculated at prices reigning at the time of commencing the stabilization project and would contain escalation for a realistic estimated construction period for the LCA.

2. The works would be programmed to maximise the earliest benefit to the MWB.
3. Initial financing of the stabilization project would be from the MWB contribution by means of payments of contractors' certificates and consultants costs up to an accumulated amount equal to the LCA as set out in 1 above, or 93-06-30 whatever is the first whereafter the

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Borough's contribution will start. MWB would receive a interest credit at a rate to be agreed upon for the above based on their LCA pro-rata payments during the execution of the work. Payments to be made as and when certificates are presented.

4. In return for the above payments Council would undertake and guarantee the completion and performance of the project. Any future work required to maintain water supply to the MWB pump station will be the Borough's responsibility.

It would be appreciated if these proposed terms could be presented to your Management Committee and Board that their reaction thereto could be advised as soon as possible.

Yours faithfully

F G BOSMAN
TOWN ENGINEER

/JvdW

[illegible]

4. As the stabilisation of the bay area is and will remain a project of the Borough it would be a condition in the agreement that the Borough would undertake and guarantee the completion and performance of the project. Any future work required to maintain water supply to the Water Board's pump station will be the Borough's responsibility.

As stated at the meeting with your Management Committee, the aforementioned proposal by our delegation is subject to formal approval by the Mhlathuze Water Board. We will however save time if the proposal could be progressed simultaneously by both parties in order to arrive at an agreement as soon as possible.

I sincerely trust that the principle of synergy and a fair deal approach would prevail both on your side as well as ours.

We are looking forward to the Borough's response.

Yours faithfully



D C VORSTER
CHIEF EXECUTIVE

DCV/fhh

NOTES TAKEN AT MEETING BETWEEN THE BOROUGH OF RICHARDS BAY
AND PORTNET ON TUESDAY 92-08-18 AT THE COUNCIL CHAMBERS,
MEERENSEE

PRESENT:

Aldr G Engelbrecht

T Tolmay	- Town Clerk
FG Bosman	- Town Engineer (Chairman)
H Kirsten	- Deputy Town Engineer
G Martin	- Portnet
F Kapp	- Kapp Prestege Retief
I Barker	- GFJ, (Inc)

ACTION

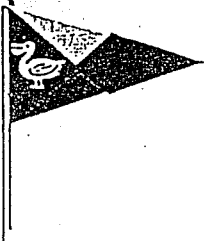
1. The Chairman welcomed all to the meeting
2. Mr Kapp gave a short presentation highlighting various options available for the stabilisation of the bayside area and the provision of an assured water inlet for the MWB sea water pump station.
3. Discussion at length took place after which it was concluded that, with some refinements, the options presented represented viable means of stabilising the bayside area as well as providing the required assured sea water inlet.
4. The Portnet representative, Mr G Martin, raised the following points/queries:
 - 4.1 How justified was this level of expenditure on a scheme of this nature in the current economic/social/political climate?
 - 4.2 Portnet were not certain that this would be an effective way of investing/spending their resources.
 - 4.3 What would be the benefit to Portnet?
 - 4.4 The timing of Portnet's contribution (if any) could be problematic.

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- 4.5 Reservations were expressed regarding design criteria being over conservative.
- 4.6 How would this scheme relate to Propnet's planning and particularly the Tuzi-Gazi development?
- 4.7 What would be Portnet's minimum involvement?
- 4.8 A feasibility study should be done combining the (BRB and Portnet) planning proposals for marina development. All
- 4.9 The possibility was raised that Portnet's contribution could be in kind. Portnet were investigating certain work on a smaller scale in the channel between Pelican and Naval Islands in their coming financial year. It was noted that this work could probably solve the Zululand Yacht Club's access problems.
5. On a question Mr Martin stated that he do not foresee a problem if the gap between the Bayside and Pelican Island is closed to facilitate the construction of the Eastern phase. Portnet will continue with maintenance dredging to keep the Mzingazi Canal open between Naval and Pelican Islands.
6. The question of the renewal of the maintenance agreement for the Mzingazi canal was also discussed. It appears that the invert levels specified on the drawing are in excess of hydrological design requirements. It was agreed that the canal should be maintained at a level required for stormwater flow with a possibility to combining that with a suitable depth required for yachting. The agreement must be renewed taking into account the stipulations in the letter on the exchange of land between Portnet and the Borough. BRB/
Portnet

