$$\mu_j \in V(\mathcal{K}_a^{el}) \implies \sigma_{i_{j+1}}(v^{\ell+1}) = \kappa_b^{\ell+1} \text{ and } \mu_j \in V(\mathcal{K}_a^{\ell+1}) \implies \sigma_{i_{j+1}}(v^{+1}) = \kappa_a^{\ell+1},$$