ORDINANCE ESTABLISHING ROAD STANDARDS
Ordinance No. 12-03

The Town Board of the Town of Lanark, Portage County, Wisconsin, do ordain as follows:

Section One: Title/Purpose.

This Ordinance is entitled "Ordinance Establishing Road Standards". The purpose of this Ordinance is to establish minimum design standards for the improvement of existing town roads and new construction of roads within the town. It will also provide for the safe and efficient movement of vehicular traffic, to provide the proper location and width of roads and guide the orderly layout and use of land in the town.

Section Two: Authority.

The Town Board of the Town of Lanark has the specific authority, powers and duties pursuant to Sec. 60.50, Sec. 80, Sec. 81 and Sec. 236.45 (2001-2002 Wis. Stats.) and by the Town of Lanark's general authority pursuant to its adoption of Village powers pursuant to Sec. 60.10 2 (c) Wis. Stats.

Section Three: Adoption of Ordinance.

The Town Board of the Town of Lanark has, by adoption of this ordinance, confirmed the specific authority, powers and duties noted in this ordinance an has established by this ordinance the means to establish road standards.

Section Four: Definitions.

a. "Average Daily Traffic" or "ADT" means the total traffic volume during a stated period divided by the number of days in that stated period; unless otherwise specified, that stated period is one year.
b. "Bridge rehabilitation" means the preservation or restoration of the structural integrity of an existing bridge as well as work to correct safety defects.
c. Bridge replacement" means building a new bridge to replace an existing bridge.
d. "Cul-de-sac" means a local road with only one outlet and having a single terminal for the safe and convenient reversal of traffic movement.
e. "Design speed" means the maximum safe speed that can be maintained over a specified section of a highway when conditions are so favorable that the design features of the highway govern.
f. "Improvement" means a town road construction project with a projected design life of at least 10 years.
g. "Load posted" means the placement of regulatory signs at a bridge indicating the safe load carrying capacity of the bridge.
h. "Recondition" means work in addition to resurfacing, and includes pavement widening, shoulder paving, correction of drainage problems and improvement of an isolated grade, curve, intersection or correction of a sight distance problem to improve safety.
i. "Reconstruction" means total rebuilding of an existing town road to improve maintainability, safety, geometrics and traffic service.
j. "Right-of-way" means that strip of land occupied or intended to be occupied by a road, railroad, and utility line or for other special purposes, and normally requiring public dedication where public maintenance is involved.
k. "Roadway" means the portion of a highway, including shoulders, for vehicular use.
L "Shoulder" means the portion of the roadway that is contiguous to the traveled way and is used primarily for vehicular stopping in an emergency.
m. "Subdivider" means a landowner or his agent who causes any portion of land to be divided into a subdivision.
n. "Subdivision" means the division of land into two (2) or more lots, parcels or tracts by the subdivider within a five-year period.
o. "Traveled way" means the portion of the roadway designed for movement of vehicles exclusive of the shoulders.
p. "Usable bridge width" means the clear width between curbs or rails, whichever is less. q. Undefined terms will have the ordinary meaning of the term apply unless the context clearly indicates a different meaning is intended. If a question arises as to the meaning of a term used, the Town Board's definition takes precedence.

Section Five: Design Standards.

a. For **new construction** on town roads and structures existing after October 1, 1992 the following Wisconsin Department of Transportation standards as per Wis. Stats. 86.26 and in Chapter Trans 214 shall apply. Standards set under e. I through 7 shall also apply to all roads constructed by the town. (See Appendix A - Minimum Design Standards for Town Roads)

b. For **reconstruction** of town roads the following standards set by the Wisconsin Administrative Code Chapter Trans 204 shall apply.

RECONSTRUCTION

TRAFFIC VOLUME			ROADWAY WIDTH DIMENSIONS IN FEET		
Design Class	Current ADT	Design Speed MPH	Traveled Way	Shoulder	Roadway
T1	Under 250	40	20	3	26
T2	250 - 750	50	22	4	30
T3	Over 750	55	24	6	36

c For **resurfacing and reconditioning** of town roads the following standards set by the Wisconsin Administrative Code Chapter Trans 204 shall apply.

