

Here's How We Fight Winter's Woes

"Some, but not all, of winter's impact upon the highways, roads and streets can be fought successfully by Oakland County Road Commission crews," according to John L. Grubba, Managing Director.

"High winds and extremely low temperatures simply overrode all of our efforts during one storm during the Winter of 1977-78," he said.

"That particular storm was battled by full crews from midnight to 7 p.m., well over the 16-hour limit desirable for continuous work.

"But winds simply blew the snow back onto the roadway. Slush formed by the salt we applied quickly refroze in the subzero temperatures," said Grubba.

He said, "Salt is useless below zero. At five degrees above zero its effect is so minimized that usually the pavement reglazes before the ice melt can run off. To give a further idea of salt's limitations, consider that one pound of salt will melt 46 pounds of ice at 30 degrees, only 14 pounds of ice at 25 degrees and only five pounds of ice at 10 degrees.

"During 1977 we required 44,359 tons of de-icing salt, or enough to melt 3.1 billion pounds of ice at 30 degrees. The cost for salt alone exceeded one-half million dollars."

Grubba said up to 278 tons of

salt per hour can be spread on the 1,393 miles of critical and priority routes on the county and state trunkline road system in Oakland County. "That means this winter cost of salt alone can run as high as \$3,600 per hour.

"Add that to the cost of equipment and crews, and costs can run as high as \$7,028 per hour during regular working hours, up to \$7,432 per hour on overtime and up to \$7,717 per hour on holidays," he said.

"We can put up to 83 salt trucks on the road at a cost of \$19 per hour each, or \$1,577 per hour combined. For plowing, we can muster up to 135 pieces of equipment at a cost of \$23 each or \$3,100 per hour combined," said Grubba.

"All-out salting requires 95 persons, counting supervisory and loading employees. All-out plowing requires 147 persons. Wages and fringe benefits per employee average \$12.75 per hour on regular time, \$17 per hour on overtime and \$20 per hour on holidays. That means total employee costs can be up to \$1,211 per hour for salting on regular time to \$2,940 per hour for plowing on holiday time in an all-out effort," he said.

He said the general procedure is to salt until one inch of snow accumulates; then plow and resalt

critical and priority routes as necessary.

Grubba said only 1,393 miles of critical and priority routes are manned during holidays and during overtime hours (before 7:30 a.m. and after 3:30 p.m. weekdays) although 2,672 miles of county and trunkline roads require maintenance.

The critical routes total 394 miles of state and county roads with more than 40,000 vehicles per day of travel, he said. "These are manned at forecast of snow or bad conditions with the objective of achieving 75 percent bare pavement, particularly for rush hours," he said, noting that trunklines not included in this "critical" category are I-75 north of Baldwin Road, M-24, M-15, M-59 and I-96 south of I-696.

"Priority I routes totalling 880 miles are manned when snow begins, with the objective of achieving clear wheel tracks," said Grubba. These routes are roads with 5,000 to 40,000 vehicles per day, including the remainder of freeways and state trunklines."

"Priority II routes, which include most of the through roads in the northwest quarter of the county, are manned variously according to conditions. There are 108 miles of such roads.

"The only other routes manned on overtime are about 10 miles of local and subdivision streets that serve schools or are collector roads.

"Other roads are manned only on regular time, and in most instances subdivision streets can't be reached until two or three days after the brunt of a storm," said Grubba.

He said the available snow-fighting equipment is distributed around the county in six maintenance districts, and that each salt truck is assigned to critical and priority routes that each take between two and three hours to complete.

He said, "The Road Commission maintains state trunklines by contract with the Michigan Department of State Highways and Transportation. Cities and Villages maintain their own roads, although through routes in most cities are state trunklines or county roads. A few cities maintain some or all county roads in their boundaries by contract with us."

"Red Alert" Means Roads Being Drifted

The "Blizzard of '78" forced the first "Red Alert" ever in the history of Oakland County.

That meant, under a system set up by the Michigan State Police and Michigan Department of State Highways and Transportation, that "motorists (were) urged to curtail driving unless of an emergency requirement."

The Red Alert was declared at 2 p.m. Thursday, January 26 and continued through 6 p.m. Sunday, January 29. It received widespread notice throughout the news media and cooperation of the public despite its novelty.

Without such cooperation, the already-frustrated efforts to remove snow and ice from the freeways, state trunklines and county primary and local roads would have been much worse," said Oakland County Highway Engineer Paul Van Roekel.

Two other situations are provided for in the system. One is a "Condition Yellow," in which drivers are urged to use caution. This advisory is seldom officially issued because it applies to virtually every winter storm.

The other is "Condition Red," in which roads are closed and motorists are advised to stay out of the area until further notice.

A "Red Alert" is appropriate when a storm is expected to continue with increasing drifting conditions stalling traffic, which was certainly the situation faced shortly after noon January 26.

A "Condition Red" is appropriate when there is a high probability that roads will be ultimately blocked and many motorists stranded.

Township Levy Of Millage Can Help Roads

Yes, roads in some townships do get better care than roads in other townships.

The reason is simple. Some townships have levied a special millage for roads and are able to provide greater matching funds to enable construction projects or elect to maintain their roads under contract with the Road Commission.

Commerce Township is currently using its third consecutive five-year locally-voted millage for construction projects. As a result, that township has 76 percent of its roads paved, compared to a countywide average of only 48 percent of the county roads in townships being paved.

Bloomfield Township uses its locally-voted millage to maintain county local roads year-around and thus increases the maintenance by one-third as compared to what the Road Commission could do in allocating maintenance costs throughout the county.

Highland Township levies a millage for road construction, with which it provides the local 50 percent matching share of county local road construction costs.

Avon Township levies a millage for dust-control calcium chloride and other road maintenance purposes.



SNOWPLOWING was a job like this during the Blizzard of '78.

Sand Use Problems Cited

Some subdivision residents have wondered aloud why sand spread on their streets during last Winter's severe icing conditions wasn't swept away sooner after Spring thaws.

The answer is two-fold. One reason is that such residue sand not washed away by rains generally presents only an appearance problem, which is much lower priority than safety considerations involved in such things as pothole patching, edge rut repairs, shoulder repairs and the like.

Secondly, available equipment hasn't been adequate to keep up with sweeping requirements of the

entire road system. More sand was used last Winter than ever throughout the county road system. Main travelled roads must be swept before subdivisions.

Compounding the problem has been equipment breakdowns and long waits for parts from the manufacturers. Between April 1 and August 1, only four of six curb sweepers were available at any time for this reason.

Steps are being taken, said Maintenance Director William "Bert" Mercer, to overcome the problem. Two of the existing six sweepers are being replaced and two additional sweepers are being purchased.