



MID - COAST

REGIONAL PLANNING COMMISSION

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Road Ordinance Provisions

Municipal planning committees and planning boards may find it helpful to see ordinance provisions that other communities use to regulate the design of roadways (public and private) and access (entrances and driveways) to these roadways. Benefits from appropriate regulation at the municipal level include enhancing safety, maintaining roadway capacity, alleviating congestion, protecting community and neighborhood character, and accounting for municipal costs. This compilation may be of assistance for those communities deciding what types of provisions could best meet their current and anticipated needs. A separate compilation of Pedestrian and Bicycle Land Use Ordinance Provisions is available on www.midcoastplanning.org. For more information and assistance in reviewing and drafting ordinance provisions, please contact the Mid-Coast Regional Planning Commission.

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MCRPC Basic Road Ordinance Provisions

A. PURPOSE

The provisions set forth in this ordinance are intended to ensure that town roads and private roads retain their capacity to handle traffic and are maintained as safe and efficient routes while allowing for new development.

B. STANDARDS FOR STREETS, PUBLIC AND PRIVATE ROADS AND WAYS

All streets, public and private roads and ways constructed after the adoption of this ordinance shall have plans prepared by a licensed engineer in accordance with the following standards.

1. **Angles.** In order to minimize turning time and driver confusion, proposed public or private roads must intersect existing road(s) at an angle of or as near to 90 degrees as site conditions will permit and in no case less than 60 degrees.
2. **Connectivity.** New roads shall have more than one connection to an existing road or roads where environmental conditions allow, especially for the construction of new roads extending more than 1,000 feet and/or serving more than 10 lots (residential or non-residential).
3. **Crown.** All loam, loamy material and clay shall be removed from the street or way to the depth specified. All street shall have crown to provide for proper drainage. The crown shall be a minimum of 1/8' per running foot of roadway width.
4. **Culverts.** All culverts shall be 15 inches or greater and at least 30 feet or longer depending on grade, and type as determined by the municipality must adequately protect the roadway to control erosion and runoff with best management practices.
5. **Dead End.** Where a new dead end street is unavoidable due to environmental conditions, a dead end street shall be provided with a suitable turnaround at the closed end. When a turning circle is used, it shall have a minimum outside radius of 75 feet.
6. **Emergency Vehicle Access.** For public health and safety purposes, clear routes of access must be provided and maintained for emergency vehicles.
7. **Grades.** The maximum grade for proposed public or private roads is 3% for the first 45 feet from the edge of the existing road(s). Thereafter, the grade may not exceed 7%.
8. **Right of Way.** All local residential streets shall have a minimum street right of way width of 50 feet. The 50-foot minimum width for the street right of way shall include a 28-foot roadway consisting of 2 10-foot lanes for traffic and 4 feet of shoulders, a strip 5 to 6 feet right of way for poles, etc. The 20-foot traffic lane shall be covered with 2 inches of bituminous concrete (hot

top) properly prepared and laid in two courses of one inch each in accordance with the specifications prepared by the Road Commissioner.

9. Subgrade. The street shall be graded to a subgrade of not less than 12 to 15 inches in the roadway location and driveway areas. All subgrade material shall be of granular common borrow. The subgrade shall be carefully shaped and thoroughly compacted before gravel is set in place. When a minimum length of 300 feet (or the entire length of the street if it is less than 300 feet) has been excavated to subgrade and this subgrade properly prepared, the gravel may be applied.
10. Thickness. The roadway shall be built to a minimum thickness of 12 to 15 inches with heavy road gravel of minus 6-inch rocks.

C. STANDARDS FOR DRIVEWAYS

All driveways constructed after the adoption of this ordinance shall be in accordance with the following standards.

1. Angles. In order to minimize turning time and driver confusion, driveways which permit traffic flow for ingress and egress must intersect the road at an angle of or as near to 90 degrees as site conditions will permit and in no case less than 60 degrees. Driveways that permit one-way access for ingress only or egress only shall form an angle of at least 60 degrees with town roads.
2. Drainage. In accordance with Title 23 Section 705, as amended, culverts of size, length, and type as determined by the municipality must adequately protect the roadway to control erosion and runoff with best management practices.
3. Grades. The maximum grade for driveways is 3% for the first 45 feet from the edge of the existing road. Thereafter, the grade may not exceed 10% for driveways serving single-family and two-family homes.
4. One Driveway per Lot. In order to minimize traffic congestion and conflict no more than one driveway per lot providing direct access town roads is permitted, except that the CEO shall have the authority to allow one additional driveway per lot in the event that the CEO determines that a separate access is required to meet reasonable safety concerns which arise from a single driveway per lot providing direct access onto town roads.
5. On-site Vehicle Circulation. Driveways shall be designed with sufficient on-site turn-around area on the lot to enable a driver to exit the premises without backing onto a public right-of-way. The minimum turn-around area shall be 8 feet wide by 15 feet long.
6. Shared Driveways. Owners of adjacent properties are encouraged to construct shared driveways. Road frontage requirements, if any, may be reduced by 10% when abutting property owners share one driveway.
7. Width. The traveled portion of driveways serving single-family and two-family homes shall be no less than 12 and no greater than 22 feet in width. The width of a driveway is the distance across the driveway, excluding radii, measured parallel to the roadway.

D. STANDARDS FOR ENTRANCES

All entrances, constructed after the adoption of this ordinance shall be in accordance with the following standards.

1. **Angles.** In order to minimize turning time and driver confusion, entrances which permit traffic flow for ingress and egress must intersect the road at an angle of or as near to 90 degrees as site conditions will permit and in no case less than 60 degrees. Entrances that permit one-way access for ingress only or egress only shall form an angle of at least 60 degrees with town roads.
2. **Drainage.** In accordance with Title 23 Section 705, as amended, culverts of size, length, and type as determined by the municipality must adequately protect the roadway to control erosion and runoff with best management practices.
3. **Emergency Vehicle Access.** For public health and safety purposes, clear routes of access must be provided and maintained for emergency vehicles to and around buildings and must be posted with appropriate signage (e.g., fire lane - no parking).
4. **Grades.** The maximum grade for entrances is 3% for the first 45 feet from the edge of the existing road. Thereafter, the grade may not exceed 7% for entrances serving commercial, multifamily and all other non-residential uses.
5. **Loading Docks.** Loading docks must not be located on any street frontage. Provision for handling all freight must be on those sides of any buildings that do not face on any street or proposed streets.
6. **Multiple Entrances per Lot.** Uses on lots which generate 50 or more vehicle trips per day (in accordance with the latest edition of the Trip Generation Manual, published by the Institute of Traffic Engineers) on a lot which has a minimum frontage of no less than 300 feet may have a maximum of 2 entrances for access onto town roads.
7. **On-site Vehicle Circulation.** Entrances shall be designed with sufficient on-site turn-around area on the lot to enable a driver to exit the premises without backing onto a public right-of-way. The minimum turn-around area shall be 8 feet wide by 15 feet long.
8. **Shared Entrances.** Owners of adjacent properties are encouraged to construct shared entrances. Road frontage requirements, if any, may be reduced by 10% when abutting property owners share one entrance. Provisions for vehicular connections to existing or future uses on adjacent properties are encouraged wherever feasible and to the maximum extent possible to minimize the traffic exit/enter movements.
9. **Truck Loading/Unloading.** In order to minimize traffic back-ups caused by parked delivery vehicles, non-residential uses that will be served by delivery vehicles must provide a clear route for such vehicles with appropriate design to allow for on-site turning and backing.
10. **Width.** The two-way traveled portion of entrances shall be no less than 16 and no greater than 22 feet in width. The width of an entrance is the distance across the entrance, excluding radii, measured parallel to the roadway.

E. ACCESS STANDARDS

The following standards shall apply to driveways for single-family and two-family dwellings accessing town roads; entrances for commercial, multifamily, and all other uses accessing town roads; and proposed public and private roads or streets accessing town roads.

1. Sight Distance. Any driveway, entrance, road or street must be located and designed so as to provide a safe sight distance, as follows in the table below:

Posted Speed (in miles per hour)	Driveways, Entrances, Roads and Streets (in feet)
20	155
25	200
30	250
35	305
40	360
45	425
50	495
55	570

Sight distance is measured from the driver's seat of a vehicle that is 10 feet behind the curb line (or edge of shoulder) with the height of driver's eye 3.5 feet above the pavement and height of an object 4.25 feet above the pavement, as seen by the driver. For example, an object may be an oncoming car, a bicycle, or a pedestrian.

2. Corner Lots. Where a lot has frontage on 2 or more roads, the primary access to and egress from the lot must be provided to the road where the CEO determines there is less potential for traffic congestion and for traffic and pedestrian hazards. Access from other streets may be provided if it is safe and does not promote shortcutting through the site.
3. Minimum Setback from Intersections. Driveways, entrances and new roads must be located at least 75 feet from the closest un-signalized intersection, and at least 150 feet from the closest signalized intersection.
4. Parking Lot Access. To minimize traffic conflicts, no parking lot or portion of a parking lot may be directly accessible from any public way. Ingress to and egress from parking areas must be limited to driveways or entrances.
5. Spacing of Driveways and Entrances. In order to minimize traffic accidents resulting from turning vehicles, the minimum distance between driveways or entrances must be 75 feet measured from the centerlines of the driveways and entrances at the right-of-way line. This standard applies to driveways and entrances on the same lot or on adjoining lots. Shared driveways or entrances with a common point of access onto a road or street are considered as one driveway or entrance for purposes of this requirement.
6. Turning Safety. Points of access and egress must be located to avoid hazardous conflicts with existing turning movements and traffic flows. The

access point of driveways, entrances and proposed streets must function adequately without creating excessive delay to thru traffic on town roads. Auxiliary turning lanes shall be installed where it is essential for public safety as determined by the CEO. For entrances, appropriate turning radii must be provided to prevent tractor-trailer service vehicles or other large vehicles (buses, recreational vehicles, etc.) from encroaching into the opposing lane of travel where such traffic is expected.

