

ARTICLE V. DESIGN STANDARDS

Sec. 90-191. To be considered as minimum requirements.

The provisions of this article shall be considered as minimum requirements and will ordinarily be varied by the planning commission only under conditions and circumstances set forth in this chapter:

- (1) Land shall be suited to the purpose for which it is to be subdivided, and its proposed use shall be in accordance with the requirements of any zoning ordinance. Land subject to hazards to life, health or property shall not be subdivided for residential purposes until all such hazards have been eliminated or unless adequate safeguards against such hazards are provided by the subdivision plan.
- (2) Proposed subdivision shall be coordinated with existing nearby neighborhoods so that the community as a whole may develop harmoniously.

(Code 1977, § 43.500)

Sec. 90-192. Streets.

The arrangement, character, extent, width, grade and location of all streets shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, and in their appropriate relation to proposed uses of the land served by such streets and to the major street plan of the city. The arrangements and design standards of streets shall conform to the provisions found in this section as follows:

- (1) *[Arrangements.]* The arrangement of streets in a subdivision shall either provide for the continuation or appropriate projection of existing principal streets in surrounding areas, or conform to a plan for the neighborhood approved or adopted by the planning commission to meet a particular situation where topographical or other conditions make continuation or conformance to existing streets impracticable.
- (2) *[Boundaries.]* When a new subdivision adjoins unsubdivided land susceptible of being subdivided, then the new streets shall be carried to the boundaries of the tract proposed to be subdivided.
- (3) *[Names.]* Streets that are obviously in alignment with others already existing and named shall bear the name of the existing streets. No street name shall be used which will duplicate or be confused with the name of any existing street in the city. Street names shall be subject to the approval of the planning commission.
- (4) *[Through traffic.]* Minor streets shall be so laid out that their use by through traffic will be discouraged.
- (5) *[Railroad, limited-access highway rights-of-way.]* Where a subdivision borders on or contains a railroad right-of-way or limited-access highway right-of-way, the planning commission may require a street approximately parallel to and on each side of such right-of-way, at a distance suitable for the appropriate use of the intervening land, as for park purposes in residential districts, or for commercial or industrial purposes in appropriate districts. Such distances shall also be determined with due regard for the requirements of approach grades and future grade separations.
- (6) *[Conformity of lots.]* All streets shall be platted in such manner that all resulting lots will conform to the applicable zoning regulations.

- (7) *[Intersections.]* Streets shall be laid out so as to intersect as nearly as possible at right angles and no street shall intersect any other street at an angle of 15 degrees more or less from 90 degrees.
- (8) *[Reserve strips.]* There shall be no reserve strips controlling access to streets, except where the control of such strips is definitely placed in the city under conditions approved by the planning commission. The subdividing of the land shall be such as to provide each lot, by means of a public street or way with satisfactory access to an existing public highway or to a thoroughfare as shown on an official map.
- (9) *[Jogs.]* Street jogs with centerline offsets of less than 150 feet shall be avoided.
- (10) *[Sight distance.]* When connecting street lines deflect from each other they shall be connected by a curve with a radius adequate to ensure a sight distance of not less than 200 feet for minor and collector streets, and of such greater radii as the planning commission shall determine for special cases.
- (11) *[Reverse curves.]* A tangent shall be provided between all reverse curves of a sufficient length as related to the radius so as to provide for a smooth flow of traffic.
- (12) *[Visibility.]* Clear visibility measured along the centerline of a street shall be provided for at least 200 feet on all streets.
- (13) *[Changes in grade.]* Vertical curves are required for changes in grade.
- (14) *[Half street.]* Half streets shall be prohibited, except where essential to the reasonable development of the subdivision in conformity with the other requirements of this chapter and where the planning commission finds it will be practicable to require the dedication of the other half when the adjoining property is subdivided. Wherever a half street is adjacent to a tract to be subdivided, the other half of the street shall be platted within such tract.
- (15) *[Dead-end streets.]* Dead-end streets (cul-de-sacs), designed to be so permanently, shall not be longer than 500 feet, and shall be provided at the closed end with a turnaround, having an outside roadway diameter of at least 100 feet.
- (16) *[Prohibition; exceptions.]* Except where land use shall justify it, or in other unusual cases, no dead-end streets, other than cul-de-sac treatments, shall be approved unless such dead-end streets are provided to connect with future streets in adjacent land.
- (17) *[Private streets.]* There shall be no private streets platted in any subdivision.
- (18) *[Deviations from standards.]* Deviation from the standards may be warranted. All requests which result in a decrease in pavement requirements must be presented to the city engineer in writing for consideration and subsequent approval or denial by the city engineer.
- (19) *[Stringent standards.]* The city engineer may require where conditions dictate, the installation of ten-inch diameter concrete piers, 36 inches deep on the inside/outside corner curvatures.
- (20) *[Repairs.]* All developers/builders shall be responsible for the repair of newly constructed city streets under all classifications of same regardless of type of pavement used, and constructed under the above criteria as set forth herein, for a period of time not to exceed 12 calendar months, beginning on the first day of dedication and acceptance of said streets by the city said warranty/guarantee shall be either in the form of ten percent escrow, or in an irrevocable letter of credit in an amount equal to the same.
- (21) *[Travel delays.]* Traffic shall be prohibited from traveling on newly constructed concrete streets for a minimum of seven (7) days following construction.

