$$\frac{(\!|\phi|\!)\ C_1;\ (\!|\eta|\!)\ C_2\ (\!|\psi|\!)}{(\!|\phi|\!)\ C_1;C_2\ (\!|\psi|\!)}\ \text{Composition}$$

$$\frac{}{(\!|\psi[E/x]|\!)\ x = E\ (\!|\psi|\!)}\ \text{Assignment}$$

$$\frac{(\!|\phi|\!)\ \texttt{if } B\ \{(\!|\phi\wedge B|\!)\ C_1\ (\!|\psi|\!)\}\ \texttt{else}\ \{(\!|\phi\wedge\neg B|\!)\ C_2\ (\!|\psi|\!)\}\ (\!|\psi|\!)}{(\!|\phi|\!)\ \texttt{if } B\ \{C_1\}\ \texttt{else}\ \{C_2\}\ (\!|\psi|\!)}\ \text{If-statement}$$

$$\frac{(\!|\psi|\!)\ \texttt{while } B\ \{(\!|\psi\wedge B|\!)\ C\ (\!|\psi|\!)\}\ (\!|\psi\wedge\neg B|\!)}{(\!|\psi|\!)\ \texttt{while } B\ \{C\}\ (\!|\psi\wedge\neg B|\!)}\ \text{Partial-while}$$

$$\frac{\vdash_{AR}\phi'\to\phi\quad (\!|\phi'|\!)(\!|\phi|\!)\ C\ (\!|\psi|\!)(\!|\psi'|\!)\quad \vdash_{AR}\psi\to\psi'}{(\!|\phi'|\!)\ C\ (\!|\psi'|\!)}\ \text{Implied}$$

Figure 4.1. Proof rules for partial correctness of Hoare triples. (Tableau form)