Bonneville Power Administration
Geodetic Control Data Sheet

Station: B502 (257)
Project: Wallula-Smiths Harbor-McNary

Section: SW 1/4 14	Township: 7 North	Range: 31 East	Meridian: Willamette
County: Walla Walla	State: WA	USGS Quad: Wallula, Washington	
Surveyor: M R Heidecke		Date Surveyed: July, 2001	

Instrument:
The horizontal coordinates and orthometric elevation were established by GPS observations using six
Trimble 4000 SSI dual frequency receivers with Compact L1/L2 antennae with ground plane.

Adjustment:
The Basis of Coordinates for this survey is the Washington State Coordinate System, South Zone,
NAD 83 (1998). The horizontal component of the least squares adjustment was constrained by holding
NGS Stations B 340 (A), B 502 (B), PENDLETON (B), STANFIELD EAST BASE RESET (B), and BURDEN (B).
The vertical component of the least squares adjustment was constrained by holding NGS Benchmarks
B 340 (First Order Class II), B 502 (First Order Class II), BURDEN (Second Order Class II), V 203 (Second Order Class 0),
G 640 (First Order Class I). The elevation for point 106, 201, 249, and 255 were determined by differential leveling
from G 640, D 502, E 525 and F 431 respectively and held.

Horizontal Datum: NAD83 (1998)	Linear Unit: U.S. Survey Feet
Vertical Datum: NAVD88	Linear Unit: U.S. Survey Feet

Latitude: N 46-05-04.14212	Longitude: W 118-54-34.52079	
US State Plane Coordinate System:	Washington South Zone - 4602	
Northing: 277,985.953	Easting 2,043,948.214	
Orthometric Elevation: 368.12	Ellipsoid Height: 297.3	
Combined Factor: 0.99993834	Convergence: - 1-09-19	
Confidence: 95% Confidence ("1.96 Sigma") Values		
Northing-0.000	Easting-0.000	Elevation-0.000

Monumentation: 3/4" Stainless Steel Rod in U.S.C.&G.S. Monument Box
Stamping: B502, 1981

To-Reach Description:
See NGS data sheet for this station.