

Certified Copy of Record

STATE OF MISSOURI, }  
County of Cass, } ss.

In the County Commission of Cass County, Missouri, at the April Term, 2024, held on the 29th day of May 2024 amongst others, were the following proceedings:

CASS COUNTY, MISSOURI  
ORDINANCE NO. 24-03

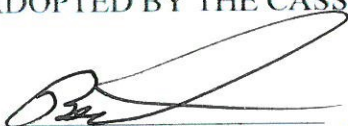
AN ORDINANCE AMENDING COUNTY CODE TITLE V, CHAPTER 510 RELATED TO ROAD AND BRIDGE DEPARTMENT POLICIES.

BE IT ORDAINED BY THE COUNTY COMMISSION OF CASS COUNTY, MISSOURI, AS FOLLOWS:

Section 1. That the County Code, Title V, Chapter 510 related to Road and Bridge Department Policies, is hereby amended in accordance with the attached Exhibit A, which contains edits to Articles I, II, IV, and VIII of Chapter 510 (language to be deleted contains a strikethrough; language to be added is in blue color).

Section 2. That this ordinance shall be effective upon its approval.

ADOPTED BY THE CASS COUNTY COMMISSION THIS 29<sup>TH</sup> DAY OF MAY 2024.



Bob Huston  
Presiding Commissioner



Monty Kisner  
Associate Commissioner,  
District 1



Ryan Johnson  
Associate Commissioner,  
District 2

ATTEST:



Jeff Fletcher  
County Clerk

Dated: 5/29/24

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## **Article I General Information**

### **Section 510.010 Introduction.**

[Ord. No. 02-01, 4-1-2004; Ord. No. 06-02, 1-26-2006; Ord. No. 06-08, 3-23-2006; Ord. No. 06-11, 5-4-2006; Ord. No. 06-14, 7-13-2006; Ord. No. 07-01, 2-1-2007; Ord. No. 07-02, 3-15-2007; Ord. No. 08-03, 7-1-2008; Ord. No. 08-05, 10-2-2008]

- A. The following information, standards and BMPs have been developed by and for Cass County Road and Bridge Department to help provide practical, safe, and economical access to the land in Cass County. An attempt has been made to achieve a balance between the sometimes-conflicting concerns for safety, economy and scenic beauty, using the MHTD, FHTD, FHALTSP(LTAP), FHA, ASCE, AASHTO, MUTCD and standards as a guide.
- B. Safety must be the highest priority to establish safe roadways for our residents, school buses, service vehicles and farm equipment.
- C. Economy is construed to apply to direct construction/maintenance costs and to the indirect costs to roadway users in the way of increased vehicle maintenance/repairs due to inadequate roadways. It is the long-range goal of the County to provide for a hard-surface roadway within two (2) miles of every resident.
- D. Scenic and environmental concerns were considered as these BMPs were developed to respect the desires of property owners adjacent to Cass County roadways.
- E. Every effort was made to develop standards and BMPs that are consistent with State law, County planning and zoning and County subdivision regulations. These standards and BMPs should serve to supplement and support other existing policies and regulations and the best interests of Cass County citizens.

### **Section 510.020 Definitions.**

[Ord. No. 02-01 Part A §1, 4-1-2004; Ord. No. 06-02 Part A §1, 1-26-2006; Ord. No. 06-08 Part A §1, 3-23-2006; Ord. No. 06-11 Part A §1, 5-4-2006; Ord. No. 06-14 Part A §1, 7-13-2006; Ord. No. 07-01 Part A §1, 2-1-2007; Ord. No. 07-02 Part A §1, 3-15-2007; Ord. No. 08-03 Part A §1, 7-1-2008; Ord. No. 08-05 Part A §1, 10-2-2008]

- A. General Statement. Words used in the present tense shall include the future; the singular number shall include the plural and the plural the singular; the word "shall" is mandatory; the word "may" is permissive.
- B. For the purpose of these regulations, the terms used herein are defined as follows:

#### **AVERAGE DAILY TRAFFIC (ADT)**

The total volume of traffic during a given period (in whole days), the greater than one (1) day and less than (1) year, divided by the number of days in that time period. It is recognized that there may be variations in the ADT different days of the week, the month, and seasonal variations (agricultural areas, recreational areas, schools, etc.). Counters to be placed at both ends of the road to be counted for a period of twenty-four (24) hours, Monday — Friday, not on weekends, per MoDOT practices.

COUNTY



Cass County, Missouri.

#### COUNTY COMMISSION

The administrative body for Cass County, Missouri.

#### COUNTY ENGINEER

A professional engineer, registered in the State of Missouri, designated by the County Commission to perform professional engineering service for the County.

#### ~~DIRECTOR OF PUBLIC WORKS~~

~~The official appointed by the Cass County Commission as Director of Public Works.~~

#### RIGHT-OF-WAY

Land acquired by the County, either by public virtue, public dedication or road establishment, for the construction and maintenance of a street or roadway.

#### ROAD AND BRIDGE ~~SUPERINTENDENT~~—DIRECTOR

The official appointed by the Cass County Commission to be the chief officer of the County in all matters pertaining to highways, roads, bridges, culverts, and surveys and is responsible for all operations of the County Road and Bridge Department.

#### URBAN SERVICE AREA

Area as defined in the Cass County Subdivision Regulations.

