

## Chapter 13

### ROAD CONSTRUCTION

#### HISTORY:

At the annual meeting 4-12-08 the Town of Oak Grove Board approved the inclusion of Ordinance 2008-04 in the General Code of the Town of Oak Grove, This inclusion is published in Chapter 13 and amends Chapter 13.02(g), Town acceptance of Road. Also amended by Ordinance 2008-4 is Chapter 18.05(2) (m) Roads in residential subdivision, 18.05(2) (n) Road Construction standards, 18.05(7)(b) Lot dimensions, 18.05(7)(d) Access to street.

At the regular meeting 6-19-06 the Town of Oak Grove Board approved the inclusion in the General Code of the Town of Oak Grove a previously approved motion stating Access roads which serve (3) or more residences must meet road standards specified in Chapter 13, (Road Construction), of this manual. This inclusion is published in Chapter 13.015, Chapter 14.17. (1.5) and Chapter 18.05.7.d

Sec. 13.01. Statement of purpose.

Sec. 13.015. Applicability

Sec. 13.02. Procedures.

Sec. 13.03. Design, material, and construction standards for town roads.

Sec. 13.04. Conflict with other ordinances.

Sec. 13.05. Severability.

Sec. 13.06. Violation of this chapter.

**Sec. 13.01. Statement of purpose.**

The purpose of this ordinance is to establish procedures and standards for constructing roads within the Town of Oak Grove.  
(Ord. of 11-15-99)

**Sec.13.015. Applicability**

Road Construction as defined in this Chapter is applicable to all public access roads serving (3) or more residences or businesses.

**Sec. 13.02. Procedures.**

(a) *Concept and road plan.* No construction shall commence on any roadway or thoroughfare intended for public travel or use until a concept plan and road plan has been approved by the Board of Supervisors of Oak Grove Township. The concept plan shall show the location and design of the proposed roadway and the layout of any lots/parcels the roadway is intended to serve. The road plan shall conform in all respects to the specifications established by this ordinance and to the requirements of any applicable town and county ordinances, including but not limited to town and county subdivision ordinances. The road plan shall be certified by a registered professional engineer. A soils report shall be submitted along with the road plan. The soils report shall be prepared by a registered professional soils engineer and shall include an analysis of the street sub grade material. Where town and county ordinances conflict, the more restrictive requirements shall apply.

(b) *Compliance with all requirements of state law, Pierce County, and Oak Grove ordinances.* No person shall excavate, move dirt, or commence work of any kind related to the construction of a roadway which is intended for public use or which is intended to serve a subdivision as defined in the Pierce County Subdivision Ordinance until all applicable requirements, procedures, and/or approvals required under state law, and Pierce county and town ordinances have been complied with.

(c) *Exceptions to rules.* Where the town board finds that undue difficulties will result from strict compliance with the regulations of this ordinance or better design will result, it may vary the regulations so that substantial justice may be done and the public interest secured, provided that such rule exception will not have the effect of nullifying the intent and purpose of this chapter.

(d) *Construction schedule.* Notification to township of construction schedule. A minimum 48-hour notice to the town engineer shall be provided prior to the commencement of any construction.

(e) *Preconstruction conference.* A preconstruction conference shall be held at a designated meeting place, or at the site with the town's representatives prior to the commencement of any construction.



- (f) *Inspections.* Each course of the road shall be inspected and approved by the Town Engineer prior to construction of the next course. All costs incurred for inspections will be paid by the developer. The Town Board and/or the Town Engineer shall not inspect any roadway unless all procedures required under town and county ordinances have been complied with.
- (g) *Town acceptance of road.* Upon completion of the road construction, the developer shall provide the town engineer a written notification that all work has been completed. The town will then complete a final inspection of the project and will notify the developer of any deficiencies. For roads proposed to be or shown on the plat or certified survey map to be dedicated to the public, upon completion of all work required by the town or county ordinances, the developer shall furnish the Town a two-year letter of credit or other surety satisfactory to the Town guaranteeing said work to the Town. The letter of credit shall name the Town of Oak Grove as its beneficiary and shall go into effect on the date which the Town Board accepts the improvements for continual maintenance by the Town.

