

CAPE COD COMMISSION

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Date: July 23, 1992

Applicant: Allan and Charlotte Blank
Paul and Lynn Brontas

Project #: TR #91094

Project: Blank-Brontas Shorefront Protection
Tilipi Road
Morris Island, Chatham

RE: Development of Regional Impact Request
Cape Cod Commission Act, Section 12 and 13

Certificate #: Blank: 60585, 69538; Brontas: 83514
Lot/Parcel: Blank: 14A-3/B; 14A-3/N131; Brontas: 14A-3/N137

DECISION OF THE CAPE COD COMMISSION

SUMMARY

The Cape Cod Commission (Commission) hereby approves with conditions the application of Allan and Charlotte Blank and Paul and Lynn Brontas (Blank-Brontas) for a DRI approval under Sections 12 and 13 of the Cape Cod Commission Act (Act), c. 716 of the Acts of 1989, as amended, for a proposed shoreline protection structure in Chatham MA. The decision is rendered pursuant to a vote of the Commission on July 9, 1992.

PROJECT DESCRIPTION

The proposed project is located on Tilipi Road in Chatham, Mass. on the southeast corner of Morris Island. There are three parcels involved in the revetment proposal. One parcel owned by Mr. Blank contains a house located approximately 112.5 feet from the edge of the coastal bank. The second parcel, owned by Mr. Brontas, contains a house approximately 89 feet from the edge of the bank. An undeveloped lot owned by Mr. Blank lies between them. The revetment would armor all three lots and is proposed to be 645 feet long. The top of the proposed revetment would be at an approximate elevation of 12.5 feet.

PROCEDURAL HISTORY

The project's Supplemental Final Environmental Impact Report was certified by the Secretary of Environmental Affairs on November 14, 1991. A DRI application, Hardship Exemption

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application, and DRI Exemption application were filed by the applicant on December 31, 1991. A site visit was conducted by staff and members of the subcommittee on January 10, 1992. A duly noticed public hearing was conducted by the Commission pursuant to Section 5 of the Act by a subcommittee of the Commission. The public hearing was opened on December 23, 1991 and continued to January 16, 1992, February 7, 1992, and February 25, 1992. The Hardship Exemption and DRI Exemption Applications were withdrawn on February 25, 1992.

The public hearing was closed on February 25, 1992 with the record closed on March 10, 1992. The subcommittee met to discuss conditions for the project on February 20, 1992, March 11, 1992, and April 2, 1992. At the April 2, 1992 meeting, the subcommittee voted to recommend denial of the project. At the applicant's request, the public record was re-opened on April 2, 1992 and closed on June 30, 1992. Additional subcommittee meetings were held on April 30, 1992, May 28, 1992, June 18, 1992, and June 25, 1992 to discuss a "trigger" mechanism for the project and proposed conditions. A second site visit was conducted on May 13, 1992.

In order to allow full consideration of this project the applicant granted several extensions of the time limit for a decision. The final extension was to July 31, 1992.

Based on testimony received at the public hearings, application materials submitted by the applicant, written materials submitted by all interested parties, and supporting technical information provided by staff, the subcommittee voted unanimously on July 9, 1992 to recommend to the full Commission that the proposed project be approved as a DRI, subject to conditions which had been agreed to by the applicant. A subcommittee report was presented to the full Commission on July 9, 1992. At this meeting the Commission voted unanimously to approve the project as a DRI, subject to conditions.

The project has been denied by the Chatham Conservation Commission under both the Wetlands Protection Act and local bylaws. Appeals from these decisions are currently pending before the Department of Environmental Protection and Superior Court.

TESTIMONY

At the January 16, 1992 public hearing, oral testimony was presented by consulting engineer Thomas W. Joy on behalf of the applicants. Mr. Brountas also spoke on his own behalf and argued for construction of the revetment. Doug Wells of the Chatham Conservation Commission addressed the reasons for the Conservation Commission's denial of the project and Pam Rubinoff from Coastal Zone Management noted the importance of considering the cumulative impacts of reveting banks along the coastline. Commission staff reported on concerns regarding compliance with the Regional Policy Plan and existing state law.

