May 1, 2013

To: City of Bainbridge Island Planning Department

RE: 5 properties on Packard Ln NE

We've previously written to you about the designation of our shoreline property and our concerns. Your opinions on bulkheads are reflected in the proposed/SMP update and the designation of all Packard Lane properties as aquatic conservancy. We are resubmitting our geo tech report submitted in 1991 and again in 1998 when we tore down and rebuilt our home as permitted by COBI. The bulkheads were necessary to shore up our respective banks along Packard Lane and prevent the potential destruction of property and loss of life. Nothing has changed since 1991. It is still the same bank and it is still necessary to protect our homes and properties. At that time we were required to put in tons of gravel along our shoreline at a substantial cost to residents to mitigate any impact of the bulkhead.

The shoreline master plan and in particular as it relates to these properties which have received permitted bulkheads on Packard lane is clearly an attempt by the government to take away what you have already permitted at a substantial cost to us. We request that these properties with our permits from 1991 be exempt from any regulation of the SMP update as it relates to bulkheads. In addition we ask that this designation for aquatic conservancy be removed from these properties.

Kari and Joel Wright

5831 Packard Ln NE

Bainbridge Island, WA 98110

W-6031-01

Packard Lane Bulkhead Project
City Permit Nos. 2116 to 2120
Bainbridge Island, Washingfton

October 1991

Mr. Andre Kamber
5840 Packard Lane
Bainbridge Island, WA 98110

SHANNON & WILSON, INC.
400 N. 34th St., Suite 100
P.O. Box C-30313
Seattle, WA 98103
(206) 632-8020

W-6031-01

SHANNON & WILSON, INC.
Geotechnical Consultants
Engineering and Applied Geosciences

Over 35 Years of Excellence

400 North 34th Street, Suite 100 • P.O. Box 300303 • Seattle, WA 98103 • (206) 632-8020 • Fax: (206) 633-6777

October 4, 1991

Mr. Andre Kamber
5840 Packard Lane
Bainbridge Island, Washington 98110

RE: PACKARD LANE BULKHEAD PROJECT, CITY PERMIT NOS. 2116-2120

Dear Mr. Kamber:

In response to your telephone request, I visited the Packard Lane bulkhead project Saturday, September 28, 1991, the location of which is shown on Figure 1. I understand that the following property owners are involved in this project and you are acting as agent for the group:

Paul Vibrans	5854 Packard Lane
Arthur Lynch	5827 Packard Lane
Kari and Joel Wright	5831 Packard Lane
Andre and Patti Kamber	5840 Packard Lane
Jack Jensen	5836 Packard Lane

The purposes of my visit were to consider the necessity for the project, and to determine if the proposed bulkhead design is satisfactory.

PROJECT NECESSITY

Regarding necessity for the project, I observed soil conditions along the beach in the project area as well as soil conditions in the area to be protected by the bulkhead. These observations were to determine if an erosion problem exists sufficient to warrant construction of the bulkhead, and if soil stability is such that the bulkhead would provide relatively permanent protection without excessive maintenance or without additional work to provide protection.

This project is located along the south side of Eagle Harbor where wave action, tidal fluctuations and groundwater seepage have eroded the ground adjacent to the harbor and have created a bluff some 30-40 feet high. The lower part of the bluff is composed of hard gray clay having the consistency of medium-hard shale. This material extends from below beach level to within a few feet of the top of the bluff, except there is a weakly cemented sand zone less than 12 inches thick about mid-height of the bluff where erosion has caused the top of the bluff to migrate landward ahead of that in the lower part of the bluff. Also at the top of the clay there is a lignite zone 2 to 3 feet in thickness. Overlying material to the top of the bluff is medium dense silty fine and medium sand. The shale-like clay has three sets of prominent fracture planes. One is horizontal along the bedding planes, one is vertical and nearly parallels the bluff, and the third is vertical and is oriented nearly perpendicular to the slope.

