Zipper Zeman Associates, Inc.

Geotechnical and Environmental Consulting

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J-339
21 December 1999

C & M Consulting
For Red Robin International
20815 148th Avenue S.E.
Kent, Washington 98042

RECEIVED
DATE 12/27/99
RUHL PARR & ASSOCIATES
ARCHITECTS BELLEVUE, WA
JOB NO. 98-134
LA

Attention: Mr. George Rebman

Subject: Limited Subsurface Exploration and Geotechnical Engineering Report
Northeast Slope Improvements
University Red Robin
3272 Fuhrman Street
Seattle, Washington
Red Robin P.O. No. F1999011-036

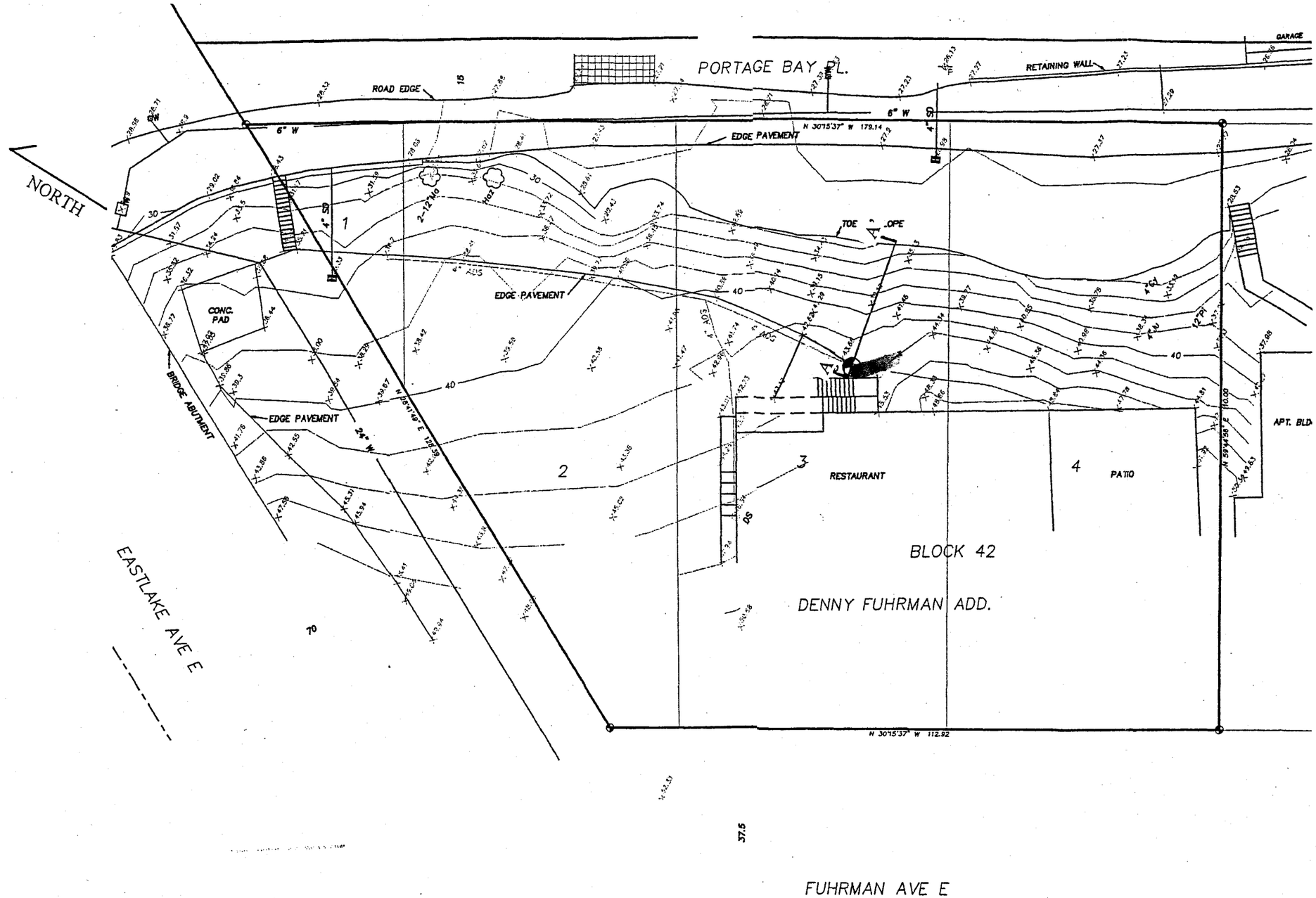
Dear Mr. Rebman:

Zipper Zeman Associates, Inc. (ZZA) is pleased to present herein a copy of the above-referenced report. This report presents the results of our limited subsurface exploration and geotechnical engineering study regarding improvements to the northeast slope of the University Red Robin property in Seattle, Washington. Written authorization to proceed with this study was provided by you on 4 May 1999, and conveyed to us via Mr. Glen Chapman. After we completed the field exploration, and prior to his passing, Mr. Chapman requested that we postpone preparation of a written report until site improvement plans were developed further. Verbal authorization to proceed with preparation of this report was provided by Mr. George Rebman, on behalf of Red Robin International, on 14 December 1999. Our services were provided in general accordance with a scope of services described verbally to Mr. Chapman in June 1999.