At the Commission's February 7, 1992 continued public hearing in Chatham, testimony was received from the Association for the Preservation for Cape Cod regarding their concerns about the highly complex nature of the shoreline processes in the area of the proposed revetment, loss of sediment from the coastal bank, the impact on adjoining properties, and the need for a beach nourishment program. The applicant's representatives provide information on proposed mitigation to address concerns raised by the subcommittee. Questions from the subcommittee focused on access to the Fish and Wildlife Service property, and scour at the ends of the revetment. Staff

presented continuing concerns about the project including limitation on the amount of beach nourishment, and discrepancies in estimated erosion rate.

The subcommittee met to discuss the project on February 20, 1992, reviewed the dynamic nature of the shoreline, and began a discussion of possible conditions that could be placed on the project to make it conform to the Regional Policy Plan. They also questioned whether this project is premature due to the lack of imminent threat to the structures. Staff noted that they still could not reach agreement with the applicant about the beach nourishment program or a condition that might require review and possible removal of the revetment at some time in the future. The subcommittee asked staff to prepare materials for their review including possible conditions for approval as well as findings for denial.

The subcommittee continued the public hearing on February 25 and continued their discussions with the applicant on the dynamic nature of the shoreline near the proposed project. The subcommittee also continued to try to seek agreement on the wording of conditions that would allow the project to go forward. The subcommittee scheduled a meeting to continue to work on this and closed the public hearing.

The subcommittee met on March 11 and April 2 with the applicant's attorney to continue to try to finalize conditions and to discuss whether the project could comply with the Regional Policy Plan. Major unresolved issues included the maximum amount of beach nourishment, future removal of the revetment, and approval of annual reports. Several members of the subcommittee stated that they believed the project is premature and supported denial because of this fact, the likelihood of changes in the shoreline in the short term, and the lack of agreement over conditions. Faced with a recommendation to deny, the applicant asked the subcommittee to approve the project with a "trigger" mechanism that would allow the project to proceed once certain site conditions occur. The "trigger" mechanism would remove the concern that the project as currently proposed is premature.

The subcommittee met on April 30, May 28, June 18, and June 25 to discuss possible trigger mechanisms and reviewed staff recommendations. The subcommittee discussed various options including 10, 20 and 30 year setbacks, as well as waiting a certain period of time and studying the shoreline in the interim. The applicant's attorney argued for a 50' setback to the houses. The subcommittee settled on a 20 year setback trigger and finalized the wording of conditions with the applicant. The subcommittee reviewed the subcommittee report on June 25, approved the subcommittee report and voted unanimously to recommend the project for approval by the full Commission on July 9.

Materials Submitted for the Record

The application and notices of public hearings relative thereto, the Commission staff notes, exhibits and correspondence, the minutes of meetings and hearings and all written submissions received in the course of the proceedings for this project are incorporated into the record by reference.

Applicant:

