

ARTICLE 6. DESIGN STANDARDS

- 100 **Scope.** All subdivision of land subject to these regulations shall conform to the minimum design standards of this Article according to the classifications of urban and rural type subdivisions as defined in Article 7-100.
- 101 **Comprehensive Development Plan.** Subdivisions shall conform with the intent of the Comprehensive Plan.
- 102 **Land for Public Facility Sites.** Public agencies using the Comprehensive Plan as a guide may use the following procedure for acquiring sites for public facilities which does not preclude voluntary dedication and mutual negotiations for land or the use of the condemnation laws of the State: (See Section 2-102 for definition of RESERVE.)
- A. The subdivider offers to sell to the appropriate public body, agency or authority, lands, sites and locations for parks, recreational areas, schools, fire stations or other public facilities. As soon as the preliminary plat has been received and reviewed, the Planning Commission shall give 45 days notice to the public body, agency or authority that it appears that lands should be considered for public acquisition. If within that 45 days the body receiving notice fails to act or submits a negative report on acquisition, then the subdivision and design thereof shall be treated as if no such request for land had been made.
 - B. If the organization receiving notice replies in writing that they desire to acquire land within the subdivision, they shall have an additional 45 days after making such reply to make arrangements for such land acquisition.
 - C. The time allocated for making the above determination may be extended with the mutual consent of the subdivider and the organization involved.
- 103 **Land for Open Space.** The following conditions may be required as part of the approval of any subdivision plat: (See Section 2-102 for definition of RESERVE and WETLAND.)
- A. That the subdivider provide appropriate dedication of land or easements for the preservation of open space areas within a subdivision. Such open space may be needed to preserve areas containing natural watercourses, drainage ways, areas subject to periodic flooding, wetlands, substantial woodland, rugged topography and wildlife habitat; to maintain water quality and quantity; and to protect land from soil erosion. In general, such land is not normally considered as buildable land and should not be developed in order to maintain the quality of the environment.

104 Land Subject to Flooding.

- A. Whenever a subdivision of land including platting for manufactured home parks and other developments on one-lot plats is located on flood prone land identified on a Flood Insurance Rate Map(s) (F.I.R.M.) prepared by the Federal Emergency Management Agency, the following requirements shall apply: (See City Zoning Regulations for floodplain regulations in the City. (See Section 5-101 O for minimum pad elevations.)
1. Show on the preliminary and final plats the boundary lines and elevations for both floodway, if any, and base flood elevation; and
 2. Assure that (a) all such subdivisions are consistent with the need to minimize flood damage, (b) all public utilities and facilities, such as sewer, water, gas and electrical systems are located, elevated and constructed to minimize or eliminate flood damage, and (c) adequate drainage is provided so as to reduce exposure to flood hazards.

105 Land Subject to Excessive Erosion by Wind or Water. On land subject to excessive soil movement by the forces of wind and/or water and that may cause environmental health hazards, necessary preventive measures shall be a part of the subdivision plat. Conservation standards applicable to subdivisions shall be adhered to which are used by the Coffey County Conservation District.

106 Access. All lots located in any subdivision must contain at least 40 feet of frontage in the City and 30 feet in the unincorporated area for driveways directly connected to an opened public street and not across the land of others. Flag lots are not permitted, unless warranted by an unusual shape of the land or the ownership of property. (See Section 2-102 for definition of FLAG LOT.)

107 Streets-Layout and Design.

- A. The arrangement, character, extent, width, grade and location of all streets shall conform to the intent of the Comprehensive Plan, and shall be considered in their relation to existing and planned streets, to reasonable circulation of traffic within the subdivision and adjoining lands; to topographical conditions; to the run-off of storm water; to public convenience and safety; and in their appropriate relations to the proposed uses of the land to be served by such streets.
- B. Where such is not shown on a Comprehensive Plan, the arrangement of streets in a subdivision shall either:
1. Provide for the continuation or appropriate projection of existing streets in surrounding areas; or
 2. Conform to a plan for the neighborhood approved or adopted by the Planning Commission to meet a particular situation where topographic or other conditions make continuance or conformance to existing streets impracticable.