#### **Section 510.030 Functional Classifications of Roadways.**

[Ord. No. 02-01 Part A §2, 4-1-2004; Ord. No. 06-02 Part A §2, 1-26-2006; Ord. No. 06-08 Part A §2, 3-23-2006; Ord. No. 06-11 Part A §2, 5-4-2006; Ord. No. 06-14 Part A §2, 7-13-2006; Ord. No. 07-01 Part A §2, 2-1-2007; Ord. No. 07-02 Part A §2, 3-15-2007; Ord. No. 08-03 Part A §2, 7-1-2008; Ord. No. 08-05 Part A §2, 10-2-2008]

- A. Type I — Arterial, Minor. Arterials connect population centers and economic activity with each other and the State or municipal road systems, occurring at reasonably regular intervals to collect traffic from roads of lesser importance and carrying relatively heavy corridor traffic movements, present or potential. Arterial classification will be as designated by the County Commission. Typical four thousand (4,000) to ten thousand (10,000) ADT.
- B. Type II — Collector. Collectors occur at reasonably regular intervals to collect traffic from local roads and channel it into the arterial road system. These roads serve minor population centers not feasibly served by arterial routes. Collectors are the main school bus routes, mail route and farm to market routes. Collector classification will be as designated by the County Commission. Typical one thousand (1,000) to four thousand (4,000) ADT.
- C. Type III — Local Road. Type III roads are through roads whose primary purpose is to serve abutting properties and provide for minor volumes of through traffic. Type III classification will be as designated by the County Commission. Typical nine hundred ninety-nine (999) or less ADT.
- D. Type IV — Local Subdivision Road. Type IV roads consist of cul-de-sac legs and short and/or dead-end road sections serving the immediate area. Type IV classification will be as designated by the Cass County Commission.
- E. Type V — Minimum Maintenance Road. Minimum maintenance roads are old County rights-of-way where regular maintenance has previously been discontinued due to lack of use and



which may have been subsequently placed into the limited maintenance category by past County Commission actions. Type V classification will be made by County Commission action upon recommendation by the ~~Public Works Director~~. Road and Bridge Director.

- F. Type VI — Private Road Or Dedicated Non-Maintenance Road. Private roads are roads that have not been dedicated to the public and/or provide access to property with said roads not maintained by public funds. Dedicated non-maintained roads may be old County roadways and/or rights-of-way not falling into the category of minimum maintenance or roads that have been dedicated and constructed but never accepted for maintenance by the County.

**Section 510.040 Acceptance of Roadways for County Maintenance.**

[Ord. No. 02-01 Part A §3, 4-1-2004; Ord. No. 06-02 Part A §3, 1-26-2006; Ord. No. 06-08 Part A §3, 3-23-2006; Ord. No. 06-11 Part A §3, 5-4-2006; Ord. No. 06-14 Part A §3, 7-13-2006; Ord. No. 07-01 Part A §3, 2-1-2007; Ord. No. 07-02 Part A §3, 3-15-2007; Ord. No. 08-03 Part A §3, 7-1-2008; Ord. No. 08-05 Part A §3, 10-2-2008]

- A. Present or future roadway(s) in Cass County must meet the geometric and construction standards in effect at the time the roadway(s) were (are) constructed. Roadways that do not meet the current standard will require variance approval(s) by the County Commission for County maintenance.
- B. All rights-of-way must be dedicated by the public as a road right-of-way through the subdivision platting process or must be granted by way of quick claim deed or general warranty deed in the case of roadways being established by Chapter 228, RSMo., 1986, and all future supplements or revisions.
- C. Roadways shall not be accepted for County maintenance until a roadway maintenance acceptance certificate is issued and approved by the ~~Public Works Director~~ Road and Bridge Director and the County Commission. (Maintenance certificate is on file in the City Clerk's office.)
- D. Existing Non-Maintained County Roadways. This includes roadways that ~~have been~~ were constructed previous to the adoption date of these BMPs and do not presently receive full maintenance.
1. Written request shall be to the Road/Bridge Department for a roadway inspection to determine compliance with roadway geometric and construction standards outlined in this manual.
  2. The Road/Bridge Department shall respond with a written report outlining any items that do not conform to the roadway geometric and construction standards.
  3. The requesting party(ies) shall notify the Road/Bridge Department when corrective actions are to be performed to allow for inspection of the work in progress by the department.
  4. When all corrective work is complete, a final inspection shall be scheduled (as deemed necessary) and if all work meets the requirements, a roadway maintenance acceptance certificate shall be issued and approved by the ~~Public Works~~ Road and Bridge Department and County Commission.

\*\*\* NOTE: The entire roadway is subject to complete reinspection at the discretion of the ~~Public Works Director~~ Road and Bridge Director depending on the timeliness that corrective actions are made.

- E. Newly Constructed Roadways.



1. Property owners, contractors and/or developers who intend to construct a new street or roadway shall contact the ~~Public Works~~ Road and Bridge Department at least thirty (30) days prior to starting construction of any new roadway. A construction permit will be required as per Section 510.120 Permits/Bonds. The department will outline the level of street plans and specifications required; and any bonding requirements, certifications and inspections that will be required during construction of the street or road. Roadways constructed without proper notification will be required to be maintained by the owner, contractor, or developer for a minimum of one (1) year from the completion of construction before being considered by the County for acceptance for maintenance.
2. Persons desiring to establish roadways by the provisions of Section 510.040 or the Revised Statutes of Missouri must meet all of the provisions of these regulations. Roadway improvements shall be completed and accepted by the BMPs herein stated and/or a suitable surety shall be provided to the County to ensure that construction conforms to these specifications. Improvements shall be completed or surety provided before the County Commission will formally establish the roadway.