- Tracing of Aerial Photo, dated December 7, 1989.
 - Development of Regional Impact Application Form, Thomas W. Joy, Received December 31, 1991.
 - DRI Exemption Application Form, received December 31, 1991
 - DRI Hardship Exemption Application Form, received December 31, 1991
 - Site Plan Showing Proposed Revetments, prepared by Coastal Engineering Co, 1/5/89, showing revisions through 12/19/91
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- Statement Supporting Request for DRI Exemption, undated.
 - Copy of Notices of Intent for Blank and Broutas properties, dated 3/22/89.
 - Copy of Chatham Conservation Commission denials for Blank and Broutas properties, May 19, 1989
 - Copy of Appeals and supporting materials filed with DEP for Blank and Broutas by William Reilly, June 2, 1989.
 - Blank/Broutas Shorefront Protection; Documentation Regarding Project's Consistency with Regional Policy Plans MPS and ODRP, undated.
 - Blank/Broutas Shorefront Protection; List of Project's Probable Benefits to the Community and Cape Cod, undated
 - Blank Broutas Shorefront Protection, Fee Statement, undated.
 - Memo from Thomas W. Joy to Commission regarding proposed mitigation for revetment, February 7, 1992.
 - Statement of Withdrawal of Exemption applications, signed by Thomas Joy, February 25, 1992.
 - Graphs of Erosion rate over time/sediment contribution prepared by Coastal Engineering Co, March 9, 1992.
 - Letter from Herbert F. Roberts to William Reilly regarding effect of conditions on title, March 10, 1992.
 - Letter from William A. Doherty, Jr. to Commission regarding effect of conditions on title, March 10, 1992.
 - Fax with draft of proposed conditions, March 30, 1992.
 - Unsigned, undated memo from Bill Reilly, "Effects of draft conditions on title to real estate"
 - Extension Agreement, signed by William Reilly, April 16, 1992.
 - Unsigned, undated letter from Bill Reilly regarding modifications to conditions.
 - Letter from William Reilly to Dennis Finn regarding proposed trigger mechanism, April 29, 1992.
 - Extension Agreement, signed by William Reilly, May 18, 1992.
 - Proposed Conditions, Received June 12, 1992.
 - Fax from Bill Reilly to Dennis Finn requesting adjustment in setback, June 30, 1992

Staff:

- Subcommittee meeting and hearing minutes dated January 16, 1992, February 7, 1992, February 20, 1992, February 25, 1992, March 11, 1992, April 2, 1992, April 30, 1992, May 28, 1992, June 18, 1992, June 25, 1992, July 9, 1992
- Letter from Dennis Finn to Paul Broutas, Esq. regarding DRI review, November 26, 1991.
- Letter from Dennis Finn to Allan Blank regarding DRI review, November 26, 1991.
- Letter from Dennis Finn to Will Joy regarding filing requirements, November 26, 1991.
- Cape Cod Commission Staff Report, January 14, 1992

- Cape Cod Commission Staff Report, February 3, 1992
- Cape Cod Commission Staff Report, February 24, 1992
- Cape Cod Commission Staff Report, March 11, 1992
- Letter from Kathy Sferra to Jim Mahala, DEP, regarding coordinated review with DEP, March 17, 1992.
- Cape Cod Commission Staff Report, April 27, 1992
- Cape Cod Commission Staff Report, June 18, 1992
- Memo from Kathy Sferra and Dennis Finn to Liz Kouleheris and Jim Mahala regarding project status, June 22, 1992
- Letter from Dennis Finn to Bill Reilly regarding filing fee refund, June 24, 1992

Other Parties:

- Letter from Gary Clayton to Chatham Board of Selectmen regarding DEP policy on shoreline protection, December 22, 1988.
- Letter from Gary Clayton to Chatham Board of Selectmen regarding delineation of coastal dunes and banks, February 24, 1989.
- "Identification and Assessment of Technical Information Requirements for Developing Coastal Erosion Management Strategies," Workshop Proceedings, Feb. 24-25, 1989.
- "The Interaction of Seawalls and Beaches, Four Years of Field Monitoring, Monterey Bay, California," by Gary Griggs, James Tait, Katherine Scott, Nathaniel Plant, UC/Santa Cruz, undated.
- Letter from David Aubrey to David Shepardson regarding MEPA review, March 12, 1990
- Draft Environmental Impact Report - 8/90
- Memo from Jeff Benoit to Janet McCabe commenting on Blank/Brountas FEIR, January 22, 1991
- Letter from Jim O'Connell to Jim Mahala regarding appropriate time for armoring coastal banks, February 19, 1991.
- DEP Superceding Order of Conditions, File No. SE 10-881, March 25, 1991.
- Memo from Jeff Benoit to Janet McCabe commenting on Blank/Brountas SFEIR, November 12, 1991
- Certificate of the Secretary of Environmental Affairs on the Supplemental Final Environmental Impact Report, November 14, 1991.
- Supplemental Final Environmental Impact Report
- Letter from Doug Doe to Cape Cod Commission raising concerns about project, January 22, 1992.
- Letter from Peggy Sloan, Association for the Preservation of Cape Cod raising concerns about project, February 7, 1992.
- Town of Orleans Revetment Policy, Adopted June 2, 1992
- Fax from Bruce Rosinoff to David Kellogg regarding support for existing conditions, June 19, 1992.

