

CAPE COD COMMISSION

3225 MAIN STREET
P.O. Box 226
BARNSTABLE, MA 02630
508-362-3828
FAX: 508-362-3136

DATE: March 5, 1992 TR# 91076

TO: Mr. Michael H. Grotzke, Trustee
Box 550, 1 Mall Way
New Seabury, MA. 02649

FROM: Cape Cod Commission

RE: Development of Regional Impact Application
Cape Cod Commission Act, Section 12

APPLICANT: Maushop Village

PROJECT: The construction of a 925 linear foot revetment along Nantucket Sound
New Seabury, MA.

CERTIFICATE of TITLE# 32984

DECISION OF THE CAPE COD COMMISSION

SUMMARY

The Cape Cod Commission (the Commission) hereby approves with conditions the application of Maushop Village, for a Development of Regional Impact under Section 12 (i) and 13 (b) of the Commission Act (the Act), c. 716 of the Acts of 1989, as amended for the construction of a 925 linear foot revetment along Nantucket Sound. The decision is rendered pursuant to the vote of the Commission on February 6, 1992.

PROJECT DESCRIPTION

The proposed Maushop Village Revetment is located within New Seabury on Great Neck in Mashpee. The Village is on a bluff overlooking Nantucket Sound. The bluff is primarily composed of sand which has experienced over 100 feet of erosion since the 1840s. The proposed revetment is designed to protect nine cottages along the top of the coastal bank. The nine cottages have been previously moved away from the edge of the bank as part of a local order of conditions issued by the Mashpee Conservation Commission. The proposed trap rock revetment will be 925 feet long and 12 feet in height. While the site itself is not in a critical habitat area, there is a critical habitat area (Dean Pond barrier beach) about 3,000 feet downdrift of the proposed revetment. The project could have an effect on that barrier beach. Further down the beach (about 1.5 miles to the northeast) is the Popponesset Spit critical habitat area.

TR 91076 Maushop Village Revetment DRI Decision March 5, 1992

PROCEDURAL HISTORY

The project's Environmental Impact Report was certified by the Secretary of Environmental Affairs on August 2, 1991. A DRI application was filed by the applicant on October 1, 1991. A site visit was conducted by the staff on September 11, 1991. The public hearing was opened on September 13, 1991 and continued on October 3rd, October 29th, November 26th and December 9th. The public hearing was closed on December 9, 1991 and additional public meetings were held on January 31, 1992 to finalize wording of the proposed conditions. The subcommittee report was presented to the full Commission on February 6, 1992. The subcommittee recommendation for approval with conditions was ratified by the full Commission at its February 6, 1992 meeting. The applicant and the subcommittee agreed to an extension of the decision time until March 6, 1992.

MATERIALS SUBMITTED FOR THE RECORD

A. Materials submitted by the applicant:

- | | | |
|--|-----------------|-------------------|
| 1. Final Environmental Impact Report Vol. 1 & 2 | Prepared by BSC | July 1, 1991 |
| 2. DRI Application | | October 1, 1991 |
| 3. A letter from Michael H. Grotzke | | November 13, 1991 |
| 4. A letter from Michael H. Grotzke | | November 14, 1991 |
| 5. A Document on the Revetment w/ supporting plans | Prepared by BSC | November 27, 1991 |
| 6. A letter from Norman Hayes (BSC) | | December 13, 1991 |
| 7. A letter from Michael H. Grotzke | | December 23, 1991 |
| 8. Notice of Intent to local Conservation Commission | Prepared by BSC | December 23, 1991 |
| 9. A letter from Michael H. Grotzke | | January 9, 1992 |

B. Materials submitted by the Town:

- | | | |
|--|--|--------------------|
| 1. Minutes of the Mashpee Conservation Commission | | November 15, 1990 |
| 2. Certificate of the Secretary of Environmental Affairs | | August 12, 1991 |
| 3. Aubrey Consulting, Inc. letter to the Mashpee Con. Com. | | August 22, 1991 |
| 4. Grotzke letter to the Mashpee Con. Com. | | September 16, 1991 |

C. Materials submitted by the public:

- | | | |
|--|--|-------------------|
| 1. A letter from J. R. Collins | | October 3, 1991 |
| 2. A letter from Seaver/ Anderson/ Donovan | | October 3, 1991 |
| 3. A letter from E. A. Baker | | October 3, 1991 |
| 4. A letter from the Rock Landing Park Ass. Inc. | | October 3, 1991 |
| 5. A letter from the Ass. for the Preservation of Cape Cod, Inc. | | October 3, 1991 |
| 6. A letter from G. Swanson | | November 18, 1991 |
| 7. A letter from the Ass. for the Preservation of Cape Cod, Inc. | | December 13, 1991 |
| 8. A letter from W Dardano | | December 16, 1991 |

The Commission also received oral testimony from public officials and members of the public as described in the minutes of the subcommittee public hearing(s) dated September 13, 1991, October 3, 1991, October 29, 1991, November 26, 1991, December 9, 1991 and January 31, 1992.

The application and notice of public hearings relative thereto, the Commission's staff's reports, notes and exhibits, minutes of all hearings and all written submissions received in the course of the

TR 91076 Maushop Village Revetment DRI Decision March 5, 1992

proceedings are incorporated into the record by reference.

JURISDICTION

The proposed revetment qualifies as a Development of Regional Impact under Section 12(i) and 13 (b) of the Act, because the project required " the preparation of an environmental impact report ".