The purpose of the study was to establish general surface and subsurface conditions at the site from which geotechnical conclusions and recommendations regarding limited excavation, rockery construction, and revegetation could be formulated. The scope of our services consisted of a field reconnaissance, limited subsurface exploration, laboratory testing, geotechnical engineering analysis, and preparation of this report. This report is an instrument of service and has been prepared in accordance with generally accepted geotechnical engineering practices for the exclusive use of C & M Consulting, Red Robin International, and their agents, for specific application to this project and site location.

SITE DESCRIPTION

The project site is the existing, developed commercial property housing the University Red Robin restaurant located at 3272 Fuhrman Street in Seattle, Washington. The property consists of the restaurant building and asphalt paved parking lot in the southwest portion of the



EXPLANATION

B-1 BORING NUMBER AND APPROXIMATE LOCATION

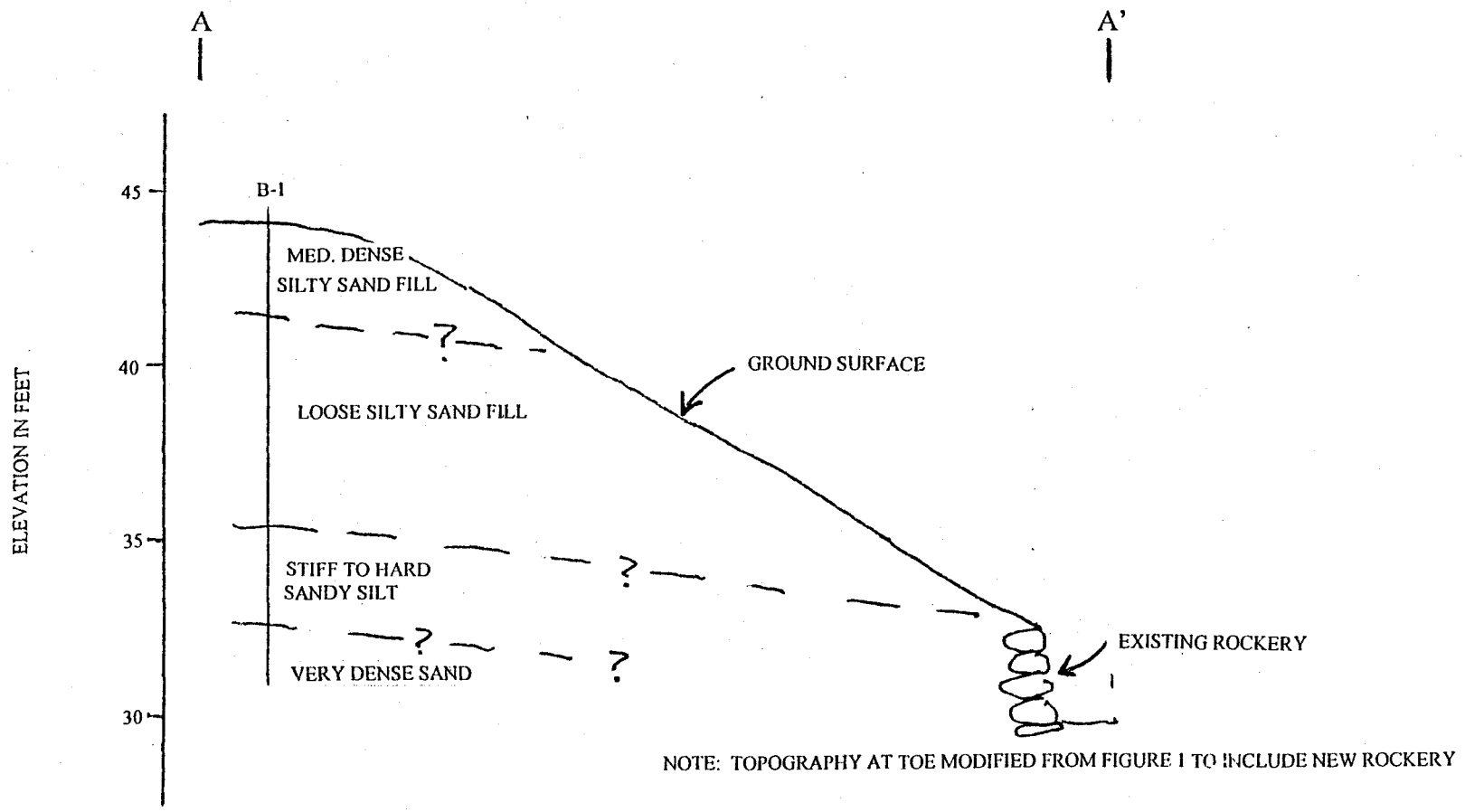
A — A' APPROXIMATE CROSS SECTION LOCATION AND DESIGNATION

0 — 30 APPROXIMATE SCALE IN FEET

Scale is off 1" ≈ 20'