JURISDICTION

The proposed Blank-Brountas revetment was referred to the Commission by the Applicant on December 31, 1992 because the project required the filing of an Environmental Impact Report under Section 61-62h of Chapter 30 of the General laws. The referral is required by Section 12(i) of the Act and by Commission regulations.

FINDINGS

In its deliberations of the project the subcommittee made the following findings:

1. The Chatham shoreline is in a very dynamic state and there is a large degree of uncertainty over the possible future migration or break up of South Island, a barrier island that provides some protection for the applicant's property from the open ocean. This dynamic situation makes predicting the need for revetting the coastal bank uncertain as the erosion rate in this area could increase or decrease significantly depending on the future status of South Island. The long-term erosion rate of the applicant's property is 3.3' per year, but recent storms have resulted in a higher short-term erosion rate.
2. The residences to be protected by the revetment were constructed prior to August 10, 1978, the effective date of the Wetlands Protection Act and are located some distance from the top of the coastal bank. The subcommittee cannot find at this time that the revetment is necessary to protect the residences from storm damage.
3. The permitting process for coastal engineering structures is lengthy and as a result the applicant's homes may be threatened in the event of a breach of South Island if it is accompanied by rapidly accelerated erosion. Therefore a "trigger" mechanism, whereby the Commission approves the project conditioned upon continued erosion of the applicant's property or a breach of South Island, will allow the applicants to move expeditiously to protect their properties when and if the trigger is reached, while ensuring that the properties will not be armoured unnecessarily.
4. The proposed revetment would 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 instituted to compensate for this loss of sediment for the life of the revetment (or until it is determined that such nourishment is not necessary) and which will mimic the natural function of the coastal bank as a sediment source as closely as is feasible.
5. There is currently lateral access along the beach in the front of the proposed revetment that provides access to U.S. Fish and Wildlife Service property at the southern end of Morris Island. This USFWS property is a regional resource. In addition, the land area between mean low water and mean high water is used pursuant to the Commonwealth's public trust rights for fishing, fowling and navigation. Construction of the revetment would fail to meet policy 2.2.1.1. of the Regional Policy Plan by lowering beach profiles on the seaward side of the revetment thus interfering with these public trust rights, unless adequate beach nourishment and monitoring occurs.
6. The applicant has agreed to a beach/littoral nourishment program that will provide an annual average of 1200 cu yds of compatible sediment on the seaward side of the revetment to compensate for the sediment lost by armoring the coastal bank. The applicant is also willing to provide deeded access to the U.S. Fish and Wildlife Service property along the front of the revetment.
7. An ongoing littoral nourishment program requires continuing financial contributions from

property owners. In order to ensure the performance of the program, an escrow account of \$12,000 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 littoral nourishment program and related studies in the event that the applicant fails to undertake the program.

8. With the recommended conditions, the project is consistent with the minimum performance standards in the Regional Policy Plan. If the trigger mechanism is reached, no feasible alternatives to construction of the revetment exist. The applicant may continue to make use of sand bags and other soft solutions to protect the property subject to state and local regulations.

9. The project has been denied by the Chatham Conservation Commission. Appeals from this decision are pending before the Department of Environmental Protection and Barnstable Superior Court.

