Stage 2 - BFS traversal starting at u_{low}

while Q *not empty* **do**

dequeue $v \leftarrow Q$;

for *all neighbor* w *of* v **do**

if $d[w] = (d[v] + 1)$ **then**

if $t[w] =$ *Not-Touched* **then**

enqueue $w \rightarrow Q_{BFS}$;

enqueue $w \rightarrow Q[d[w]]$;

$t[w] \leftarrow$ Down;

$d[w] \leftarrow d[v] + 1$;

$dP[w] \leftarrow dP[v]$;

else

$dP[w] \leftarrow dP[w] + dP[v]$;

$\hat{\sigma}[w] \leftarrow \hat{\sigma}[w] + dP[v]$;