**Section 510.050 Vacation of Roadways.**

[Ord. No. 02-01 Part A §4, 4-1-2004; Ord. No. 06-02 Part A §4, 1-26-2006; Ord. No. 06-08 Part A §4, 3-23-2006; Ord. No. 06-11 Part A §4, 5-4-2006; Ord. No. 06-14 Part A §4, 7-13-2006; Ord. No. 07-01 Part A §4, 2-1-2007; Ord. No. 07-02 Part A §4, 3-15-2007; Ord. No. 08-03 Part A §4, 7-1-2008; Ord. No. 08-05 Part A §4, 10-2-2008]

- A. The County has many roadbeds and roadways which were established in past years by public consent, public dedication or road establishment which because of changing demographics and travel patterns presently have little or no public utility. This BMP is presented herein to outline the method of road vacation established by Section 228.110, RSMo., and Section 71.270, RSMo.
- B. Roadways Established ~~By~~ by Subdivision Platting. The following procedure shall be followed for vacation of streets, avenues, roads, alleys, public square or common marked on the recorded plat of a subdivision:
  1. The petitioners for vacation should contact the County Clerk's office and indicate their interest in vacating said street, etc.
  2. Written or printed notice of application to vacate shall be posted in five (5) public places in the County or publication of notice of application to vacate shall be published in a newspaper published in the County at least fifteen (15) days prior to the term of the Commission at which such petition shall be presented. This notice shall state distinctly the nature of the application, when it is to be made and what street, avenue, road, alley, public square or common or part thereof is proposed to be vacated. Proof of notification will be required to be presented to the Commission. All costs associated with notification will be borne by the petitioner(s).
  3. Petition from the owner(s) of the ground lying on both sides of or fronting on the area proposed to be vacated shall be presented to the County Commission stating the request to vacate and a legal description of the area to be vacated.
  4. The County Commission shall meet at an adjourned term as per Statute for their decision.
- C. Other County Roadways. The following procedure shall be followed for vacation or other County roadways not established by subdivision platting:
  1. The petitioners for vacation should contact the County Clerk's office and indicate their interest

in vacating said roadway.

2. Petitions signed by twelve (12) (or more) freeholders of the township through which said road runs shall be presented to the County Commission stating the request to vacate and a legal description of the road to be vacated.
3. County Commission meeting. The petition to vacate shall be publicly read on the first (1st) day of the term at which it is presented.
4. County Commission shall direct County Engineer to evaluate the request of the petitioners and make report to the County Commission prior to the second (2nd) reading and action by the Commission.
5. Written or printed notice of the filing of such petition and of the road sought to be vacated shall be posted in not less than three (3) places in the township, at least twenty (20) days before the first (1st) day of the next term of the Commission. Proof of notification will be required to be presented to the Commission. The County Clerk's office shall send (by certified mail) a copy of the notice to all persons whose lands are crossed or touched by the road proposed to be vacated.
6. Persons opposed to the requested vacation may present a petition signed by at least twelve (12) freeholders to the County Commission at the Commission meeting.
7. County Commission meeting and decision. The printed notice shall be read. The County Commission shall proceed with the public hearing, at the conclusion of which a decision will be reached.



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## Article II Roadway Requirement and Standards

### Section 510.060 Geometric Requirements of **New** Roadways (Minimum Requirements).

[Ord. No. 02-01 Part B §1, 4-1-2004; Ord. No. 06-02 Part B §1, 1-26-2006; Ord. No. 06-08 Part B §1, 3-23-2006; Ord. No. 06-11 Part B §1, 5-4-2006; Ord. No. 06-14 Part B §1, 7-13-2006; Ord. No. 07-01 Part B §1, 2-1-2007; Ord. No. 07-02 Part B §1, 3-15-2007; Ord. No. 08-03 Part B §1, 7-1-2008; Ord. No. 08-05 Part B §1, 10-2-2008]

	Arterial	Collector	Local
Right-of-way width	60'	60'	60'
Cul-de-sac (R/W)	N/A	N/A	116'
Surface radius	N/A	N/A	50'
Surface width	24'	24'	24'
Design speed	35 mph	35 mph	35 mph

### Section 510.070 Minimum **New** Construction Standards.

[Ord. No. 02-01 Part B §2, 4-1-2004; Ord. No. 06-02 Part B §2, 1-26-2006; Ord. No. 06-08 Part B §2, 3-23-2006; Ord. No. 06-11 Part B §2, 5-4-2006; Ord. No. 06-14 Part B §2, 7-13-2006; Ord. No. 07-01 Part B §2, 2-1-2007; Ord. No. 07-02 Part B §2, 3-15-2007; Ord. No. 08-03 Part B §2, 7-1-2008; Ord. No. 08-05 Part B §2, 10-2-2008]

- A. Standard Specification. All street and storm drainage construction shall meet the requirements of Cass County specifications and standards and all subsequent revisions.
- B. Supplemental Specification or Special Provisions to The Standard Specifications. Street and storm drainage construction not addressed by the standard specifications are as indicated below. Geometric requirements of Section 510.060 shall apply.
- C. Asphalt Surface Roadways. Asphalt roadways constructed without curbs as allowed by these specifications shall meet the standard specification with the following exceptions:
  1. Concrete curbs may be omitted.
  2. Base material may extend a minimum of eighteen (18) inches beyond the edge of the asphalt surface.
- D. Granular Surface Roadway.
  1. Twenty-four (24) foot surface width.
  2. Eighteen (18) inch shoulder (not surfaced).