10. The town has not developed a local comprehensive plan and at this time there are no Districts of Critical Planning Concern in Chatham. Therefore these review standards are not applicable to the proposed project.

REVIEW STANDARDS

Under Section 13(d) of the Act the Commission is required to review DRI under the following standards:

1. Probable Benefits vs. Probable Detriments;
2. Consistency with Regional Policy Plan/Local Comprehensive Plan
3. Conformance with Municipal Development By-laws;
4. District of Critical Planning Concern.

CONCLUSION

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

The benefits of the proposed project outweigh the detriments resulting from development. This conclusion is supported by the fact that the project will enhance coastal access benefits to the general public and protect two coastal residences. These benefits outweigh the following detriments: visual and environmental impact of armoring coastal bank, and loss of sediment to the natural coastal system (mitigated by littoral nourishment program).

This project, as conditioned, is consistent with the Minimum Performance Standards of the Regional Policy Plan. The proposed project is not consistent with the town of Chatham bylaws. Commission approval is granted with the understanding that it is necessary for the applicant to receive approval for the project under the state Wetlands Protection Act and Chatham bylaws.

The Commission hereby approves, with conditions, the proposed Blank-Brountas revetment in

Chatham MA as a Development of Regional Impact, pursuant to Section 13(d) of the Act, provided that the following conditions are met:

CONDITIONS

1. TRIGGER MECHANISM:

Construction of the revetment may not commence until one of the following occurs:

- a) The coastal bank in front of either residence continues to erode to a point where the distance from the residence to the top of the coastal bank at its nearest point is less than or equal to 66 feet (Avg. annual erosion rate (3.3') x 20 years); or
- b) A breach occurs in South Beach in the vicinity of the Blank and/or Brountas properties that exposes these properties to direct wave attack from the open ocean, such that an accelerated rate of erosion of the coastal bank on these properties occurs. A breach is defined as an opening that permits the flow of water at tides equal to or greater than mean low tide and stays open for a period of greater than 30 days.

The applicant shall demonstrate to the Commission or its designee that one of these requirements has been met before proceeding with construction of the revetment.

2. A detailed monitoring program shall be submitted to the Cape Cod Commission for review and approval prior to construction. The monitoring program should detail the location of the proposed monitoring stations, contain provisions for monitoring summer and winter beach profiles, include baseline information on beach profiles spaced along 100' intervals extending 25' beyond the ends of the revetment, and include a provision for annual reports to the Commission.

3. The applicants and their successors in title shall be responsible for a littoral nourishment program. Said nourishment program shall provide for the initial deposit of 1080 cu yards of sediment -- 930 cu yards of sediment on the beach area on the seaward side of the revetment immediately after construction of the revetment is completed, and an additional 150 cu yards to be divided between the ends of the revetment. The nourishment program shall include planting of suitable native vegetation at the top of the coastal bank above the revetment as needed to stabilize the coastal bank. The composition of nourishment materials shall be compatible with bluff materials existing on the site. The amount of nourishment to be placed on the beach annually thereafter shall be determined by the Commission or its designee based upon annual reports provided by the applicants to the Commission. Said annual report shall summarize the effects of the revetment and the littoral nourishment program on the coastal bank and the beach in front of the revetment as well as adjacent areas; including beach profile data in the same locations as the baseline surveys. The annual report may include a discussion of any factors that relate to changes in the beach profile or erosion rate on the site. The amount of nourishment may be adjusted (decreased or increased) by the Commission or its designee based on the outcome of the annual report but shall not exceed an average of 1200 cu yds annually. If, through monitoring, it is determined that less than 1200 cu. yds. is needed in any given year, the unused number of cu. yds. may be required to be applied in succeeding years should it be needed to maintain the originally established profile. In no event however, shall the amount of nourishment required in any one year exceed 2000 cu. yds. The annual report shall include a description of the littoral

nourishment proposed in the succeeding year and shall be submitted no later than February 1st of each year. Littoral nourishment shall occur by May 15th of each year. The annual report shall be prepared by a registered professional engineer and the form and content of the annual report shall be agreed upon in advance by the applicant and the Commission. The nourishment program may be terminated by order of the Commission if on-site inspection or evaluation determines that the nourishment is not constructive, but rather is deleterious to on-going coastal processes.