FINDINGS

The Commission has considered the Development of Regional Impact application of Maushop Village, for the proposed revetment. Based on consideration of such application, the information presented and Commission staff recommendations, the Commission makes the following findings pursuant to Sections 12 and 13 of the Act:

1. There is currently lateral access along the beach between mean low water and mean high water which is utilized by fishermen pursuant to the Commonwealth's public trust rights for fishing, fowling and navigation. Placement of the revetment is likely to lower the beach profiles on the seaward side of the revetment and could interfere with these rights unless adequate beach nourishment and monitoring occurs.
2. The revetment will eliminate the coastal bank as a natural sediment source for downdrift coastal areas. In order to comply with minimum performance standard 2.2.2.4, a beach nourishment program must be put in place which will compensate for this loss of sediment for the life of the revetment and which will mimic the natural function of the coastal bank as a sediment source as closely as feasible.
3. A variety of figures have been cited by the applicant for short-term and long-term erosion rates at the bank and proposed amounts of beach nourishment. Using an erosion rate of 2.2 feet per year, used by the applicant to justify the project, the Commission finds that the amount of sand needed to replace what is lost by construction of the revetment is 2560 cu yards annually.
4. The revetment is intended to provide protection for the cottages located at the top of the coastal bank. No protection is offered to areas that are adjacent or downdrift of the engineered structure. Significant public concerns have been raised about the likelihood of adverse impacts downdrift due to loss of sediment and scour at the ends of the revetment. A monitoring program would help ensure that any adverse impacts are documented and corrected.
5. Popponesset Spit is an eroding barrier beach of regional significance that provides valuable protection to Popponesset Bay and properties located behind the barrier. A loss of sediment to the system resulting from the construction of numerous coastal engineering structures is threatening the integrity of Popponesset Spit.
6. The Maushop Village Revetment will increase the amount of revetted shore and bank between Tidewatch and Popponesset Spit by 24%. This proposal is a substantial increase in coastal armoring and could have a detrimental regional impact unless adequate mitigating measures are taken.

7. An ongoing beach nourishment program imposes a substantial financial obligation on the condominium owners of Maushop Village Association. In order to ensure the performance of the program, an escrow account should be established that would cover the cost of the nourishment program for at least two years. This escrow account should be able to be used by the Commission to pay for the beach nourishment program in the event that the applicant fails to undertake the program.

8. In order to ensure that the annual beach nourishment program is carried out by the Association, the Commission will issue a permit for the construction and maintenance of the revetment for a period of ten years. Monitoring and annual reports will be required during this ten year period. A comprehensive evaluation of the impacts of the revetment on adjacent and downdrift areas will be required before the structure can be re-permitted. If the nourishment program is not carried out, or if Massachusetts Department of Environmental Protection revokes its approval, or if the evaluation reveals adverse impacts, the Commission may order the modification or removal of the revetment within the above mentioned ten year period. The Commission finds that this kind of limited permit is the best method to ensure that annual beach nourishment is performed and that the Regional Policy Plan Minimum Performance Standards are met.

9. As conditioned in this decision, the project is consistent with the minimum performance standards as identified in the Regional Policy Plan. The subcommittee found there were not feasible alternatives to construction of the revetment for the protection of the residential units at the top of the bank. The Commission also noted that the town has not developed a local comprehensive plan at this time.

10. The Zoning By-law of the Town of Mashpee is silent on the proposed use. The local Conservation Commission may permit such structures though the issuance of an Order of Conditions subject to applicable performance standards.

11. At this time there are no Districts of Critical Planning Concern in Mashpee. Therefore, this review standard is not applicable to the proposed project.

CONDITIONS

Based upon the findings above, the Commission hereby concludes that the proposed 925 linear foot revetment will not have a significant impact on the environment and natural resources, including groundwater supply/quality and protection of a critical wildlife habitat area, provided that the following conditions are imposed on the project. These conditions shall apply to the Applicant, his heirs, successors or assigns, and any owner or tenant:

Maushop Village, hereafter "the applicant" will be permitted to build and maintain the revetment approved in this permit and shown on plans "Maushop Village Revetment / Topographic Site Plan" dated 11/25/91, for ten (10) years from the date of this decision as long as the beach renourishment program, the annual and comprehensive reporting requirements and all other conditions of this permit are met.

1. A monitoring program for the life of the permit shall be submitted to Commission for review and approval. The monitoring program should detail the location of proposed monitoring stations,

TR 91076 Maushop Village Revetment DRI Decision March 5, 1992

include baseline information on beach profiles between Maushop Village and Popponsett Spit, and include a provision for annual reports to the Commission. The monitoring program shall conform to the specifications of the monitoring requirements for the Regional Beach Nourishment Program (Order of Conditions SE43-936, Condition #23) and shall include monitoring stations at Clamshell Drive and Dean's Pond.

2. The applicant, heirs or successors shall be responsible for a beach nourishment program which shall provide for the deposit of at least 2650 cubic yards of sediment per year on the beach area on the seaward side of the revetment and the planting of suitable vegetation on the coastal bank above the revetment in order to stabilize the coastal bank. This beach nourishment shall occur no later than the 15th of December each year. The program shall be coordinated with New Seabury's regional beach nourishment program and other renourishment programs occurring on adjacent properties. The composition of nourishment materials shall be compatible with the beach and bluff materials existing on the site. Details of sediment composition should be reviewed and approved by the Mashpee Conservation Commission.

3. The applicant shall provide the Commission with annual reports summarizing the effects of the revetment and the beach renourishment program on the coastal banks, coastal beaches and barrier beaches in front of the revetment and downdrift, including beach profile data in the same locations as the baseline surveys. The amount of nourishment (cubic yards) may be increased by the Commission at any time based on the outcome of the annual reports. The annual report shall include a description of the beach renourishment proposed in the succeeding year. The annual report shall be provided by a registered professional engineer and must be deemed acceptable by the Commission for the DRI approval to remain valid. The annual report shall be submitted no later than 15th of May each year for the preceding 12 months. This nourishment program may be stopped at any time if on-site inspection by the Commission determines that the project is not constructive, but rather deleterious, to the ongoing coastal processes and/or the environment.

4. In order to ensure the performance of the renourishment program for the life of the permit the applicant shall deposit the sum of at least \$41,500.00 (\$26,500.00 to cover the cost of the beach nourishment for a period of two (2) years and \$15,000.00 for the comprehensive impact study) in an escrow account to be held for a period of ten (10) years. The escrow account shall be established prior to the beginning of construction of the revetment and shall be of a form and content satisfactory to counsel to the Commission and which shall designate a bank or other fiduciary as the escrow agent to hold and disburse such funds upon the vote of the Commission. The Commission may vote to disburse such funds if it determines that the applicant has not met the obligations in conditions #2 and/ or #7. (But, if the Cape Cod Commission should cease to exist during the hereinafter mentioned ten (10) year period, then the Conservation Commission of the Town of Mashpee shall be the government entity which shall recommend and vote said disbursements.) The Applicant's contribution to the escrow fund shall be irrevocable. The interest earned in said escrow account shall follow the funds to offset inflation. The escrow fund shall be held for ten (10) years from the date of this decision and may be renewed upon repermitting of the revetment by the Commission. Unless renewed, any unspent funds in the escrow account (including interest) shall be returned to Maushop Village at the end of the above mentioned ten (10) year period.