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|-----|--|----------|
| 7. | It was agreed that the following should happen: | |
| 7.1 | A similar presentation as in 2. above should be made to the Tuzi-Gazi steering committee. | All |
| 7.2 | Mr Kapp would liase with Chris Boshoff Planners to initiate the feasability study mentioned in 4.8. Mr Martin would speak to Mrs Faul to initiate from Portnet side. | FK
GM |
| 7.3 | The absolute minimum requirements for the Western and Eastern Phases should be established in greater detail. | FK |



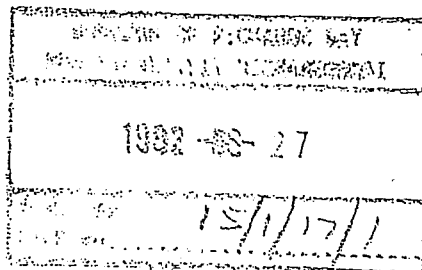
ZULULAND YACHT CLUB

at Richards Bay

P.O. BOX 10387 :: MEERENSEE 3901 :: TEL. 32704

20 August 1992

ST
The Town Clerk
Borough fo Richards Bay
Private Bag X1004
RICHARDS BAY
3900



92-4963

Dear Sir,

V10

STABILISATION OF PELICAN ISLAND

We thank your Mr Bosman and Mr Kirsten for allowing four Yacht Club committee members to meet with your consultants on Tuesday 18th August.

It was a very informative meeting which from our point of view is the most well received news we have heard in years. It would appear that a positive move is now taking place to stop Pelican Island from completely disappearing.

As you probably know, the Yacht Club did a certain amount of dredging last year which did help to relieve our problem for a few months. We have in our budget for this year allowed an amount of R30 000,00 for the hire of a suction dredger to reopen the canal alongside Pelican Island. We have been advised by your engineers not to throw our rands into the water at this time, but to rather wait a little longer as we may well end up with a fairly substantial canal at the culmination of the above contract.

While we understand that the above contract is going to cost a few million rand, and if in fact we do end up with a reasonable canal to enter our Yacht Club area, we would like as a gesture of good faith and appreciation to offer our R30 000,00 dredging fund to the above project.

I would appreciate it if I could be kept up to date with progress and in fact would be very pleased to be able to attend meetings with your consultants in an advisory capacity as commodore of the Zululand Yacht Club and a water user. I further have a responsibility to the members of the club to keep them informed of progress.

I look forward to hearings from you.

Yours faithfully

MF AUSTIN
COMMODORE ZULULAND YACHT CLUB

FINANCIAL VIABILITY,
COST IMPLICATIONS
AND PROGRAMME

REPORT PELICAN ISLAND : SCHEME FOR
STABILIZATION - JULY 1992

SEPTEMBER 1992

EXECUTIVE SUMMARY

A FEW STATISTICS REQUESTED BY YOUR CONSULTANTS

170 Foreign yachts entered Richards Bay harbour last year, of which only 80 managed to come into the Yacht Club area.

Sea Rescue require access through the canal on a regular basis, both for training and for rescues.

The Zululand Yacht Club would like to use the canal for organised offshore events at least twice a month, including night races. At present the yachts can only go out at high tide, making it very difficult to have races that last four or five hours.

The Durban yachts used to stop at Richards Bay, two to three times a year on organised events. At present they still race to Richards Bay, but do not enter the port. They round a mark offshore and head straight back to Durban.

The narrow channel has such a bad effect dinghies that they have decided not to bother with organised events in Richards Bay waters. A dinghy can not sail against a strong current in a channel where there is no tacking room.

EXECUTIVE SUMMARY

FINANCIAL VIABILITY, COST IMPLICATIONS AND PROGRAMME

REPORT PELICAN ISLAND : SCHEME FOR STABILIZATION - JULY 1992

INTRODUCTION

The addendum addresses the request in terms of Council Resolution 2334 of 28 July 1992 to report on an economic analysis of the Bay Area Development with reference to capital outlay, possible sources of income and financial contribution by parties. For this purpose the future cost implications of doing nothing and the technical-economical implications of the two first phase schemes for stabilization of the Bayside and the total Bayside and Marina development are taken into account.