RESURFACING AND RECONDITIONING

TRAFFIC VOLUME			ROADWAY WIDTH DIMENSIONS IN FEET		
Design Class	Current ADT	Design Speed MPH	Traveled Way	Shoulder	Roadway
TR1	Under 250	-	18	2	22
TR2	250 - 400	40	2D	2	24
TR3	401 - 750	50	22	2	26
TR4	Over 750	55	22	4	30

d. For **existing town bridges** the minimum design standards as set by the Wisconsin Administrative Code Chapter Trans 204 shall apply. Bridge replacement, rehabilitation or widening is required where a bridge is either load posted or has a usable width that is less than the traveled width. Bridge replacement or widening should be evaluated if the usable bridge width is less that the values shown. If widening of the traveled way is planned as part of the town road improvement, the usable bridge width should be compared to the approaches after they are widened to determine whether or not bridge replacement or widening should be evaluated.

EXISTING BRIDGES

CURRENT TRAFFIC VOLUME ADT	USABLE BRIDGE WIDTH
Under 400 •	Traveled way
400 - 750	Traveled way plus 1 foot each side
Over 750	Traveled way plus 2 feet each side

e. **Subdivision Plats:** All major or minor subdivisions created by platting or certified survey maps, which involve the dedication and creation of new roads in the Town, shall be subject to the improvements as required herein. Such improvements shall be the financial responsibility of the subdivider. Prior to final approval of any such major or minor subdivision, the subdivider shall enter into a Road Development Contract with the town specifying the required improvements, estimates of the cost and other data and information deemed necessary to determine the character of such proposed improvements and shall file with said contract a surety bond or make other financial arrangements with the Town Board guaranteeing the completion of such improvements. Such surety shall provide for one hundred ten percent (110%) of the cost of the required improvements. If a surety performance bond is furnished, all required improvements must be completed within one (1) year from approval of the final plat. If not so completed and unless good cause can be shown for granting an extension of time, the Town Board, at its option,

may cause all the uncompleted work to be constructed, and the parties executing the bond shall be firmly bound for the payment of all necessary costs thereof. The Town Treasurer shall return the bond to the subdivider upon the completion and acceptance of required improvements, at which time a one (1) year maintenance guarantee bond must be filed guaranteeing the timely repair of any defects that may occur in the ensuing year.

1. **Road Design and Location.** Public roads shall be designed and located to take into account:
   A) Existing and planned roads, particularly as shown on any official road map;
   B) Topographic conditions including the bearing capacity and erosion potential of the soil;
   C) Public convenience and safety including facilitating fire protection, snow plowing and pedestrian traffic;
   D) The proposed uses of land to be served;
   E) Anticipated traffic volumes; and
   F) Further resubdivision possibilities.
2. **Construction Standards.** Town roads shall provide pavement widths and shoulders as specified in Section Five a. above. The road base shall be free of stumps and large stones or boulders. Road crowns should be '/4" higher than the shoulder for each foot of width from the centerline to the edge with shoulders also sloping away from the road. All roads shall be graded to their full width, including side slopes, and to the appropriate sub-grade, and the roadbed surfaced with road gravel that is compacted in accordance with standard road construction practices to a depth of four (4) inches. No obstruction of rocks, trees or brush shall be within a twelve (12) foot clearance area from the paved surface to allow for mowing and snow removal. There shall be a minimum vertical clear zone of sixteen (16) feet above the traveled roadway and road shoulders. The compacted gravel road base must be left at a minimum time over the winter prior to paving. The traveled roadway shall be surfaced with two (2) inches of compacted hot bituminous substance (black˙topping), all in accordance with applicable specifications of the Town. Road shoulders shall be surfaced with compacted gravel within thirty (30) days after the laying of the bituminous hot mix. Graded and other disturbed areas outside the roadway shall be suitably seeded and mulched or sod laid, with adequate topsoil if necessary, in order to provide protection from erosion.

   Dead-ends and cul-de-sacs are discouraged in the planning and construction of roads. Such road terminations shall have a one hundred twenty (120) foot right-of-way with a minimum one hundred (100) foot paved area for adequate turning for maintenance vehicles and school buses and three (3) foot shoulders. In addition, cul-de-sacs shall have a maximum length of one thousand (1,000) feet. The length shall be measured from the farthest point of the turnaround right-of-way to the right-of-way of the nearest connecting through road. The subdivider shall work with the town in designing adequate area for snow removal and placement in cul-de-sacs.