- C. Local streets shall be laid out so that their use by through traffic will be discouraged.
- D. If a subdivision abuts or contains an existing or proposed limited access highway, arterial street or railroad right of way, the Planning Commission may require marginal access streets, reverse frontage lots with access control provisions along the rear property line and screening, deep lots with rear service alleys or such other design as may be necessary for adequate protection of residential properties and to afford separation of through and local traffic.
- E. Reserve strips controlling access of streets shall be prohibited except where their control is placed with the applicable Governing Body under acceptable conditions.
- F. Street right of way requirements for other than arterials shall be determined by the total aggregate needs for the functional components for the particular system being considered. The total aggregates shall be in increments of even feet, even numbers only. The components involved shall be as follows depending upon the urban or rural type of characteristics of the street needed based on land use, traffic and density:
 - 1. Moving or traffic lanes may be variable from nine to 12 feet depending on function, e.g., low density residential, cul-de-sac residential, collector, industrial, etc., and on design speed of the roadway. A moving lane may utilize a portion of the surface of certain types of curb construction.
 - 2. Parking lanes for on-street storage of vehicles shall be at least eight feet in width. For computation purposes, up to two feet for curb or shoulder may be included as part of the parking lane.
 - 3. A curb and gutter shall be considered to require two feet irrespective of construction type.
 - 4. Shoulders for rural type roadways shall be not less than three feet in width.
 - 5. Parking strips for streets shall be at least 14 1/2 feet in width from the back of curb to the right of way line. This area shall be used for the installation of utilities, street signs, street lights, traffic control devices, fire hydrants, sidewalks, driveways, street furniture, street trees from an approved City list and to provide a transition area in grades, if necessary, between the roadway and the property adjacent to the right of way. Ditches and border strips for rural type roads shall be variable in width based on drainage, utility installations and other needs.

6. Based on the above general criteria, street rights of way and roadways shall be calculated from the following guidelines:

	<u>R-O-W for Street In feet*</u>	<u>Roadway Width In feet</u>
<u>URBAN AREA</u>		
a. Collector including Commercial, Industrial or Multiple-Family Areas.	70-80	36-40 **
b. Local Residential including Cul-de-sacs and Single and Two-Family Areas.	80	28-30 **
c. Local Marginal Access Street (two moving lanes with no parking on one side plus a parking strip between curb and the main road right of way).	50	26 **
d. Alleys for Residential, if necessary, and Commercial Areas.	20	20

** Face of curb to face of curb.

RURAL AREA

a. Collector including Industrial or Commercial Areas (Two moving lanes, shoulders, ditches and borders.)	80	24-40***
b. Local Residential (Two moving lanes, shoulders, ditches and borders.)	60	30***

*** Includes three-foot shoulder on each side.

These widths may be modified by the Planning Commission on a showing that special conditions exist such as drainage and utility requirements, safe and efficient traffic and pedestrian movement, intersection design, etc. In applying these standards, workable street systems must be established. When a pattern of widths based on function for a given area has been established, the pattern shall be followed until another system can be established or ties into a collector or arterial system. Access control and acceleration and deceleration lanes may be required to properly handle traffic flow and to protect the carrying capacity of the street.

* **Note:** For arterial standards, see Sections 6-107 G and H.

- G. Arterial right of way widths shall be as shown in the Comprehensive Plan and where not shown thereon shall be between 80-100 feet with 120 feet needed for special storm water drainage purposes. Arterial roadway widths may vary from 24 to 48 feet.
- H. For streets and roadways on the Functional Classification System of the County, prevailing design standards shall apply.
- I. Wherever possible, there shall be an inside tangent at least 100 feet in length introduced between reverse curves on arterial and collector streets.
- J. Streets shall be laid out so as to provide for horizontal sight distances on all curves depending upon design speed. These distances shall be:

Arterial Streets:	500 feet
Collector Streets:	300 feet
Local Streets:	200 feet

The sight distance shall be measured within street rights of way from a height of four and one-half feet above the proposed pavement surface in the right-hand lane of the roadway.

- K. 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 less than 80 degrees.
- L. Street jogs are to be avoided on arterial and collector streets. On local streets, center line offsets of less than 150 feet should be avoided.
- M. Roadway grades, wherever feasible, shall not exceed the following with due allowance for reasonable vertical curves:

<u>Roadway Type</u>	<u>Percent Grade</u>
Arterial	3%
Collector	4%
Local	5%
Marginal Access	5%

- N. No roadway grade shall be less than 0.4 of one percent, unless approved by the applicable engineer. Greater percentages of grade may be required where necessary to provide adequate drainage.

O. Roadway pavement at intersections shall be rounded by the following minimum radii:

<u>Type of Roadway</u>	<u>Intersection Width</u>	<u>Minimum Curb Radii</u>
Local Residential	Local Residential	20 feet
Local Residential	Collector	30 feet
Local Residential	Arterial	50 feet
Commercial/Industrial Collector or Arterial	Commercial/Industrial Collector or Arterial	60 feet

P. Half-streets shall be avoided, except for arterial streets and collector streets where applicable, or where they are essential to the reasonable development of the subdivision in conformity with the other requirements of these regulations; or, when the Planning Commission finds that it will be practicable to require the dedication of the other half of the street when the adjoining property is subdivided. Whenever a half-street, or portion thereof, exists and is adjacent to a tract to be subdivided, the other half of the street shall be platted within such tract. No construction of the roadway shall occur until the full right of way is provided.

