

# Article 4

## Minimum Subdivision Improvement & Design Standards

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### 4.100 Purpose

The purpose of this article is to provide reasonable standards of design for the subdivision and re-subdivision of land and the required improvements for each subdivision. The Planning Commission shall study and review all subdivision plats in relation to the general character of the area, the general requirements of the community, and the particular requirements of the neighborhood. These design standards shall guide private and public policy regarding the layout, design, and construction of public improvements.

Further, the purpose of this article is to advance the orderly development of the City of St. Marys and the extra-territorial zone. Required public improvements are established to ensure that adequate public facilities are available and will have sufficient capacity to serve new developments: to provide water, sanitary sewers, streets, sidewalks, streetlights, and other public facilities.

## 4.101 Guarantee of Installation

The developer shall install or provide for the installation of all or a portion of the facilities and improvements required by the development policy and practices of the City of St. Marys or Pottawatomie County. Developers are required to install infrastructure (including but not limited to streets, drainage courses, culverts, water distribution, or sewer collection) as they appear on the final plat prior to the issuance of a building permit. The City Commission or County Commission may, at its discretion, determine a reasonable method, including but not limited to a corporate surety bond, cashier's check, escrow account, letter of credit, or other like security in an amount to be fixed by the City Commission or County Commission and conditioned upon the actual completion of such work or improvements within a specified period, for insuring completion of improvements by the developer.

## 4.102 Public Utility Extensions

No preliminary plat shall be approved unless the Planning Commission determines that all public utilities will be adequate to support and service the area of the proposed subdivision. The intent is to maximize local municipal coordination of public utilities in accordance with the comprehensive plan and the Cities ability to extend utilities collection system.

1. The Policy of the City of St. Marys for subdivision development within the limits of the City shall be, absent an agreement between the City and any developer or owner, as follows:

a. STREETS.

- i. All streets, sidewalks, curbs, and guttering shall be installed pursuant to a licensed engineer design, and,
- ii. Shall be subject to review and acceptance by the City Engineer for the City of St. Marys, and
- iii. All costs shall be at the expense of the developer,

1. Exception:

A proper petition for a benefit district is approved by the City Commission, wherein the cost of such improvements, including the development, design and

installation, shall be paid through the benefit district.

b. SEWER:

- i. All sewer extensions shall be installed pursuant to a licensed engineer design, and
- ii. Shall be subject to review and acceptance by the City Engineer for the City of St. Marys, and
- iii. All costs shall be at the expense of the developer,
  - 1. Exception:

A proper petition for a benefit district is approved by the City Commission, wherein the cost of such improvements, including the development, design and installation, shall be paid through the benefit district.

c. WATER:

- i. All water extensions shall be installed pursuant to a licensed engineer design, and
- ii. Shall be subject to review and acceptance by the City Engineer for the City of St. Marys, and
- iii. All costs shall be at the expense of the developer,
  - 1. Exception:

A proper petition for a benefit district is approved by the City Commission, wherein the cost of such improvements, including the development, design and installation, shall be paid through the benefit district.

d. ELECTRICAL SERVICE:

- i. The extension of all electric lines shall be performed by the City of St. Marys.

- ii. The cost of the materials, such as poles, transformers, lines and the direct material cost, shall be paid for by the developer, upon being billed by the City of St. Marys, and prior to commencement of work for such extension of service.
2. When the City Engineer for the City of St. Marys reviews such designs for streets, water, or sewer, any review cost shall be attributed to the project and paid for by the developer or benefit district.
3. As to all of the above, street, sewer, and water service extensions, the owner of the property shall be responsible for the extension from such street, sewer main, and/or water main to the structure as established by the benefit district.
4. As to extension of sewer and water service, if there is a requirement from the City to enhance any primary service line for future expansion or other City purpose, the additional cost of the pipe and connections so required, above the standard size of pipe and connections, shall be paid by the City. The City shall not be responsible for any other cost.
5. Rural or Extra-Territorial Zone Subdivisions.
  - a. The intent of these regulations is to encourage the orderly development and growth of St. Marys by extending municipal water and sanitary sewer service into the unincorporated areas surrounding the city, if feasible.
  - b. Before an extra-territorial subdivision connects to any city utility, the subdivision shall be annexed, unless waived by the City Commission.
  - c. Subdivisions platted after the adoption date of these regulations that are located in the extra-territorial zone, and connection to St. Marys water or sanitary sewer is deemed reasonably and feasibly accessible by the Planning Commission and City Commission, the developer shall be required to connect to municipal water or sewer service, unless waived by the City Commission.