DEVELOPMENT COST ESTIMATES

The cost of the first two phases of development of the Bayside stabilization was estimated as:

The estimated cost of the eventual total stabilization scheme of the Bayside (July 1992) - Figure 1.	R27 890 000
Stage one of First Phase stabilization with participation by Borough and MWB only (July 1992) - Figure 2.	R8 100 000
Stages 1 and 2 of First Phase stabilization with Borough, MWB and Portnet as participants (July 1992) - Figure 3.	R11 600 000

DO NOTHING COST ESTIMATES

The cost implications of doing nothing for each of the participants have been assessed as follows:

Borough of Richards Bay: (See Figure 4 attached)

Bayside shoreline stabilization	say $R8,9 \times 10^5$
Breakwaters and dredging for new Borough Marina entrance	<u>$R10,6 \times 10^5$</u>
TOTAL	$R19,5 \times 10^5$

Mhlatuze Water Board: (See Figure 5 attached)

The cost of a stand alone culvert and an Intake (July 1992) is estimated at $R5,7 \times 10^5$

Portnet:

Stabilizing the Mzingazi Canal in order to maintain an open channel and to dredge the channel to the contractually required depth of -6,0 m as a stand-alone option, is estimated to cost (July 1992).
(See Figure 6 attached.)

$R4,3 \times 10^5$.

Borough Marina Site Development:

The estimated order of cost of creating the marina as shown in the attached Figure 4, including services is

R22 x 10⁶

To this should be added the cost of services as well as the cost of the protecting breakwaters and dredging for a stand-alone option. The total marina development cost as a stand alone option, is assessed as:

Deepening for marina edge finishing and services	R22 x 10 ⁶
Stabilize Bayshore	R 8,9 x 10 ⁶
Breakwaters and Dredging	<u>R10,6 x 10⁶</u>
TOTAL	R41,5 x 10⁶

The Mzingazi Canal Marina Development also becomes possible with stabilizing of the Bayside but will follow only after development on the present Borough Marina site has been completed. Realising income from such development is therefore not taken into account in this assessment.

The Zululand Yacht Club and Boat Clubs presently located on the north-eastern bank of the Mzingazi Canal, will benefit from a stabilized Bayside but will not be in a position to contribute financially.

If the Bayside is not stabilized, the minimum costs to all parties concerned can be summarised as follows:

Borough Bayside	R 8,9 x 10 ⁶
Portnet	R 4,3 x 10 ⁶ (also forms part of Borough Marina costs)
Borough Marina	R10,6 x 10 ⁶
Mhlathuze Water Board	R 5,7 x 10 ⁶
Ski-boat Club	<u>R 3,1 x 10⁶</u> (also forms part of Borough Bayside) *
	R25,2 x 10⁶ *

PORTNET PARTICIPATION

Portnet will only be prepared to dredge the minimum quantity from Mzingazi Canal to maintain boat access to the Yacht Club.

PROGRAMME

A provisional construction programme for the first two phases has been prepared and is shown in Figure 7 of the Report. Completion time for the first phase development based on detail work commencing by October 1992, is November 1993. Improvement at the Mhlathuze pumping station should become evident as from about April 1993. Completion time for the larger scheme assuming Portnet participation is May 1994.

CONSTRUCTION CASH FLOWS

Cash flows during construction of the two stages of the first phase proposals are presented.

OPTIONS CONSIDERED

Three options have been considered for the financial assessment:

- o Stage 1 of First Phase Development with the participation of the Mhlathuze Water Board.
- o Stages 1 and 2 of the First Phase Development with contribution by the Borough and Mhlathuze Water Board only.
- o Full Bayside stabilization with participation of Mhlathuze Water Board and the sale of land on Pelican Island, in the Ski-boat Club area and in the Borough Marina area with participation by the Mhlathuze Water Board.

LAND VALUES

Based on the selling prices of similar developments at other centres along the RSA coastline, the estimated selling value of erven in the Pelican Island, Ski-boat Club and Borough Marina area is assumed as R150 000 per equivalent erf.