3. 2:1 in-slope (minimum).
  4. 3:1 back slope (minimum).
  5. Eighteen (18) inch v-bottom ditch (minimum).
  6. Roadway crown three-eighths ( $\frac{3}{8}$ ) to one-half ( $\frac{1}{2}$ ) inch per foot.
- E. Base (Minimum Requirements). Subgrade shall consist of suitable construction material, free of organic or other undesirable material, properly compacted to ninety-five percent (95%) of the standard proctor density. Any testing required will be the responsibility of the contractor, with test results to be submitted to the Road/Bridge Department for review. Unsuitable subgrade material shall be removed and replaced, as necessary. One and one-half ( $1\frac{1}{2}$ ) inch to two (2) inch sized rock shall be incorporated into and compacted as part of the base, as necessary. Application rate for the base rock will be approximately two thousand six hundred (2,600) ton/mile for twenty-four (24) foot width roadways. Application rates for other widths shall be adjusted accordingly.
- F. Surface (Minimum Requirements).
1. First (1st) application.
    - a. One and one-half ( $1\frac{1}{2}$ ) inch minus rock — one thousand two hundred (1,200) ton/mile for twenty-four (24) foot width.
    - b. The above quantity of aggregate surfacing shall be distributed and spread uniformly over the prepared subgrade prior to placing the second (2nd) application surface course.
  2. Second (2nd) application.
    - a. One (1) inch to one and one-quarter ( $1\frac{1}{4}$ ) inch minus rock — one thousand four hundred (1,400) ton/mile for twenty-four (24) foot width.
    - b. Surface shall be graded and profiled to meet the requirements of typical roadway section.
    - c. Copies of rock tickets or other acceptable proof of rock quantities shall be submitted to the Public Works Department. Acceptance of base rock construction and surface course may be based on visual inspection by the department at the discretion of the Road and Bridge Director.
- G. Subdivision Road Requirements.
1. All new interior subdivision roads require twenty-four (24) foot road width which consists of a three (3) inch asphalt overlay over top of six (6) inch compacted aggregate base.
  2. County roads that abut the subdivision to be C/S or asphalt the full width of twenty-four (24) feet.
  3. All roads to be completed within two (2) years from final plat filing.

**Section 510.080 Storm Drainage and Drainage Structures.**

[Ord. No. 02-01 Part B §3, 4-1-2004; Ord. No. 06-02 Part B §3, 1-26-2006; Ord. No. 06-08 Part B §3, 3-23-2006; Ord. No. 06-11 Part B §3, 5-4-2006; Ord. No. 06-14 Part B §3, 7-13-2006; Ord. No.



07-01 Part B §3, 2-1-2007; Ord. No. 07-02 Part B §3, 3-15-2007; Ord. No. 08-03 Part B §3, 7-1-2008; Ord. No. 08-05 Part B §3, 10-2-2008]

- A. All storm drainage shall be carried in enclosed storm sewers or open channels subject to the following criteria and consistent with other County regulations or requirements. Stormwater quantities for open channel or drainage structures serving a drainage area of less than two hundred (200) acres shall be calculated using the rational method,  $Q=CIA$ . Stormwater quantities serving drainage areas of greater than two hundred (200) acres shall be calculated using "Technique for Estimating the Magnitude and Frequency of Missouri Floods". The Manning Equation shall be used for sizing open channels, culvert pipe or other similar structures.
- B. Design Flood Return Frequencies.
1. Q10 — All enclosed structures in residential areas.
  2. Q25 — Commercial property, arterial or collector street culverts and open channel (earth) slopes.
  3. Q50 — Open paved drainage channels.

The engineer shall have detailed computations available to support the design and may be required to submit them to ~~Public Works Director~~ Road and Bridge Director or representative.

- C. Minimum Pipe Size. The minimum size culvert pipe shall be fifteen (15) inches in diameter except under roadways where eighteen (18) inches in diameter shall be minimum.
- D. Material Allowed. (Culverts, Storm Drains) — Reinforced concrete pipe (RCP), corrugated metal pipe (CMP) – annular riveted or helical meeting corrugated minimum gage requirements, corrugated polypropylene (PE) pipe (corrugated or corrugated with smooth interior wall, or corrugated polypropylene (PP) pipe (corrugated). RCP shall not be allowed under or adjacent to granular surfaced roadways. All pipes shall be used and installed in conformance with manufacturer specifications and guidelines. [Ord. No. 17-06, 11-2-2017]
- E. Length Of Pipe. All drainage pipes shall be of sufficient length such that pipe flow discharges beyond the toe fill and onto natural or stabilized ground.
- F. Velocity. All storm drainage pipes, culverts and open paved channels shall be designed so as to maintain a minimum velocity of flow of three (3) fps and a maximum of fifteen (15) fps when flowing fully. All open storm drainage channels (earth channels) shall have a gradient to keep the velocity within one and one-half (1.5) to four (4.0) fps depending on existing soil conditions. Consideration shall be given to design and construction of discharge energy dissipaters to prevent erosion and souring along downstream properties.
- G. Cover Depth. The minimum allowable fill or cover for structures under roadways shall be one (1) foot or a minimum clearance of six (6) inches from the top of structure to the bottom of pavement's base, except for box culverts designed to carry traffic on the top slab. Structural protection, such as special bedding, shall be provided where adequate cover cannot be attained. Special consideration may be made by the Road/Bridge Department for culverts under private entrances.

**Section 510.090 Roadway Cuts (Utilities and Others).**

[Ord. No. 02-01 Part B §4, 4-1-2004; Ord. No. 06-02 Part B §4, 1-26-2006; Ord. No. 06-08 Part B



§4, 3-23-2006; Ord. No. 06-11 Part B §4, 5-4-2006; Ord. No. 06-14 Part B §4, 7-13-2006; Ord. No. 07-01 Part B §4, 2-1-2007; Ord. No. 07-02 Part B §4, 3-15-2007; Ord. No. 08-03 Part B §4, 7-1-2008; Ord. No. 08-05 Part B §4, 10-2-2008]

- A. NOTE: Person(s) desiring to cross the roadway in Cass County must obtain a permit from the Public Works Director before the construction begins and may require a posted bond.
1. Roadway cuts in existing asphalt and chip sealed or gravel roadways in Cass County are not allowed. Person(s) must bore under the roadway.
  2. Utility cuts in granular surfaced roadways shall be repaired in a manner not to create a depression in the surface when complete.
  3. All underground water line installations within the road right-of-way (in back slope only) shall have a minimum cover of forty-two (42) inches. All other underground installations shall have a minimum cover of thirty (30) inches. Direct burial of underground telephone or TV cable placed parallel with the roadway (in the back slope only) and shall have a minimum cover of twenty-four (24) inches. Under no circumstances are any utilities to be placed on top of, under, or through any drainage structures. And not in the existing ditch line.
  4. Roadway ditches, culverts and other devices used to carry surface runoff shall be kept open, free, and clear at all times. Construction signing shall be required and consistent with the Manual on Uniform Traffic Control Devices (MUTCD). All disturbed areas shall be seeded and mulched to the satisfaction of the Road/Bridge Department. All work shall be performed expediently and in a workmanship matter.
  5. Person(s) receiving the permit shall be responsible for correcting any deficient repairs for a period of ninety (90) days from the completion of the work or the permit deadline, whichever is longer.