Wave action and seepage pressures at the base of the bluff erode the ground and remove support from material higher on the bluff. The rate of erosion controls the rate of bluff recession. The bluff material is very hard and breaks off along the vertical fracture planes, generally in slabs 1 to 3 feet in thickness. Although the bluff does not display indications of deep sliding that would endanger the houses back from the bluff, the gradual recession of the bluff gradually places the houses at greater risk. Even if erosion at beach level were stopped now, the bluff would continue to recede slowly until it becomes stable, possibly another 20 or 30 feet, over a period of many years. That loss would be about the maximum allowable without excess risks to at least some of the houses. Consequently, it is our opinion that the bulkhead project is advisable to protect your property.

ALIGNMENT

The bulkhead alignment shown in Figure 1 is not located precisely, but the general plan appears to be satisfactory, because it ties to an existing bulkhead at its easterly end, ties into natural ground in a shallow cove at its westerly end, and follows a smooth, curved alignment between the ties. Consistent with legal provisions of the construction permit, the bulkhead should be constructed close to the bluff, with the alignment controlled at points where the bluff projects farthest into the harbor. At these control points the back of the bulkhead should be about five feet from the bluff at the base of the quarried rock portion.

CROSS SECTION

The proposed bulkhead cross section shown on Figure 2 should be revised. At this location, except for a thin sand cover the beach materials are hard clay. After the bulkhead is constructed, material on the beach will continue to erode, so the bulkhead will be undermined unless the base of the rock is set well down into the clay. The depth of embedment should be about two feet. The embedment needs to be only beneath the quarried rock face.

The ground at the base of the bluff is rounded similarly to that shown on the section submitted with the application, but the bluff above the top of the bulkhead is nearly vertical. There is no definite measurement point for establishing the distance from the base of the bluff to the rock portion of the bulkhead; that is somewhat a matter of judgment. However, it is the intent to preserve a minimum distance of about five feet between the back of the quarried rock portion of the bulkhead and the base of the bluff where the rounded toe of the bluff joins the relatively flat beach slope.

Quarried rock for the bulkhead face should be of high quality and suitable to resist weathering. It should be free of cracks and joints that could open by freezing and thawing or wetting and drying, and it should be angular and relatively cubical in shape. Rounded and flat elongated pieces should not be used. Stone sizes at the base of the bulkhead should measure 3 to 4 feet in average dimension. The size can gradually taper so stone sizes measure 2 to 3 feet at the top of the bulkhead. Stones should be set individually in a tight, interlocked mass with minimum void spaces between the stones.

The proposed bulkhead slope and height is satisfactory.

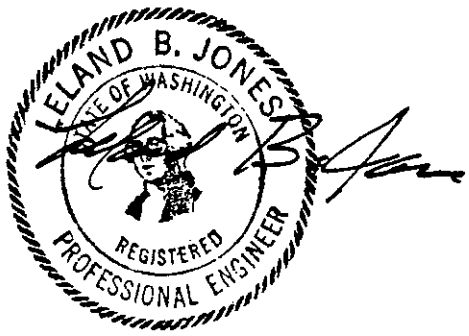
Fill behind the quarried rock face as proposed is not suitable. The entire space between the quarried rock face and the bluff should be filled with quarry spalls. Crushed gravel or washed quarry spalls are not needed at the surface, but would not be detrimental. The compacted fill with unspecified gradation, as proposed in the application, could contain fine material that would erode through voids in the rock and cause the bulkhead to fail.

We appreciate your requesting our assistance at this time, and we would be pleased to assist you in determining the precise bulkhead alignment, approving the type of stone and other materials to be used in the bulkhead prior to construction, and inspecting the work while it is being constructed. Our work is being performed in accordance with the enclosed Agreement for

Professional Services with a minimum fee of $1,000. If you have any questions, please let me know.

Sincerely,

SHANNON & WILSON, INC.