**Sec. 13.03. Design, material, and construction standards for town roads.**

- (a) *General design criteria for streets.* The typical street section, as shown on the attached drawing (Exhibit A), is to be used as a minimum design section. Each street section shall be designed by a professional engineer, registered in the State of Wisconsin. The section design shall be based on:
  - (1) The quality of the subgrade soils;
  - (2) The anticipated vehicular traffic, including construction traffic;
  - (3) A 20-year design period.

Other design standards include:

- (1) Twelve percent maximum street grade;
  - (2) Five-tenths percent minimum street grade;
  - (3) One percent minimum ditch grade;
  - (4) All cul de sacs to have a 50-foot bituminous radius with a two-foot shoulder;
  - (5) Horizontal and vertical curves to be based on a 30 miles per hour design unless otherwise specified by the engineer.
- (b) *Existing underground utilities.* It is the contractor's responsibility to ascertain the final locations of all underground utilities and to notify the utility companies when construction commences in each area.

- (5) Bituminous wear course mixture—Shall meet the requirements of WI/DOT 405. The bituminous material shall be AC with a penetration of 120-150.

(d) *Construction requirements.*

- (1) Roadway excavation and embankment construction—Shall conform with WI/DOT 205 and WI/DOT 207. Where suitable material exists, it shall be excavated and used as embankment elsewhere on the project. The embankment material shall be at a minimum compacted in accordance to the "standard compaction method." At the request of the town, the contractor shall provide compaction in accordance to the special compaction method. Minimum allowable density for roadway embankment construction to within three feet of subgrade shall be 95 percent of standard proctor density. Roadway embankments placed within three feet of subgrade shall be compacted to a minimum of 100 percent standard proctor density. The finish subgrade surface shall not vary more than 0.05 foot above or 0.10 foot below the elevation prescribed for that point as determined from the grades staked by the engineer and the typical sections shown in the plans.
- (2) Subgrade excavation—All organic or otherwise unsuitable material shall be removed from beneath the roadway. Where it is necessary to excavate to remove undesirable material, such work shall be done in accordance with the requirements of WI/DOT 205. A registered professional soils engineer, or his designated representative, shall determine the extent of the required subgrade excavation.
- (3) Preparation of foundation—Shall meet the requirements of WI/DOT 211.
- (4) Subbase construction—If required, shall conform to WI/DOT 212, with compaction to be obtained by the "special compaction method." The subbase shall be compacted to a minimum of 100 percent standard proctor density. The finished subbase surface shall not vary more than 0.05 foot above or 0.10 foot below the elevation prescribed for that point as determined from the grades staked by the engineer and the typical sections shown in the plans.
- (5) Aggregate construction—Shall conform to WI/DOT 304, with compaction to be obtained by the "special compaction method." Aggregate base shall be compacted to a minimum of 100 percent standard proctor density. The finished aggregate base shall not vary more than 0.05 foot from the elevation prescribed for that point as determined from the grades staked by the engineer and the typical sections shown in the plans.
- (6) Test rolling—A test roll shall be performed upon completion of the fine grading of the street subgrade, subbase, and aggregate base. The contractor shall provide a loaded tandem axle truck with a gross weight of 25 tons.

The test rolling shall be at the direction of a soils engineer and shall be completed in areas as directed by the soils engineer. The soils engineer shall determine which sections of the roadway are unstable. If the subgrade is determined to be unstable, the soils engineer shall provide recommendations for methods of correction.



After corrections have been completed, a test roll of the corrected areas may be required.

- (7) Freeze/thaw cycle—The aggregate base shall go through one freeze/thaw cycle prior to paving the wear course, unless otherwise approved by the town.
- (8) Surface—All roads shall be paved as follows: Plant mixed bituminous surface shall be constructed in accordance with WIDOT 405. Compaction shall be obtained by the ordinary compaction method.