#### **Section 510.100 Seeding and Mulching.**

[Ord. No. 02-01 Part B §5, 4-1-2004; Ord. No. 06-02 Part B §5, 1-26-2006; Ord. No. 06-08 Part B §5, 3-23-2006; Ord. No. 06-11 Part B §5, 5-4-2006; Ord. No. 06-14 Part B §5, 7-13-2006; Ord. No. 07-01 Part B §5, 2-1-2007; Ord. No. 07-02 Part B §5, 3-15-2007; Ord. No. 08-03 Part B §5, 7-1-2008; Ord. No. 08-05 Part B §5, 10-2-2008]

- A. All unpaved or unsurfaced areas within road rights-of-way which have been disturbed during grading, construction or utility operations shall be fertilized and seeded to minimize erosion in those areas.
- B. Mulching is required on areas where slopes, soil type, excessive drainage or other conditions indicate additional protection is necessary.
- C. The area to be seeded shall have a uniform surface free from rills, washes, and depressions. Seeding shall be done before the proposed seedbed becomes eroded, crusted over or dries out and shall not be done when the ground is frozen or covered with snow. Seed shall be uniformly applied at a rate which will ensure a dense growth to control erosion. If proper growth is not obtained as a result of the initial seeding, additional applications of seed will be required until satisfactory results are obtained. The Director of Public Works may waive this requirement if the developer has provided adequate erosion control by some other means.

#### **Section 510.110 Variances.**

[Ord. No. 02-01 Part B §6, 4-1-2004; Ord. No. 06-02 Part B §6, 1-26-2006; Ord. No. 06-08 Part B



§6, 3-23-2006; Ord. No. 06-11 Part B §6, 5-4-2006; Ord. No. 06-14 Part B §6, 7-13-2006; Ord. No. 07-01 Part B §6, 2-1-2007; Ord. No. 07-02 Part B §6, 3-15-2007; Ord. No. 08-03 Part B §6, 7-1-2008; Ord. No. 08-05 Part B §6, 10-2-2008]

- A. Any variance to the geometric requirements or minimum construction standards as set forth in these BMPs must be approved by the County Commission.
- B. Persons requesting variances shall make application to the Road and Bridge Department indicating the variances desired along with justification for those requests. The Road and Bridge Department will assist the applicant in determining what supporting documentation or information might be required by the County Commission in evaluating the request.
- C. Request for variances may be required to include the following:
  - 1. Engineering study or evaluation and recommendations.
  - 2. Plans, maps, or other supporting data.
  - 3. Additional information as determined by ~~the Director of Public Works or the Road and Bridge Advisory Committee.~~ The Road and Bridge Director.
- D. Procedure.
  - 1. Application for variance shall be made to the Road and Bridge Department.
  - 2. The Road and Bridge Department shall schedule a public hearing ~~before The Road and Bridge Advisory Committee~~ to hear the request.
  - 3. The Road and Bridge Department shall provide legal notice of said public hearing.
  - 4. The County Commission shall formally hear from the requesting party the request for variances as scheduled.
  - 5. The County Commission shall allow the public an opportunity for comment before calling a vote on any requested variances.
  - 6. The County Commission may request that additional information be provided by the requesting party(ies) or by road and bridge staff prior to making a decision.

#### **Section 510.120 Permits/Bonds.**

[Ord. No. 02-01 Part B §7, 4-1-2004; Ord. No. 06-02 Part B §7, 1-26-2006; Ord. No. 06-08 Part B §7, 3-23-2006; Ord. No. 06-11 Part B §7, 5-4-2006; Ord. No. 06-14 Part B §7, 7-13-2006; Ord. No. 07-01 Part B §7, 2-1-2007; Ord. No. 07-02 Part B §7, 3-15-2007; Ord. No. 08-03 Part B §7, 7-1-2008; Ord. No. 08-05 Part B §7, 10-2-2008]

- A. Permits are required by the Road and Bridge Department for the purpose of identifying responsible parties who perform work on any publicly dedicated right-of-way. This identification allows the department to enforce the requirements of these BMPs more evenly and consistently and procedures upon all persons who perform work on County rights-of-way and to be better prepared to answer questions about work that is being performed on County rights-of-way.
- B. The following permits are required by these specifications. References are made to other parts of the BMPs and procedures and other regulations as appropriate. Permit fees and bonding requirements of these specifications shall not apply to public utilities or other public agencies.

Private contractors under contract with public utilities or public agencies are not exempt from these fees or bonding requirements.

**Section 510.130 Work on County Rights-of-Way.**

[Ord. No. 02-01 Part B §8, 4-1-2004; Ord. No. 06-02 Part B §8, 1-26-2006; Ord. No. 06-08 Part B §8, 3-23-2006; Ord. No. 06-11 Part B §8, 5-4-2006; Ord. No. 06-14 Part B §8, 7-13-2006; Ord. No. 07-01 Part B §8, 2-1-2007; Ord. No. 07-02 Part B §8, 3-15-2007; Ord. No. 08-03 Part B §8, 7-1-2008; Ord. No. 08-05 Part B §8, 10-2-2008]

- A. A permit shall be obtained from the Road/Bridge Department prior to performing any clearing, grading, shaping, excavation, or any other work within public dedicated right-of-way except that a property owner may perform mowing, clearing or brush cutting work on County right-of-way directly adjacent to their property without a permit.
- B. A bond or cash security may be required to be provided to the Road/Bridge Department in an amount to be established by said department to ensure that the right-of-way is repaired to its original condition.
- C. Fee. As prescribed by the Cass County Commission.
- D. Bond Or Cash Security. As required.

