

ARTICLE G

Design Standards

SEC. 14-1-70 GENERAL STREET DESIGN STANDARDS.

- (a) **Compliance with Statutes.** In laying out a subdivision, the owner shall conform to the provisions of Chapter 236, Wis. Stats., and all applicable City regulations. In all cases where the requirements of this Chapter are different from the requirements of Chapter 236, the more restrictive provision shall apply.
- (b) **Dedication.** The subdivider shall dedicate land and improve streets as provided in this Chapter and Section 14-1-53. Streets shall be located with due regard for topographical conditions, natural features, existing and proposed streets, utilities and land uses and public convenience and safety. Streets shall conform to official maps adopted by the Common Council. The subdivision, certified survey parcel or land division shall be so designed as to provide each lot with satisfactory access to a public street or road.
- (c) **Compliance with Comprehensive Plan.** The arrangement, character, extent, width, grade and location of all streets shall conform to any City Comprehensive Development Plan and to this Chapter and shall be considered in their relation to existing and planned streets, to reasonable circulation of traffic, to topographical conditions, to run-off of storm water, to public convenience and safety, and in their appropriate relation to the proposed uses of the land to be served by such streets. The arrangement of streets in new subdivisions shall make provision for the appropriate continuation at the same width of the existing streets in adjoining areas.
- (d) **Areas Not Covered by Official Map.** In areas not covered by a City Comprehensive Plan, the layout of streets shall conform to the plan for the most advantageous development of adjoining areas of the neighborhood. Streets shall be designed and located in relation to existing and officially planned streets, topography and natural terrain, streams and lakes and existing tree growth, public convenience and safety and in their appropriate relation to the proposed use of the land to be served by such streets.
- (e) **Street Classifications.** Streets shall be classified as indicated below.
 - (1) Arterial Streets. Arterial streets shall be arranged to provide through traffic for a heavy volume of vehicles.
 - (2) Collector Streets. Collector streets shall be arranged so as to provide ready collection of traffic from commercial and residential areas and conveyance of this traffic to the major street and highway system and shall be properly related to special traffic generators such as schools, churches and shopping centers and other concentrations of population and to the major streets into which they feed.
 - (3) Minor Streets. Minor streets shall be arranged to conform to the topography, to discourage use by through traffic, to permit the design of efficient storm and sanitary sewerage systems and to require the minimum street area necessary to provide safe and convenient access to abutting property.
 - (4) Proposed Streets. Proposed streets shall extend to the boundary lines of the tract being subdivided unless prevented by topography or other physical conditions or unless, in the opinion of the Common Council, such extension is not necessary or

desirable for the coordination of the layout of the subdivision or land division or for the advantageous development of the adjacent tracts.

- (f) **Reserve Strips.** Reserve strips shall not be provided on any plat to control access to streets or alleys, except where control of such strips is placed with the City under conditions approved by the Common Council.
- (g) **Alleys.**
 - (1) **Commercial and Industrial.** Alleys shall be provided in all commercial and industrial districts for off-street loading and service access, except that the Common Council may waive this requirement where other definite and assured provision is made for service access, such as off-street loading and parking, consistent with and adequate for the uses proposed.
 - (2) **Residential.** Alleys shall not be approved in residential areas unless necessary because of topography or other exceptional circumstances.
 - (3) **Width.** The width of alleys shall not be less than twenty-four feet.
 - (4) **Dead End.** Dead-end alleys are prohibited and crooked and “T” alleys shall be discouraged.
- (h) **Continuation.** Streets shall be laid out to provide for possible continuation wherever topographic and other physical conditions permit. Provision shall be made so that all proposed streets shall have a direct connection with, or be continuous and in line with, existing, planned or platted streets with which they are to connect. Proposed streets shall be extended to the boundary lines of the tract to be subdivided, unless prevented by topography or other physical conditions, or unless in the opinion of the Common Council, upon the recommendation of the Plan Commission, such extension is not necessary or desirable for the coordination of the layout of the subdivision with existing layout or the most advantageous future development of adjacent tracts. Dead-end streets not over five hundred (500) feet in length will be approved when necessitated by the topography.
- (i) **Minor Streets.** Minor streets shall be so laid out so as to discourage their use by through traffic.
- (j) **Number of Intersections.** The number of intersections of minor streets with major streets shall be reduced to the practical minimum consistent with circulation needs and safety requirements, preferably not more than two (2).
- (k) **Frontage Roads.** Where a subdivision abuts or contains an existing or proposed arterial highway, the Common Council may require a frontage road, nonaccess reservation along the rear of the property contiguous to such highway or such other treatment as may be necessary to ensure safe, efficient traffic flow and adequate protection of residential properties.
- (l) **Private Streets.** Private streets shall not be approved nor shall public improvements be approved for any private street; all streets shall be dedicated for public use.
- (m) **Visibility.** Streets shall afford maximum visibility and safety and shall intersect at right angles where practicable. As required by the City Engineer, sufficient vision clearance triangles shall be provided at intersections.
- (n) **Tangents.** A tangent at least one hundred (100) feet long shall be required between reverse curves on arterial and collector streets.

