

Why isolate the neutral in a sub panel?...

The neutral is only bonded to ground at your service panel. At all other points throughout your house, there is no connection between the bare (or green) grounding conductor and the white neutral conductor. Under normal conditions, the grounding conductor carries no current. No current means there is no voltage drop along it, therefore anything "grounded" to this conductor is at the same potential (voltage) as ground. If you bond the neutral and ground at the sub panel, then stray currents from the neutral return could go thru the equipment ground on the electrical devices fed from this sub panel. If you isolate the neutral and ground at the sub panel, then any currents would go back to the main panel and go to the service ground. The main panel is where the neutral and equipment ground should be bonded.

If you install a sub panel outside the building from the main panel, then you will need to drive a ground rod at this panel. A single branch circuit run to another building is not considered a sub panel.