(22) *[Backfilling.]* Backfilling of curbs shall be completed within ten (10) days after completion of initial construction of streets.

(23) *[Rules, regulations.]* The city engineer is authorized to promulgate rules and regulations for street construction standards not inconsistent with the street standards herein contained.

(24) *Arterial streets.*

- (a) *Right-of-way:* 80 feet.
- (b) *Pavement width (back of curb to back of curb):* 52 feet or greater.
- (c) *Grades of streets:* (Maximum) 5.0 percent (minimum) 1.0 percent.
- (d) *Radii of curvature (on the centerline):* 400 feet minimum.
- (e) *Corner radii (minimum):* 32 feet at back of curb.
- (f) *Sidewalks:* See "Supplementary Regulations".
- (g) *Flexible pavement:* Full depth asphalt, two inches type "C" mix.

Twenty-foot-wide road deck shall be used with drainage pipes a minimum size of 15-inch, but large enough to properly drain the water. A stabilized base consisting of minimum six-inch, number one base rock shall be used, but more shall be used if needed for proper stabilization. One-course prime oil, one seal coat of MC 800 tac oil covered with one-half-inch limestone chips and one top coat of MC 800 tac oil covered with one-half limestone chips shall be utilized. If prime oil and seal coat are not available, an asphalt concrete layer of four inches, compacted in two-inch lifts must be used as an alternate seal.

(h) *Rigid pavement:* Eight-inch Portland cement concrete on four inches of type 5 aggregate for base with fines not to exceed 0 to 25 percent passing #30 sieve and 0 to eight percent passing #200 sieve, unless otherwise authorized by the city, with 15-foot maximum joint spacing and longitudinal tie bars at 30 inches on center spacing on a prepared subgrade with a minimum compaction of 90 percent modified proctor. Crack sealant shall be in accordance with ASTM 1190 or an approved equal. Compaction curves to be used in subgradetesting will be supplied to the city engineer by the developer.

(25) *Collector streets.*

- (a) *Right-of-way:* 70 feet.
- (b) *Pavement width (back of curb to back of curb):* 44 feet.
- (c) *Grades of streets:* (Maximum) 8.0 percent (minimum) 1.0 percent.
- (d) *Radii of curvature (on the centerline):* 250 feet minimum.
- (e) *Corner radii (minimum):* 32 feet at back of curb.
- (f) *Sidewalks:* See "Supplementary Regulations".
- (g) *Flexible pavement:* Full depth asphalt, two inches type "C" mix.

Twenty-foot-wide road deck shall be used with drainage pipes a minimum size of 15-inch, but large enough to properly drain the water. A stabilized base consisting of minimum six-inch, number one base rock shall be used, but more shall be used if needed for proper stabilization. One-course prime oil, one seal coat of MC 800 tac oil covered with one-half-inch limestone chips and one top coat of MC 800 tac oil covered with one-half limestone chips shall be utilized. If prime oil and seal coat are not available, an asphalt concrete layer of four inches,

compacted in two-inch lifts must be used as an alternate seal.

(h) *Rigid pavement*: Eight-inch Portland cement concrete on four inches of type 5 aggregate for base with fines not to exceed 0 to 2 percent passing #30 sieve and 0 to eight percent passing #200 sieve, unless otherwise authorized by the city, with 15-foot maximum joint spacing and longitudinal tie bars at 30 inches on center spacing on a prepared subgrade with a minimum compaction of 90 percent modified proctor. Crack sealant shall be in accordance with ASTM 1190 or an approved equal. Compaction curves to be used in subgradetesting will be supplied to the city engineer by the developer.