ZIPPER ZEMAN ASSOCIATES, INC. GEOTECHNICAL AND ENVIRONMENTAL CONSULTING	PROJECT NO. J-339 DATE: DEC. 1999 DESIGN: DCW DRAWN BY: DCW SCALE: NOTED	UNIVERSITY RED ROBIN 3272 FUHRMAN STREET SEATTLE, WASHINGTON SITE AND EXPLORATION PLAN FIGURE 1

FIGURE TAKEN FROM "TOPOGRAPHIC SURVEY", DATED 29 MAY 1999, PREPARED BY MARK. SIEGENTHALER, P.E., P.L.S. AND ZZA FIELD MEASUREMENTS



EXPLANATION

B-1

BORING NUMBER AND APPROXIMATE LOCATION

ZIPPER ZEMAN ASSOCIATES, INC. GEOTECHNICAL AND ENVIRONMENTAL CONSULTING	PROJECT NO. J-339 DATE: DEC. 1999 DESIGN: DCW DRAWN BY: DCW SCALE: NOTED	UNIVERSITY RED ROBIN 3272 FUHRMAN STREET SEATTLE, WASHINGTON GENERALIZED CROSS SECTION A – A' FIGURE 2

PROJECT: University Red Robin | **JOB NO.** J-339 | **BORING** B-1 | **PAGE 1 OF 1**

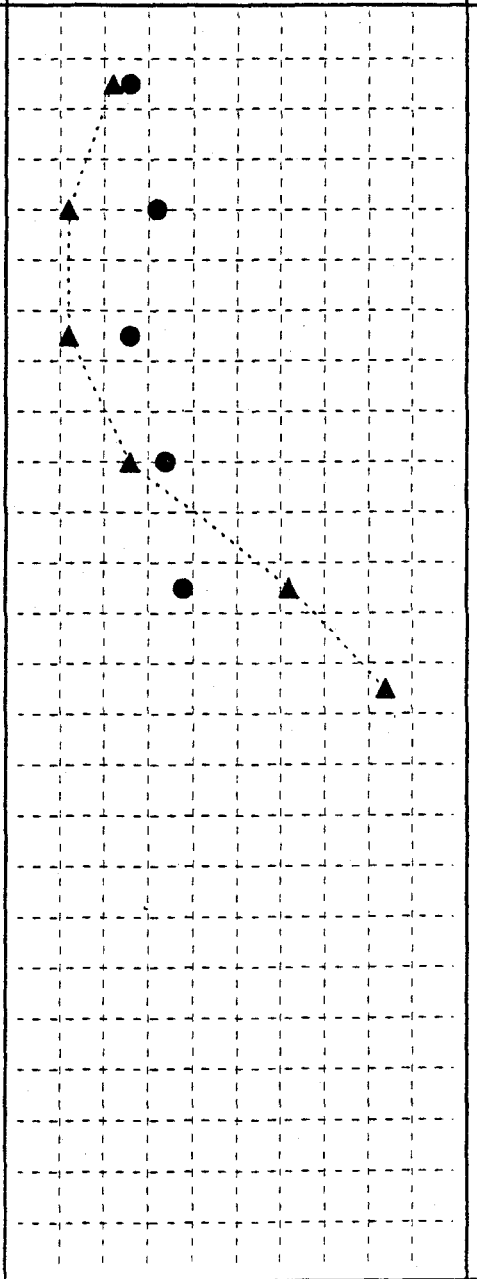
Location: 3272 Fuhrman Street - Seattle, Washington | **Approximate Elevation:** 44 feet

Depth (ft)	Soil Description	Sample Type	Sample Number	Ground Water	N-values	Testing
	Medium dense, moist to wet, dark brown with some gray, silty SAND with gravel, glass fragments, brick fragments (Fill)		S-1		11	
	Loose, moist to wet, brown, silty SAND with some gravel, trace fine organic material (Fill)		S-2		6	
5			S-3		6	
	Stiff to hard, wet, mottled gray and brown, sandy SILT with trace gravel grading to very dense, moist to wet, brown, fine SAND with thin silt laminations (Glacial Till)		S-4		13	
10			S-5		31	
			S-6		42	
	Total depth = 13.5 feet, 17 June 1999					
15						
20						
25						

Penetration Resistance

▲ Standard — Blows per foot — △ Other

0 10 20 30 40 50



Explanation

- 2-inch O.D. split spoon sample
- 3-inch I.D Shelby tube sample
- No Recovery
- ATD — Groundwater level at time of drilling or date of measurement

Monitoring Well Key

- Clean Sand
- Cuttings
- Bentonite
- Grout
- Screened Casing

0 10 20 30 40 50

Moisture Content

Plastic Limit — Natural — Liquid Limit

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BORING LOG - FIGURE A-1

Date Completed: 17 June 1999 | **Logged By:** DCW