6. The Policy of the City of St. Marys for subdivision development within the extra-territorial Zone shall be:
  - a. Extra-Territorial Zone Water Connections shall meet the following conditions:
    - i. The water main system shall be designed in accordance with acceptable engineering standards and practices and shall be designed to allow for the expected normal usage and fire flows.
    - ii. Fire hydrants will be required on all municipal water extensions. The type and spacing of fire hydrants shall be in conformance with the National Fire Protection Association (NFPA) #24 Design Guidelines Manual Department of Public Utilities.
    - iii. Any water system connected to any city water system shall meet the requirements listed in section 4.102.c) of the City of St. Marys Subdivision Regulations.
    - iv. The developer may provide a connection to a central water system or water from a private well(s).
      1. As part of the supplementary information submitted with a preliminary plat, the developer shall provide verification from a licensed engineer or licensed well contractor that an adequate and acceptable water supply is available.
      2. Fire hydrant installation shall not be required on private individual wells.
    - v. If the subdivision is connecting to a rural water system, as part of the supplementary information submitted with a preliminary plat, the developer shall:
      1. Provide a written statement from the affected rural water district stating that it is willing and able to provide service to the subdivision.

- b. Extra-Territorial Zone Sanitary Sewer Systems.
  - i. If the developer wants to extend municipal sanitary sewer service to the subdivision, the sanitary waste system shall be designed in accordance with acceptable engineering standards and practices and,
  - ii. Shall be designed to allow for the expected normal usage and future expansion flows.
  - iii. All sanitary waste systems shall be constructed and installed in accordance with the “Pottawatomie County Sanitary Code of Pottawatomie County, Kansas”.
  - iv. As part of the supplementary information submitted with a preliminary plat, the developer shall provide the Planning Commission with a statement from the Pottawatomie County Environmental Health Officer stating the sanitary waste system the developer desires to use meets Pottawatomie County sanitation regulations.
  - v. As part of the supplementary information submitted with a preliminary plat, the developer shall provide written verification from the Kansas Department of Health and Environment that the proposed sewage collection and treatment facility meets state guidelines for the design and installation of said system.

#### **4.103 General Development**

Subdivisions, re-subdivisions and all related improvements shall be planned, designed, and constructed in accordance with the standards and specifications set forth in this Article.

1. A subdivision shall be designed to comply with the St. Marys Comprehensive Plan.
2. The name of any new subdivision or subdivision road shall not duplicate or closely approximate that of any existing roads or subdivisions within the St. Marys postal delivery area.
3. Any land that the Planning Commission finds unsuitable for subdivision and subsequent development due to flooding, improper drainage, steep slopes, rock formations, topography, inadequacy of utility easements, or other features that will reasonably effect the public health, safety, and welfare shall not

be subdivided or developed until reasonable and adequate methods are formulated by the developer and approved by the Planning Commission to solve the problems of adverse development conditions.

4. If the development is to be served with public water or sewer, the plat must bear a notation that the subdivision is to be served by these facilities. The Zoning Administrator may not issue a building permit or a letter of zoning compliance (extra territorial area zones) for a lot notated "SERVICED BY CITY" if in fact such facilities are not present or assured.

#### **4.104 Lot Design and Layout**

All lots and landform design shall be planned in accordance with the following general standards.