4. In order to ensure the performance of the nourishment program the applicants shall deposit the sum of \$12,000 in an escrow account to cover the cost of the littoral nourishment program for a period of two years and for other purposes as noted in condition #7. 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. The escrow fund is to be held for five years from the date of this decision and may be renewed pursuant to condition #6 below.

5. Pedestrian access is currently and historically available along the beach on Fish and Wildlife Service property in the proposed revetment area. After construction of the revetment, a sandy strip for public access purposes shall be maintained in front of the revetment at all times except during the two hours that precede and follow high tides.

6. At the end of the five year period referenced above, the applicants shall provide a comprehensive report to the Commission. The Commission shall review the annual reports, the comprehensive report and any supporting documentation provided by the applicant, shall hold a public hearing, and shall make a determination regarding the impacts of construction of the revetment on the adjacent or downdrift coastal banks and beach, the effectiveness of the littoral nourishment program, the short-and long-term erosion rates at the site, and other factors relating to the Cape Cod Commission Act and Regional Policy Plan. At this time, the Commission may:

- a) order a continuance of the littoral nourishment program and reporting requirements and/or a renewal of the escrow account established pursuant to Condition 4 above, with adjustments as necessary for inflation; and/or
- b) order continuing study and monitoring of the impacts of the revetment; and/or
- c) terminate the littoral nourishment program if it finds that such program is no longer necessary to mitigate the impacts of the revetment; and/or
- d) modify the conditions, or other responsibilities of the applicant imposed pursuant to this permit, except that nourishment shall not exceed amounts specified in Condition #3; and/or
- e) order modification of the revetment if there have been improvements in the technology of revetments that result in significant improvement in the effects of the revetment on the beach and downdrift areas, or other resources protected by the Cape Cod Commission Act and Regional Policy Plan.

7. If in any one year the applicants shall fail to complete the program, the Commission, after notice and opportunity for a hearing, shall have the authority to expend funds from the escrow account to provide for littoral 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 littoral nourishment continues yearly while any proceedings related to this condition are pending. Failure of the applicant to comply with these conditions is subject to appeal in Barnstable Superior Court. The applicants agree to pay legal fees and other costs associated with the appeal.

8. A site plan will be submitted to the Commission indicating the distance from the structure(s) to the top of the coastal bank and showing the location of trees or other appropriate landmarks and their distance(s) to the top of the coastal bank, so that the Commission may accurately assess the actual erosion and subsequent loss of property that occurs on the site.

9. The applicants agree to allow the Commission or its designee the right to enter and inspect the properties for compliance with these conditions upon 48 hours notice.

10. The applicant shall obtain all necessary state and local approvals for construction of the revetment and littoral nourishment program. The applicant shall forward to the Commission, forthwith, copies of any and all permits and approvals issued in relation to this project and issued subsequent to this decision.

The Commission hereby grants (applicant) an approval with conditions as a Development of Regional Impact, pursuant to Section 12 and 13 of the Act, for a proposed revetment in Chatham, MA.

Alix Ritchie

7/23/92

Alix Ritchie, Chair

Date

Commonwealth of Massachusetts
Barnstable, ss.