- (o) **Street Grades.**
- (1) Unless necessitated by exceptional topography subject to the approval of the Common Council, the maximum centerline grade of any street or public way shall not exceed the following:
- Arterial streets: seven percent (7%).
 - Collector streets: eight percent (8%)
 - Minor streets, alleys and frontage streets: ten percent (10%)
 - Pedestrian ways: twelve percent (12%) unless steps of acceptable design are provided.
- The grade of any street shall in no case exceed twelve percent (12%) or be less than one-half (1/2) of one percent (1%).
- (2) Street grades shall be established wherever practicable so as to avoid excessive grading, the promiscuous removal of ground cover and tree growth, and general leveling of the topography.
- (p) **Radii of Curvature.** When a continuous street centerline deflects at any one (1) point by more than ten (10) degrees, a circular curve shall be introduced having a radius of curvature on said centerline of not less than the following:
- Arterial streets and highways: five hundred (500) feet.
 - Collector streets: three hundred (300) feet.
 - Minor streets: one hundred (100) feet.
- Curves should be provided when centerline deflections exceed one (1) degree in rural areas and in urban areas when deflection exceeds three (3) degrees.
- (q) **Half Streets.** Where an existing dedicated or platted half-street is adjacent to the subdivision, the other half-street shall be dedicated by the subdivider. The platting of half-streets should be avoided where possible.
- (r) **Intersections.**
- (1) Property lines at street intersections of major thoroughfares shall be rounded with a radius of fifteen (15) feet or of a greater radius where the City Engineer considers it necessary.
- (2) Streets shall intersect each other at as nearly right angles as topography and other limiting factors of good design permit.
- (3) Number of streets converging at one (1) intersection shall be reduced to a minimum, preferably not more than two (2).
- (s) **Street Names.** New street names shall not duplicate the names of existing streets, but streets that are continuations of others already in existence and named shall bear the names of the existing streets. Street names shall be subject to approval by the Plan Commission and Common Council.
- (t) **Cul-de-sacs.**
- (1) Cul-de-sacs. Cul-de-sac streets designed to have one (1) end permanently closed shall not exceed five hundred (500) feet in length. All cul-de-sac streets designed to have one (1) end permanently closed shall terminate with a turnaround of not less than one hundred thirty (130) feet in diameter of right-of-way and a roadway of not less than one hundred (100) feet in diameter. The use of cul-de-sacs should be avoided where possible.
- (2) Temporary Termination of Streets. Temporary termination of streets intended to be extended at a later date shall be accomplished with a temporary cul-de-sac in accordance with the standards set forth above, or by the construction of a temporary

“T” intersection thirty-three (33) feet in width and thirty-three (33) feet in length abutting the right-of-way lines of the access street on each side.