5. Access is currently available along the beach in front of Maushop Village between mean high water and mean low water for public trust purposes. A sandy strip for public trust purposes shall be retained in front of the revetment. The Commission reserves the right, upon review of the

applicant's annual report, to require additional beach nourishment or other measures to ensure that the public trust rights are not impaired or lost.

6. A stairway access point to the beach at Maushop Village shall be maintained over the coastal bank for use by Maushop Village residents only.

7. At the end of the ten (10) years, the applicant shall provide a comprehensive report to the Commission. The Commission shall review the annual reports, the comprehensive report and any supporting documentation provided to it. At that time, and based on whether the revetment and the renourishment program are causing an adverse effect on the adjacent or downdrift coastal banks, beaches and barrier beaches, the Commission may, in its discretion either:

- a) Repermit the revetment for an additional period of ten years or less in order to continue the evaluation of the effects of the revetment subject to the conditions above;
- b) Modify the conditions or renourishment requirements, or other responsibilities of the applicant imposed pursuant to this permit;
- c) Make final the applicant's right to maintain and operate the revetment subject to reasonable conditions regarding maintenance and beach renourishment; or
- d) Order the removal or modification of the revetment.

8. If in any one year, the applicant shall fail to complete the beach nourishment program described above, the Commission, after notice and opportunity for a hearing, shall have the authority to expend funds from the escrow account to provide for beach nourishment, a comprehensive study of the impacts of the revetment and/or to order the removal of the revetment at the expense of the applicant or to take such other remedial measures as are deemed necessary. The Commission may expend the money contained in the escrow account above to ensure beach nourishment continues yearly while any proceedings related to this condition are pending.

9. The applicant shall be obligated to obtain any permits necessary to remove or alter the revetment.

CONCLUSION

Based on the findings above, the Cape Cod Commission hereby concludes:

The project is consistent with the Commission's Regional Policy Plan. This conclusion is supported by findings # 7, 8 and 9 listed above.


The project is consistent with local development by-laws. This conclusion is supported by finding # 10 listed above.

The project is not located within a District of Critical Planning Concern. This conclusion is supported by finding # 11 listed above.

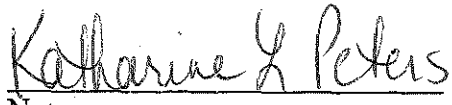
TR 91076 Maushop Village Revetment DRI Decision March 5, 1992

The benefits of the proposed project outweigh the detriments resulting from the development. This conclusion is supported by findings # 7,8,9, 10 and 11 listed above.

The Commission hereby approves with conditions a Development of Regional Impact Application for Maushop Village, pursuant to Section 13 of the Act.

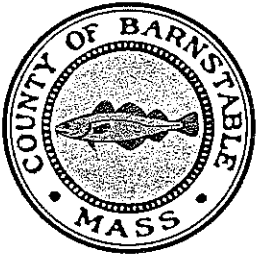

Richard S. Armstrong, Chairman

3/5/92
Date


Katharine L. Peters
Notary

3/5/92
Date

My Commission Expires December 5, 1997



CAPE COD COMMISSION

3225 MAIN STREET
P.O. Box 226
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TO: Bob Sherman, Conservation Agent
William Hauck, Building Inspector
Jane Labute, Town Clerk
Tom Fudala, Town Planner
Norman Hayes, BSC

FROM: Greg Guimond

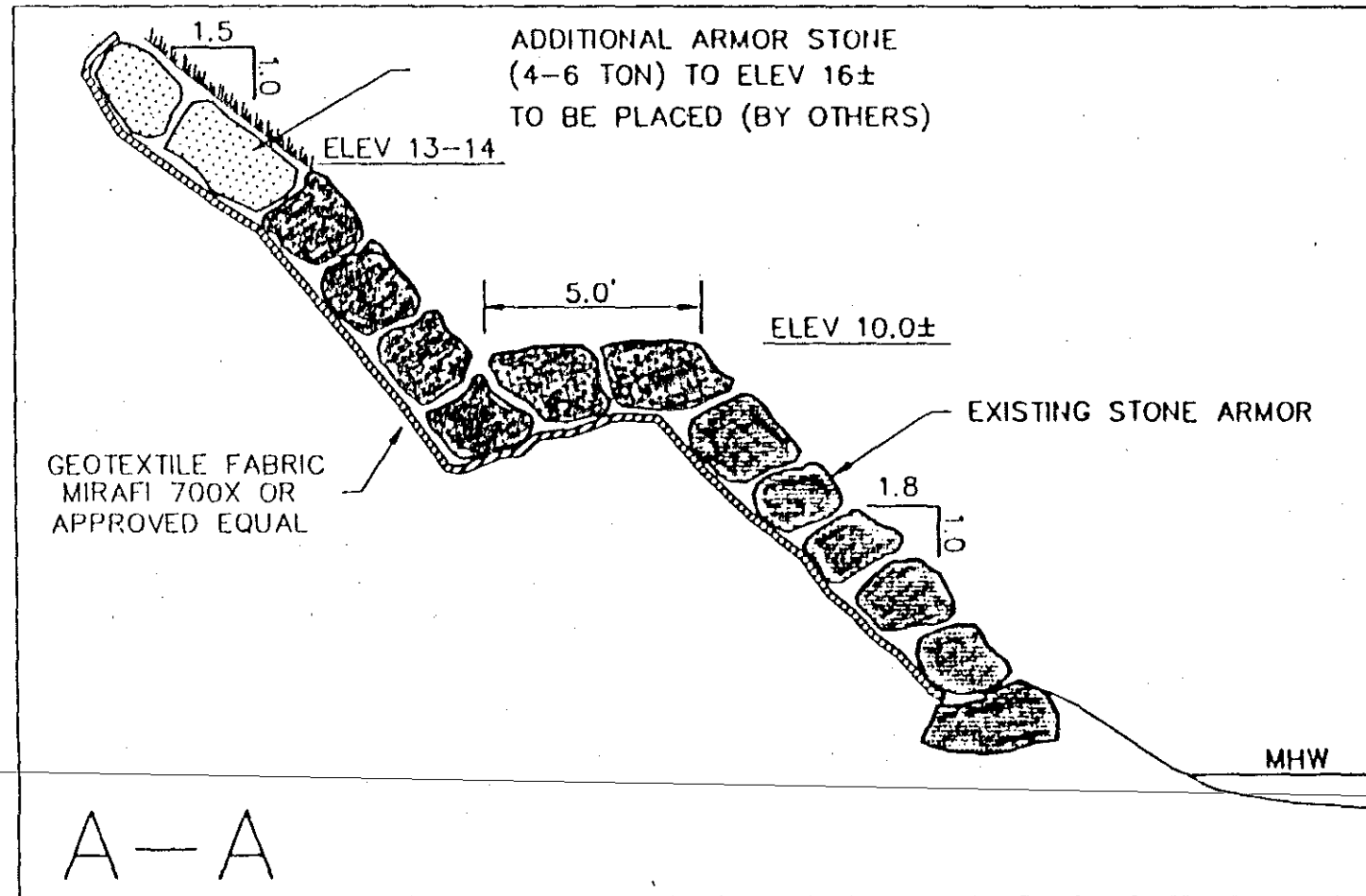
RE: Maushop Village Revetment (Commission file # TR91076)