**Section 510.140 Plans/Inspections.**

[Ord. No. 02-01 Part B §9, 4-1-2004; Ord. No. 06-02 Part B §9, 1-26-2006; Ord. No. 06-08 Part B §9, 3-23-2006; Ord. No. 06-11 Part B §9, 5-4-2006; Ord. No. 06-14 Part B §9, 7-13-2006; Ord. No. 07-01 Part B §9, 2-1-2007; Ord. No. 07-02 Part B §9, 3-15-2007; Ord. No. 08-03 Part B §9, 7-1-2008; Ord. No. 08-05 Part B §9, 10-2-2008]

- A. Prior to starting any construction or improvement covered by these specifications, the owner/developer/contractor shall notify the Road/Bridge Department at least twenty-four (24) hours prior to beginning said construction. An inspection is required to ensure compliance with the plans and specifications as approved by the Road and Bridge Department. If the owner/developer/contractor shall fail to notify the Road and Bridge Department concerning such construction or commencement of construction, it shall be the responsibility of the owner/developer/contractor at his cost to furnish proof that such construction complies with County plans and specifications and these regulations. Substandard work must be corrected by the owner/developer/contractor at his cost. Periodic inspections shall be required during construction work as indicated below (and as applicable).
- B. Streets And Roadways.
  - 1. After subgrade has been prepared and prior to any subbase or base construction.
  - 2. After the base has been constructed and before surfacing is applied, if required.
  - 3. Before and after prime coat application.
  - 4. When asphalt or concrete paving operation has been started.
  - 5. After the completion of paving or surfacing.
  - 6. After all material and debris has been cleared from street and right-of-way and all lot pins have been reset.



7. Final inspection for approval.

C. Storm Sewers, Sidewalks and Utilities.

1. The necessity of inspections shall be at the discretion of and as indicated below.
2. Prior to any concrete pour.
3. Final inspection for approval.

D. Driveway Entrance/Culverts.

1. Initial site inspection to determine size, location, and other parameters.
2. An inspection is required before covering the culvert to ensure proper placement. Every effort will be made to inspect the culvert within two hours of notification during normal working hours. If culvert is to be installed over the weekend, please notify the Road and bridge department during normal work hours so inspection can be scheduled.
3. Final inspection for approval.

The following Code does not display images or complicated formatting. Codes should be viewed online. This tool is only meant for editing.

## Article VIII Driveway/Culvert Installation

### Section 510.260 Driveway Entrances/Culverts Policy.

[Ord. No. 02-01 Part H §1, 4-1-2004; Ord. No. 06-02 Part H §1, 1-26-2006; Ord. No. 06-08 Part H §1, 3-23-2006; Ord. No. 06-11 Part H §1, 5-4-2006; Ord. No. 06-14 Part H §1, 7-13-2006; Ord. No. 07-01 Part H §1, 2-1-2007; Ord. No. 07-02 Part H §1, 3-15-2007; Ord. No. 08-03 Part H §1, 7-1-2008; Ord. No. 08-05 Part H §1, 10-2-2008]

- A. General Information. A driveway construction permit must be obtained from the Road and Bridge Department or Planning and Zoning Department before construction of any driveway entrances (temporary or permanent). Driveway culverts shall be located to conform to the existing ditch line(s) or as directed by the Road and Bridge Department. The Road and Bridge Department must approve driveway culvert pipe size and location before installation. All driveway corrugated rib culvert pipes shall be fifteen (15) inches in diameter minimum (maybe twelve (12) inch diameter if steel smooth pipe) and thirty (30) feet minimum in length. The maximum length is sixty (60) feet.
- B. All driveways shall be constructed in such a manner as not to divert drainage to the roadway.
- C. Culverts installed ~~by property owner~~ not meeting the specifications and/or causing drainage problems may be removed as necessary to correct the drainage problem. Costs of new installations shall be borne entirely by the property owner.

### Section 510.270 Installation of Driveway Culverts.

[Ord. No. 02-01 Part H §2, 4-1-2004; Ord. No. 06-02 Part H §2, 1-26-2006; Ord. No. 06-08 Part H §2, 3-23-2006; Ord. No. 06-11 Part H §2, 5-4-2006; Ord. No. 06-14 Part H §2, 7-13-2006; Ord. No. 07-01 Part H §2, 2-1-2007; Ord. No. 07-02 Part H §2, 3-15-2007; Ord. No. 08-03 Part H §2, 7-1-2008; Ord. No. 08-05 Part H §2, 10-2-2008]

~~A. The Road and Bridge Department shall install required driveway culverts as work schedules permit, but not more than thirty (30) calendar days after the permit is issued, except during periods of adverse weather conditions. It will be the responsibility of the permit holder to purchase the required pipe from a local vendor for pickup by the Road/Bridge Department or have the pipe delivered to the job site. The Road and Bridge Department will provide the necessary cover rock to install the culvert. The Road and Bridge Department will not be responsible for surfacing the driveways in conjunction with the culvert installation. A fee schedule shall be established by the County Commission and updated on an annual review and shall include:~~

- A. ~~1. Residential~~ Permit fee — ~~one hundred seventy five dollars (\$175.00).~~ One hundred dollars (\$100.00). [Ord. No. 21-04, 12-16-2021]

~~2. Installation provided by County~~

- ~~1. Commercial, private road, or subdivision permits will require bonding and a \$100.00 permit fee.~~

