one element

$\phi(x)$

e_k

elementwise-linear reconstruction

node values, in this specific case on the cell boundaries

e_{k-1}

e_{k+1}

scaled basis

N_1 N_2

x_{i-2} x_{i-1} x_i x_{i+1} x_{i+2} x_{i+3}

when the x_i are used as nodes (so the boundaries of the elements) the reconstruction is continuous with the effective base functions being triangles over 2 cells