Subscribed and sworn before me this 23rd day of July, 1992

Katharine L Peters
Name, Notary Public

My commission expires:

My Commission Expires December 5, 1997

TILIPU RUN

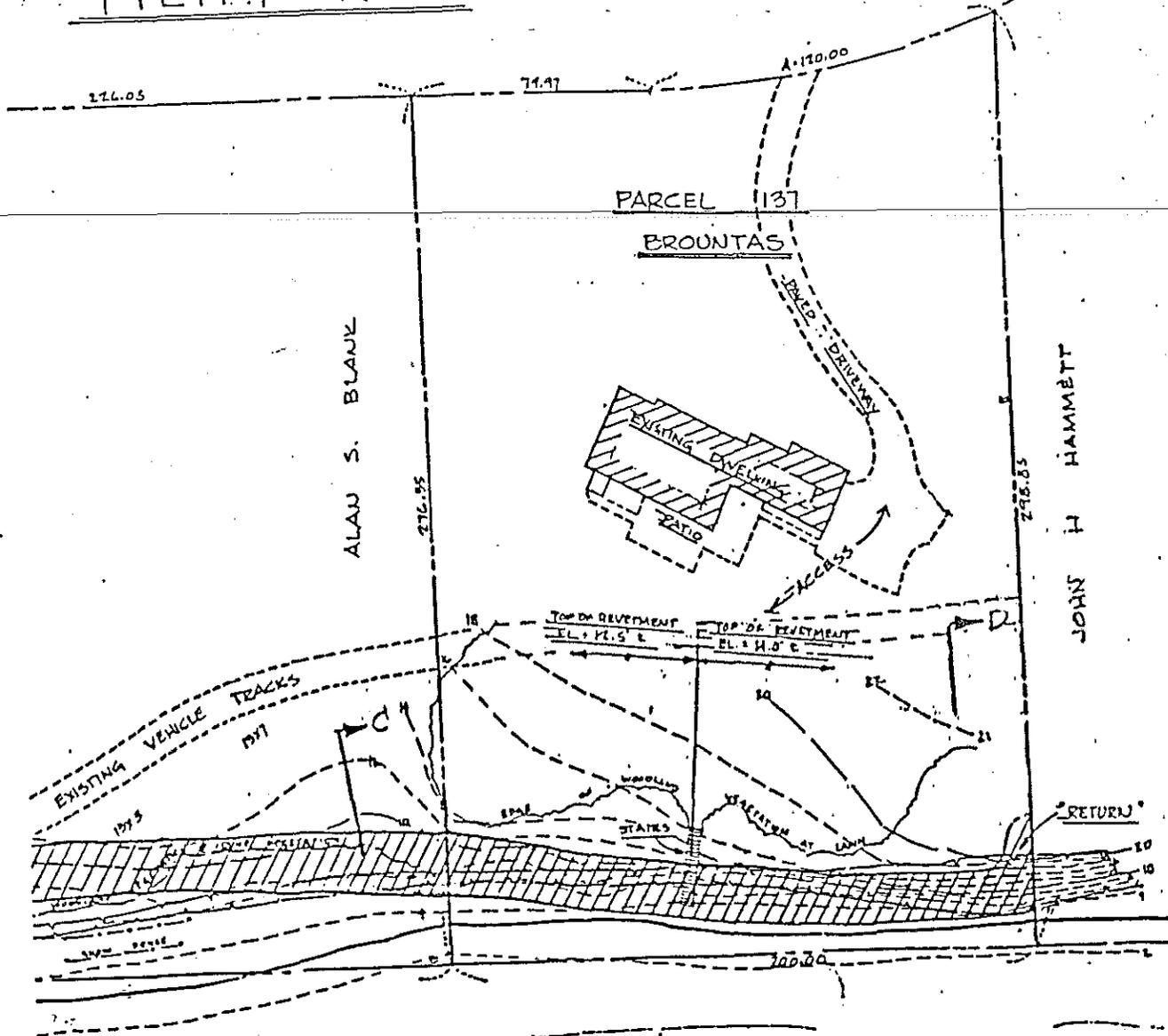
