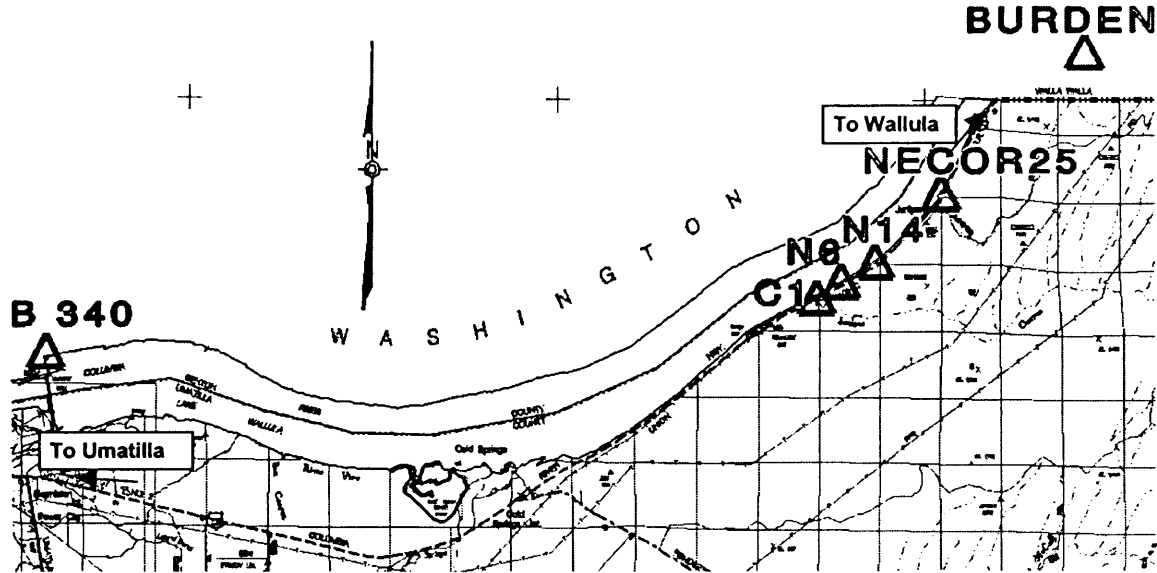


**OREGON DEPARTMENT OF TRANSPORTATION - GEOMETRONICS UNIT
 GEODETIC SURVEY REPORT**

200 Hawthorne Ave SE, Suite B-250 Salem, Oregon 97301-5001
 Phone: (503)986-3034 FAX: (503)986-3548

NETWORK SITE MAP

Δ - MONUMENT



NOT TO SCALE

NGS Accuracy Standard:

Horizontal: Group: C Order: 1 PPM: 10
 Vertical: Order: 3

Horizontal DATUM: NAD 83 (1991)

NGS HARN Point Values Used:

	LATITUDE	LONGITUDE	ELLIP. ELEV.
BURDEN:	46°02'14.92584"	118°40'10.61096"	113.921 m
B340 :	45°56'40.23457"	119°18'01.31790"	89.443 m

NARRATIVE: The purpose of this survey was to establish GPS stations for horizontal geodetic control for the Columbia River Rockfall Project Phase I. The survey was completed in October, 1997. GPS sessions were done using three Leica dual frequency receivers. The procedures used are from the recommended GPS guidelines in the Geometric Geodetic Accuracy Standards and Specifications For Using GPS Relative Positioning Techniques by the Federal Geodetic Control Committee. Washington HPGN control stations BURDEN, and B340, were the basis for processing this data. Orthometric elevations were determined for C1, N6 and N14 by third order differential leveling using benchmarks B338 and 521, USC&GS level line 85. Points N6, and N14 are Hub and Tack monuments but were used as control for construction. Data for this project is located in Control File 97-015 in the ODOT - GEOMETRONICS Unit, Salem, Oregon.

REGISTERED
 PROFESSIONAL
 LAND SURVEYOR

Waide B. Ansell

OREGON
 JUNE 30, 1997
 WAIDE B. ANSELL
 02837LS

RECEIVED BY

Umatilla County Surveyor

Exp. Date 12-31-99