Prior to the start of any paving, a bituminous mix design shall be submitted and approved by the engineer.

After compaction, the thickness of the wear course shall be a minimum of two and one-half inches thick. Any part of any course that is constructed to less than the minimum required thickness shall be removed and replaced. On that portion of any course constructed to more than the maximum permissible thickness, the materials used in the excess mixture (above that required to construct that portion of the course to the planned thickness plus one-half inch) will be excluded from the pay quantities.

No traffic other than necessary construction traffic shall be allowed on the pavement until it has cooled and set. The contractor shall provide sufficient barricades or flagmen to direct traffic.

When making a connection to an existing bituminous surface, the new surface must be cut or milled to provide a smooth connection, and tacked, as directed by the engineer.

Connections to highways shall be in accordance to the state or county highway departments.

(e) *Surface restoration.* The contractor shall remove, replace or restore all driveways, sidewalks, steps, fences, hedges, sodding, curbs, retaining wall, rock gardens, plants, etc. disturbed by his operations.

(f) *Culverts.* Road culverts shall conform to the requirements of WIDOT 520. The culverts shall be reinforced concrete pipe with Type R-4, rubber gasketed joints or aluminum ionized corrugated steel. Flared end sections shall be installed. Prefabricated trash guards shall be installed as required. Culverts shall be sized to carry a 50-year storm flow. The head water (HW) elevation shall be a minimum of one foot below the finished centerline street grade. In no case shall road culverts be smaller than 15 inches in diameter.

(g) *Turf establishment and topsoil placement.* Turf Establishment shall apply to all disturbed areas as stated below:

Topsoil—Four inches minimum depth, free of all rocks greater than four inches and other debris.

Seed—WIDOT 630, mixture 40 at 100 pounds per acre or otherwise approved by the town.

Dormant seed—Shall be applied after November 1 at twice the rate.

Mulch—WIDOT 627, Method C at two tons per acre.

Fertilizer—WI/DOT 629, Type A at 400 pounds per acre.

(h) *Erosion control.* Erosion control shall meet the requirements of WI/DOT 628. The contractor shall assume complete responsibility for controlling all siltation and erosion of the project area. The contractor shall use whatever means necessary to control erosion and siltation including but not limited to staked straw bales, silt fence and/or wood fiber blanket. Erosion control shall commence with grading and continue throughout the project until acceptance of the work by the town. The contractor's responsibility includes all implementation as required to prevent erosion and the depositing of silt. The town may, at their option, direct the contractor in his methods as deemed necessary to protect property and improvements. Any depositing of silt or mud on new or existing pavement, or in existing storm sewers or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the town, all at the expense of the contractor. The silt fences shall be removed by the contractor after the turf is established.

(Ord. of 11-15-99)

#### **Sec. 13.04. Conflict with other ordinances.**

Where the standards herein are in conflict with the standards of another applicable town or county ordinance or state law or regulation, the more restrictive standard shall apply.

(Ord. of 11-15-99)