CASH FLOWS

Based on the above, the cash flows for the three options are shown in Figures 1, 2 and 3

CONCLUSIONS

From the foregoing assessment and the economical study, it is concluded that -

- o If the Bayside is not stabilized, each interested party in the Bayside will have to face their own cost which in total will exceed the cost of the Bayside stabilization as set out below:

Borough Marina Site	R10,6 x 10 ⁶	
Portnet	R 4,3 x 10 ⁶	(Inclusive in the above estimate for the Borough Marina)
Mhlathuze Water Board	R 5,7 x 10 ⁶	
Ski-boat Club	R 3,1 x 10 ⁶	(Inclusive in the above estimate for Ski-boat Club) *
Borough Bayside Shoreline	<u>R 8,8 x 10⁶</u>	
TOTAL	R25,2 x 10 ⁶ *	
Bayside Stabilization Cost	R27,89 x 10 ⁶ including bridge	
	R22,71 x 10 ⁶ without bridge	

- o A first-phase scheme for stabilizing Pelican Island is a financially viable option with a R5,643 x 10⁶ contribution from the Water Board. The financial viability is however totally dependent on maintenance of the Mzingazi Canal by Portnet.
- o A scheme with an increase in the size of Pelican Island by dredging the Mzingazi Canal and stabilizing its banks without contribution from Portnet appears to be approximately breaking even.
- o The full scheme with the marina development, assuming that the marina development is carried out in a single phase, shows surplus of income over expenditure of some R18 x 10⁶. To complete construction work in a single phase requires bridging capital of the order of R30 x 10⁶. The amount of bridging capital required can be reduced by phasing construction to match anticipated sales of land.

- o Private developers showed general interest in the project provided that basic stabilization of the Bayside is completed, that the framework of a marina be established and that developments be parcelled to reduce the extent of financial exposure of developers.

RECOMMENDATIONS

The above viability has been assessed in an extremely simplified form. It is apparent however that neglecting the bayside stabilization will lead to substantial costs at a later stage.

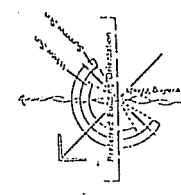
It is therefore recommended that the offer of the Mhlatuze Water Board to contribute to the scheme, be accepted and detailed work be commenced to determine:

- o An optimum scheme.
- o Phasing of the total project.
- o Selection of development parcels.
- o Involvement of private developers.