(26) *Minor (local) and dead-end streets.*

(a) *Right-of-way*: 50 feet.

(b) *Pavement width (back of curb to back of curb)*: 28 feet.

(c) *Grades of streets*: (Maximum) 10.0 percent (minimum) 1.0 percent.

(d) *Radii of curvature (on the centerline)*: 150 feet minimum.

(e) *Corner radii (minimum)*: 32 feet at back of curb.

(f) *Sidewalks*: See "Supplementary Regulations".

(g) *Flexible pavement*: Full depth asphalt, two inches type "C" Mix

Twenty-foot-wide road deck shall be used with drainage pipes a minimum size of 15-inch, but large enough to properly drain the water. A stabilized base consisting of minimum six-inch, number one base rock shall be used, but more shall be used if needed for proper stabilization. One-course prime oil, one seal coat of MC 800 tack oil covered with one-half-inch limestone chips and one top coat of MC 800 tack oil covered with one-half limestone chips shall be utilized. If prime oil and seal coat are not available, an asphalt concrete layer of four inches, compacted in two-inch lifts must be used as an alternate seal.

(h) *Rigid pavement*: Eight-inch Portland cement concrete on four inches of type 5 aggregate for base with fines not to exceed 0 to 25 percent passing #30 sieve and 0 to eight percent passing #200 sieve, unless otherwise authorized by the city, with 15-foot maximum joint spacing and longitudinal tie bars at 30 inches on center spacing on a prepared subgrade with a minimum compaction of 90 percent modified proctor. Crack sealant shall be in accordance with ASTM 1190 or an approved equal. Compaction curves to be used in subgradetesting will be supplied to the city engineer by the developer.

(27) *Cul-de-sac street.*

(a) *Right-of-way*: 50 feet.

(b) *Pavement width (back of curb to back of curb)*: 28 feet.

(c) *Grades of streets*: (Maximum) 10.0 percent (minimum) 1.0 percent.

(d) *Radii of curvature (on the centerline)*: 150 feet minimum.

(e) *Corner radii (minimum)*: 32 feet at back of curb.

(f) *Radius of court (at back of curb)*: 38 feet minimum.

(g) *Flexible pavement*: Full depth asphalt, two inches type "C" mix.

Twenty-foot-wide road deck shall be used with drainage pipes a minimum size of 15-inch, but large enough to properly drain the water. A stabilized base consisting of minimum six-inch, number one base rock shall be used, but more

shall be used if needed for proper stabilization. One-course prime oil, one seal coat of MC 800 tack oil covered with one-half-inch limestone chips and one top coat of MC 800 tack oil covered with one-half-inch limestone chips shall be utilized. If prime oil and seal coat are not available, an asphalt concrete layer of four inches, compacted in two-inch lifts must be used as an alternate seal.

(h) *Rigid pavement*: Eight-inch Portland cement concrete on four inches of type 5 aggregate for base with fines not to exceed 0 to 25 percent passing #30 sieve and 0 to eight percent passing #200 sieve, unless otherwise authorized by the city, with 15-foot maximum joint spacing and longitudinal tie bars at 30 inches on center spacing on a prepared subgrade with a minimum compaction of 90 percent modified proctor. Crack sealant shall be in accordance with ASTM 1190 or an approved equal. Compaction curves to be used in subgrade testing will be supplied to the city engineer by the developer.

(Code 1977, § 43.510; Ord. No. 733, § 1, 6-12-07)

Sec. 90-193. Alleys.

(a) Alleys shall be designed as follows:

(1) Alleys shall be provided in commercial and industrial districts, except that the planning commission may waive this requirement where other definite and ensured provision is made for service access, such as off-street loading, unloading and parking consistent with and adequate for the uses proposed.

(2) The minimum right-of-way width of an alley shall be 20 feet.

(3) All alleys shall be graded to slope to the centerline.

(b) Whenever any person or entity desires to vacate any public street, avenue, alley, highway, or part thereof within the City of Ava, Missouri, said person or entity shall file a petition for vacation with the city clerk. The petition shall be made upon oath or affirmation stating the facts therein contained are true and correct according to the petitioner's best information, knowledge, and belief and the petition shall set forth the following:

(1) A distinct description of the street, avenue, alley, highway or part thereof to be vacated which shall reference platted lots, blocks and streets in sufficient detail to identify the exact location to be vacated;

(2) The names and addresses of all persons or entities affected by the proposed vacation; and

(3) The reasons for which the vacation is being sought.