F. ADMINISTRATION, PERMITS AND ENFORCEMENT

1. Administration. This ordinance shall be administered by a Code Enforcement Officer (CEO) appointed by the Municipal Officers.
2. Conflicts. Whenever the requirements of this Ordinance are in conflict with the requirements of any other lawfully adopted rule, regulation, ordinance, deed restriction or covenant that imposing the most restrictive or higher standards shall govern.
3. Costs. All engineering work, including the setting of grade stakes necessary for the construction of the street and storm drains shall be performed by the applicant at his expense.
4. Enforcement. It shall be the duty of the CEO or his/her agent to enforce the provisions of this Ordinance. If the CEO or his/her agent shall find that any provision of this Ordinance is being violated, he/she shall notify in writing the person responsible for such violation, indicating the nature of the violation and ordering the action necessary to correct it. He/she shall order discontinuance of illegal use of roads, streets, ways, driveways or entrances, or work being done, or shall take any other action authorized by this Ordinance to insure compliance with or to prevent violation of its provisions. The CEO is hereby authorized to institute or cause to be instituted, in the name of the municipality, any and all actions, legal or equitable, that may be appropriate or necessary for the enforcement of this ordinance; provided, however, that this section shall not prevent any person entitled to equitable relief from enjoining any act contrary to the provisions of this Ordinance.
5. Fee Schedule. Annually, no later than January 1 of each year, the Board of Selectmen shall adopt a fee schedule for the access permit following a review of the fee schedule recommended by the CEO.
6. Fines. Any person, firm, or corporation being the owner of or having control or use of any street, road, way, driveway or entrance who violated any of the provisions of this Ordinance, shall be fined in accordance with Title 30-A Section 4452, as amended. Each day such a violation is permitted to exist after notification shall constitute a separate offense. The municipal officers, or their authorized agent, are hereby authorized to enter into administrative consent agreements for the purpose of eliminating violations of this ordinance and recovering fines without court action. Such agreements shall not allow an illegal street, road, way, driveway or entrance or use to continue unless there is clear and convincing evidence that the illegal street, road, way, driveway or entrance or use was constructed or conducted as a direct result of erroneous

advice given by an authorized Municipal Official and there is no evidence that the owner acted in bad faith, or unless the removal of the street, road, way, driveway or entrance or use will result in a threat or hazard to public health and safety or will result in substantial environmental damage.

7. Permit. A Permit must be obtained from the CEO prior to the construction, installation, relocation or establishment of any of the following that will access town roads: a driveway, entrance, street, way or road. Permits must be approved when the proposed use complies with the standards set forth in this Ordinance. Note: A driveway or entrance permit may be required from the Maine Department of Transportation for access to state and state aid roads.
8. Severability. The invalidity of any section or provision of this Ordinance shall not be held to invalidate any other section or provision of this ordinance.

G. APPEALS PROCESS

Any person who believes that the CEO has made an error in the interpretation or application of the provisions of this ordinance, may appeal such determination to the Board of Appeals as an administrative appeal within 30 days of the permit issuance or permit denial by the CEO. If the Board finds that the CEO erred in his/her interpretation of the ordinance, it shall modify or reverse the action accordingly.

H. DEFINITIONS

The following definitions shall apply:

1. Access Point. The intersection of an existing or proposed access with the public right of way.
2. Access. A public or private roadway used to enter or leave a public highway from adjacent land using an on-road motor vehicle. An access may be a driveway or an entrance depending upon the type of land use and volume of traffic generated by that use.
3. Driveway. An access serving one of the following land uses: residential uses up to two dwelling units, home occupations, forest management activities, farming, low impact industrial uses such as utility substations, or other similar uses.
4. Entrance. An access serving one of the following land uses: residential uses or developments serving three or more dwelling units, retail, office, or service business uses including department stores, strip malls, convenience stores, gas stations, auto repair shops, restaurants, or similar uses.
5. Parking lot. An area with more than two parking spaces and enough space for the vehicles that ordinarily use that area to turn around.
6. Use. The purpose for which land or a building is arranged, designed, or intended, or for which land or a building is or may be occupied or maintained.

Road Ordinance, Alna ME

1. Purpose

The purpose of this ordinance is to promote public health, safety and welfare for the residents of the Town of Alna by establishing construction standards for public ways, public easements (formerly private ways) and private roads including but not limited to streets, roads, lanes, alleys, et al, hereinafter called "road", and back lot driveways.

2. Administration and Effective Date

2.1 Administration. This ordinance shall be administered by the Planning Board, hereinafter called the "Board".

2.2 Effective Date: The effective date of this ordinance shall be _____.

3. Applicability

3.1 New Construction: This ordinance shall apply to the construction and lengthening of all roads within the Town. A road may be accepted by the Town of Alna only if it fully meets the design standards for public roads in Section 5 of this Ordinance. A back lot driveway need only meet the requirements of Sections 4.8 and 5.5.

3.2 Alterations: Alterations, widening and improvements shall be consistent with Section 5 of this Ordinance.

4. Application Procedures

Prior to the construction or lengthening of any road, an application shall be submitted to the Board at least 21 days prior to a scheduled meeting of the Board. The application shall include the following information:

4.1 Submission Requirements

- A. Names of applicants, owners of land for the location of the proposed road or, in the event of an existing road, the name of the existing road.
- B. A statement of any legal encumbrances on the land for the location of the proposed road.
- C. The anticipated starting and completion dates of each major phase of construction.
- D. A statement indicating the nature and volume of traffic anticipated on an average daily basis.

4.2 Plans

Detailed construction drawings shall be submitted showing a plan view, profile, and typical cross-section of the proposed roads and existing roads within 300 feet of any proposed intersection. The plans shall include the following information:

- A. Date, scale and magnetic or true north point.
- B. Intersections of the proposed road with existing roads.
- C. Roadway and right-of-way limits including edge of pavement, edge of shoulder, sidewalks and curbs.
- D. Kind, size, location, material, profile and cross-section of all existing and proposed drainage structures and their location with respect to the existing natural waterways and proposed drainage ways. Such structures shall be designed and sized in accordance with a stormwater management plan prepared by a registered professional engineer and shall meet the minimum stormwater design and construction standards of Article IX of the Subdivision Ordinance.
- E. Complete curve data shall be indicated for all horizontal and vertical curves.
- F. Turning radii at all intersections.
- G. Centerline gradients.
- H. Locations of all existing and proposed overhead and underground utilities including, but not limited to, water, sewer, electricity, telephone, lighting and cable television.
- I. Kind, size, location, profile and cross-section of all existing and proposed drainage ways and structures and their relationship to existing structures.
- J. A soil erosion and sedimentation control plan in conformance with the requirements of section V.2.17 of the Subdivision Ordinance.
- K. For roads to be located within the watershed of a great pond, a phosphorous impact plan as further described in section VIII-15 of the Subdivision Ordinance.
- L. For a road that is to remain private, the application shall include a plan setting forth how the road and associated drainage structures are to be maintained. Responsibility for road maintenance may be assigned to a lot owners association or to lot owners in common through provisions included in the deeds for all lots which utilize the private road for access. The applicant shall submit appropriate legal documentation such as proposed homeowners association documents or proposed deed covenants for Board review. This documentation must address specific maintenance activities such as summer and winter maintenance, long term improvements and emergency repairs and include a mechanism to generate funds to pay for such work.

4.3 Municipal Review

Upon receipt of plans for a proposed road or lengthening of an existing road, the Board shall forward copies to the Road Commissioner and the Town's consulting engineer, if any, for review and comment. For proposed public roads or for lengthening of existing public roads, a copy shall be forwarded to the Board of Selectmen. Where the subdivider

proposes alterations within existing public roads, the proposed design and construction details shall be approved in writing by the Road Commissioner or the Maine Department of Transportation (MDOT), as appropriate. If the existing public right-of-way is less than 50 feet, the improved right-of-way shall include easements widened to a minimum of 50 feet at the expense of the applicant.

4.4 Road Within a Proposed Subdivision

Plans for a road proposed as part of a subdivision as defined in the Subdivision Ordinance shall be submitted to the Board as an integral part of the subdivision application. The subdivision application and plans shall conform to the full provisions of this Ordinance and the Subdivision Ordinance.

4.5 Application Fee

The fee schedule for review of plans for a new road or an alteration to an existing road shall be established by the Board of Selectmen.

4.6 Application Review

The schedule for review of a road or lengthening of an existing road proposed as part of a subdivision shall be as described in the Subdivision Ordinance. For all other proposed roads or lengthening of existing roads, the following shall apply.

- A. Complete Application. Within 30 days from the date of receipt of an application, the Board shall notify the applicant in writing that either the application is complete or, if incomplete, the specific additional material needed to make it complete. A determination by the Board that the application is complete in no way commits or binds the Board as to the adequacy of the application to meet the requirements of this Ordinance.
- B. Application Approval. Within 30 days of a Public Hearing, or within 60 days of having received the complete application, or within such other time limit as may be mutually agreed to, the Board shall grant or deny approval on such terms and conditions as it may deem advisable to satisfy this Ordinance and to preserve the public health, safety and welfare. In all instances, the burden of proof shall rest upon the applicant. In issuing its decision, the Board shall make a written finding of fact establishing that the application does or does not meet the provisions of this Ordinance.
- C. Public Hearing. The Board may hold a Public Hearing within 30 days of having notified the applicant in writing that a complete application has been received and shall cause notice of the date, time and place of such hearing to be given to the applicant and all property owners abutting the proposed road, to be published in a newspaper of general circulation in the Town of Alna at least 7 days prior to the hearing.

4.7 Acceptance of Public Road

Approval by the Board of a proposed public road shall not be deemed to constitute nor be evidence of acceptance by the Town of said road. Acceptance of a road as public shall be by affirmative vote at a Town Meeting.

4.8 Back Lot Driveways

A. A back lot driveway shall not be constructed without prior Board approval. The applicant shall submit plans to the Board at least 21 days prior to a scheduled meeting of the Board. The fee schedule for review of plans for a back lot driveway shall be established by the Board of Selectmen. The application shall include the following information:

1. Names of applicants and owners of land for the location of the proposed back lot driveway.
2. A statement of any legal encumbrances on the land for the location of the back lot driveway.
3. The anticipated starting and completion dates.
4. The plans shall include a plan view and typical cross-section of the proposed back lot driveway including the locations of any roads or driveways located within 300 feet.

