

NORTHWEST TESTING LABORATORIES, INC.

INSTRUCTION INSPECTION
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CHEMICAL ANALYSIS
PHYSICAL TESTING

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BROWN GUMS

NON-DESTRUCTIVE TESTING
WELDING CERTIFICATION
SOIL TESTING
ASSAYING

May 9, 1989

BUREAU OF PLANNING

Dennis Batke, Architect
1020 S.W. Taylor
Portland, Oregon

VZ 7 9 89

89-037277-LU CITY OF PC 'D

Subject: Reconnaissance of Soils
Single Family Residence
Lot 2, Blocks 17 and 18
N.W. Monte Vista on the Top and N.W. Bula Vista
on the Bottom
Portland, Oregon

18909

2846 NW Monte Vista

1/4 sec 3026

Gentlemen:

INIE32DB 2100

At your request we have examined the site proposed for the construction of a single family dwelling at the above location in Portland, Oregon. We present herewith a report of our findings, conclusions and recommendations.

Site Description The proposed construction site measures approximately 120 feet along N.W. Monte Vista by 70 feet in depth. It consists of a southerly-facing slope below the level of N.W. Monte Vista. The site is actually at the top of the ridge and is at near or slight above N.W. Monte Vista on its north side and rolls downhill on the south to N.W. Bula Vista at a relatively steep slope. The site is grass and tree covered at the present time, with a number of large fir trees present throughout the site.

Soils and Geology Soil exposures in the area consist of Portland Silt, a structureless brown to yellowish-brown mottled clayey to sandy silt. The underlying geologic unit consists of bedrock of volcanic origin. It is not exposed in the immediate area; but is believed to underlie the project site at a depth of several tens of feet.

Proposed Construction We understand the construction proposed will consist of a single family dwelling with a garage constructed near the level of the street.

Conclusions and Recommendations From our examination of the project site, we draw the following principal conclusions and recommendations:

1. We conclude that this site is stable and that it may be developed for residential purposes in accordance with the methods and precautions outlined below.

GT-003036

2. The structures may be supported on native soils using conventional spread footings placed at comparatively shallow depth in the finished grade (minimum 18" below existing grade).
3. Spread footings may be designed for contact pressures of 2,000 psf, with a minimum footing width of 16 inches.
4. Lateral earth pressures on foundation walls, retaining walls, etc., may be calculated on the basis of equivalent fluid pressure of 35 pcf for level backfill and 60 pcf for steeply-sloping backfill.
5. Depending upon how the site is developed, it may require a retaining structure along the south side of the property where the slope is the greatest.
6. All backfill, retaining walls, foundation walls, etc., should be made with select granular material (sand and/or gravel). We anticipate that on-site material will not be suitable for this purpose and that it will be necessary to import material to the project for structure backfill.
7. Temporary earth slopes may be cut near-vertical to heights of 5 or 6 feet, above which height lower declivities will be required. We estimate that slopes of 1 vertical to 1 horizontal may be used for slope heights of 10 or 12 feet.
8. Permanent earth slopes should be dressed to a declivity of 1 vertical to 2 horizontal.
9. An adequate subsurface drain system should be installed behind subsurface walls. Surface run-off drains and the subsurface drains should be carried to the storm sewer or other approved disposal areas.
10. Foundation Preparation Inasmuch as the soil units which will provide support for the main structure are extremely sensitive to disturbance in the presence of excess moisture, care should be taken to protect prepared bearing surfaces until footing concrete can be placed. Precautions to achieve this end would consist of (1) covering of prepared bearing surfaces with impervious membranes or granular blankets (4-inch maximum thickness) or (2) cessation of work during rainy weather.

Dennis Batke, Architect
May 9, 1989
Page 3

11. Under no circumstances should fills be constructed anywhere on the slope. Surplus material (other than the small amount to be removed from local excavations) must be removed from the site to a remote disposal area.
12. All roof, yard, and other upland surface water must be directed to storm sewers or other approved disposal points. Under no circumstances should storm water be led into a subsurface drain system (such as dry wells, leach fields or foundation drains.)
13. We request that the final plans be submitted to us for review of the foundation design prior to their submittal to the Bureau of Building. We also request that we be given an opportunity to inspect the footing excavations prior to the placement of concrete.

We will be available for further consultation and inspection during remaining design and construction phases of this project.

Respectfully,
NORTHWEST TESTING LABORATORIES, INC.

Charles R. Lane

Charles R. Lane, P.E.
Vice-President

Report Number: 323620

