Ralphs Grocery Company

5241 Warner Ave

Huntington Beach, CA 92649

**Dear Ralph’s:**

Over the last few weeks, the Vento Group designed a queue simulation to emulate store traffic and find the investment sweet spot for Ralph’s. We ran hundreds of scenarios and found the following to be the most informational:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Average Wait (min) | Customers Served | Customers Still Being Served | Customers Still Waiting |
| 6 Lanes 6 min Trans Time  188 Customers | 0.00 | 188 | 0 | 0 |
| 6 Lanes 8 min Trans Time  238 Customers | 0.01 | 237 | 1 | 0 |
| 6 Lanes 10 min Trans Time  449 Customers | 0.31 | 446 | 3 | 0 |
| 6 Lanes 10 min Trans Time  695 Customers | 37.22 | 640 | 6 | 49 |
| 7 Lanes 10 min Trans Time  695 Customers | 1.32 | 688 | 7 | 0 |
| 6 or 7 Lanes 6 min Trans Time  1080 Customers | 0.00 | 1074 | 6 | 0 |

Note: All simulations operated on the assumption of an 18-hour store operating period.

From the data above, you can see that overhauling as few as 6 lanes with robots would all but eliminate wait times under any circumstance besides one in which a new customer is coming in every other minute and spending an inordinate amount of time checking out. Under intense pressure like the COVID-19 pandemic where your stores are overwhelmed, simply adding a 7th lane cuts the wait time 99.6%! And under realistic transaction times (we found that to be around 6 minutes even with inefficient human cashiers at your stores), even the most intense traffic where a new customer enters every minute does not manage to overwhelm the system.

In a world where future pandemics seem to be looming as this virus continues to linger and the world becomes increasingly more prone to new pathogens, a system like this is all but essential to ensure stores do not get overwhelmed. Without it, Ralph’s will have to go on hiring sprees every time a new threat arrives: spending millions more on people than our system would require.

The Vento Group has found this system to be a massive success and to monumentally increase productivity and decrease traffic. Without a doubt, this would be the best way to save millions on labor, increase throughput, and promote public safety in these trying times.

Kind Regards,

Jack Vento

CEO, The Vento Group