The plans shall also include the following:

- Date, scale and magnetic or true north point.
- Kind, size, location and material of all existing and proposed drainage structures and their location with respect to the existing natural waterways and proposed drainage ways.
- Locations of all existing and proposed overhead and underground utilities including, but not limited to, water, sewer, electricity, telephone, fuel storage, lighting and cable television.
- A soil erosion and sedimentation control plan in conformance with the requirements of section V.2.17 of the Subdivision Ordinance.
- For a back lot driveway to be located within the watershed of a great pond, a phosphorous impact plan as further described in section VIII-15 of the Subdivision Ordinance.
- The plan shall include any back lots that are to be accessed by the proposed back lot driveway.
- If more than one residence is to have access to the back lot driveway, the application shall include a plan setting forth how the road and associated drainage structures are to be maintained. Responsibility may be assigned to a lot owners association or to lot owners in common through provisions included in the deeds for all lots that

will utilize the back lot driveway for access. The applicant shall submit appropriate legal documentation such as proposed homeowners association documents or proposed deed covenants for Board review. This documentation must address specific maintenance activities such as summer and winter maintenance, long term improvements and emergency repairs and include a mechanism to generate funds to pay for such work.

- B. Upon receipt of plans for a proposed back lot driveway, the Code Enforcement Officer shall determine whether the application is complete. If the application is determine to be complete, the Code Enforcement Officer shall schedule it for review by the Board at the next regularly scheduled meeting.
- C. The Board shall review the application and determine whether it complies with the requirements of Sections 4.8 and 5.5 of this Ordinance as well as all other applicable ordinances of the Town of Alna. The Board shall grant or deny approval on such terms and conditions as it may deem advisable to satisfy all applicable ordinances. In all instances, the burden of proof shall rest upon the applicant. In issuing its decision, the Board shall make a written finding of fact establishing that the application does or does not meet the provisions of applicable ordinances. The Board shall sign the approved plan, which shall be recorded within 30 days of approval in the Cumberland County Registry of Deeds.
- D. Public Hearing. If the Board determines that due to site conditions, proximity of nearby uses, traffic conditions or similar circumstances that a public hearing is advisable, the Board may schedule a public hearing at its next regularly scheduled meeting. The Board shall cause notice of the date, time and place of such hearing to be given to the applicant and all property owners abutting the proposed road, to be published in a newspaper of general circulation in the Town of Alna at least 7 days prior to the hearing.
- E. Should an applicant propose that a back lot driveway serve more than two back lots, such driveway must be improved to fully comply with the requirements for a private road.

5. Road Design Standards

These design standards shall be met by all proposed roads and alterations to existing roads.

5.1 Through Traffic

Roads shall be designed to discourage through traffic on minor roads within a subdivision.

5.2 Reserved

5.3 Existing Narrow Roads

Where a subdivision borders an existing narrow road not meeting the width standards of this Ordinance or when the Comprehensive Plan indicates plans for realignment or widening of a road that would require use of some of the land of a subdivision, the plan shall indicate reserve areas for widening or realigning the road marked "Reserved for Road Realignment (Widening) Purposes". Land reserved for such purposes may not be included in computing lot area or setback requirements of the Zoning Ordinance. When such widening or realignment is indicated on the Official Map, the reserve area shall not be included in any lot, but shall be reserved to be deeded to the municipality or State.

5.4 Two Road Connections

Any proposed road or lengthening or alteration to an existing road which, on the basis of a specific development proposal or on the basis of available road frontage, could generate more than 200 vehicle trips per day shall have at least two road connections with existing public roads, roads shown on an Official Map, or roads on an approved subdivision plan for which performance guarantees have been filed and accepted. The applicant may agree in writing, subject to Board approval, to limit development to less than 200 vehicle trips per day until such time as a second road connection is developed. For purposes of computing vehicle trips per day, the applicant shall use the latest edition of Trip Generation published by the Institute of Transportation Engineers.

5.5 Road Design Standards

A. The following standards apply to new public and private roads:

Description	Type of Road				
	Arterial	Collector	Minor Road	Private Road ⁽¹⁾	Back Lot Driveway
Minimum Right-of way Width	80'	60'	50'	50'	50'
Minimum Travel Way Width	44'	22'	20'	18'	12'
Sidewalk Width	N/A	N/A	N/A	N/A	N/A
Minimum Grade	.5%	.5%	.5%	.5%	N/A
Maximum Grade	5%	6%	8%	10%	12%
Minimum Centerline Radius	500'	230'	150'	150'	N/A
Minimum Tangent between Curves of reverse alignment	200'	100'	50'	N/A	N/A
Roadway Crown	1/4"/ft	1/4"/ft	1/4"/ft	1/4"/ft	N/A
Minimum Angle of Road Intersections(2)	90°	90°	75°	75°	75°
Maximum Grade within 75 ft. of Intersection	2%	2%	2%	N/A	
Minimum Curb Radii at Intersections	30'	20'	15'	15'	N/A
Minimum ROW Radii at Intersections	20'	10'	10'	10'	10'
Minimum Width of Shoulders (each side)	5'	5'	5'	3'	1'
(1)	A private road which will serve fewer than 4 residences shall have a minimum travel way of 12 feet with two-2 foot shoulders and a maximum grade of 12%. A private road which will serve 4-10 residences will have a minimum travel way of 16 feet with two 3-foot shoulders and a maximum road grade of 12%.				
(2)	Road intersection angles shall be as close to 90° as feasible but no less than the listed angle.				

5.6 Reserved

5.7 Dead End Roads

In addition to the design standards above, the design of the turn-around for dead end roads proposed as public ways shall be approved by the Public Works Director. The Board may require the reservation of a 20-foot easement in line with the road to provide continuation of pedestrian traffic or utilities to the next road. The Board may also require the reservation of a 50-foot easement in line with the road to provide continuation of the road where future subdivision is possible.

5.8 Grades, Intersections and Sight Distances

- A. Grades of all roads shall conform in general to the terrain so that cut and fill are minimized while maintaining the grade standards above.
- B. All changes in grade shall be connected by vertical curves in order to provide the following minimum stopping sight distances based on the road design speed.

Design Speed (mph)	20	25	30	35
Stopping Sight Distance (ft)	125	150	200	250

Stopping sight distance shall be calculated with a height of eye at 3½ feet and the height of object at 4½ foot.

- C. Where new road intersections or driveway curb-cuts are proposed, sight distances, as measured along the road onto which traffic will be turning, shall be based upon the posted speed limit and conform to the table below. Sight distances shall be measured from the driver’s seat of a vehicle standing on that portion of the exit with the front of the vehicle a minimum of 10 feet behind the curblineline or edge of pavement, with the height of the eye 3½ feet, to the top of an object 4½ feet above the pavement. Required sight distances may be reduced upon recommendation of the Road Commissioner if he determines that the reduction will not significantly impact public safety, the sight distance is maximized to the greatest extent possible, and there is no feasible alternative location. In making this determination, the Road Commissioner may consult the Maine Department of Transportation.

Posted Speed Limit (mph)	25	30	35	40	45	50
Sight Distance (ft)	250	300	350	400	450	500

Where necessary, corner lots shall be cleared of all growth and sight obstructions, including ground excavation, to achieve the required visibility.

- D. Cross (four-cornered) road intersections shall be avoided insofar as possible, except as shown on the Comprehensive Plan or at other important intersections. A minimum distance of 200 feet shall be maintained between centerlines of side roads.

5.9 Sidewalks

If sidewalks exist on the project site or adjacent properties or if significant pedestrian traffic is present or anticipated in the future, the Planning Board may require the installation of sidewalks which meet the following minimum requirements:

- A. Bituminous Sidewalks. The crushed aggregate base course shall be no less than 8 inches thick. The hot bituminous pavement surface course shall be no less than 2 inches after compaction.
- B. Portland Cement Concrete Sidewalks. The sand base shall be at least 6 inches thick. The Portland cement concrete shall be 4 inches thick and be reinforced with 6-inch square, no. 10 wire mesh.

5.10 Road Construction Standards

- A. The following are minimum thicknesses after compaction.

Road Materials	Minimum Requirements				
	Arterial	Collector	Minor	Private Road	Back Lot Driveway
Aggregate Sub-base Course (maximum sized stone 4")	18"	18"	18"	12"	12"
Crushed Aggregate Base Course	4"	3"	3"	3"	
Hot Bituminous Pavement					
Total Thickness	3¼"	2½"	2½"	3¼"	
Surface Course	1½"	1"	1"	1½"	
Base Course	1¾"	1½"	1½"	1¾"	

- B. Bases and Pavements
 - 1. Bases. The aggregate sub-base course shall be sand or gravel of hard durable particles free from vegetative matter, lumps, balls of clay and other deleterious substances. The gradation of the part that passes a 4 inch square sieve shall meet the following grading requirements:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
¼ inch	25-70%
No. 40	0-30%
No. 200	0-7%

Aggregate for the sub-base shall contain no particles of rock exceeding 6 inches in any dimension. The aggregate base course shall be sand or gravel of hard durable particles free from vegetative matter, lumps, balls of clay and other deleterious substances. The gradation of the part that passes a 3-inch square mesh sieve shall meet the following grading requirements:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
½ inch	45-70%
¼ inch	30-55%
No. 40	0-20%
No. 200	0-5%

Aggregate for the base shall contain no particles of rock exceeding 2 inches in any dimension.

2. Pavement Joints. Where pavement joins an existing pavement, the existing pavement shall be cut along a smooth line and form a neat, even vertical joint.
3. Pavements. Minimum standards for the base layer of pavement shall be the MDOT specification for plant mix grade B. Minimum standards for the surface layer of pavement shall meet the MDOT specifications for plant mix grade C.

6. Additional Improvements and Requirements

6.1 Erosion Control

The procedures outlined in the erosion and sedimentation control plan shall be implemented during site preparation, construction and cleanup stages.

6.2 Cleanup

Following road construction, the developer or contractor shall conduct a thorough cleanup of stumps and other debris from the entire road right-of-way. If on-site disposal of the stumps and debris is proposed, the site shall be indicated on the plans and be suitably covered with fill and topsoil, limed, fertilized and seeded.

6.3 Road Names, Signs and Lighting

All new roads and extensions of existing roads shall be named in accordance with the requirements of the Road Naming and Property Numbering Ordinance of the Town of Alna. The developer shall reimburse the town for the costs of installing road name, traffic safety and control signs. Road lighting shall be installed as approved by the Board.

7. Certification of Construction

As-built plans shall be submitted to the Board of Selectmen. Upon completion of road construction and prior to a vote by the Board of Selectmen to submit a proposed public way to the legislative body, a written certification signed by a registered professional engineer shall be submitted to the municipal officers at the expense of the applicant, certifying that the proposed town way meets or exceeds the design and construction requirements of this ordinance.

8. Performance Guarantees

Performance guarantees shall be as described in Article XIII of the Subdivision Ordinance.