(c) Upon the filing of the petition, the petitioner shall provide the city clerk with the following:

(1) A proposed notice of public hearing setting forth a date and time of hearing acceptable to the city clerk, which date shall not be less 15 days after petitioner proposed to give notice as herein required;

(2) A cash deposit in a sum acceptable to the city clerk sufficient to pay all anticipated publication expense and recording fees.

(d) The petitioner shall be responsible for giving notice of the pendency of the petition and the date, time, and place of hearing at least 15 days in advance of the hearing by sending a copy of the notice of public hearing to all persons affected by the proposed vacation at their last known address by certified mail with return receipt requested or by obtaining a written waiver of notice from such persons or entities. Proof that notice has been given as required or that a written waiver of notice has been obtained must be filed by the petitioner with the city clerk prior to the

hearing. For purposes of this section, the term "persons or entities affected" shall mean the owners of the fee interest in all real estate touching upon the property to be vacated or for which the street, avenue, alley, highway or part thereof provides access.

(e) The city clerk shall be responsible for publication of the printed public notice required by this section which shall be printed in a newspaper of general circulation in the City of Ava, Missouri, not less than 15 days prior to the date of the proposed hearing.

(f) Any individual notice required by this code section shall be deemed given on the date that the same is placed in the U. S. mails with postage prepaid and certified for delivery to the addressee only.

(g) In the event that upon hearing the petitioner's request for vacation is granted, the granting of the vacation shall be by ordinance and a certified copy thereof shall be delivered to the Recorder of Deeds for Douglas County, Missouri, for recording.

(h) All expenses incurred for giving notice hereunder, including the notice by publication and any recording expense, shall be paid by the petitioner.

(i) In the event of vacation of a public street, avenue, alley, highway, or part thereof, the title thereto shall vest in the persons or entities owning the fee title to the land on each side thereof in equal proportions according to the length or width of such land as the same may border thereon. However, the City of Ava may reserve utility easements in the vacated lands and restrict the use thereof consistent with the easements reserved.

(Code 1977, § 43.530; Ord. No. 613, 6-10-02)

Sec. 90-194. Easements.

Easement design shall be as follows:

(1) Easements with a right-of-way width of five feet shall be provided on each side of all rear lot lines where alleys are not provided and along certain side lot lines where necessary for utilities and drainage.

(2) Temporary construction easements four feet in width shall be provided outside the permanent easements as in subsection (1) of this section.

(3) Easements of greater widths may be required along or across lots where necessary for the extension of main storm and sanitary sewers and other utilities.

(4) Utility pole anchor easements shall be provided where deemed necessary.

(5) Whenever any stream or important surface drainage course is located in the area that is being subdivided, the subdivider shall dedicate an adequate easement, as specified by the city, along each side of the stream for the purpose of future widening, deepening, sloping, improving or protecting the stream; or for drainage, parkway or recreational use.

(Code 1977, § 43.540)

Sec. 90-195. Blocks.

Block design shall be as follows:

(1) Block length and width or acreage within bounding roads shall be such as to accommodate the size of lot required in the area by the zoning ordinance and to provide for convenient access circulation control and safety of street traffic.

(2) Block dimensions may be subject to adjustment by the planning commission where topography, character of the proposed use or similar conditions justify lesser or greater lengths or widths.

(Code 1977, § 43.550)

Sec. 90-196. Lots.

Lot design shall be as follows:

- (1) All lots shall have a full frontage on a dedicated public street.
- (2) Lot dimensions and areas shall conform to the requirements of the zoning ordinance of the city; provided, further, that no lot, irrespective of potential residential use, shall be less than 10,000 square feet, for any subdivision of land under this chapter, except as otherwise provided in the zoning ordinance.
- (3) All side lot lines shall be at right angles to straight street lines and radial to curved street lines, where practicable.
- (4) Building lines (when applicable) or setback lines shall be shown on the preliminary and final plats for all lots in the subdivisions and shall not be less than the building or setback lines required by the zoning ordinance of the city.
- (5) Corner lots shall have such extra width as will permit the establishment of building lines on both streets.
- (6) House numbers shall be assigned to each lot by the city.

(Code 1977, § 43.560)

Sec. 90-197. Acre subdivisions.