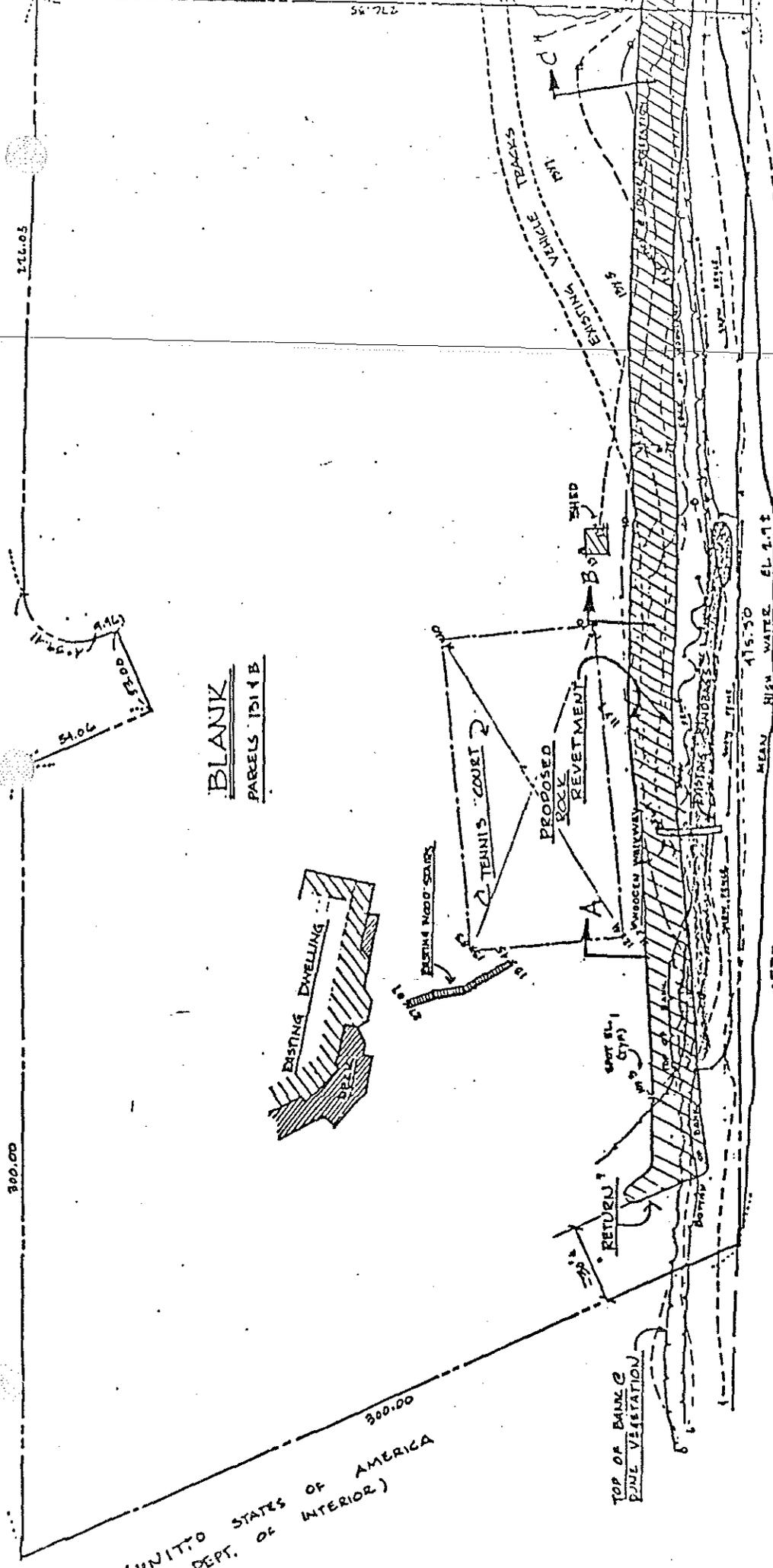


Figure 3B: PLAN OF PROPOSED REVETMENT ON BRONTAS PROPERTY



BLANK
PARCELS 1514 B

Figure 3A: PLAN OF PROPOSED REVETMENT ON BLANK PROPERTY