DATE: 8/29/95

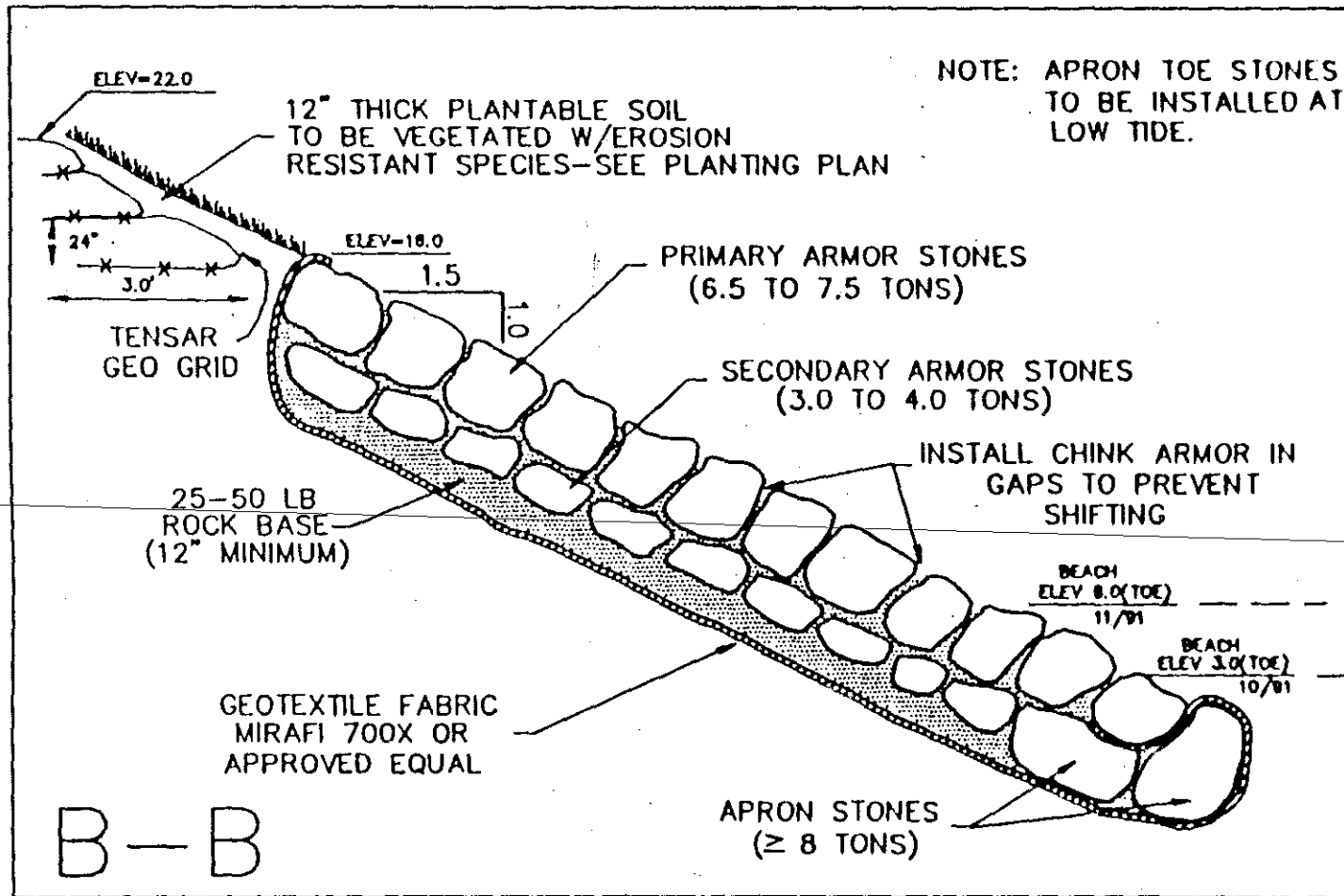
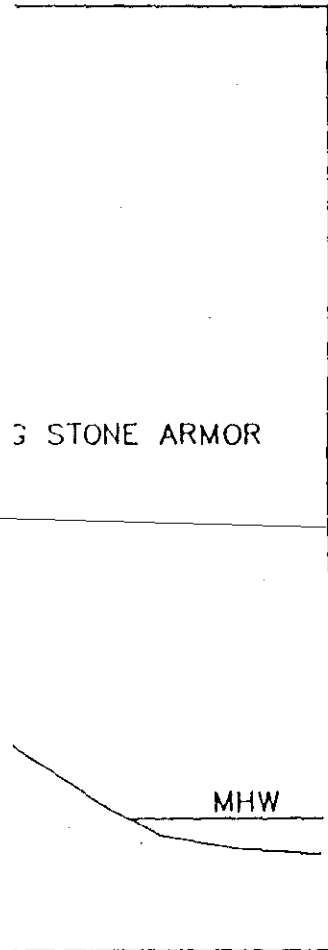
On August 11, 1995 the applicant requested a minor modification of the Commission's Development of Regional Impact (DRI) decision on the proposed Maushop Village Revetment dated March 5, 1992. A minor modification does not involve a change of use or a DRI condition and should result in the same or decreased impacts to the resources.

