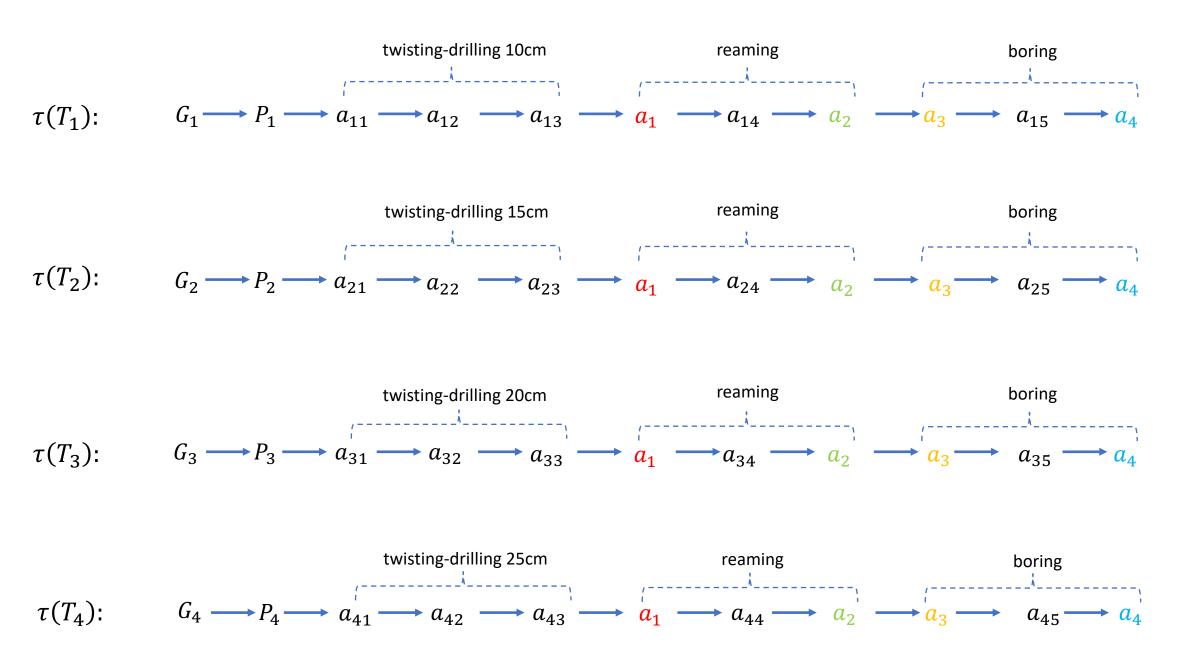
	Operation 1	Operation 2	Operation 3
block 1	twisting-drilling 10cm	reaming	boring
block 2	twisting-drilling 15cm	reaming	boring
block 3	twisting-drilling 20cm	reaming	boring
block 4	twisting-drilling 25cm	reaming	boring





 $a_1$ 

$$(\{a_{13}, a_{23}\} \rightarrow \{a_1 - P_1, a_1 - P_2\}) \qquad (\{a_{23}, a_{33}\} \rightarrow \{a_1 - P_2, a_1 - P_3\})$$

$$(\{a_{13}, a_{33}\} \rightarrow \{a_1 - P_1, a_1 - P_3\}) \qquad (\{a_{23}, a_{43}\} \rightarrow \{a_1 - P_2, a_1 - P_4\})$$

$$(\{a_{13}, a_{43}\} \rightarrow \{a_1 - P_1, a_1 - P_4\}) \qquad (\{a_{33}, a_{43}\} \rightarrow \{a_1 - P_3, a_1 - P_4\})$$

$$(\{a_{13}, a_{23}, a_{33}\} \rightarrow \{a_1 - P_1, a_1 - P_2, a_1 - P_3\}) \qquad (\{a_{13}, a_{33}, a_{43}\} \rightarrow \{a_1 - P_1, a_1 - P_3, a_1 - P_4\})$$

$$(\{a_{13}, a_{23}, a_{43}\} \rightarrow \{a_1 - P_1, a_1 - P_2, a_1 - P_4\}) \qquad (\{a_{23}, a_{33}, a_{43}\} \rightarrow \{a_1 - P_2, a_1 - P_3, a_1 - P_4\})$$

$$(\{a_{13}, a_{23}, a_{33}, a_{43}\} \rightarrow \{a_1 - P_1, a_1 - P_2, a_1 - P_3, a_1 - P_4\})$$

## Result from Fast-forward planner