When the proposed subdivision involves lots of one acre or more in area, consideration shall be given to any resubdividing that might take place with proper provisions being made for such street extension as may be necessary.

(Code 1977, § 43.570)

Sec. 90-198. Public sites and open spaces.

(a) Where deemed essential by the planning commission, upon consideration of the particular type of development proposed in the subdivision, and especially in large scale neighborhood unit development or where shown in the comprehensive development plan, the planning commission may require the dedication or reservation of such other areas or sites of a character, extent and location suitable to the needs created by such development for schools, parks and other neighborhood purposes.

(b) The requiring of the dedication of public spaces, as provided in subsection (a) of this section shall not constitute an acceptance of the dedication by the city.

(Code 1977, § 43.580)

Sec. 90-199. Neighborhood unit development.

Whenever a subdivision is developed as a neighborhood unit, wherein adequate park or recreational area is provided, through traffic is adequately cared for and the majority of streets are of the cul-de-sac type, the planning commission may vary the requirements of this article in order to allow the subdivider more freedom in the arrangement of streets and lots, but at the same time protect the convenience, health, safety and welfare of the probable future residents of the subdivision as well as the character of the surrounding property and the general welfare of the entire community.

(Code 1977, § 43.590)

Sec. 90-200. Parking and drive aisles.

- (a) All ground-surface off-street drive aisles and parking shall be constructed to city standards. Said drive aisles and parking shall be maintained in a clean, orderly and dust-free condition.
- (b) Approved construction materials shall include concrete, asphalt, brick/stone road pavers, or other materials of equal quality as approved by the city engineer.
- (c) The parking and loading areas shall be provided with adequate stormwater drainage to prevent damage or inconvenience to abutting property and/or public streets.
- (d) Adequate curbing shall be provided as required on the site development plan. Concrete curbing shall be required unless waived by the city engineer.

(Ord. No. 727, 4-24-07)

Sec. 90-201. Stormwater standards.

- (a) *Storm sewers.*
 - (1) Storm drainage improvements consisting of storm sewer systems or open channels shall adequately drain the areas being developed. No change in watersheds shall be permitted. All stormwater shall be discharged at an adequate natural discharge point.
 - (2) The design of drainage improvements shall be coordinated to the extent possible with present and probable future improvements so as to form part of an integrated system.
 - (3) Storm drainage facilities located within subdivided lots and common land areas shall be the maintenance responsibility of the abutting property owners or subdivision trustees.
 - (4) Adequate provisions shall be made for this disposal of stormwater, in accordance with the acceptable engineering design criteria.
 - (5) Erosion and siltation control devices shall be required as approved by the city.
- (b) *Stormwater detention.*
 - (1) The purpose of this section is to provide standards and regulations governing land development in order to reduce or prevent flooding and at the same time minimize damage to real property.
 - (2) The controlled release and storage of excess stormwater runoff will be required for all commercial and industrial land use projects, and for all residential subdivisions as approved by the city.
 - (3) Detention of differential runoff of stormwater will provide permanent detention facilities, such as dry reservoirs, ponds, or other acceptable alternatives.

(4) Detention reservoirs or dry bottom stormwater storage areas may be designed to serve secondary purposes such as recreation, open space, or other types of uses that will not adversely be affected by occasional flooding.

(5) Drainage detention areas that are not maintained by a public authority shall be conveyed as an undivided interest in common to each lot in the subdivision for maintenance purposes or conveyed to trustees with authority to perform maintenance responsibilities.

(6) During the construction phase of development, facilities shall be provided to prevent erosion and siltation.

(c) *Stormwater and stormwater control easements.*

(1) Stormwater easements and drainage rights-of-way may be required if necessary for proper drainage within and through a subdivision.

(2) Stormwater control easements are required along all major creeks and significant tributaries; around and including all new wet lakes functioning as part of a stormwater control system; and for all detention areas, basins, and related structures.

(3) Stormwater control easements shall include a minimum dimension of 20 feet back from the bank of improved creek as approved on improvement plans, or of width back from unimproved channels as required by easements shall include a distance of not less than ten feet back from the estimated high-water line of lakes, dry detention areas, and basins.

(4) Final location of stormwater control easements shall be approved by the city as part of the improvement plan approval. Such easements shall subsequently be shown on a record plat or special easement plat.

(Ord. No. 727, 7-24-07)

Secs. 90-202--90-230. Reserved.