9. Inspection

- A. Notification of Construction: At least 5 days prior to commencing construction or alteration of a road, the applicant shall notify the Code Enforcement Officer in writing of the proposed commencement date of construction. The Town shall cause inspection to be made either by a professional retained by the Town or, at the Town's discretion, by the applicant's engineer, in order to ensure that all municipal specifications and requirements shall be met during construction. If the Town retains a professional to inspect road construction, the applicant shall be assessed a fee to cover the costs of such inspection.
- B. Noncompliance with Plan: If it is found upon inspection of the improvements that they are not being or have not been constructed in accordance with approved plans and specifications, the inspector shall so report to the Board of Selectmen and the Planning Board. The Board of Selectmen shall then notify the applicant and, if necessary, the bonding company, and take all necessary steps to preserve the municipality's rights under the guarantee, security or bond.
- C. Modification during Construction: If at any time before or during construction of the road it is demonstrated to the satisfaction of the appointed inspector that unforeseen conditions make it necessary or preferable to modify the location or design of the road, the appointed inspector may authorize modifications provided such modifications are within the spirit and intent of the Board's approval. The appointed inspector shall issue any authorization under this section in writing and shall transmit a copy of such authorization to the Board as its next regular meeting.

10. Waivers

- A. Where the Board makes written findings of fact that there are special circumstances, it may waive portions of the submission requirements, the standards, or other requirements, to permit a more practical and economical development provided the waivers do not have the effect of nullifying the intent and purpose of the Official Map, the Comprehensive Plan, the Zoning Ordinance, or this ordinance.
- B. Where the Board makes written findings of fact that, due to special circumstances, the provision of certain required improvements is inappropriate because of inadequate or lacking connecting facilities adjacent to or in proximity of the proposed road, it may waive or modify the requirement for such improvements, subject to appropriate conditions.
- C. In granting waivers to any of these standards, the Board shall require such conditions as will assure the objectives of this ordinance are met
- D. When the Board grants a waiver to any of the standards of this ordinance, the Final Plan shall indicate the waivers granted and the date on which they were granted.

11. Separability

Should any section or provision of this ordinance be declared by the courts to be invalid, such decision shall not invalidate any other article, section or provision of this ordinance.

12. Appeals

Any party aggrieved by a decision of the Board under this ordinance may appeal the decision to Superior Court as provided by law within thirty (30) days of the date of the decision.

13. Conflict with Other Ordinances

This ordinance shall not repeal, annul or in any way impair or remove the necessity of compliance with any other rule, regulation, permit or provision of law. Whenever the requirements of this ordinance are in conflict with the requirements of any other lawfully adopted rules, regulations, ordinances, deed restrictions or covenants, the most restrictive shall govern.

14. Definitions

Arterial Road. A major roadway serving long distance traffic through and between municipalities and carrying traffic to major centers of activity.

Collector Road. A principal roadway which conveys traffic between arterial roads.

Back Lot Driveway. A driveway that provides access to a back lot and that:

- 1. Originates at a public road.
- 2. Is developed within a 50-foot right of way.
- 3. Serves no more than two back lots.

4. Conforms to requirements of Section 4.8 and 5.5 of the Alna Road Ordinance.

Minor Road. A road that primarily serves for access to abutting properties.

Road. "Road" means and includes such ways as alleys, avenues, boulevards, highways, streets, roads and other rights-of-way. The term "road" shall also apply to areas on subdivision plans designated as "roads," etc.

Road Ordinance, Harpswell ME (Edited)

Section 1. Purpose

The purpose of the ordinance is to set construction standards for certain classes of roads, protect the safety and welfare of the citizens, provide for convenient travel, and minimize future maintenance costs.

Section 2. Authority, Applicability and Administration

- This ordinance is adopted pursuant to home rule powers as provided for in article VIII, part 2 of Maine Constitution and Title 30-A Maine Revised Statutes Annotated (M.R.S.A)
- The ordinance is known as the Harpswell Road Ordinance and shall govern the construction of all collector roads, local roads, and driveways. All roads shall be constructed in accordance with this ordinance and Maine Department of Transportation (MDOT) standards.
- Private roads may be proposed for acceptance at a Town meeting by a majority vote of the selectmen or by petition signed by a number of registered voters not less than 10% of votes cast in the town in the last gubernatorial election. All roads to be presented for acceptance by the Town must meet the major local road standards and be paved, a minimum of 18 feet in width, with 2 1/2 inches of modified B binder hot bituminous concrete.
- The Code Enforcement Officer shall administer this ordinance.

Section 3. Definitions

- Driveway - A private vehicular access way connecting a house, garage or other structure on a single lot to a road.
- Road – any one of the following vehicular access ways:
 - Arterial Road - A road that is functionally classified by the Maine Department of Transportation as an arterial, with controlled access, traffic signals at important intersections and/or stop signs on side roads.
 - Collector Road - A road that is functionally classified as a collector by the Maine Department of Transportation, and that collects traffic from local roads and connects with arterial roads.
 - Local Road – A public road or private road, other than arterial or collector roads.
 - Private Road – A road that is privately owned, built, and maintained, but not including a driveway. *[Citizen’s Note: The town may not, under Maine law, spend public funds to construct, repair, maintain or plow privately owned roads.]*
 - Public Road – A public easement or town way.
- Public Easement - An easement held by the municipality for purposes of public access to land or water not otherwise connected to a public way, and includes the rights enjoyed by the public with respect to private ways created by statute prior to July 29, 1976, pursuant to 23 M.R.S.A. § 3012 (2).

- Town Way - An area of land designated and held by a municipality for passage and use of the general public by motor vehicle; all town or county ways not discontinued or abandoned before July 29, 1976; and all state or state aid highways, or both, which are classified town ways as of July 1, 1982, or thereafter, pursuant to 23 M.R.S.A. § 53.

Section 4. New Road and Driveway Construction Standards

4.1 New Road and Driveway Construction Standards¹

TYPE OF ROAD	COLLECTOR ROAD	LOCAL ROAD serving 5 or more lots or dwelling units	LOCAL ROAD serving 3 or 4 lots or dwelling units
Minimum Right of Way Width	50'	33'	33'
Minimum Traveled Way	22'	18'	16'
Minimum Shoulder Width	9'	3'	3'
Minimum Grade	0.5%	0.5%	n/a
Maximum Grade (may be increased up to 16% for a distance of 200' or less)	10%	10%	10%
Minimum Radius of Center Line Curves	200'	150'	100'
Minimum Tangent Between Reverse Curves (May be waived by the Planning Board for extreme conditions within sub-divisions)	200'	100'	100'
Roadway Crown	¼"/'	¼"/'	¼"/'
Minimum Angle of Intersection	60°	60°	60°
Minimum Distance Between Intersections			
Same Side	400'	300'	300'
Opposite Side	250'	150'	150'
Maximum Grade within 50' of Intersections	3%	3%	3%
Traveled Way Radii			
90° Intersection	20'	15'	15'
60° to 90° Intersection	30'	30'	30'
90° to 120° Intersection	40'	30'	30'
Minimum Property Line Radii at Intersections	10'	10'	10'
Minimum Radii at Cul de Sac with Island			
Property Line	N/A	60'	50'
Outer Traveled Way or Pavement Edge	N/A	50'	40'
Inner Traveled Way or Pavement Edge	N/A	25'	20'
MDOT Approved Aggregate Sub-Base	12"	12"	12"
MDOT Approved Finish Gravel	6"	6"	6"

* Subdivisions are required to build a road according to the number of lots served.

4.2 Other Requirements: In addition to the above requirements, the following requirements shall also be met:

- The area to be used for the traveled portion of roads, including shoulders and side slopes must be cleared, grubbed and excavated to a depth of at least twelve (12) inches.
- Where adequate drainage cannot be obtained using twelve (12) inches of sub-base material, the road must be completed using designs consistent with the engineering standards approved by the Code Enforcement Officer.
- Where new pavement joins existing pavement, the existing pavement shall be cut along a straight line or series of straight lines and shall form a neat, even vertical joint.
- Curbing may be required when it is necessary, as determined by the Code Enforcement Officer, for pedestrian or vehicle safety, storm water control, or to minimize long-term maintenance costs for the Town.
- Unless otherwise approved by the Code Enforcement Officer all roads shall have side slopes no steeper than 3:1. Back slopes shall not exceed 3:1, except that for stream and/or wetland crossings may have a slope of up to 1.5 to 1 in accordance with Department of Environment Protection (MDEP) standards. In ledge cuts, back slopes may be as steep as 1:10, with the approval of the Code Enforcement Officer. Side slopes and back slopes shall be graded, loamed, fertilized and seeded, following recommendations in the latest edition of the Maine Environmental Quality Handbook prepared by the Maine Soil and Water Conservation Commission.
- Guard Rails may be required when slopes exceed 2:1 as determined by the Codes Enforcement Officer, for pedestrian or vehicle safety. Guard Rails may be constructed out of any material MDOT approved, including, but not limited to wood.
- Shoulders shall be measured from the edge of the traveled way to the bottom of the drainage ditch
- Erosion control measures for all roads must meet MDEP standards.
- No new stone walls, retaining walls, or solid fences shall be constructed within 8' of the edge of the pavement of any traveled way maintained by the Town; provided, however, that no such walls or fences shall be located within the right of way of a State road or a public road.

Section 5. Road Names

- All roads shall be named by the Town in accordance with the Harpswell Enhanced 911 Ordinance and any subsequent ordinances related to it.
- Only town approved roads signs may be used at the intersection of any roads. These signs must be compliant with the Harpswell Enhanced 911 Ordinance and approved by the Board of Selectmen before installation.

Section 6. Subdivision Roads

- Individual lots within subdivisions shall have no more than one two-way access driveway per one hundred fifty (150) feet of frontage and no more than two access driveways per lot.
- Subdivisions with roads connecting directly to State arterial roads shall obtain entrance permits from Maine DOT. Final approval of a subdivision shall not be

granted until entrance permits are obtained and a copy submitted to the Planning Board.