J F KAPP

21 September 1992

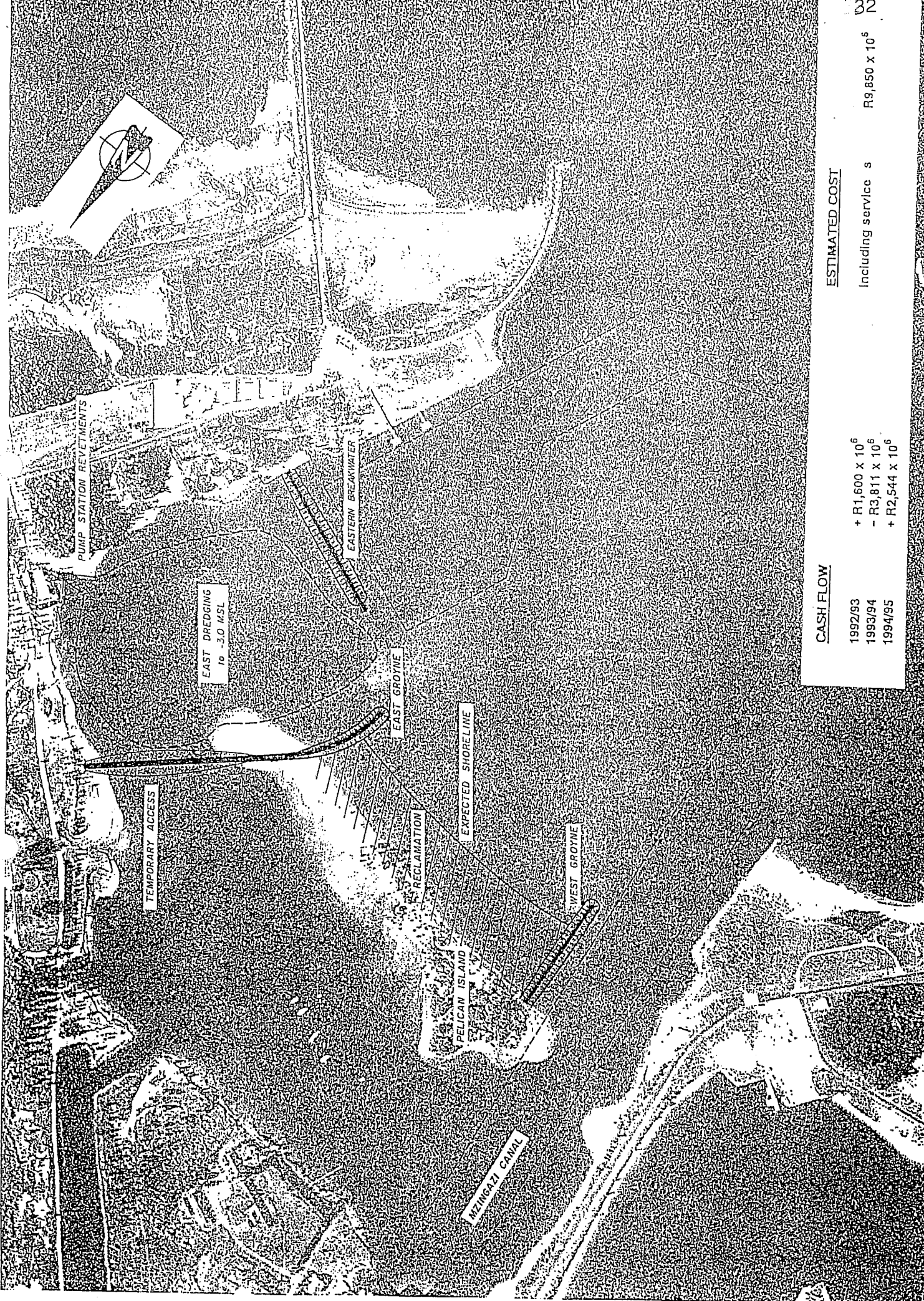


+ R1,700 x 10⁶
- R9,677 x 10⁶
- R5,070 x 10⁶
+ R0,420 x 10⁶

1992/93
1993/94
1994/95
1995/96

992/93
993/94
994/95
995/96

ESTIMATED COST (July 1992)	
including services	R14,225 x 10 ⁶



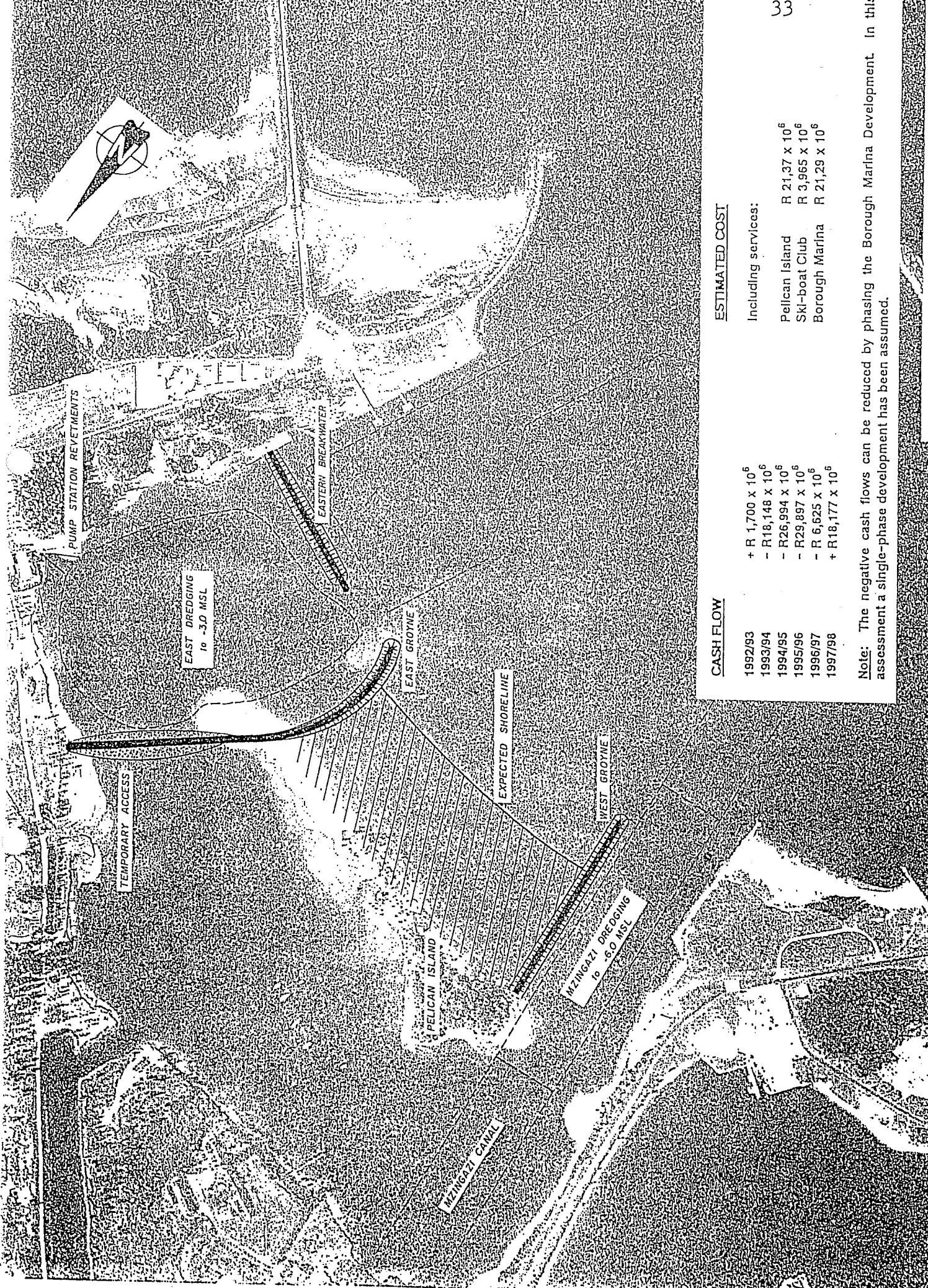
CASH FLOW

1992/93	+ R1,600 x 10 ⁶
1993/94	- R3,811 x 10 ⁶
1994/95	+ R2,544 x 10 ⁶

ESTIMATED COST

Including service s

R9,850 x 10⁶



ESTIMATED COST

Including services:

Pelican Island	R 21,37 x 10 ⁶
Ski-boat Club	R 3,965 x 10 ⁶
Borough Marina	R 21,29 x 10 ⁶

CASH FLOW

1992/93	+ R 1,700 x 10 ⁶
1993/94	- R 18,148 x 10 ⁶
1994/95	- R 26,994 x 10 ⁶
1995/96	- R 29,897 x 10 ⁶
1996/97	- R 6,625 x 10 ⁶
1997/98	+ R 18,177 x 10 ⁶

Note: The negative cash flows can be reduced by phasing the Borough Marina Development. In this assessment a single-phase development has been assumed.

FINANCIAL VIABILITY, COST IMPLICATIONS AND PROGRAMME REPORT

PELICAN ISLAND : SCHEME FOR STABILIZATION - JULY 1992

1. INTRODUCTION

In the report entitled:

'FINANCIAL VIABILITY, COST IMPLICATIONS AND PROGRAMME REPORT -
PELICAN ISLAND : SCHEME FOR STABILIZATION - JULY 1992'

three options were investigated in terms of economic viability. The options are described in Paragraph 7 of the Report.

At the request of the Town Engineer, the financial viability of a do-nothing option was investigated and is reported on in this addendum.

2. ASSUMPTIONS

The do-nothing option is based on the following assumptions:

- o Nothing is done to stop erosion of the Island for say the next three years, i.e. up to say year 1994/95. It is expected that the Island will be totally eroded at that stage.
- o The Umhlathuze Water Board therefore implements its stand-alone alternative and offers no financial contribution to stabilizing the Bayside.
- o By year 1994/95 the Bayside requires stabilization to prevent further erosion of the shorelines at the Ski-boat Club and along the Bayshore, as shown in Figure 4 of the Report.
- o The Borough elects to develop the Borough Marina Site as a Marina by 1994/95.
- o The stand-alone option to assure entrance to the Borough Marina as shown in Figure 4 of the Report, is applied.