The change was limited to a 4 foot reduction in the height of the revetment (from elevation 16 to elevation 12). The original design was maintained and the applicant was providing more beach nourishment (on average 9,000 cy per year) than required in the Commission's decision (2,650 cy per year).

Based on this information the Regulatory committee voted on August 21, 1995 to allow said reduction in the height of the proposed revetment as a minor modification.



REVETMENT DETAIL N.T.S.
 (X-SECTION)



NOTE: APRON TOE STONES TO BE INSTALLED AT LOW TIDE.

12" THICK PLANTABLE SOIL TO BE VEGETATED W/EROSION RESISTANT SPECIES—SEE PLANTING PLAN

PRIMARY ARMOR STONES (6.5 TO 7.5 TONS)

SECONDARY ARMOR STONES (3.0 TO 4.0 TONS)

INSTALL CHINK ARMOR IN GAPS TO PREVENT SHIFTING

25-50 LB ROCK BASE (12" MINIMUM)

GEOTEXTILE FABRIC MIRAFI 700X OR APPROVED EQUAL

APRON STONES (≥ 8 TONS)

BEACH ELEV 8.0 (TOE) 11/01

BEACH ELEV 3.0 (TOE) 10/01

B-B

CALCULATION SHEET

PROJECT NO 4-0359.00

CALC BY F.W. RUSSELL

REFER TO

SUBJECT REVETMENT DESIGN

DATE NOVEMBER 13, 1991

CHECKED BY

LOCATION NEW SEABURY; MASHPEE, MA DATE

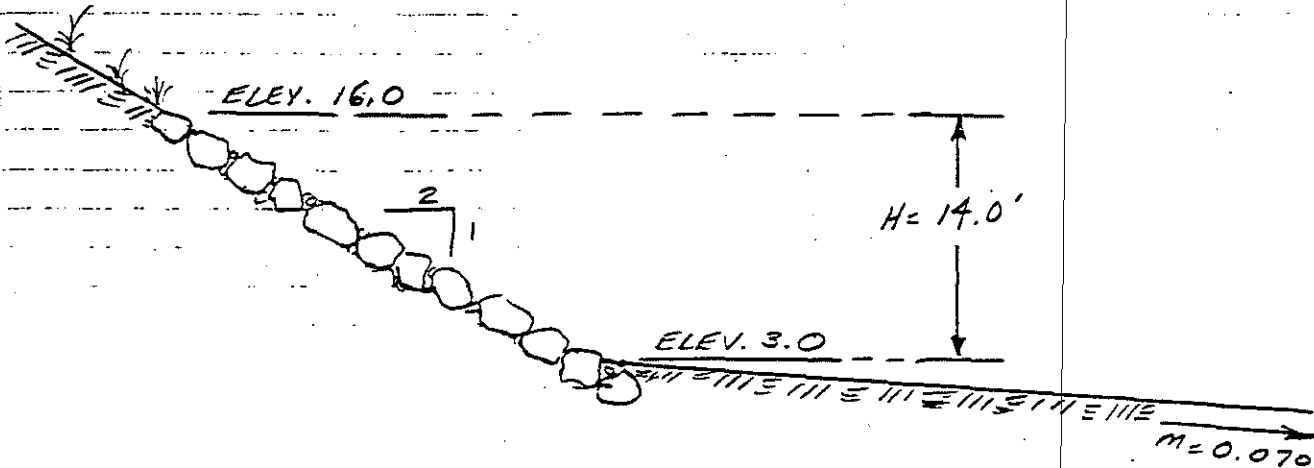
DETERMINE REVETMENT HEIGHT:

DESIGN WAVE HEIGHT = 10.4'