- New subdivisions connecting directly to existing private road(s), must upgrade the existing private road(s) to the local road standards, from the point of entrance from a public road onto the existing private road to the point of intersection with the new private road. Where the right-of-way of the existing road is less than thirty-three (33) feet, the applicant may request, and the Planning Board may grant, a waiver of the right-of-way requirement as long as all other construction standards are met.
- New subdivisions connecting directly to existing public road(s) must upgrade the public road(s) to the applicable road construction standards if it is determined by the Planning Board that the subdivision will have a detrimental effect on the condition of the public road(s), the level of service at nearby intersections impacted by the subdivision and the carrying capacity of existing public road(s).
- Cul-de-sacs and dead end roads that provide the only vehicular access to improved or improvable land in the subdivision shall be provided with a suitable turning circle or turnaround, as applicable, at the closed end.
- A hammerhead turnaround, whether temporary or permanent, shall be constructed to specified road standards for a distance of fifty (50) feet and shall be located at a ninety-degree (90°) angle to the road it serves.
- A T-shaped turnaround, whether temporary or permanent, shall be constructed to specified road standards for whatever minimum distance is necessary for each lot that it serves to meet frontage requirements.
- All turning circles shall be constructed to the standards set forth in Section 4 of this Ordinance.
- Temporary turning circles may be allowed where future road extensions are planned, provided that all lots are designed to provide the required frontage along the road extension after the removal of the turning circle.

Section 7. Notice of Permits

- Copies of any MDEP applications and permits for stream or wetland crossings must be provided to the Code Enforcement Office before construction of any road or driveway
- A road or driveway connecting to an arterial or collector road must obtain entrance permits from MDOT. A copy of the application must be submitted to the Code Enforcement Officer before construction may begin.

Section 8. Enforcement and Appeals

- This ordinance shall be enforced in accordance with the enforcement provisions of the Town's Basic Land Use Ordinance.
- Any person aggrieved by a decision of the Code Enforcement Officer may appeal such a decision to the Board of Appeals in accordance with the appeal provisions in the Basic Land Use Ordinance.

Driveway Entrance Permits Regulations, Litchfield ME (Edited Excerpts)

Driveway Entrance Permits

- The Road Commissioner is responsible for reviewing driveway entrances on Town maintained roads for any parcel of land, which agricultural or timber-harvesting uses will be conducted or on which will be built a new structure for a residential, commercial, or industrial unit.
- A driveway entrance permit will be required for new entrances (constructed) on Town maintained roads from the effective date of this policy. There will be no fee for the Permit.
- Driveway Entrance Permit Standards:
 - Sight distance in each direction is equal to or greater than 10 times the posted speed limit for the section of the road where the driveway entrance is located.
 - Applicable standards contained in the Land Use Ordinance are followed.
 - A new culvert made of corrugated metal having a minimum gauge of 16, a minimum diameter of 15 inches, and a minimum cover of gravel equal to or exceeding the diameter of the culvert, shall be installed, if necessary as determined by the Road Commissioner.
 - Inlet and outlet ditches are constructed in such a manner as to prevent ponding of the road drainage and slope ratios consistent with existing ditches.
 - Erosion control measures shall be used at the entrance site.
- The landowner is responsible for constructing the driveway entrance per the standards contained in this Ordinance. When the Road commissioner determines a change to these standards is warranted due to site conditions, he may require as applicable the trimming of vegetation, installation of signage, installation of larger culverts, or additional ditching.
- The landowner may have a private contractor of their choice meet the entrance standards or they may schedule the Town's Public Works Dept to meet the standards. The Town shall bill the landowner for labor and equipment (not to exceed MDOT rates) plus any cover material, culverts, or contracted ledge blasting required for installation.

Street Connectivity Provisions, Zoning and Subdivision Model Ordinance, Kentucky Transportation Cabinet (Edited Excerpts)

Purpose

The *[elected body]* hereby finds and determines that an interconnected street system is necessary in order to protect the public health, safety, and welfare in order to ensure that streets will function in an interdependent manner, to provide adequate access for emergency and service vehicles, to connect neighborhoods, to promote walking and biking, to reduce miles of travel that result in lower air emissions and wear on the roadway, and to provide continuous and comprehensible traffic routes.

General Standards

- A proposed development shall provide multiple direct connections in its local street system to and between local destinations, such as parks, schools, and shopping, without requiring the use of arterial streets.
- Each development shall incorporate and continue all collector or local streets stubbed to the boundary of the development plan by previously approved but unbuilt development or existing development.

Connectivity Index (Internal)

- To provide adequate internal connectivity within a subdivision or planned development, the street network shall have a minimum connectivity index of 1.40. The desired minimum connectivity index is 1.60. The connectivity index is defined as the number of street links divided by the number of nodes and link ends (including cul-de-sacs and sharp curves with 15 mph design speed or lower). *[Commentary: The higher the connectivity index, the more connected the road network. A connectivity index of 1.40 is a reasonable standard to ensure a connected roadway network; however, some cities require a smaller index, as low as 1.20. Figures 3 and 4 demonstrate how to calculate the connectivity index.]*

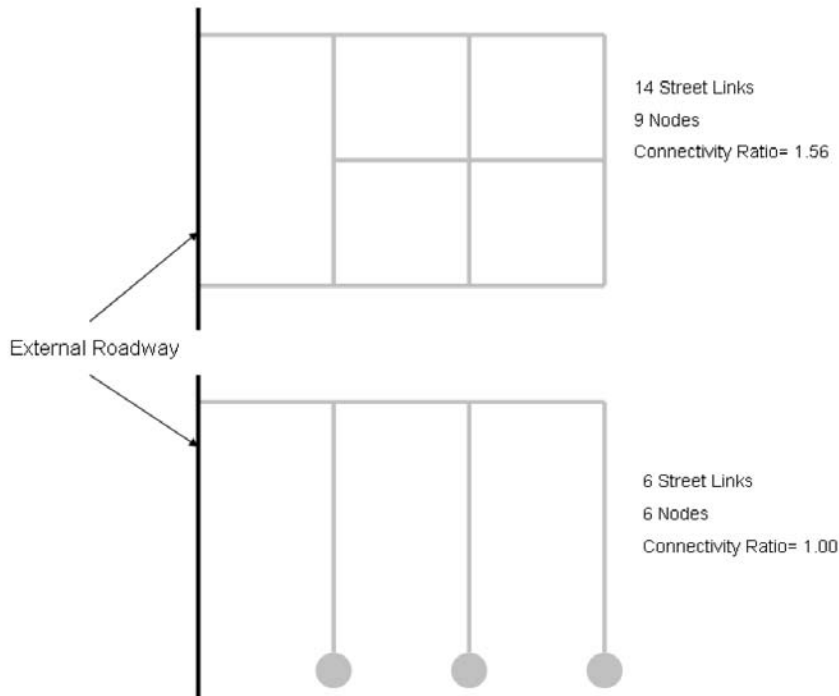


Figure 3: Example Connectivity Index Calculation

- A link is defined as a segment of road between two intersections or from an intersection to a cul-de-sac/stub-out. This includes road segments leading from the adjoining highway network or adjacent development.
- Nodes are defined as intersections and cul-de-sacs. They do not include the end of a stub-out at the property line or intersection with the adjoining highway network.
- No dead-end streets shall be permitted except in cases where such streets are designed to connect with future streets on abutting land, in which case a temporary turnaround easement at the end of the street with a diameter of at least *[one hundred (100)]* feet must be dedicated and constructed.
- Cul-de-sacs shall only be permitted if they are: less than *[four hundred (400)]* feet in length (See Figure 5 on how to measure cul-de-sac length.) or less than *[six hundred sixty (660)]* feet in length and have a pedestrian connection from the end of the cul-de-sac to another street. (See Figure 6.)

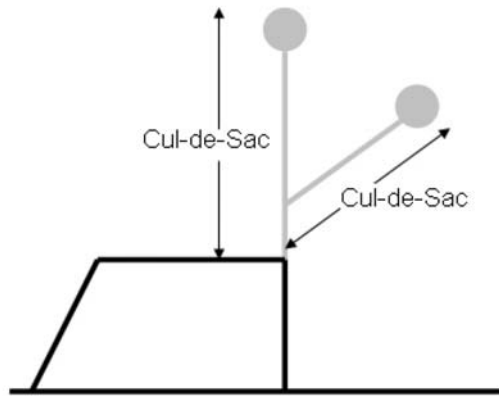


Figure 5: Measuring cul-de-sac length

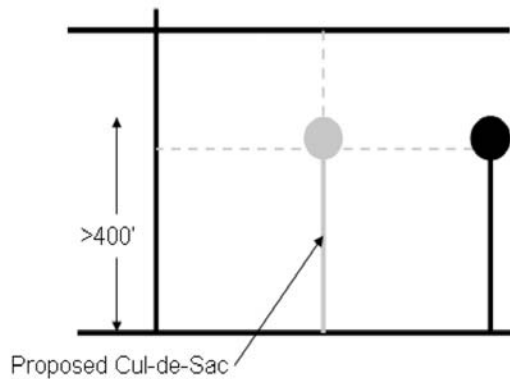


Figure 6: Providing pedestrian connections from cul-de-sac

Connectivity (External)

- To ensure future street connections where a proposed development abuts unplatted land or a future development phase of the same development, street stubs shall be provided for access to all abutting properties or to logically extend the street system into the surrounding area. All street stubs shall be provided with temporary turn-around or cul-de-sacs and the restoration and extension of the street shall be the responsibility of any future developer of the abutting land. *[Commentary: A street stub may be a local road, collector, or frontage road. The planning director and developer should take into account the purpose of each stub and future traffic patterns that may exist once adjacent land develop occurs and a street connection is made. Cut-through traffic and speeding on local residential streets should be discouraged through proper location and inclusion of traffic calming measures. In contrast, collectors and frontage roads should have logical, direct routes that make cross parcel driving possible. This may include a road that traverses the land from one property line to the opposite property line.]*

- Streets within and contiguous to the subdivision shall be coordinated with other existing or planned streets within the general area as to location, widths, grades, and drainage. Such streets shall be aligned and coordinated with existing or planned streets in existing or future adjacent or contiguous to adjacent subdivisions. All streets, alleys, and pedestrian pathways in any subdivision or site plan shall connect to other streets and to existing and projected streets outside the proposed subdivision or other development.
- Street connections shall be spaced at intervals not to exceed six hundred sixty (660) feet (1/8 mile) along each boundary that abuts potentially developable or re-developable land. Blocks longer than four hundred (400) feet in length shall have a mid-block pedestrian pathway connecting adjacent blocks. (See Figure 7.) *[Commentary: Minimizing the block length of local streets allows better access for pedestrians, bicyclists, and automobiles. The number may be changed to lower than 660 feet. The appropriate length may be determined based from a typical block length based on historical precedence in the area. It is common for American cities to have block lengths between 200 and 400 feet.]*

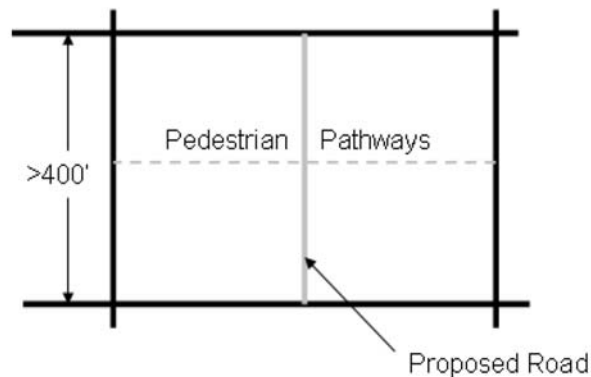


Figure 7: Mid-block pedestrian pathways

- The *[City Engineer]* may require any limited movement collector or local street intersections to include an access control median or other acceptable access control device. The *[City Engineer]* may also allow a limited movement intersection to be initially constructed to allow full movement access. *[Commentary: Local and state access management regulations will regulate the minimum spacing and design. Full intersection access on an arterial should be between 1/4 and 1/2 mile. Partial intersection access, controlled by a median, may be at shorter distances. More frequent access points improve overall roadway connectivity but may negatively impact the operations on an arterial roadway.]*
- Gated street entryways into residential developments shall be prohibited.