CASH FLOW INCLUDING SERVICES & SALE OF ERVEN

(July 1992 prices)

ANNEXURE H:

		Stabilization as per Consultant's Report			Total completed Marina	Borough Stand alone Scheme
		Minimum for BRB & MWB	BRB, MWB & PORTNET combined	Total Bay Area Stabilization		
		See Figure 1			See Figure 1	See Figure 2
E X P E N D I T U R E	92/93 Construction	R 3 890 000	R 3 698 000	R 3 698 000	R 3 478 000	
	93/94 Construction	R 5 960 000	R 9 652 000	R 12 632 000	R 15 352 000	
	Finance Costs	R 396 000	R 1 015 000	R 1 598 000	R 1 943 000	
	94/95 Construction		R 875 000	R 9 005 000	R 16 395 000	94/95 R 9 900 000
	Finance Costs		R 472 000	R 1 407 000	R 2 563 000	R 1 633 000
	95/96 Construction				R 7 400 000	95/96 R 12 100 000
	Finance Costs				R 2 420 000	R 3 651 000
	96/97 Construction				R 4 000 000	96/97 R 7 390 000
	Finance Costs				R 469 000	R 3 597 000
	97/98 Construction					97/98 R 7 400 000
	Finance Costs					R 4 106 000
	98/99 Construction					98/99 R 4 000 000
	Finance Costs					R 2 403 000
	99/2000 Construction					99/2000 R 1 000 000
	Finance Costs					R 57 180 000
TOTAL		R 10 246 000	R 15 712 000	R 28 340 000	R 54 020 000	

I N C O M E	93/94	Sale of erven				
		R 2 500 000	R 2 500 000	R 2 500 000	R 2 500 000	
	94/95	Sale of erven				
		R 5 000 000	R 5 000 000	R 5 000 000	R 15 000 000	
	95/96	Sale of erven				
			R 3 750 000	R 3 750 000	R 9 750 000	
	96/97	Sale of erven				Sale of erven
					R 20 000 000	R 10 000 000
	97/98	Sale of erven				Sale of erven
					R 14 000 000	R 6 000 000
	98/99					Sale of erven
						R 20 000 000
	99/2000					Sale of erven
						R 14 000 000
TOTAL		R 7 500 000	R 11 250 000	R 11 250 000	R 61 250 000	R 50 000 000

NETT	(R 2 746 000)	(R 4 462 000)	(R 17 090 000)	R 7 230 000	(R 7 180 000)
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92/93	Mhlatuze Water Board contribution				
	R 5 700 000	R 5 700 000	R 5 700 000	R 5 700 000	N/A

R 2 954 000	R 1 238 000	(R 11 390 000)	R 12 930 000	(R 7 180 000)
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NB: The stages above are not incremental; i.e each column represents a cash flow as if each started from nothing and proceeded to completion

CASH FLOW EXCLUDING PROVISION OF SERVICES NEEDED FOR SALE OF ERVEN

ANNEXURE H:2

(July 1992 prices)

		Stabilization as per Consultant's Report		
		Minimum for BRB & MWB	BRB, MWB & PORTNET combined	Total Bay Area Stabilization
		See Figure 1		
E X P E N D I T U R E	92/93 Construction	R 3 890 000	R 3 698 000	R 3 698 000
	93/94 Construction	R 4 210 000	R 7 902 000	R 10 882 000
	Finance Costs	R 459 000	R 831 000	R 1 377 000
	94/95 Construction			R 8 130 000
	Finance Costs			R 1 271 000
	95/96 Construction			
	Finance Costs			
	96/97 Construction			
	Finance Costs			
	97/98 Construction			
	Finance Costs			
	99/2000 Construction			
	Finance Costs			
TOTAL		R 8 559 000	R 12 431 000	R 25 358 000

I N C O M E	93/94	Sale of erven		
	94/95	Sale of erven		
	95/96	Sale of erven		
	96/97	Sale of erven		
	97/98	Sale of erven		
	98/99			
	99/2000			
TOTAL				

NETT	(R 8 559 000)	(R 12 431 000)	(R 25 358 000)
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92/93	Mhlathuze Water Board contribution		
	R 5 700 000	R 5 700 000	R 5 700 000

(R 2 859 000)	(R 6 731 000)	(R 19 658 000)
NB: The stages above are not incremental; i.e each column represents a cash flow as if each started from nothing and proceeded to completion		

: REMAINING WORKS ON PELICAN ISLAND STABILIZATION AFTER COMPLETING FIRST PHASE