3. **Access Points.** On town roads, driveways shall be constructed as per Town Ordinance No. 9-98 titled "Driveway Zoning Ordinance".
4. **Road Intersections.** Roads shall intersect each other at as nearly right angles as topography and other limiting factors of good design permit, as determined by the Town board. Where roads do not intersect as right angles, the minimum angle of intersection shall not be less than 60*. In order to avoid dangerous jogs, roads should be designed to intersect directly opposite each other or to have a minimum centerline offset of one hundred twenty-five (125) feet, unless a greater separation is deemed necessary by the town board.
5. **Road drainage.** All necessary facilities such as culverts and road ditches shall be installed sufficiently to prevent the collection of surface water in any low spot and to maintain any natural watercourse. Drainage facilities satisfactory to the Town Board shall be provided for the ends of all cul-de-sacs and dead-end streets.
6. **Road signage.** All roads shall be named and designated by appropriate signs at all intersections of the proposed plat or certified survey map. There shall be no duplication of the name of any road heretofore used in the Town or in Portage County, unless the road is an extension of an already existing road, in which case the road name shall be used. Road names are subject to approval by the Town Board. Road name and regulatory signs shall conform to materials and be placed in a manner approved by the Town Board in conjunction with the Manual on Uniform Traffic Control Devices with the Wisconsin Supplement. The Town will supply these signs and install them at the expense of the developer.

7. **Inspection.** The Town of Lanark will inspect the construction of the road at all stages:
   A) On site inspection by the Town's designated personnel.
   B) Base inspection.
   C) Base course inspection-crushed aggregate.
   D) Asphalt surface.
   E) Shoulder course.
   F) Any additions or changes to the road will be reviewed.
   G) Bore samples may be taken, and if the construction does not meet standard road specification design, the Town of Lanark may not accept it as a Town Road.

f. **Other Provisions.** No road or way of travel shall be dedicated, donated or granted to the Town, either within a subdivision or without, unless the same is in compliance with the provisions herein set forth. The Town Board may, but shall not be required to waive all or a part of the requirements.

g. Utility **Easements.** All roads and driveways are subject to utility easements within the road right-of-way.
   1. Utilities are encouraged to bury their lines a minimum of ten (10) feet from the traveled road surface and a minimum of two (2) feet deep.
   2. Power utility poles are to be placed as close as possible to the outer most section of the Town right-of-way.
   3. Utilities are requested to contact the Town of Lanark Chairperson prior to locating of where utilities are being laid.

Section Six: Enforcement.

The Town of Lanark shall, by proper legal proceedings, including injunction relief, enforce this Ordinance.

Section Seven: Severability.

If any section, provision of portion of this Ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this Ordinance shall not be affected thereby.

Section Eight: Effective Date.

This Ordinance shall be effective after adoption by the Town Board and publication or posting as provided by law.

Adopted: December 8, 2003
Posted: January 7, 2004

MINIMUM DESIGN STANDARDS FOR TOWN ROADS (NEW CONSTRUCTION ONLY)

DESIGN CLASS	TRAFFIC VOLUME	ROADWAY							STRUCTURE	
	ADT CURRENT	ROADWAY WIDTH	SURFACING WIDTH	MINIMUM SHOULDER WIDTH.	HORIZONTAL CURVE		% GRADE		HIGHWAY LOAD	CLEAR RDWY. WIDTH FOR STRUCTURES FT. **
					DES. MAX.	MAX.	DES MAX	MAX		
T 1	Local service intermittent traffic	20', *22' (6.6 m)	16', *18' (5.4 m)	2' (0.6 m)					H 15 *(HS 20) (MS18)	24' (7.2 m)
T 2	Under 100	24' (7.2 m)	18' (5.4 m)	3' (0.9 m)			9	11	H 15 *(HS 20) (MS18)	24' (7.2 m)
T 3	100-250	26' (7.8 m)	20' (6.0 m)	3' (0.9 m)			8	11	H 15 *(HS 20) (MS18)	24' (7.2 m)
T 4	251-400	32' (9.6 m)	22' (6.6 m)	5' (1.5 m)	6• (290 mR)	12.25• (140 mR)	6	8	H 20 *(HS 20) (MS18)	26' (7.8 m)
T 5	401-1000	34' (10.2 m)	22' (6.6 m)	6' (1.8 m)	5• (350 mR)	12.25• (140 mR)	5	8	H 20 *(HS 20) (MS18)	28' (8.4 m)
T 6	1001-2400	44' (13.2 m)	24' (7.2 m)	10' (3.0 m)	4.5• (390 mR)	7.5• (235 mR)	5	7	H 20 *(HS 20) (MS18)	30' (9.0 m)
T 7	Over 2400	USE STATE TRUNK STANDARDS								

* These design values shall be used for Projects involving Federal Aid.

** For Federal-aid funded Projects with a design hourly volume greater than 400, the clear roadway width for structures shall equal the approach roadway width.

Source: Section 86.26 (1) Wisconsin Statutes Except Maximum Horizontal Curve Values are from Table V-6, Page 424, GDHS

See Procedure 11-1-2 for guidance on how to obtain authorization to use the metric standards above.