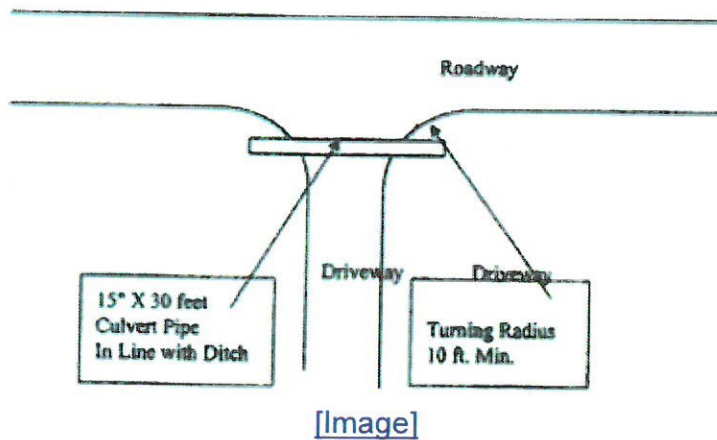


2. Culvert cost and installation paid entirely by property owner.

The required **bonding** shall be indicated on the permit and shall be paid to the Road and Bridge Department before issuance of the permit. Fee information will be available from the Road and Bridge Department or Planning and Zoning Department.

B. Driveway Entrance/Culverts.

1. Initial site inspection to determine size, **type**, and location and other safety/site distance parameters.
2. An inspection is required before covering the culvert to ensure proper placement. Every effort will be made to inspect the culvert within two hours of notification during normal working hours. If culvert is to be installed over the weekend, please notify the Road and bridge department during normal work hours so inspection can be scheduled.
3. Final inspection for approval.



C. Road And Bridge Driveway Permit. [Ord. No. 21-04, 12-16-2021]

Name

Address

City

Phone

Date requested

Sight distance measured N/E \_\_\_\_\_ S/W \_\_\_\_\_

Sight decision distance: 275 feet minimum or from center of an intersection 275 feet.

Sight stopping distance: 250 feet minimum.

If less than 275 feet see notes.

R & B Approval

Date installed

Permit fee ~~one hundred seventy five dollars (\$175.00)~~. One hundred dollars (\$100.00)

Note 1: Applicant is aware that the sight distance of this driveway is severely restricted. The sight distance is the less than minimum distance necessary for a vehicle traveling at the posted speed to complete a stop prior to the driveway.

Note 2: Applicant understands that the existing sign distance is less than current design standards and the driveway modifications, while beneficial to the owner, will not remedy the sight distance.

Applicant Signature

Date

File in R & B Issue 2

**Section 510.280 Site Distance for Local County Driveways.**

[Ord. No. 02-01 Part H §3, 4-1-2004; Ord. No. 06-02 Part H §3, 1-26-2006; Ord. No. 06-08 Part H §3, 3-23-2006; Ord. No. 06-11 Part H §3, 5-4-2006; Ord. No. 06-14 Part H §3, 7-13-2006; Ord. No. 07-01 Part H §3, 2-1-2007; Ord. No. 07-02 Part H §3, 3-15-2007; Ord. No. 08-03 Part H §3, 7-1-2008; Ord. No. 08-05 Part H §3, 10-2-2008]

- A. Preparation for issuing a driveway permit must include a prior inspection of the driveway site to ensure that vehicles can enter and exit from the proposed driveway with a minimum hazard and disruption of traffic along the roadway.
- B. Sight distance for driveway construction should be considered essential in the design of commercial or industrial type driveways and desirable with respect to residential driveways. If there is a request to construct a driveway at a questionable location, a traffic study must include an on-site inspection to evaluate the sight distance.
- C. There are two (2) basic concerns of responsibility when considering the sight distance requirements for any driveway.
  1. The first (1st) concern is to provide maximum safety for the motoring public.
  2. The second (2nd) concern is to provide access to the adjacent property owners. Vertical and horizontal alignments of many existing County local roads are based on (35 mph) posted speed.



- D. Fortunately, adjacent property owners who are constructing new driveways to an existing road are usually anxious to consider the safest location for a driveway.
- E. The following criteria based on the American Association of State Highway and Transportation Officials (AASHTO) guidelines and the Design Manual has been developed in order to establish a uniform method of determining the necessary sight distance for a driveway constructed by permit.

There are two (2) different sight distances used. They are:

1. Minimum decision sight distance.
  2. Minimum stopping sight distance.
- F. All sight distance measurements are based on a three and one-half (3.5) foot height of eye and a four and one-quarter (4.25) foot height of object. The use of the four and one-quarter (4.25) foot object is based on fact that typically the only change in the roadway is that there is now an additional entrance to the roadway and a vehicle is the expected object using the driveway and the existing route. Cass County road and bridge personnel must review the minimum entrance stopping sight distance.
1. If the driveway location meets or exceeds the requirements for the decision sight distance for the posted speed of the roadway as established in Table 10, a permit may be written.
  2. If a driveway location within the limits of the property frontage has less than the decision sight distance, but equal to or more than the minimum stopping sight distance, a permit may be written for the driveway construction but must include the applicant's responsibility clause as follows: "Applicant understands the presence of this driveway creates a potential sight distance problem and has been so informed in writing by the department". In this instance, it is imperative that property owners be on the site to be certain they understand the conditions of this driveway construction.
  3. If the measured sight distance is less than the minimum decision sight distance and greater than the minimum stopping sight distance, Cass County Road and bridge personnel must review the minimum stopping sight distance. If the review substantiates that minimum stopping sight distance measured for the proposed driveway is greater than the minimum stopping sight distance shown in Table 10, the Road and Bridge Department may approve the driveway location if all of the following conditions are met:
    - a. The proposed driveway location has the maximum sight distance available for the property frontage. The applicant should be advised of minor work on their property, which could improve sight distance such as minor grading or brush removal.
    - b. There is no other access available, which has greater sight distance (i.e., City street or cross access).
    - c. The applicant agrees to sign the permit application that states in addition to the normal responsibility clause the following statement. "Applicant is aware that the sight distance of this driveway is severely restricted. The sight distance is the minimum distance necessary for a vehicle traveling at the posted speed to complete a stop prior to the driveway." If these conditions are not met, the permit may not be issued for the driveway.
  4. The County may allow the widening of a driveway with limited sight distance or may allow the relocation of a driveway with limited sight distance to a location on the property frontage with