Land Development Regulation and Road Ordinance, Credit River Township MN (Edited Excerpts)

Continuation of Existing Township Roads

- The arrangement of streets in a proposed subdivision shall be designed for the appropriate continuation of existing streets and roads in adjoining areas. The Town Board shall make the final determination as to which existing streets and roads shall be extended into the proposed subdivision.
- If a street designated to be continued is not adjacent to the proposed subdivision, the developer of the proposed subdivision shall be responsible for the construction of the new street connection from the boundary of the proposed subdivision to a maximum distance not to exceed the length or width, whichever is greater, of any existing platted lot through or adjacent to which the new street will run. If the new street connects at an existing temporary cul-de-sac, the temporary cul-de-sac shall be removed as part of the road construction at the expense of the developer of the proposed subdivision.

Future Projection of Streets

- Where adjoining areas are not subdivided, the arrangement of streets in a proposed subdivision shall make provision for the projection of streets into adjoining areas by the dedication of road easements and by grading the streets to the boundary of the proposed subdivision. The Town Board shall make the final determination of which street projections are appropriate.
- When the Town Board determines that an adjoining area requires street access from the proposed subdivision into a future subdivision, the developer shall, prior to the final plat being filed, do one of the following:
 - Construct a finished street, including the bituminous layer, to the boundary of the proposed subdivision at the location of the projected street; or
 - Pay to the Township Road Fund a nonrefundable fee equal to 75% of the construction cost of placing base, paving, and removing any temporary cul-de-sac constructed as part of the subdivision street. The Township Engineer shall determine the construction cost.

Improvement of Existing Township Roads

- If a proposed subdivision utilizes an existing gravel township road to access the proposed subdivision, the developer of the proposed subdivision, at the developer's expense, shall improve the township road to current township guidelines, including a bituminous surface, at the time of the road construction for the subdivision.
- If the proposed subdivision will result in a material increase in traffic on an existing township road in excess of the design standards of the road, and the existing township road must be upgraded to serve the proposed subdivision, the owner or developer shall enter into a Developer's Agreement with the Township and shall participate in the cost of upgrading the township road.

Scenic Roads Ordinance, Washington CT (Edited Excerpts)

Purpose

The purpose of this Ordinance is to help protect the Town's rural character and beauty by preserving its scenic rural roads, consistent with the requirements of safe travel. The Town's rural roads are an important part of its history, and an essential component of its character.

Authority to designate scenic roads

The authority to designate a Town road or any portion of a Town road as a Scenic Road is hereby delegated to the Planning Commission, to be exercised according to the procedures in this Ordinance.

Designation Criteria

Prior to designating a Town road or any portion thereof as a Scenic Road, the Planning Commission shall first find that the road or the proposed portion thereof is free of intensive commercial development and intensive vehicular traffic. In addition, the Planning Commission must find that the highway or the proposed portion thereof meets at least one of the following criteria:

- It is unpaved.
- It is bordered by mature trees or stonewalls.
- The traveled portion is no more than twenty (20) feet in width.
- It offers scenic views.
- It blends naturally into the surrounding terrain.
- It parallels or crosses over brooks, streams, lakes or ponds.

Application and Rescission Procedures

Application Requirements: An application to the Planning Commission for designation of any Town road or portion thereof as a Scenic Road must include the following:

- The name, address, and telephone number of the applicant. The applicant may be a person or other legal entity, such as a corporation or partnership.
- The name of the road and the total length of the portion to be designated as a Scenic Road.
- A brief description of the road and a statement as to how the road or proposed portion thereof meets the criteria specified in this Ordinance.
- A map showing lot boundaries, the amount of lot frontage, and the names of all owners of every lot located along any portion of the Town highway proposed for designation as a Scenic Road.
- A statement or statements of approval of the proposed Scenic Road designation, signed by the owners of a majority of the lot frontage abutting the portion of the road proposed for such dedication. Each statement of approval shall include the name, address, and the amount of relevant lot frontage of each signing owner. Each such statement shall also contain the name, address, and signature of the

person who circulated the statement. All such statements must be filed with the Town Clerk.

- An application fee of \$150.00.

Appeal of Designation: An appeal of any designation of a Scenic Road by the Planning Commission may be made to the extent permitted by State law.

Hearings, Notice, and Decisions:

- The Planning Commission shall conduct a public hearing on any application for scenic road designation within 65 days after the date of its first regularly scheduled meeting following the day of submission of the application.
- The Commission shall prepare a notice of the public hearing and shall publish the notice at least once in a newspaper having a general circulation within the Town. Such publication shall be made no later than ten (10) days before the date of the hearing, with the ten days being inclusive of the date of publication but not the date of the hearing. The Commission shall also make a copy of the notice available to the applicant at least three business days before the date of publication. The applicant shall mail copies of the notice by certified mail, return receipt requested, to the owners of all of the property having frontage along the portion of the Town highway proposed for designation as a Scenic Road. Such mailing shall be made no later than ten days before the date of the hearing, with the ten days being inclusive of the date of publication but not the date of the hearing. The applicant must submit proof of such mailing (official certified mail receipts and/or signed return acknowledgments) to the Commission at or before the commencement of the public hearing.
- The Commission shall make its decision on the application within 35 days after the close of the public hearing. The Commission may approve the application as submitted or may designate a lesser portion of the highway as a Scenic Road, if such lesser portion otherwise meets the criteria set forth in this Ordinance. If the Commission fails to act on the application within the periods set forth in this subsection, the application shall be deemed to be denied in its entirety; however, the applicant shall be entitled to resubmit the application immediately to the Commission with no additional filing fee. If an application is denied by a vote of the Commission, including the failure of a motion to approve the application, no application involving the same highway or portion of the highway may be submitted to or considered or approved by the Commission for a period of two years from the date of publication of the decision.
- The Commission shall publish a notice of any decision it renders on the application in a newspaper having a general circulation within the Town. Such notice shall be published no later than fifteen (15) days after the date of the decision. If the Commission approves the application, it shall notify the Board of Selectmen, the Town Road Foreman, and the Town Tree Warden of the designation within fifteen (15) days after the date of the decision, specifying the scenic characteristics for which the Commission has determined that protection is warranted. The failure to send such notice to the Board of Selectmen, the Town

Road Foreman, or the Town Tree Warden within such period shall not affect the validity of the designation.

Rescission of Designation: A Scenic Road designation may be rescinded following the procedures for designation as set forth in this Ordinance, including the requirement that the owners of a majority of lot frontage along the affected portion of the Town highway approve of the rescission.

Maintenance, Alterations and Reconstruction of Scenic Roads

Maintenance: The Town shall maintain Scenic Roads in good repair and in passable condition by routine highway maintenance. However, such routine maintenance shall be performed in a manner to protect and maintain the scenic characteristics of the highway to the extent feasible. For the purposes of this Ordinance, the term “routine maintenance” shall include:

- Winter road maintenance.
- Road cleaning.
- Removal of dead, seriously diseased or damaged trees and branches that pose a threat to public safety, in accordance with State Statutes; trimming branches to allow school buses, emergency vehicles, and other vehicles to pass; trimming and removal of brush and removal of boulders and other obstacles that encroach on the traveled portion of the road or obstruct site lines required for safety; necessary cutting and trimming of brush or trees for utility lines; and trimming of brush to enhance and protect scenic views, stone walls, mature trees, and other scenic characteristics of the scenic road as set forth in its designation.
- The correction of road drainage problems, including, but not limited to, the removal of trees, shrubs, silt and other material from existing drainage structures and the replacement of cross culverts, curtain drains and cross culvert drainage pipes.
- Graveling (or its equivalent) and grading to smooth the surface of unpaved roads, provided that the nature and characteristics of the material used on the road surface remain the same or the surface is restored to a prior passable condition using natural materials such as crushed rock or native stone or equivalent.
- Repaving, retreatment, or repair of existing paved surfaces that does not require the widening of the traveled path or the removal of trees or stone walls or changing the grade or configuration. For purposes of this subsection, “widening of the traveled path,” means extending the traveled path beyond its width at the prior paving. Periodic edging out and creating unpaved shoulders shall be considered routine maintenance.
- The installation of reflectors, warning, speed limit, and other roadway signs shall be kept to a safe minimum number.

Alterations and Improvements: Alterations or improvements shall include changes to any of the following: the width of the traveled path of the right-of-way; the alignment, grade, or elevation of the highway; the nature and characteristics of the material used on the highway surface; the removal or destruction of stone walls or portions thereof; the

removal of visible boulders; the removal or cutting of trees, shrubs, or other vegetation within the untraveled portion of the road; and the replacement of bridges, guard posts, rails and other engineered structures. No such alterations or improvements shall be allowed except as expressly provided in this Ordinance. In addition, any such alterations or improvements shall be planned and executed to do the least possible damage to the physical characteristics of the Scenic Road. Materials that blend into and compliment the scenic characteristics of the highway, including, but not necessarily limited to, stone and timber, shall be used for bridges, guide rails, guideposts and other engineered structures.