Q. The length of cul-de-sacs and the dimensions of the turnaround shall be determined as follows:

1. Cul-de-sacs in single-family areas should not generally be longer than seven times the average lot width or 500 feet, whichever is less. In multiple-family residential areas, such streets shall not exceed 300 feet.
2. In urban type subdivisions, they shall have a turn diameter of at least 70 feet and a street property line diameter of at least 100 feet, or shall have a turnaround area such as hammer-heads, etc., as providing service equal to the foregoing requirement when an alternative design is warranted by the particular design features of the subdivision.
3. For rural type subdivisions, a minimum street property line diameter of 120 feet or more may be required for fire protection and other equipment.

R. Subdividers are encouraged to consider projects designed to maximize solar access when not in conflict with existing contours or drainage. When the long axis of individual structures is parallel to the street, streets should be oriented as nearly as possible in an east/west direction. If the long axis of structures is perpendicular to the street, north/south street orientation is preferable for solar access purposes.

108 Alleys.

- A. Alleys shall be provided in commercial and industrial areas, except that the Planning Commission may waive this requirement where other definite and assured provision is made for service access, such as off-street loading, unloading and parking spaces consistent and adequate for the uses proposed. Alleys in residential districts are to be discouraged.
- B. When provided, the minimum right of way of an alley shall be 20 feet.
- C. Alley intersections and sharp changes in alignment shall be avoided, but where necessary, a turning radius shall be provided to permit safe vehicular movement.
- D. Dead-end alleys shall be avoided where possible, but if unavoidable, such alleys shall be provided with adequate turnaround facilities at the dead end.

109 Blocks and Pedestrian Ways.

- A. The lengths, widths and shapes of blocks shall be determined with due regard to:
 - 1. Provision of adequate building sites suitable for the special needs of the type of use contemplated.
 - 2. Zoning requirements as to lot sizes and dimensions, off-street parking and loading, etc.
 - 3. Need for convenient access, circulation, control and safety of street traffic.
 - 4. Limitations and opportunities of topography.
- B. A block should not exceed 1,320 feet in length, unless the previous layout or topographic conditions justify a modification. In general, blocks shall not be less than 400 feet unless necessary because of existing street patterns.
- C. All blocks shall be so designed so as to provide two tiers of lots, unless a different arrangement is required in order to comply with or be permitted by other sections of these regulations.
- D. Blocks may be irregular in shape, provided they are harmonious with the overall pattern of blocks in the proposed subdivision.
- E. In extra long blocks, a public pedestrian way may be required to provide access to public or private facilities such as schools or parks. (See Section 2-102 for definition of PEDESTRIAN WAY [CROSSWALK].)

110 **Lots.**

- A. The lot size, width, depth, shape and orientation, and the minimum building setback lines, if any desired, shall be appropriate for the location of the subdivision and for the type of urban and rural development and use contemplated. (See Section 6-106 for flag lots.)

- B. Lot dimensions shall conform to the minimum requirements of applicable City or County zoning regulations and County sanitary code, unless higher standards are established in accordance with this subsection:
 - 1. All subdivisions in the City shall be connected to public water supply and sewage disposal systems as well as subdivisions in the surrounding jurisdiction wherever the latter is deemed feasible by the Governing Body.*
 - 2. If the proposed subdivision is serviced with a public sewer service, but intends to use an on-site water supply, the minimum lot size requirement shall be three acres (130,680 square feet) in the unincorporated area only.**
 - 3. If the proposed subdivision in the unincorporated area is serviced by neither a public water supply or a public sewage disposal system and intends to use an on-site well for water supply and a septic tank or lagoon system for sewage disposal, the minimum lot size requirement shall be five acres (217,800 square feet).**
 - 4. Notwithstanding the provisions of these regulations in Sections 6-110B2 and 3, it is the intent of these regulations to encourage the installation of public water supplies and public sewage disposal systems wherever feasible. In order to determine such feasibility, the Planning Commission may require the subdivider to provide certain basic engineering data and cost estimates on which to base such a decision. Furthermore, if on-lot water supply and sewage disposal installations are used, additional lot area may be required if the area to be subdivided has a high water table, is periodically flooded with water or if the soil conditions prove to be unsuitable based on percolation tests which may be required of the subdivider. If a lagoon system is used for sewage disposal, the lot size must be a minimum of five acres, the lagoon fenced and the edge of the lagoon not less than 100 feet from any existing off-premises dwelling or 50 feet from the nearest property line.**

*NOTE: All public sanitary sewer systems and sewage treatment plants are further subject to the regulations of the Kansas Department of Health and Environment.

**NOTE: In calculating the size of the zoning lot, the land in an adjacent right of way may not be included if it is part of the legal description of the lot.