100 YEAR S.W.L. = 11.0

$$H/2 = \frac{10.4}{2} = 5.2'$$

$$\therefore \text{REVETMENT HEIGHT} = 11.0 + 5.2 = 16.2$$



CALC
SHEET 14 OF 15 SHEETS

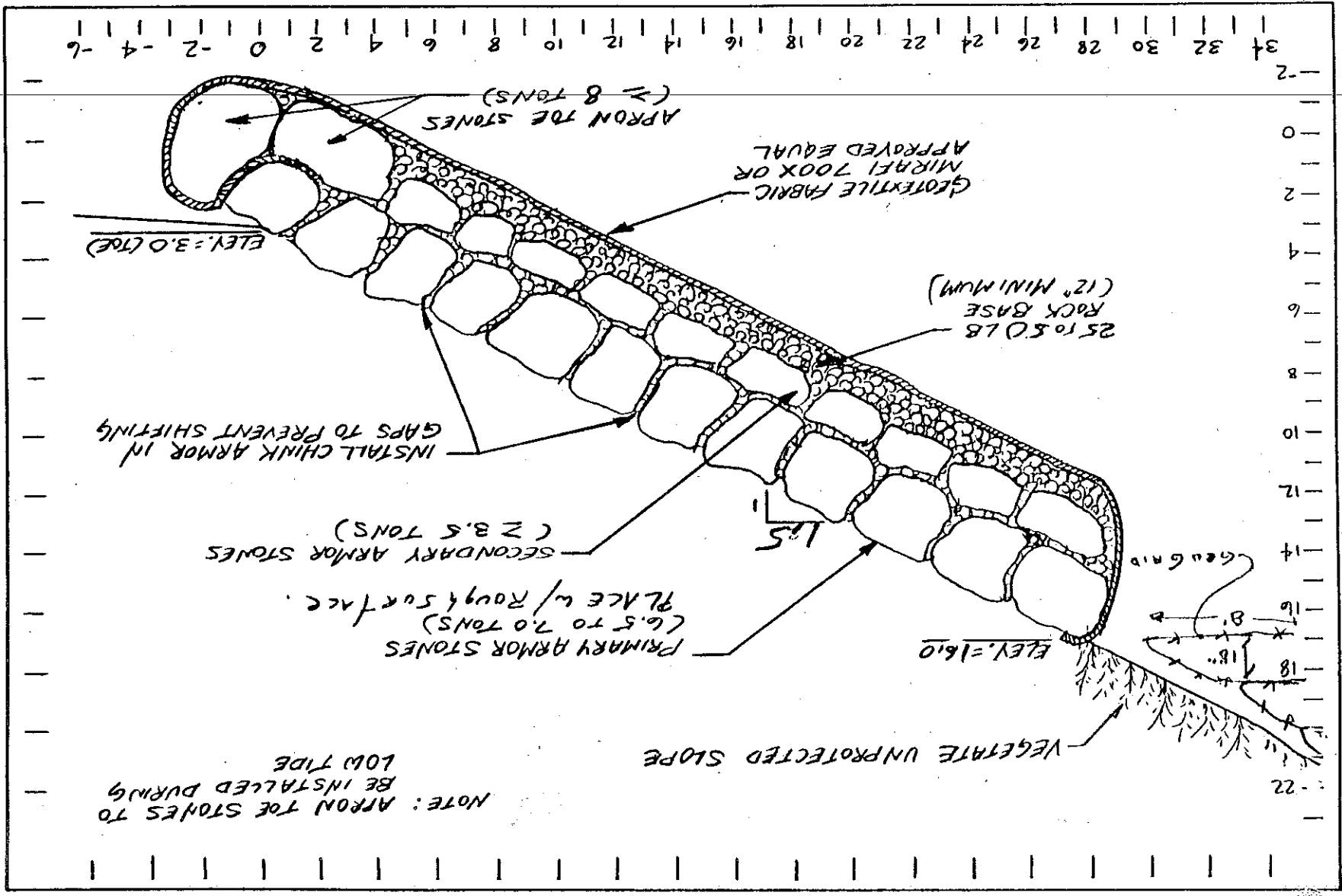
REVEALMENT DETAIL

SHEET 15 OF 15 SHEETS

Horizontal Scale in Feet N.T.S.

Job No. 4-0359.00 Fig. A

The BSC Group



NOTE: APRON TOE STONES TO BE INSTALLED DURING LOW TIDE

VEGETATE UNPROTECTED SLOPE

PRIMARY ARMOR STONES (6.5 TO 7.0 TONS)

PLACE w/ ROUGH SURFACE

SECONDARY ARMOR STONES (2.5 TO 3.5 TONS)

INSTALL CHINK ARMOR IN GAPS TO PREVENT SHIFTING

ELEV. = 16.10

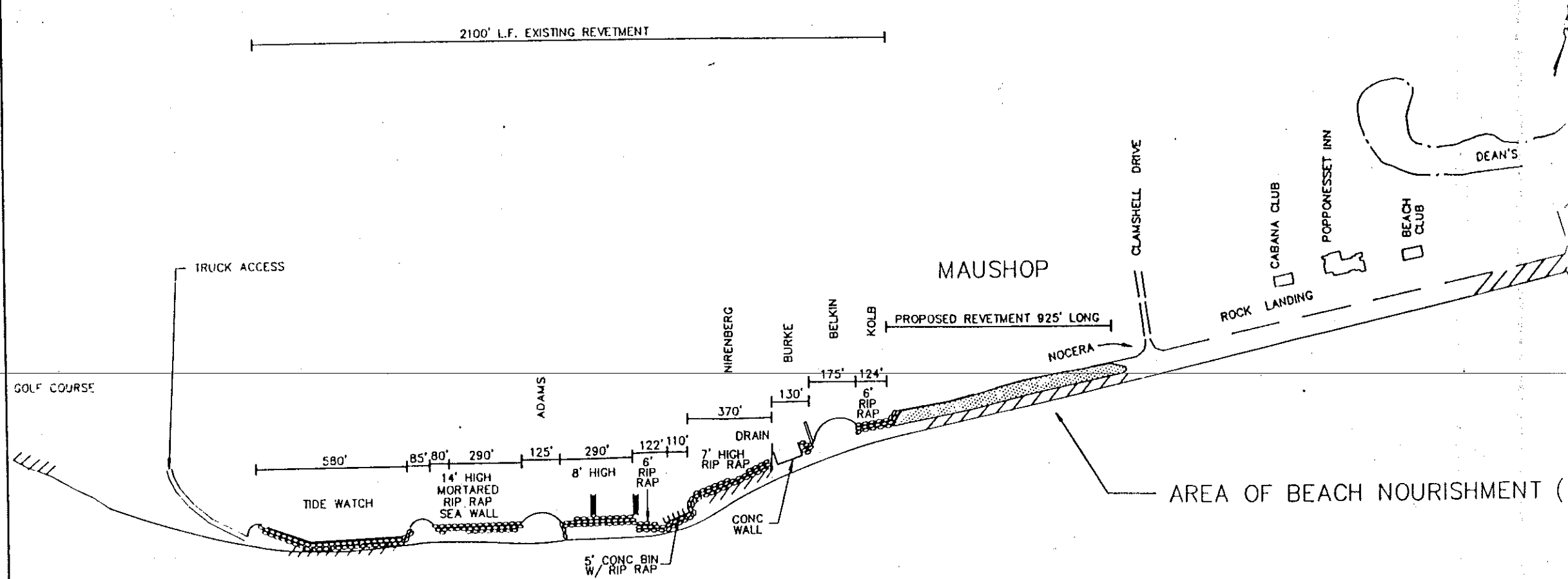
25 TO 50 LB ROCK BASE (12" MINIMUM)

GEOTEXTILE FABRIC MIRAFLEX 700X OR APPROVED EQUAL

APRON TOE STONES (8 TONS)