Alterations to correct potential hazards to safety: If the Board of Selectmen finds that a potential hazard to safety may exist on a Scenic Road and that such hazard requires the alteration or improvement of the Scenic Road (other than emergency repairs, as defined in this Ordinance), the Board may prepare a written proposal to make such alterations or improvements. Upon preparing any such proposal, the Board shall file the proposal with the Town Clerk. It shall thereafter publish a notice in a newspaper having a general circulation in the Town, stating that such proposal has been filed with the Town Clerk, indicating the Scenic Road to be affected, and generally stating the work to be performed. No later than the date of publication of such notice, the Board shall provide a copy of the notice to the chairmen of the Planning Commission, the Zoning Commission and the Conservation Commission, and shall mail a copy of the notice, by certified mail, return receipt requested, to the owners of all land abutting the Scenic Road to be affected.

If no written objection is filed with the Board of Selectmen within thirty-five (35) days after the publication of the notice, the alterations or improvements may proceed. If an objection is made, a hearing shall be held by the Board of Selectmen to consider the objections further. Notice of the hearing shall be published in a newspaper having a general circulation in the Town at least ten (10) days before the date of the hearing, with the ten days being inclusive of the day of publication but not the day of the hearing. The notice shall indicate the date, time and place of the hearing and shall state that the hearing is to be held to discuss the potential alteration or improvement of the Scenic Road to be affected. The Board shall also mail a copy of the notice, no later than the date of publication, to each person who filed an objection. At the hearing, those in attendance shall have an opportunity to review and comment on the proposed alterations and improvements.

Following the hearing, the Board of Selectmen may decide to correct the potential hazard in the manner planned or in any manner that will cause less disturbance of the Scenic Road and will still satisfactorily correct the hazard.

Alterations and improvements to accommodate changed conditions: If a Scenic Road should develop a high level of traffic congestion that results in unreasonable delays for emergency vehicles, or if the physical condition of the Scenic Road deteriorates to the extent that the Town cannot maintain it in good and sufficient repair without alteration or improvement, the Board of Selectmen may propose the alteration or improvement of the Scenic Road. Such proposals shall follow the same procedures as set forth in this Ordinance, except that copies of the initial notice shall be provided to the Town's

Emergency Services and the Road Foreman in addition to all of the other recipients specified.

Emergency Repairs: Emergency repairs and reconstruction may be made as needed, but shall be made in a manner consistent with the scenic characteristics of the road to the extent feasible.

STATEMENT IN SUPPORT OF APPROVAL OF SCENIC ROAD

To the Town Clerk and Planning Commission of the Town:

As an owner of property having frontage on a Town road that has been proposed for Scenic Road status under the provisions of the Town's Scenic Road Ordinance, I hereby state my support for that designation and I further state that the information provided below is true to the best of my knowledge and belief:

Name: _____

Residence Address: _____

Telephone Number: _____

Information regarding property owned on proposed Scenic Road:

Street Address: _____

Assessor's Lot No.: _____

Length of frontage along proposed Scenic Road (in feet): _____

Basis for knowledge of length of frontage (e.g., deed reference, survey, subdivision map, etc.): _____

Signature of Owner: _____

Name, address, and signature of the person who circulated the statement:

Culvert Regulations, Boise County ID (Edited Excerpts)

Culvert Requirements.

- Culverts or bridges shall be installed at intersections and accesses, at driveway entrances, at all points where a natural drainage concentration pathway crosses any road, and at all points where high water table conditions create a requirement for supplemental drainage.
- Design flow for culverts shall be the 50-year maximum flow based on hydrologic analysis performed by or under supervision of a Professional Engineer registered in the State.
- No culvert in forested regions, including driveway entrance culverts, shall be smaller than 18-inch diameter, and larger sizes shall be used where required.
- Culverts in non-forested regions shall be not less than 18 inches in diameter if on Public roads or on approaches to Public roads.
- Culverts shall be provided at all driveway approaches that occur in roadway sections that are drained by constructed roadside ditches. Driveway entrances at locations where natural topographic relief allows road surface runoff to drain away from the roadside without requiring a ditch may be constructed without culverts.
- Culverts shall be adequate for AASHTO HS-20 loadings.
- Acceptable materials for culverts are reinforced concrete pipe, precast reinforced concrete box sections, galvanized steel pipe and plate, and aluminized steel pipe and plate.
- Culvert widths shall be such that the total roadway (travel-way plus shoulders) is not narrowed as the road crosses the culvert and that the culvert extends a minimum of three feet past the toe of the roadway fill both upstream and downstream, except that a shorter culvert may be used provided that the fill is stabilized by headwalls and wingwalls and that the roadway (travel-way plus shoulders) is not narrowed.
- At the developer's option, the Table For Culvert Sizing may be used for culvert sizing in lieu of hydrologic calculations for determination of 50-year storm flow:

TABLE FOR CULVERT SIZING

Watershed Area (acres)	Required Culvert Diameter (Inches)	Culvert Capacity (Cubic feet per second)
Less than 15	12	2
16 to 72	18	6
73 to 130	24	12
131 to 270	30	20
271 to 460	36	32
461 to 720	42	46
721 to 1,025	48	65
1,026 to 1,450	54	89
1,451 to 1,870	60	112

Watershed Area (acres)	Required Culvert Diameter (Inches)	Culvert Capacity (Cubic feet per second)
1,871 to 2,415	66	142
2,416 to 3,355	72	176
3,356 to 5,335	84	260
5,336 to 7,410	96	370
7,411 to 9,565	108	50
9,566 to 11,780	120	675

Notes: Strongly consider having culverts that are larger than 60 inches designed, or consider alternative structures, such as bridges, mitered culverts arches, etc. Culverts larger than 120 inches must be designed; consider alternative structures.

Flag Lots/Private Driveway Regulations, Charles County, MD (Edited Excerpts)

Flag lots/private drives - With single-family detached residential units, the following conditions apply:

- Where two or more lots are proposed to be served by the same driveway easement, such driveway easement shall have a minimum width of twenty-five (25) feet.
- Parking spaces shall not be provided within that portion of private driveways that serve two or more lots.
- The responsibilities for driveway maintenance shall be clearly stated in covenants, in a form acceptable to the Planning Commission, which shall be filed in the land records at the time of filing of the final plat, and a certification shall be included on the final plat to the effect that the subdivision is subject to covenants.
- For lots less than one acre in size, the drive shall be a minimum of two inches of pavement on six inches bank run gravel base. Curbing is not required. For lots one acre or more in size, the drive shall be a minimum of six inches bank run gravel and a minimum of sixteen feet in width.
- The minimum width of a driveway serving two or more lots shall be sixteen (16) feet.
- Common access driveways shall be constructed at the time of construction of the subdivision and shall be constructed by the developer.

Private Driveways and Private Roads Ordinance, Cable WI (Edited Excerpts)

Purpose.

It is in the public interest to establish standards for private driveways and private roads that will provide for adequate access by fire truck, ambulance or other emergency vehicles from the public right of way to private developments. The establishment of such standards is critical to protect the safety of people and property. Therefore, this ordinance is adopted to establish such standards.

Definitions.

- Improved parcel: A lot or parcel of land which is served by or has available electrical service or which is otherwise physically improved so that it is intended for, available for or capable of being a site for the location, erection, or construction of a principal building.
- Person: An individual person or partnership, corporation, limited liability company, or any other entity.
- Principal Building: A building or other structure, which is intended for, suitable for, or capable of being used for human dwelling or occupancy or business. An accessory building is not a principal building.
- Private driveway: A privately owned improved or unimproved path, road, driveway, or way, or other improved or other unimproved surface, extending from a public street, public highway, public road, or private road that provides the primary means of vehicular ingress and egress to one improved parcel or one principal building.
- Private road: A privately owned improved or unimproved path, road, drive, street, driveway, or way, or other improved or other unimproved surface, not dedicated as a public road, public street, or public highway, which provides the primary means of vehicular ingress and egress from a public road, public street, or public highway to two or more improved parcels, or two or more principal buildings.

General Provisions.

- The primary means of vehicular ingress and egress as to one improved parcel or one principal building shall be a private driveway.
- The primary means of vehicular ingress and egress as to two or more improved parcels, or two or more principal buildings, or a combination of two or more improved parcels and principal buildings (e.g. one improved parcel and one principal building), shall be a private road.
- No person shall erect, construct, place, or allow the erection, construction, or placement of a principal building on any lot or parcel of land in the Town unless such principal building is served by a private driveway or private road that complies with the requirement of this ordinance.
- No building permit shall be issued for the erection, construction, for placement of a principal building on any lot or parcel of land in the Town unless the principal

building located on such a lot or parcel of land is served by a private driveway or private road that complies with the requirements of this ordinance.

- No building permit shall be issued for an addition to an existing principal building unless the principal building located on such lot or parcel of land is served by a private driveway or private road that complies with the requirements of this ordinance. This provision is applicable only to additions or a series of additions to the same building, which result in the addition of more than 500 square feet to the principal building.
- No person shall improve, or cause to be improved, a lot or parcel of land in the Town to make it an improved parcel unless such parcel of land is served by a private driveway or private road, which complies with the requirements of this ordinance.
- No person shall construct, or cause to be constructed, a private driveway, private road or other access to a public right of way without first obtaining a permit from the Town.

Standards.

The following minimum construction and maintenance standards shall apply to private driveways and private roads in the Town:

- Minimum drivable surface width: 12 feet for private driveways and 22 feet for private roads.
- Minimum width clearance (area free of branches, wire and other obstructions): 24 feet for private driveways and 66 feet for private roads.
- Minimum height clearance (area free of branches, wire, and other obstructions): 14 feet for private driveways and 18 feet for private roads.
- Minimum carrying capacity for bridges: 40,000 pounds for private driveways and 80,000 pounds for private roads.
- Maximum grade: As agreed upon by Town Board.
- Where a private driveway or private road intersects in a public right of way, the portion of the private driveway or private roadway, which is in the public right of way, shall slope away from the public right of way at a minimum of 1% and a maximum of 5% to prevent/reduce erosion into the public right of way.
- For private driveways over 300 feet in length, wider segments shall be provided at least every 150 feet for the purpose of allowing safe passage of motor vehicles traveling in opposite directions. The size of such segments shall be at least 25 feet in length and 18 feet in width.
- A private driveway shall have a minimum of 6 inches of gravel covering an appropriate base material. A private road shall have a minimum of 10 inches of gravel covering an appropriate base material.
- The private driveway shall have such culverts as specified by the Town. Unless otherwise specified by the Town, each culvert required for a private driveway shall be at least 8 inches in diameter and 20 feet in length. Each culvert for a private road shall be at least 18 inches in diameter and 40 feet in length. Culverts placed at intersections for private driveways shall be a minimum of 8 inches in diameter and 24 feet in length. Culverts placed at intersections for private roads shall be a minimum of 18 inches in diameter and 44 feet in length.