- (u) **Limited Access Highway and Railroad Right-of-way Treatment.** Whenever the proposed subdivision contains or is adjacent to a limited access highway, arterial street or railroad right-of-way, the design shall provide the following treatment:
 - (1) Subdivision Lots. When lots within the proposed subdivision back upon the right-of-way of an existing or proposed limited access highway or a railroad, a planting strip at least thirty (30) feet in depth shall be provided adjacent to the highway or railroad in addition to the normal lot depth. This strip shall be part of the platted lots but shall have the following restriction lettered on the face of the plat: “This strip reserved for the planting of trees and shrubs, the building of structures hereon prohibited”.
 - (2) Commercial and Industrial Districts. Commercial and industrial properties shall have provided, on each side of the limited access highway, arterial street or railroad, streets approximately parallel to and at a suitable distance from such highway or railroad for the appropriate use of the land between such streets and highway or railroad, but not less than one hundred fifty (150) feet.
 - (3) Streets Parallel to a Limited Access Highway. Streets parallel to a limited access highway or railroad right-of-way, when intersecting a major street and highway or collector street which crosses said railroad or highway, shall be located at a minimum distance of two hundred fifty (250) feet from said highway or railroad right-of-way. Such distance, where desirable and practicable, shall be determined with due consideration of the minimum distance required for the future separation of grades by means of appropriate approach gradients.
 - (4) Minor Streets. Minor streets immediately adjacent and parallel to railroad rights-of-way shall be avoided, and location of minor streets immediately adjacent to arterial streets and highways and to railroad rights-of-way shall be avoided in residential areas.
- (v) **Width.** The right-of-way of all streets shall be of the width specified on the official map or master plan or, if no width is specified there, they shall be not less than the width specified below:

<u>Street Type</u>	<u>Minimum Width</u>	<u>Minimum Pavement Width (Face of Curb to Face of Curb)</u>
Arterial or highway	120 feet	To be determined by Common Council
Collector (carries traffic from minor streets to arterials or highways)	80 feet	44 feet
Minor (provides access to individual lots)	66 feet	32 feet

- (w) **New and Replacement Bridges and Culverts.** All new and replacement bridges and culverts over perennial waterways, including pedestrian and other minor bridges, in addition to meeting other applicable requirements, shall be designed so as to accommodate the one hundred (100) year recurrence interval flood event without raising the peak stage, either upstream or downstream, more than one one-hundredth (0.01) feet above the peak stage for the one hundred (100) year recurrence interval flood, as established in the applicable federal flood insurance study. Larger permissible flood stage increases may be acceptable for reaches having topographic land use conditions which could accommodate the increased stage without creating additional flood damage potential upstream or downstream of the proposed structure. Such bridges and culverts shall be so designed and constructed as to facilitate the passage of ice flows and other debris. All new and replacement bridges shall be constructed in accordance with all applicable State Statutes and codes and shall be submitted to the Department of Natural Resources to assure compliance therewith.

SEC. 14-1-71 BLOCK DESIGN STANDARDS.

- (a) **Length; Arrangement.** The lengths, widths and shapes of blocks shall be appropriate for the topography and the type of development contemplated, but block length in residential areas shall not exceed one thousand five hundred (1,500) feet nor have less than sufficient width to provide for two (2) tiers of lots of appropriate depth between street lines. As a general rule, blocks shall not be less than five hundred (500) feet in length.
- (b) **Pedestrian Pathways.** Pedestrian pathways, not less than ten (10) feet wide, may be required by the Common Council, upon the recommendation of the Plan Commission, through the center of a block more than nine hundred (900) feet long, where deemed essential to provide circulation or access to schools, parks, churches, playgrounds, shopping centers, transportation and other community facilities.
- (c) **Width.** The width of blocks shall be wide enough to provide for two (2) tiers of lots of appropriate depth except where otherwise required to separate residential development from through traffic. Width of lots or parcels reserved or laid out for commercial or industrial use shall be adequate to provide for off-street service and parking required by the use contemplated and the area zoning restrictions for such use.
- (d) **Utility Easements.** Utility easements for electric power and telephone service shall, where practical, be placed on midblock easements along rear lot lines.