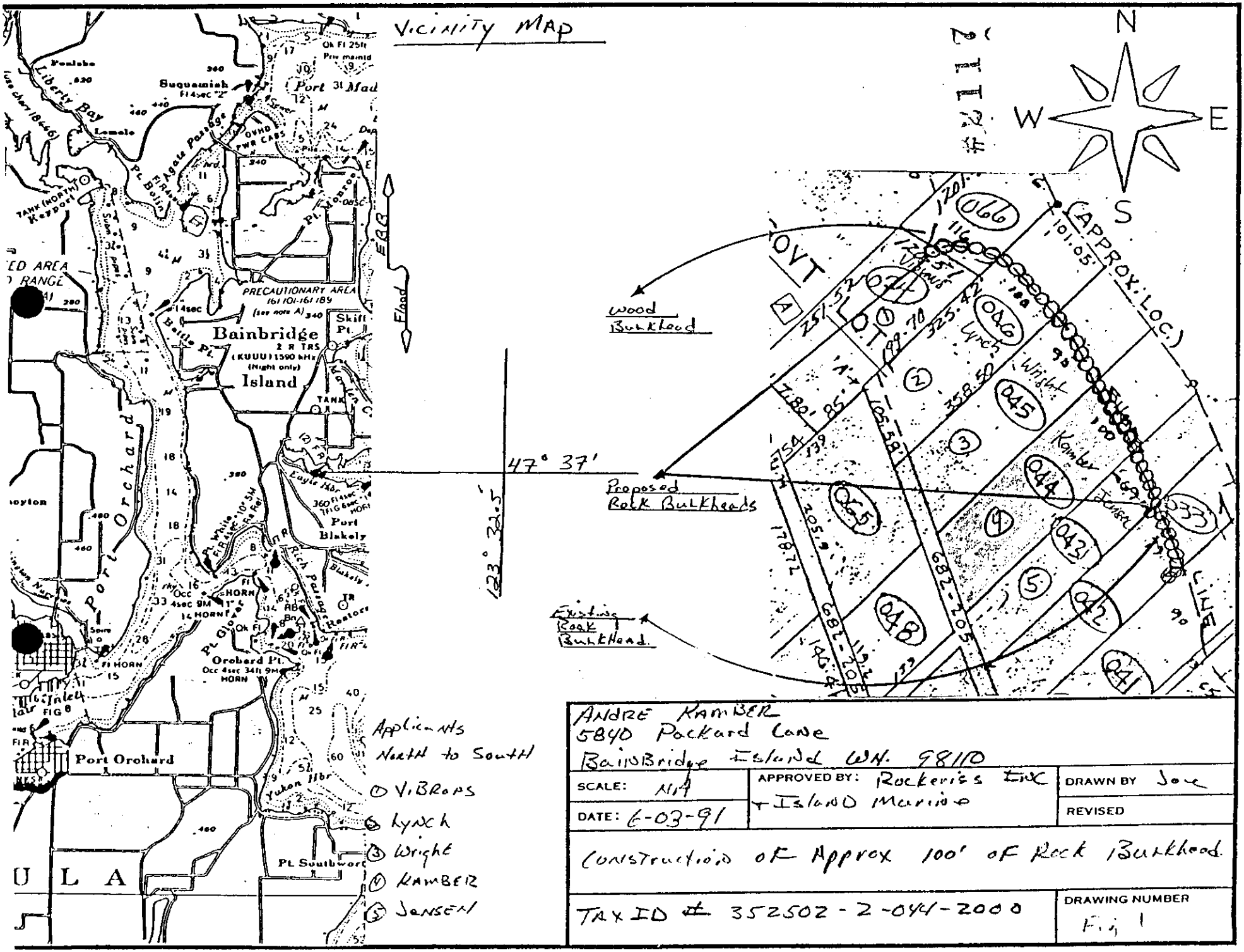
Leland B. Jones, P.E.
Vice President

LBJ/st

Enclosures: Figures 1 and 2
Agreement for Professional Services, SM-91 (4/91)
Important Information About Your Geotechnical Engineering Report