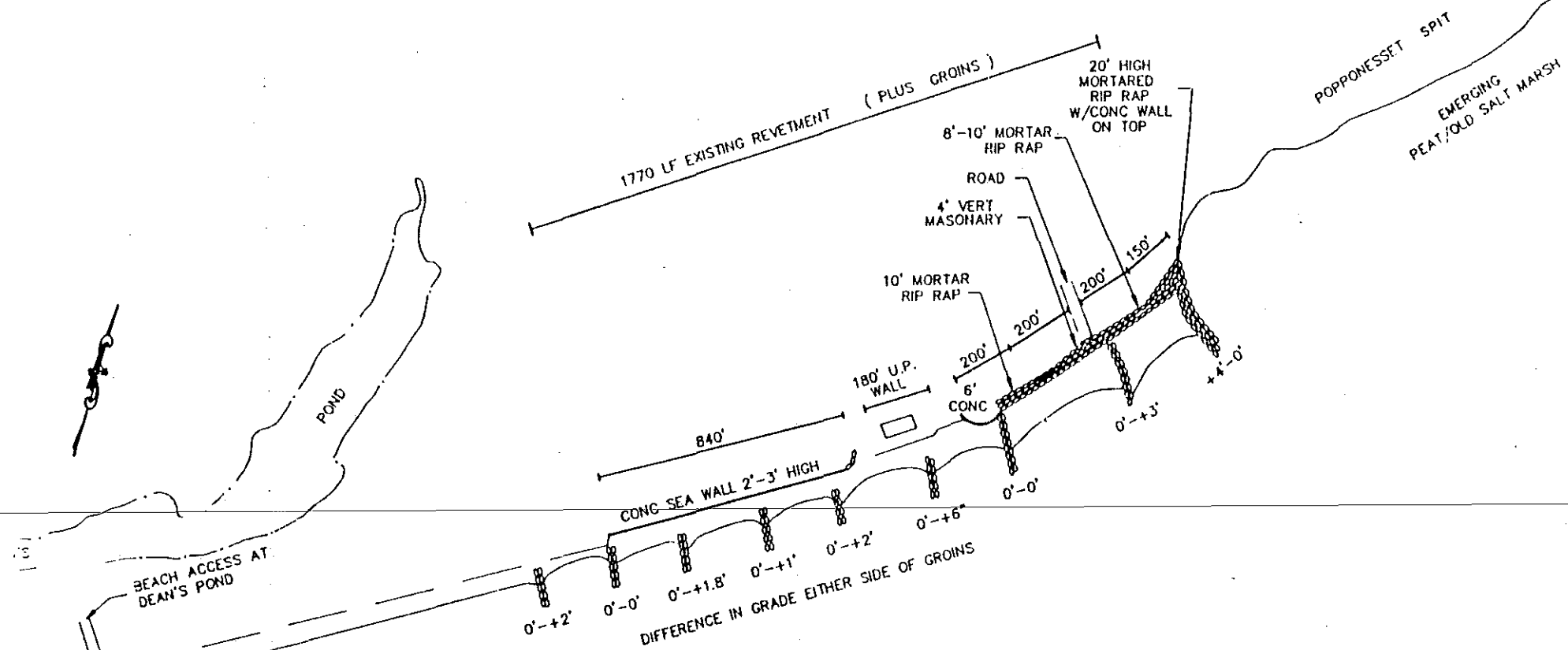
ELEV. = 3.0 (TIDE)