- The dead-end of each private driveway shall have a turn-around with a radius of at least 25 feet or another physical arrangement acceptable to the Town. The dead-end of a private road shall have a turn-around with a radius of at least 40 feet.
- At the location where a private driveway intersects a public highway, public road, or public street, there shall be a visibility of at least 250 feet for approaching traffic in each direction. A private roadway shall have a visibility of at least 500 feet in each direction.
- When a private driveway or private road intersects a public highway, public road, or public street, such intersection shall be laid out so that the intersection is perpendicular.
- No private driveway shall contain a curve that restricts visibility less than 80 feet ahead. A private road shall not contain a curve that restricts visibility more than 300 feet ahead.
- In addition to the standards set forth above, the drivable surface of a private road which is the primary means of vehicular ingress and egress as to three or more improved parcels, or three or more principal buildings, or a combination of three or more improved parcels and principal buildings (e.g. one improved parcel and two principal buildings), shall be paved with a minimum of 2 inches of asphalt pavement.

Application for permit.

A person who desires to construct a private driveway or private road in the Town shall first:

- File with the Town Clerk a properly completed and signed application for a private driveway/private road permit on what is then the form approved by the Town Board and pay the Town Clerk the appropriate application fee.
- After a properly signed and completed application for a private driveway/private road is filed with the Town Clerk with the required application fee, such application will be examined by the Town Clerk, the Town Board, or its designee. If the application is not complete or is not completed properly or is otherwise insufficient, it may be returned to the applicant to correct the deficiencies.
- If an application is determined to be properly completed and signed and the fee has been paid, the Town Board or its designee will inspect the site of the proposed private driveway/private road.
- After an inspection has been made, the Town Board, or its designee, may if it determines it necessary, obtain additional information and perform additional inspections.
- The Town Board may approve the application, deny the application, or approve the application upon such conditions as the Town Board deems appropriate under the circumstances. The applicant will be informed in writing of the Town Board's decision.
- If the application is approved by the Town Board, any private driveway/private road which is constructed shall be constructed and maintained in accordance with this ordinance. If the application is approved by the Town Board with conditions,

any private driveway/private road which is constructed and maintained in compliance with the conditions placed on the permit.

- If the Town Board issues the applicant a permit for the construction of a private driveway/private road, the applicant has twenty-four months from the date of issue within which to construct the same. If construction is not completed within that time, the permit will lapse.

Application form and fee.

The Town Board shall adopt an application form for persons to complete to apply for a private driveway/private road permit. Blank application forms shall be available from the Town Clerk. The Town Board shall periodically set the amount of the application fee. The application fee shall be non-refundable.

Compliance and Violations.

- Any person who violates any term or provision of this ordinance may be subject to one or all of the following:
 - An order by the Town Board to cease and desist in such violation.
 - An order by the Town Board that the violator takes action necessary to comply with the terms of this ordinance.
 - An order by the Town Board that the violator forfeit a maximum of \$100.00 for each violation.
- A person in violation of this ordinance, or a person in violation of any conditions set forth in a permit issued pursuant to this ordinance, shall be given notice of the violation and a reasonable time to correct the violation. If not otherwise specified in the notice a reasonable time shall not be more than 30 days. Each day that a violation continues to exist after the time set forth in the notice shall constitute a separate violation.
- The Town Board or its designee may order a person to apply to the Town for a permit for a private driveway/private road if a private driveway/private road has been constructed or it appears is being constructed without the required permit.
- The Town Board or designee may order a person to cease and desist in constructing a private driveway/private road in the Town if such private driveway/private road is not being constructed in accordance with the permit, a condition or the permit, or this ordinance.
- If a person in violation of this ordinance fails to comply with an order to correct the violation, the Town Board may undertake to correct the violation. The violator shall be ordered to reimburse the Town for the cost of such undertaking.
- A person violating this ordinance will be required to pay or reimburse the Town for its actual reasonable attorney fees, costs, and disbursements associated with enforcing this ordinance.

Driveway Access Ordinance Town Model, Clark County, WI (Edited Excerpts)

Existing Hazardous or Nonconforming Driveway Conditions

When conditions created by existing driveways or field roads are in conflict with the purpose of this ordinance, a hazardous condition may be identified. Hazardous or nonconforming driveways are subject to the following conditions:

- The Town Board's designated Official will notify the property owner of the hazardous conditions.
- Existing driveways determined to be hazardous as defined in this Section shall be brought into compliance with the terms of this Ordinance to the extent determined practical by the Town Board's designated Official.
- Any property owner failing to correct such condition within thirty (30) days after notice by the Town Board shall be subject to the penalties of this ordinance and shall also be liable for any costs incurred by the Town to eliminate the hazard as provided in State Statutes.
- Should existing driveway conditions be determined by the designated Official to be a severe threat to public health or safety, the Town may take corrective action immediately or establish a deadline for compliance of less than thirty (30) days.
- Driveways determined to be hazardous by the Town Board's designated Official shall be subject to, but not limited to, the following mandatory review criteria: driveway width, height and width clearance, and ingress/egress angle.

Separation Distances and Line of Sight

Preserving adequate sight distance, separation between driveways, and separation between driveways and intersections helps prevent dangerous travel conditions on Town Roads.

- The maximum number of driveways allowed on a tax parcel depends on the use of the parcel and should be established as follows.
 - For residential use: 1 access point
 - For agricultural, commercial or industrial use: 2 access points
- A minimum distance of 100 feet shall be maintained between driveways on the same side of the road and on different tax parcels. [*The separation distance does not have to be met from driveways on the opposite side of the road. In fact, new driveway placement directly across from existing driveways should be encouraged. Sharing of driveways by adjacent properties should also be encouraged.*]
- A minimum distance between driveways and road intersections shall be maintained. The recommended separation distances are as follows:

- Minimum distance to a Town road intersection: 100 feet from the edge of the right-of- way
 - Minimum distance to a County road intersection: 400 feet
 - Minimum distance to a State or Federal highway intersection as per the requirements of the Department of Transportation. *[Recommended separation distances between driveways and intersections on a rural undivided collector highway with a posted speed limit of 55 miles per hour are typically based on AASHTO estimates for stopping distances. See the explanation below for more details. The recommended distance is smaller here, because a typical Town road should have less traffic than those studied.]*
- A minimum unobstructed sight distance of 600 feet in each direction from a driveway access point shall be maintained. *[The Transportation Research Board and the American Association of State Highway and Transportation Officials have established a stopping distance of 565 feet as being acceptable to 50% of drivers for a 55 mile per hour highway. A stopping distance of 750 feet is acceptable to 85% of drivers for the same highway. AASHTO estimates for stopping distance include a 2.5-second reaction time. No research regarding stopping on gravel roads has been published, but it is assumed that stopping on gravel requires more distance than paved roads. Sight obstructions can include crests of hills, curves, buildings, and vegetation.]*
 - The ingress/egress angle shall be 90 degrees.

Dimensional Standards

Minimum dimensional standards for driveways maintain access for emergency and service vehicles. *[This provision attempts to address the increasing size of emergency vehicles such as fire engines and ambulances, and the access issues that often confound rescue efforts. These standards can also be beneficial for other types of large service vehicles like septic trucks, milk tank trucks, and other private haulers.]*

Category	Use	Minimum	Maximum
Driveway surface	Residential	20 feet	24 feet
	Agricultural, industrial, or commercial	20 feet	35 feet
Height clearance	Residential	24 feet	-
	Agricultural, industrial, or commercial	35 feet	-

Construction

A new concrete driveway surface should not extend within the area of the road right-of-way, unless the road surface is also concrete. A flexible bituminous asphalt or gravel may be used within the right-of-way.

The surface of the driveway should slope down and away from the road surface to a sufficient degree and distance to prevent ordinary surface water drainage from the driveway onto the roadbed. The following practices are recommended for achieving the required drainage:

- Slope the driveway away from the public road for a minimum of 10 feet at a slope in the range of 2% to 5%.
- Construct a slight dip across the driveway placed just before the culvert at the entrance to the road.
- Crown the driveway surface.

A culvert shall be installed that meets the approval of Town's designated Official.

- The recommended minimum diameter is 15 inches, but a culvert with greater capacity may be required if determined necessary by the designated Official.
- The length of the culvert should be long enough to allow for proper side sloping of the driveway.
- The culvert installed should be in good condition, and materials shall be as allowed by the designated Official. Allowed materials may include steel, concrete or plastic.

Side slopes of a driveway shall not be hazardous to safe travel.

- A maximum slope of 3:1 (3 feet horizontal to 1 foot vertical) shall be maintained on driveway side slopes and should be constructed of earthen materials.
- Retaining walls and embankments of any kind are prohibited on a driveway. *[Steep side slopes and embankments within the right-of-way can become hazardous obstacles should a vehicle lose control and leave the road, as often happens in slippery winter conditions.]*
- Rocks, timbers and other similar driveway marking treatments are prohibited on a driveway

Interpretation

All provisions of this ordinance are to be interpreted as the minimum standards necessary for the protection of public health, safety and the general welfare and shall be liberally construed in favor of the Town.

Where strict application of spacing standards would deny access to lots in existence prior to the adoption of this Ordinance, a new driveway permit may be granted and the driveway located to best provide safe access. *[The intent of this provision is to add some flexibility that protects existing lots and avoid the need for excessive numbers of variances.]*

Fees

Fees for driveway permit applications and inspections may be established by the Town Board. *[Generally, fees should be set to recover the costs of establishing and administering the driveway perm sitting process. Underestimating the full cost or undercharging for permits will result in tax dollars being levied to cover the difference.]*

Penalties

Forfeiture: Should a driveway be constructed or modified in violation of the requirements of this Ordinance, the property owner shall be charged a forfeiture of double the permit

fee. The Town Board will notify the property owner of any corrections that are required to satisfy the provisions of this Ordinance.

Cost of corrections: If the property owner fails to make the corrections required to satisfy the provisions of this Ordinance, the Town Board may cause the required corrections to be made. The cost of such repairs, corrections, or restoration will be charged to the property owner. The Town's direct and indirect costs of correcting or removing the violation may include, but are not limited to, engineering, legal, administrative, materials and construction expenses. Should the landowner fail to pay the penalty and/or repair/correction/restoration costs, said charges will be placed on the tax roll of said landowner.