W6031-01.LTR/LBJ-lkd/st

Vicinity Map



ANDRE KAMBER
5840 Packard Lane
Bainbridge Island WA. 98110

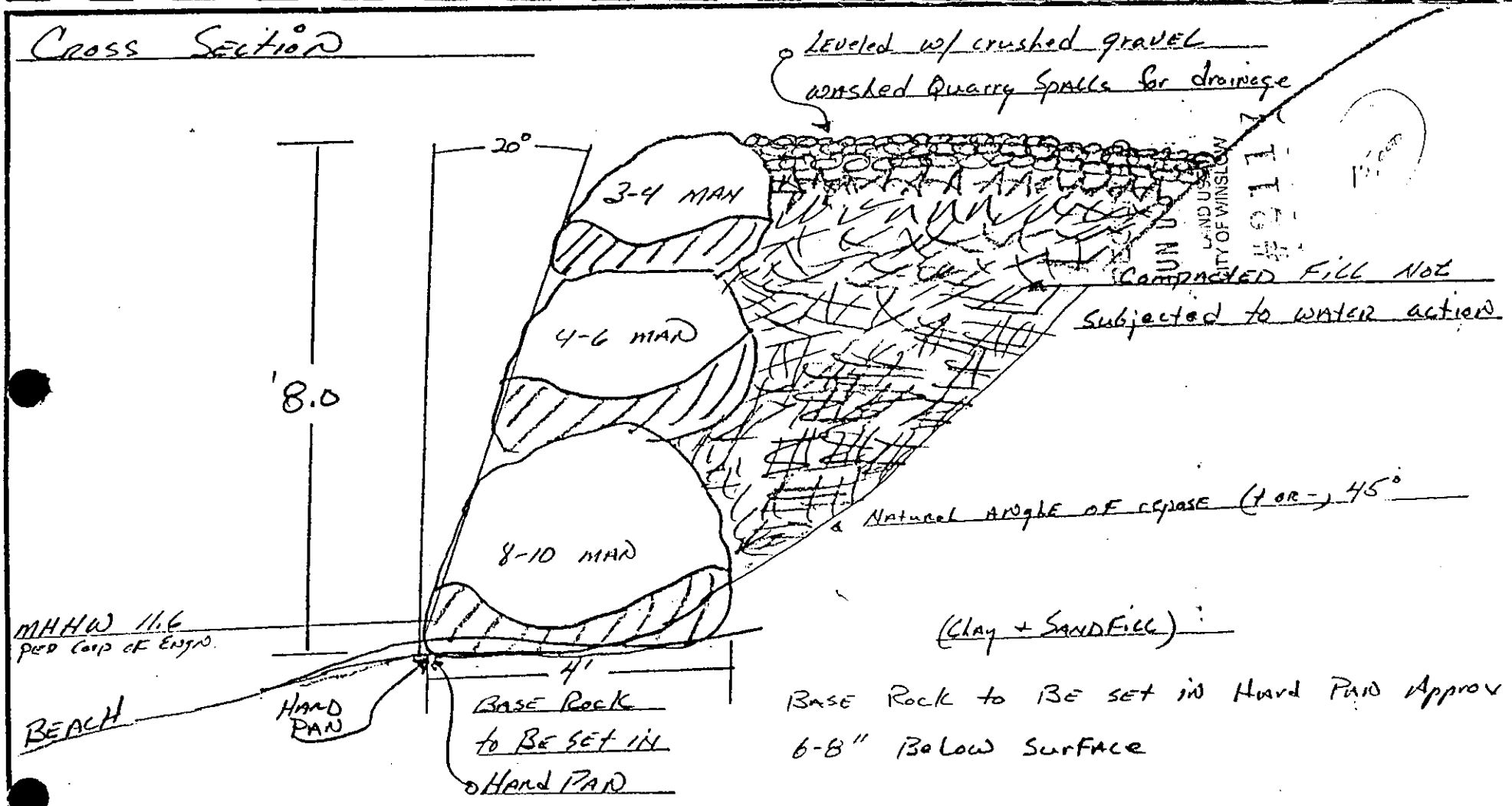
SCALE: N/A	APPROVED BY: Rockeries Inc + Island Marine	DRAWN BY Joe
DATE: 6-03-91		REVISED

Construction of Approx 100' of Rock Bulkhead

TAX ID # 352502-2-044-2000

DRAWING NUMBER Fig 1

Cross Section



NOTES

Bulkhead to be Approx 100' x 8' to adjoin proposed Neighbor (Jensen). Bulkhead will follow contour of Beach. Purpose is to prevent further Erosion. Fill to be Approx 38.07 cyd Rock to be x 190.4 Cyd All work to be done By Beach with Barge.

ANDRE RAMBER
5840 Packard Lane
Bainbridge Island WA 98110

SCALE: 1" = 2'	APPROVED BY: Rockeries Inc + Island Marine	DRAWN BY Joe
DATE: 6-03-91		REVISED

Construction of Approx 100' of Rock Bulkhead to prevent Further Bank Erosion

TAX ID# 352522-2-044-2000

DRAWING NUMBER Fig 2