1. The lot size, width, depth, shape and orientation, and the minimum building setback lines shall be appropriate for the location of the subdivision, the type of development, and the use contemplated.
2. All lots shall be designed and arranged with safe access to a public street. Where driveway access from an arterial or a collector street may be necessary for several adjoining lots, the Planning Commission may require that such lots be served by a combined access drive in order to limit possible traffic hazards.
3. Lot arrangement shall be designed to provide positive drainage to the municipal storm water system or lots shall be laid out so as to provide positive drainage away from all buildings, and individual lot drainage shall be coordinated with the general storm drainage pattern for the area
4. Lots shall be laid out so as to provide positive drainage away from all buildings, and individual lot drainage shall be coordinated with the general storm drainage pattern for the area.
5. All subdivisions within the City of St. Marys zoning jurisdiction shall conform to the requirements of the St. Marys Flood Plain Regulations.
6. Side lines of lots shall be at right angles or radial to the street lines, unless a variance is granted to provide a better street and lot plan. The angle of variation will be marked on the plat. Lot lines shall be straight, when not adjacent to street right-of-way.
7. Flag lots shall be permitted by a specific plat variance issued by the Planning Commission.

8. The minimum lot areas and widths, measured at the setback lines, shall conform to the requirements of Chapter One of this ordinance.
9. Corner lots in residentially-zoned districts shall be sized sufficiently large to allow for the building setbacks from both streets as specified in the applicable zoning district regulations.
10. Double frontage and reverse frontage lots should be avoided except where they are needed to provide for the separation of residential development from arterial streets or to overcome specific disadvantages of topography or orientation. No access shall be allowed from individual lots to arterial streets.
11. If an owner places restrictions on any lot that are greater than those imposed by these subdivision regulations, or by the zoning regulations of St. Marys, such restrictions or a reference thereto shall be placed on the final plat.
12. All portions of the tract being subdivided shall be taken up in lots, streets, planned open spaces, phases, or other uses so that remnants of land-locked areas are not created.

#### **4.105 Blocks**

Intersecting streets determining block lengths shall be provided at such intervals as to serve the anticipated traffic flow of the subdivision, taking into consideration the location of existing streets.

#### **4.106 Streets and Circulation**

The plan for general circulation and the development of all streets shall be prepared in accordance with the following.

1. All new streets or roads constructed inside the city limits, or in an area meeting the definition of an urban subdivision shall comply with the following:
  - a) A set of street or road construction and grading plans shall be submitted to the Zoning Administrator.
  - b) The developer shall be responsible for constructing all new streets.
  - c) All street pavement, curbs and gutters, shoulders, drainage improvements, and sidewalks shall be designed and constructed in accordance with acceptable engineering standards and practices.
  - d) All curbs and gutters shall be of concrete.



- e) All streets shall be of BM2 asphalt or its equivalent no less than 8" (eight inches) in depth.
  - i. Exception: Alleys are exempt from this regulation.
- 2. Rural or Extra-Territorial Zone Subdivisions. All road improvements located in the unincorporated area shall comply with the following:
  - a) A set of road construction and grading plans shall be submitted to the county Director of Public Works for approval.
  - b) The developer shall be responsible for constructing all new roads.
  - c) All road pavements, shoulders, and drainage improvements shall be constructed in conformance with the standards and requirements set by the county.
- 3. Arrangement. All streets shall be integrated with the existing and proposed system of road, streets, and dedicated rights-of-way. Additionally, all streets shall be related to specific traffic generators and to the pattern of existing and proposed land uses.
  - a) Where required by the Planning Commission, rights-of-way shall be provided for extending streets to adjoining un-subdivided property. Land in such rights-of-way shall be dedicated to city or county.
  - b) Where a proposed subdivision abuts an approved subdivision containing future street rights-of-way, the developer of the proposed subdivision shall construct the street and all required improvements from the proposed subdivision to the approved street in the existing subdivision.
  - c) New streets shall be extended to the boundaries of the subdivision to provide access to adjoining property, and shall intersect with existing streets.
  - d) When a subdivision borders on, or contains a railroad right-of-way or a limited access highway, the Planning Commission may require a street approximately parallel to and on each side of such right-of-way, at a distance from the railroad or limited access highway right of way determined with due regard for the requirements of approach grades and future grade separations.
  - e) Local streets shall be so designed as to discourage through or non-local traffic.