- C. In those areas where there may be municipal-type water and/or sanitary sewer facilities anticipated in the foreseeable future, but which are not yet available, the Planning Commission may require that lots be so designed and arranged that they may readily be converted to urban type building sites without replatting. When such a condition prevails, land should be subdivided into lots so that by combining lots, a building site is created initially with an area of not less than that required for on-lot wells and/or sewage treatment systems. The creation of such a building site through use of multiple groups of lots shall be contingent upon the establishment for record of restrictive covenants satisfactory to the legal counsel of the Planning Commission, providing that no more than one dwelling unit shall be built on such an aggregate group of lots until such time as municipal-type water and sewer service is available.
- D. As a general guideline, the maximum depth of all residential lots shall not exceed two and one-half times the width thereof. For all other types of lots, the depth shall not exceed three times the width.
- E. Both in the City and unincorporated area, the area of the street right of way shall not be included and calculated in the size of the lot with respect to minimum lot size requirements of these regulations or of any zoning regulations applicable to the property. Lots shall be required to have more than the minimum area dimensions provided for in this section where such greater area or dimensions are required to meet the yard requirements of the zoning regulations.
- F. There shall be no double frontage lots for individual dwellings (e.g., single and two-family units), except where the lots abut upon a limited access highway or arterial street or where the topography of the land prevents reasonable subdivision in small units. Double frontage lots shall not have vehicular access between such lots and an abutting limited access highway or arterial street.
- G. Reversed frontage lots shall be avoided except where such are essential to provide a separation of residential development from limited access highways and arterial streets or to overcome specific disadvantages of topography and orientation.
- H. Corner lots for residential use shall have extra width, if necessary, to permit appropriate building setback from and orientation to both streets.
- I. Side lines of lots shall be at right angles or radial to the street line or substantially so.

111 Easements.

- A. Utility easements shall be provided where necessary and centered on rear or side lot lines. Such easements shall be at least 20 feet wide along rear lot lines and 10 feet wide along side lot lines, except that easements for street lighting purposes shall not in any event be required to exceed 10 feet. Side lot easements, when needed for other than street lighting purposes such as drainage, may exceed 10 feet.

- B. Drainage Easements. If a subdivision is traversed by a watercourse, drainage way or channel or a detention pond is constructed, then a storm water easement or drainage right of way shall be provided. Such easement or right of way shall conform substantially to the lines of such watercourse and location of a detention pond and shall be of such width or construction, or both, as may be necessary to assure adequate storm water drainage and for access for maintenance thereof. All drainage easements shall be vegetated with perennial grasses or otherwise stabilized to prevent soil erosion and sediment movement by wind or water. Parallel streets or parkways may be required in connection therewith. (See Section 2-102 for definition of DETENTION POND.)

In rural type subdivisions, a triangular drainage and utility easement may be required at the corners of intersecting street rights of way. Where street rights of way intersect at 90 degrees, the limit of such easement would be defined by a line drawn between two points located on the right of way lines which are 25 feet back in each direction from the corner.

- C. Vision triangle easements may be required on any corner lot to provide an open and usable vision path for drivers of vehicles approaching the intersection. The extent of vision triangle easements shall be based on the type of intersection (3-way, four, protected, unprotected, etc.); the type of street (local, collector, arterial, commercial or industrial); topography; proposed street grades (if any); and the design speeds contemplated for such roadways. (See Section 2-102 for definition of VISION TRIANGLE.)

- D. Wherever a lot or group of lots side or back on to an existing high pressure oil or gas transmission line, a building setback easement shall be established on each side of such line to the minimum safe standards as provided by the applicable oil or gas company to the subdivider or to such standards as may be adopted by the City, state or federal governments, whichever provides the most setback distance. The easement shall be provided on that part of the lot which abuts the oil or gas line and no principal buildings or structures shall be located or constructed within such an easement. Because of the many variables inherent in the establishment of such a setback easement, the City assumes no liability in such a determination.

- E. A screening easement may be required to provide for fencing and/or an adequate area for the mature growth of landscaping with appropriate maintenance. (See Section 2-102 for definition of SCREENING.)

112 Commercial and Industrial Subdivisions.

- A. Streets. Notwithstanding the other provisions of these regulations, the minimum width of streets adjacent to areas designed, proposed or zoned for commercial or industrial use may be increased by the Planning Commission to such extent as may be deemed necessary to assure the free flow of through traffic without interference from parked or parking motor vehicles.
- B. Blocks and lots intended for commercial or industrial use shall be designed specifically for such purpose with adequate space set aside for off-street parking and loading.
- C. Marginal Access Street. When lots or blocks in a proposed commercial or industrial subdivision front on any limited access highway or arterial street, the subdivider may be required to dedicate and improve a marginal access street to provide ingress and egress to and from such lots or blocks.