June 7, 2006

Paul Klein William Hawkins Architects 1425 SW 20<sup>th</sup> Ave Portland, Oregon 97201



## Inspection of Shearwalls 3425 SW Heather lane

Dear Paul:

I have been sent a copy of the City of Portland's building inspector report from 6/1/06. During the framing inspection, they had a few comments or corrections that they wanted the structural engineer to review. This letter documents my review of these issues.

2) At the new shearwalls that have the TDS tie-down system, the sill plate is a 2x. The drawings required a 3x or larger plate. I have been asked for input.

The building code (OSSC 2305.3.10) requires the 3x plate but does have an exception for 2x plates with loads less than 600 plf (ASD) to use 2x plates if the anchor bolts are doubled up and plate washers are used. We have more than 600 plf of force at the basement, however, the force from wind, not seismic. For wind, the code allows a 40% increase for shear capacities. Using this, we could justify the 2x plate with larger (2" x 2") washers are used. However, since the 2<sup>nd</sup> face of plywood is not on, a 2<sup>nd</sup> plate (blocking) should be added on top of the sill plate and nailed down with 10d nails at 4" o/c (at center of wall). The 2<sup>nd</sup> plywood sheet should have the bottom nails staggered between the two plates.

9) Clarify the load path from the TDS walls to the remainder of the structure.

The actual force to these shearwalls isn't that high, the walls are just short and tall. However, there should be a Simpson CS16 strap that aligns with the wall (next to the plate) and extends about 6 ft into the living room (or bedroom above) to help transfer the forces from the deck to the walls. (The strap would be about 10 ft long). This strap can be at the deck level under the plywood sheathing (subfloor).

If you have any questions on these items, please feel free to call and discuss.

Sincerely yours,

Peder Golberg, P.E., S.E. Principal



EXPINES: JUNE 30, 07