- f) Road shall be related appropriately to the topography. Grades of streets shall conform as closely as possible to the original topography.
  - g) Under normal conditions, streets shall be laid out to intersect, as nearly as possible, at right angles. Where topography or other conditions justify a variation from the right angle intersection, the Planning Commission may authorize a variation with a minimum angle of eighty (80) degrees.
4. Connectivity. In order to promote connectivity to adjacent properties, every plat shall provide multiple access points, to the greatest extent possible. Streets in a proposed subdivision must connect, where feasible, to existing streets in abutting platted subdivisions.
  5. No subdivision shall be approved unless it has access to a public street that has been designed and constructed in accordance with acceptable engineering standards and practices.
  6. The developer shall warranty all new streets and the repair of new streets for a period of not less than one year following the date of final acceptance by the city or county
  7. All proposed new streets in a new subdivision shall become public streets and dedicated to the city or county.

a. Exception:

Private streets may be approved by the planning commission. When private streets are approved as part of a subdivision, they shall meet the design standards for local streets of these regulations. Approval of a subdivision involving a private street shall be solely at the discretion of the Planning Commission. The right-of-way width and roadway width for private streets are the same as those required for public streets. Turnaround provision for private streets, with a single point of ingress and egress, are the same as are required for public streets. Applications for a private street shall be accompanied by a development agreement, which shall be recorded with the Pottawatomie County Register of Deeds as part of the final plat. This agreement shall establish the conditions under which the street will be constructed and maintained, as well as the conditions controlling an offer of dedication, and shall stipulate:

- b) The street shall be constructed and maintained to conform to the St. Marys construction specifications.
  - c) An offer for dedication of the street shall be made only for the street as a whole.
  - d) The method of assessing maintenance and repair costs.
8. Half-Street. Dedication of half-streets shall not be approved.
  9. Temporary Turnaround. When a temporary turnaround is provided on a street that is to be extended in the future, the Planning Commission shall establish the width of the turnaround and the need for temporary easements. Temporary cul-de-sacs shall have, as a minimum, the same dimensions as a permanent cul-de-sac.
  10. Cul-de-sacs. Permanent cul-de-sacs (dead end streets) shall not be longer than 600 feet and a turn-around not less than 50 feet in radius shall be provided at each terminus to provide adequate provision for turn-around of emergency or commercial vehicles, such as fire trucks and school busses.
  11. Streets for Commercial and Industrial Use. The minimum right-of-way width of streets adjacent to an area designed, proposed, or zoned for commercial or industrial use may be increased by the Planning Commission to such extent as the Commission may deem necessary to assure the free flow of through traffic without interference from parked or parking vehicles.
  12. Clear sight triangles meeting figure one below shall be designed in all intersections. No obstructions to vision shall be allowed within the applicable triangle(s). Any object shall be deemed an obstruction if it is located within any applicable sight triangle and the object is between two and one-half feet and ten feet above the edge of the roadway.

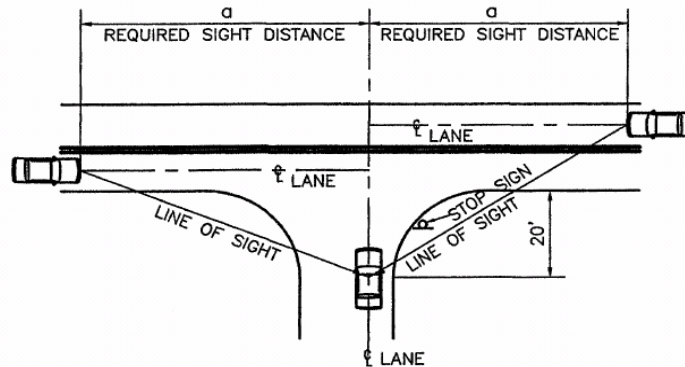
Figure 1

**SIGHT TRIANGLE REQUIREMENT  
STOP-CONTROLLED INTERSECTION**

<sup>1</sup>DISTANCE "a" CALCULATED PER AASHTO, CASE IIIB. ASSUMES FLAT GRADES AT INTERSECTION. WHERE THE GRADES OF THE INTERSECTION LEGS ARE OTHER THAN FLAT, CORRECTIONS SHOULD BE MADE TO THE SIGHT DISTANCES PER AASHTO TABLE IX-9.