better sight distance. This will be allowed on routes with normal right-of-way, provided there is no change in driveway usage. The following responsibility clause must be added to the permit. "Applicant understands that the existing sight distance for this driveway is less than current design standards and the driveway modification, while beneficial to the property owner, will not remedy the sight distance limitation."

Both vertical and horizontal alignment can limit sight distance. In order to measure actual sight distance limited by vertical alignment, place a sighting target four and one-quarter (4.25) feet above the edge of pavement at a point twelve (12) feet from the edge of pavement (approximate location of a driver approaching the roadway) at the proposed driveway location. Sighting from a height of three and one-half (3.5) feet, move along the roadway away from the proposed driveway site to a point beyond where the target disappears. Now move toward the target until it can first be seen and place a mark on the pavement. Measure the distance along the roadway between the mark and the target.

Measurement may be made with an accurate measuring device mounted on an automobile. This measured distance is the sight distance.

Even when the applicant is present, sight distance measurements in terms of feet may be difficult for an applicant to understand when it comes to getting on and off the roadway. A measurement of time lapse may help the applicant get a better understanding of the critical nature of the situation.

A sight distance visibility time for the driver exiting a driveway to see an approaching vehicle can be used. A value of three (3) seconds enables a stopped passenger car to cross a two-lane highway. A value of seven (7) seconds allows vehicles exiting the driveway to turn left or right onto two-lane roads without interference (slowing down) of through traffic at speeds up to thirty-five (35) mph.

Trucks require greater sight distance than needed for passenger cars, however, the greater driver eye height, typically over six (6) feet, provides an allowance for vertical curve conditions. If the obstruction to sight is a horizontal curve or other lateral blockage, a fifty percent (50%) increase in visibility time is recommended.

Grading on the right-of-way to improve sight distance should be considered and included in the permit for driveway construction.

Public street entrances should meet or exceed decision sight distance.

#### Table 10. Sight Distance Requirements

Posted Speed: 35 mph.

Minimum Stopping Sight Distance: 250 feet.

Minimum Decision Sight Distance: 275 feet.

Source: The above distances are based on Exhibit 3-1 and 3-3 of the AASHTO Green Book 2004 Edition.

#### **Section 510.290 Specifications.**

[Ord. No. 02-01 Part H §4, 4-1-2004; Ord. No. 06-02 Part H §4, 1-26-2006; Ord. No. 06-08 Part H §4, 3-23-2006; Ord. No. 06-11 Part H §4, 5-4-2006; Ord. No. 06-14 Part H §4, 7-13-2006; Ord. No. 07-01 Part H §4, 2-1-2007; Ord. No. 07-02 Part H §4, 3-15-2007; Ord. No. 08-03 Part H §4, 7-1-2008; Ord. No. 08-05 Part H §4, 10-2-2008]



All driveway corrugated rib culvert pipes shall be fifteen (15) inches in diameter minimum (may be twelve (12) inches diameter if steel smooth pipe) and thirty (30) feet minimum in length. The maximum length is sixty (60) feet.

**Section 510.300 Construction.**

[Ord. No. 02-01 Part H §5, 4-1-2004; Ord. No. 06-02 Part H §5, 1-26-2006; Ord. No. 06-08 Part H §5, 3-23-2006; Ord. No. 06-11 Part H §5, 5-4-2006; Ord. No. 06-14 Part H §5, 7-13-2006; Ord. No. 07-01 Part H §5, 2-1-2007; Ord. No. 07-02 Part H §5, 3-15-2007; Ord. No. 08-03 Part H §5, 7-1-2008; Ord. No. 08-05 Part H §5, 10-2-2008]

- A. ~~The Road and Bridge Department Culverts shall be installed required driveway culverts as work schedules permit, but~~ not more than thirty (30) calendar days after the permit is issued, except during periods of adverse weather conditions. ~~It will be the responsibility of the permit holder to purchase the required pipe from a local vendor for pickup by the Road and Bridge Department or have the pipe delivered to the job site. The Road and Bridge Department will provide the necessary cover rock to install the culvert.~~ The Road and Bridge Department will not be responsible for surfacing the driveways in conjunction with the culvert installation.
- B. All driveways shall be constructed in such a manner as not to direct drainage onto the roadway.
- C. Culverts installed ~~by the property owner~~ not meeting the specifications and/or causing drainage problems may be removed as necessary to correct the drainage problem. In this situation the costs of new installations shall be borne entirely by the property owner.
- E. All unpaved or unsurfaced areas within road rights-of-way which have been disturbed during grading, construction or utility operations shall be fertilized and seeded to minimize erosion in those areas.
- F. Mulching is required on areas where slopes, soil type, excessive drainage or other conditions indicate additional protection is necessary.
- G. The area to be seeded shall have a uniform surface free from rills, washes, and depressions. Seeding shall be done before the proposed seedbed becomes eroded, crusted over or dried out and shall not be done when the ground is frozen or covered with snow. Seed shall be uniformly applied at a rate which will ensure a dense growth to control erosion. If proper growth is not obtained as a result of the initial seeding, additional applications of seed will be required until satisfactory results are obtained. The Road and Bridge Director may waive this requirement if the developer has provided adequate erosion control by some other means.