11/24/90



MAU VILL REVE NEW SEA

PREPARED FOR
Maushop Village
P.O. BOX 550
NEW SEABURY,



293 WASHING
NORWELL, MA

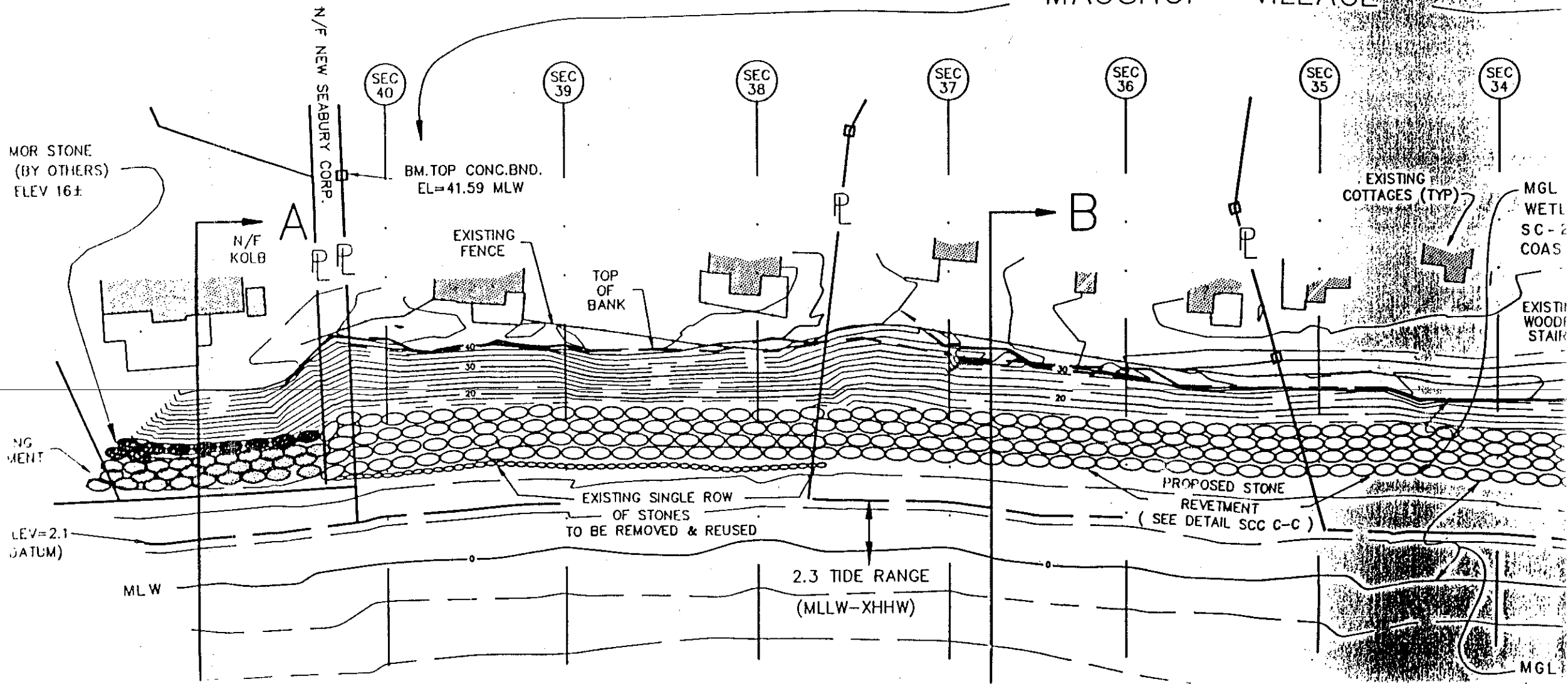
A-A

REVTMENT DETAIL N.T.S.
(X-SECTION)

B-B

REVTMENT DETAIL N.T.S.
(X-SECTION)
(TYP 900'±)

MAUSHOP VILLAGE



TEXTILE FABRIC
MIRAFI 700X OR
APPROVED EQUAL

APRON STONES
(≥ 8 TONS)

MOR STONE
(BY OTHERS)
ELEV 16±

N/F NEW SEABURY CORP.

SEC 40

SEC 39

SEC 38

SEC 37

SEC 36

SEC 35

SEC 34

BM.TOP CONC.BND.
EL=41.59 MLW

EXISTING FENCE

TOP OF BANK

EXISTING COTTAGES (TYP)

MGL WETL
SC-2
COAS

EXISTING WOOD STAIR

NG MENT

LEV=2.1
DATUM

MLW

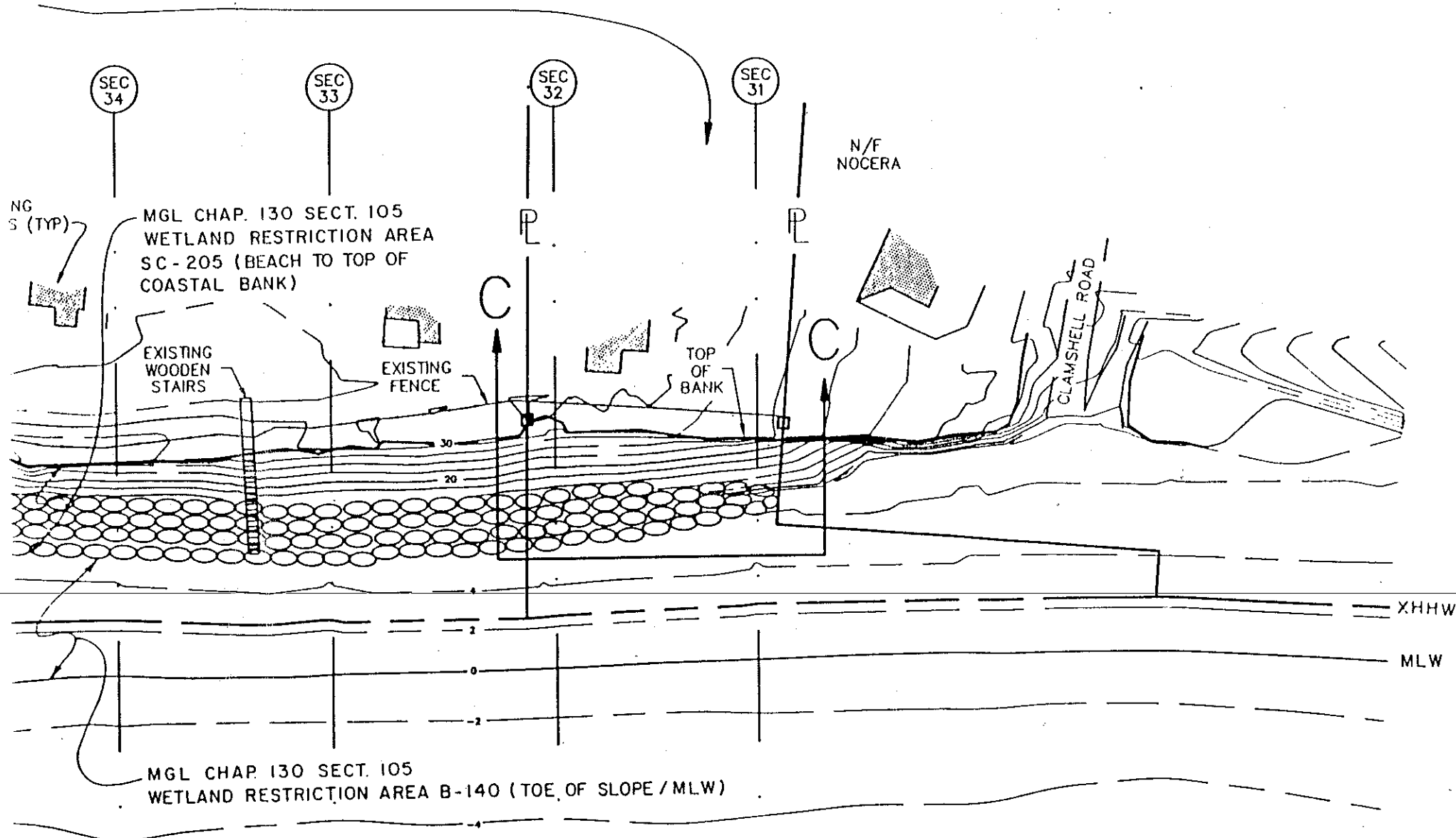
2.3 TIDE RANGE
(MLLW-XHHW)

PROPOSED STONE
REVTMENT
(SEE DETAIL SCC C-C)

MGL

REVETMENT DETAIL N.T.S.
 (X-SECTION)

MAUSHO
 VILLAGE
 REVETMEN
 NEW SEABURY



PREPARED FOR:
 Maushop Village Condomin
 P.O. BOX 550
 NEW SEABURY, MA

BSC
 The BSC Group - Nor

293 WASHINGTON STR
 NORWELL, MA. 02061

(617) 659-