#### **Sec. 13.05. Severability.**

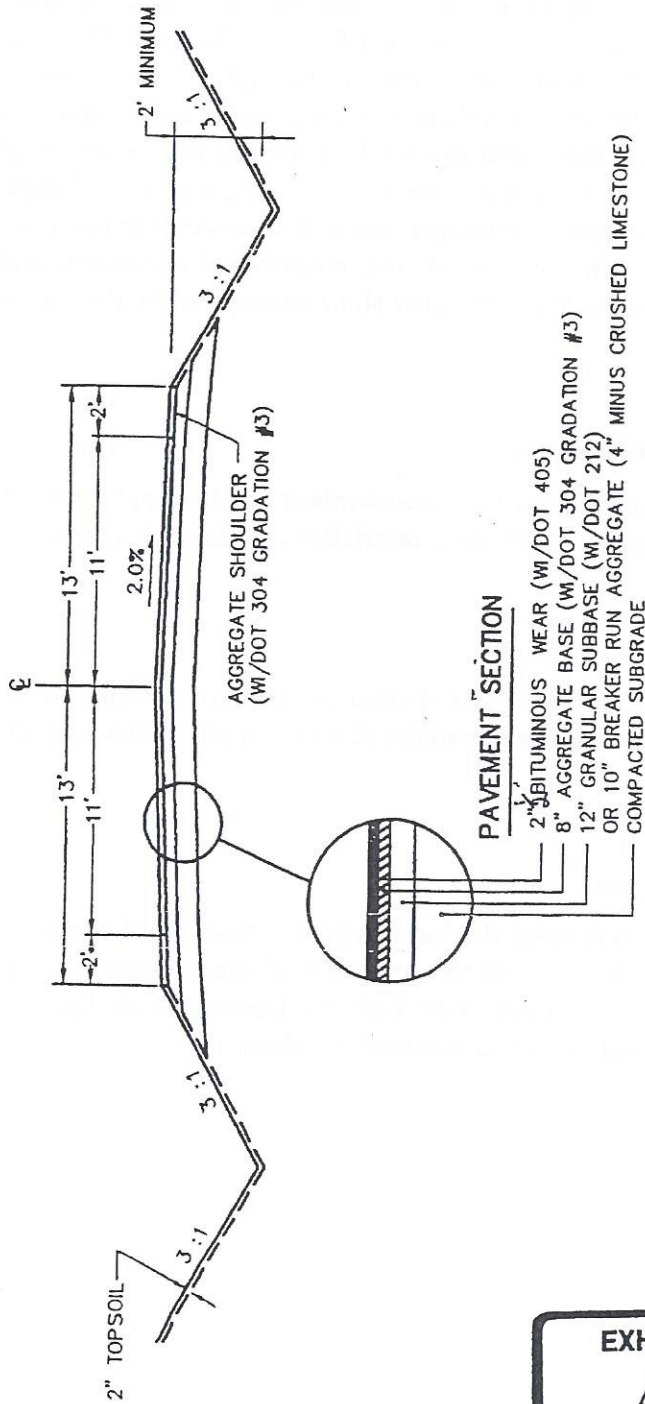
If any section, clause, provision or portion of this chapter is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this chapter shall not be affected thereby.

(Ord. of 11-15-99)

#### **Sec. 13.06. Violation of this chapter.**

Any person, firm or corporation who violates, disobeys, neglects, omits or refuses to comply with, or who resists the enforcement of any of the provision of this chapter shall pay a forfeiture of not less than \$100.00 nor more than \$500.00 together with the costs of prosecution. Each day of violation shall constitute a separate offense.

(Ord. of 11-15-99)



**PAVEMENT SECTION**

- 2" BITUMINOUS WEAR (W/DOT 405)
- 8" AGGREGATE BASE (W/DOT 304 GRADATION #3)
- 12" GRANULAR SUBBASE (W/DOT 212)
- OR 10" BREAKER RUN AGGREGATE (4" MINUS CRUSHED LIMESTONE)
- COMPACTED SUBGRADE

**NOTES:**

1. THE AGGREGATE BASE COURSE SHALL GO THROUGH ONE FREEZE / THAW CYCLE PRIOR TO PAVING THE WEAR COURSE UNLESS OTHERWISE APPROVED BY THE TOWNSHIP.
2. THIS STREET SECTION IS TO BE CONSIDERED A MINIMUM DESIGN. THE ACTUAL PAVEMENT SECTION SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL GEOTECHNICAL ENGINEER.

**OAK GROVE TOWNSHIP**

**SHEET TITLE  
TYPICAL RURAL  
STREET SECTION**

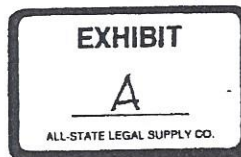
Date 2-12-98  
Designed L.P.O.  
Drawn L.O.C.

REV. 4/15/98  
REV. 4/10/98

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