```
nth_tl_wf  THM

⊢  ∀A:Type, as:A List, i:ℤ. nth_tl(i;as) ∈ A List  by UnivCD
|
1. A : Type
2. as : A List
3. i : ℤ
⊢  nth_tl(i;as) ∈ A List  by Decide (i≥0)
|
|\
| 4. i≥0
| ⊢  nth_tl(i;as) ∈ A List
| | by (MoveToConcl 2 THEN IntInd 2 THEN UnivCD) THEN (Try Arith)
| |
| |\
| | 2. 0≥0
| | 3. as : A List
| | ⊢  nth_tl(0;as) ∈ A List
| |   by RW (RecUnfoldC ‘nth_tl‘) 0 THEN SplitOnConclITE
| |
| .\
| . 2. i : ℤ
| . 3. 0<i
| . 4. i-1≥0 ⇒ (∀as:A List. nth_tl(i-1;as) ∈ A List)
| . 5. i≥0
| . 6. as : A List
| . ⊢  nth_tl(i;as) ∈ A List
| . | by RW (RecUnfoldC ‘nth_tl‘) 0 THEN SplitOnConclITE
| . |
| . |\
| . | .....truecase .....
| . | 7. i≤0
| . | ⊢  as ∈ A List  by Auto
| . |
| . .\
| . . .....falsecase .....
| . . 7. 0<i
| . . ⊢  nth_tl(i-1;tl(as)) ∈ A List  by BackThru 4
|
.\
. 4. ¬i≥0
. ⊢  nth_tl(i;as) ∈ A List
.   by RW (RecUnfoldC ‘nth_tl‘) 0 THEN SplitOnConclITE
END
```