

as on Feb. 12 to 14. This will require center line cuttings along the line staked out as follows.

No. of Sta.	Cent. in ft. & decimals	No. of Sta.	Cent. in ft. & decimals	No. of Sta.	Cent. in ft. & decimals	No. of Sta.	Cent. in ft. & decimals	No. of Sta.	Cent. in ft. & decimals
1	16.01	8	21.66	15	19.81	22	17.23	29	7.12
2	15.20	9	21.03	16	20.71	23	15.88	30	7.12
3	19.75	10	20.70	17	20.71	24	17.18	31	7.54
4	22.54	11	20.19	18	19.35	25	15.54	32	8.27
5	22.94	12	19.42	19	18.72	26	14.29	33	8.09
6	23.03	13	19.23	20	18.08	27	13.47		
7	22.32	14	19.56	21	17.59	28	13.22		

The Sta. are numbered from the bank of the river above the dam, they are 66 ft. apart. Sta. 1 being 66 ft. from the bank of the river. The capacity of the tail race for discharging the water vented from the wheel should be equal to that of the head race, in delivering it to the wheel, the flume should be of ample size, the bed of the wheel pit should be about 6 ft. below the bottom of the cylinder of the wheel, & this depth should be continued in the tail race, for a distance of about 12 ft. down stream from the wheel house, & then be gradually inclined upward to meet the bed of the tail race proper. If you maintain a head of 13 ft. raising the pond by means of flash boards, & by lowering the water in the river at the tail race discharge, by blasting out & lowering the bed at the rapids below, & tighten the dam so as to secure the full flow of the river into the head race, at a low stage of water in the river & make the head & tail races, flume & wheel pit ample as above set forth, I am satisfied that you can successfully & continuously operate a flouring mill of 500 barrels capacity in 24 hours. This statement is made upon the basis of modern first-class Turbine water wheel being used. The only contingency which I can foresee, which may militate against the delivery of the full volume of water through the head race to the wheels, is that the bottom portion of the head race will likely be in gravel, permitting the percolation of water, from it to the lower level of the river below the dam. This I think would not be