existse-before-iff[11,40]

$\forall es$:ES, e':E, P:($\{e$:E$|$ loc$(e) =$ loc$(e') \in$ Id$\} \to \mathbb{P}$).
$\exists e{<}e'.P(e) \iff ((\neg(\uparrow\text{first}(e')))$ c$\wedge$ $(P(\text{pred}(e')) \vee \exists e{<}\text{pred}(e').P(e)))$