

# WHAT SNOW TEACHES US ABOUT ROADS



Snow on a corner.

One thing I look forward to every winter is seeing where snow builds up in the roadways, effectively making that portion of the roadway unusable for several months until the spring thaw. I love that snow teaches us where people are driving, where they aren't driving, and leaves evidence of them driving where they shouldn't be.

After it snows, there is a ritual as old as time itself. Snow plow drivers clear the streets and push the snow up onto the sidewalks and into peoples driveways. Then homeowners shovel the snow back out into the street just in time for the plows to come back for their second pass. Where the piles of unwanted snow will end up is a fun game enjoyed by shovelers and plowers everywhere. Some of it invariably ends up staying in the street, as we reach an unspoken compromise. Sidewalks and roadways alike become several feet narrower, and we all carry on.

Which isn't to say that there aren't impacts. I recall the winter of 2010 where the snow drifts along Lake Street (I remember Midtown especially well, but it was probably the same elsewhere) became so large that what was normally a four-lane roadway effectively became a two-lane roadway. I thought it still operated fine (better almost), although I'm sure I never saw the most congested times. The parking lanes became so full of snow that they were unusable, but it didn't stop people from parking, they just parked in the roadway.

In Minnesota, where we can generally count on a couple feet of snow each winter (though global warming may change this), it behooves us to plan ahead for snow storage, and to account for it in the

design of our roadways and public spaces. Generally, this is best accomplished with a generous boulevard between the curb and the sidewalk. Most of the residential streets in Minneapolis were constructed with a 6-8 foot boulevard, which can accommodate quite a bit of snow. However, in some other communities where sidewalks are constructed immediately adjacent to the curb, snow storage can become a real problem. Simply put, given the inevitable need for snow storage along Minnesota roadways, sidewalks constructed immediately adjacent to the curb are problematic, unless other arrangements for snow storage have been made.

However, even in areas with generous boulevards, some amount of snow always remains in the street. A 10' snow plow is not exactly a precision tool, and the benefits of trying to clear all the way to the curb might be offset by the costs associated with replacing a bunch of curb sections broken by plow drivers who missed the mark. Generally, losing a foot or two (or five or six) of roadway width doesn't really tend to have much impact on traffic or our ability to drive where we want.

Which forces the question, if we can give up several feet of roadway width for a few months each year and it's not really a problem, does that mean our roadways were overdesigned from the start? Should we have just constructed it a few feet narrower to begin with?

Of course, many will recall that planning for snow storage in the road is already a generally accepted practice. In Minneapolis, the original proposed design for the reconstructed Nicollet Avenue was several feet narrower than the final design. The reason for increasing the width of the roadway was in part due to business owners being worried that snow storage would make on-street parking impossible (or at least unpleasant) for several months every year. Essentially, we purposely build the roadway wider than it needed to be so that we could use a portion of it for snow storage. But given that roadways are not cheap (or generally attractive compared to boulevards), is this the best way to plan for snow storage?

I snapped the photos in this post one morning along my bicycle commute to work. In each of them, the street corners are surrounded by a buffer of several feet of snow and ice. Where the snow remains allow us to identify space that (apparently) isn't necessary for the movement of vehicles. People still drive and park along these roadways (and enjoy an acceptable quality of life, I presume) despite the fact that they are now a few feet narrower than originally designed. Even trucks and buses can still (apparently) navigate the streets just fine.



Snow on a corner at the intersection with a one-way street.



Snow on a corner.



Snow on a corner.



Snow on a corner.



Snow on a corner.



Snow next to Pork Chop island on a freeway on-ramp.

We could build smaller roads and larger boulevards, which would be cheaper, but then we'd have to be more accurate with our plowing (which may not really be possible).

Source : <http://streets.mn/2013/01/09/what-snow-teaches-us-about-roads/>