Inference at $*$ 1 1 1 2 1
 of proof for Lemma comp_nat_ind_tp:

. . . . .wf. . . . . NILNIL

1. $P : \mathbb{N} \to \mathbb{P}\{\mathrm{k}\}$
2. $\forall i{:}\mathbb{N}.\ (\forall j{:}\mathbb{N}.\ (j < i) \Rightarrow P(j)) \Rightarrow P(i)$
3. $i : \mathbb{N}$

$\vdash (i + 1) \in \mathbb{N}$
 by ArithMemberReflEqTypeCD

 1:

 $\vdash (i + 1) \in \mathbb{Z}$
 2: . . . . .set predicate. . . . . NILNIL

 $\vdash 0 \leq (i + 1)$
 3: . . . . .wf. . . . . NILNIL

 4. $i_1 : \mathbb{Z}$
 $\vdash (0 \leq i_1) \in \mathrm{Type}$
 .

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http://www.nuprl.org/FDLcontent/p0_359040_/p121_94017_{comp_nat_ind_tp}1_1_1_2_1.html