<sup>2</sup> USE TRUCK SIGHT DISTANCES IN COMMERCIAL AND INDUSTRIAL ZONED AREAS.

OPERATING SPEED (MPH)		25	30	35	40	45	50
DISTANCE $a^1$ (FEET)	TRUCK <sup>2</sup>	490	645	820	1020	1340	1710
	PASSENGER CAR	300	375	470	580	700	840



13. Minimum Street Design Standards. All roadways shall be designed in accordance with nationally recognized design standards and practices, signed and sealed by a registered engineer of the appropriate discipline.
14. Dedication of Rights-of-way. Developers are required to dedicate right-of-way land to the city or county for public streets or roads, which abut the proposed development in accordance with city or county policy.

**4.107 Sidewalks**

1. The Planning Commission shall determine at the time it considers the preliminary plat if sidewalks shall be required within a subdivision.
2. Access ramps for disabled persons shall be installed whenever new curbing and/or sidewalks are constructed or reconstructed.

All sidewalk grades, approaches, and ramp shall comply with the Standards of the American Disabilities Act.

#### **4.108 Pedestrian Access**

The Planning Commission may require, in order to facilitate pedestrian access from the streets to schools, parks, playgrounds, or other nearby streets, pedestrian easements at least ten (10) feet in width, unless modified by the Commission. Pedestrian easements and maintenance responsibility thereof shall be indicated on the plat.

#### **4.109 Easements and Reservations**

All permanent and temporary easements shall be prepared for dedication in accordance with the following standards and specifications.

1. All public utility installations, including lines for street lighting systems, which traverse privately owned property, shall be protected by easements granted by the developer to the public and appropriate public utility. Such easements shall be located so as to not interfere with the use of any lot or other part of the subdivision. The size of, and restrictions pertaining to, such easements shall be in accordance with the standards and specifications of the agency having jurisdiction over the utility lines if such standards and specifications are greater than those imposed by these regulations.
2. The location of utility easements shall be proposed by the developer, and approved by the Planning Commission, taking into consideration lot size and configuration, the requirement to provide all utility services to all lots, and the goal of retaining maximum useable area of the lot by the owner. The preferred location for utility easements is along the rear line of lots, though side lot line easements, or other locations as proposed, may be approved if they are needed to meet utility system design standards. Utility easements shall be 20 feet in width, except for street lighting easements which may be 10 feet in width.
3. If a subdivision is traversed by a watercourse, drainage way, or channel, then a storm water easement or drainage right-of-way shall be provided. The easement shall conform substantially to the lines of such watercourse and shall be of such width or construction or both, as may be necessary to provide adequate storm water drainage and access for maintenance. The final plat shall indicate maintenance responsibilities of such areas.

4. Drainage easements on land subject to rapid storm water discharge may be required by the Planning Commission. The developer is responsible for providing such documentation as may be appropriate to show that the land is or is not subject to rapid storm water discharge, how the discharge will be managed, and how the requirements of the State of Kansas National Pollutant Discharge Elimination System Standards applying to storm water runoff will be addressed. Any such documentation shall be signed by a registered engineer, a registered hydro geologist. Drainage easements may also be required for retention or detention basins. Storm water channels and retention or detention basins, if required, shall be designed by a Kansas registered civil engineer.

#### **4.110 Street Lights**

The Planning Commission may require streetlights for illumination of streets and pedestrian walkways for safe movement of vehicles and pedestrians at night.

#### **4.111 Sedimentation and Erosion Control**

The storm water management plans for all subdivisions shall conform to the State of Kansas National Pollutant Discharge Elimination System standards.

#### **4.112 Benchmarks, Monuments, and Corners**

1. Benchmarks. All elevations shown on plats shall be based on National Geodetic Survey (NGS) datum. The permanent bench mark location and description that is used to extend datum to the project shall be noted on the Preliminary and Final Plat.
2. Monuments. Monuments shall be located, constructed, placed, and documented in accordance with the surveying standards set forth in Kansas Administrative Regulations 66-12-1, Minimum Standards for the Practice of Land Surveying.
3. Monument Placement. All boundary monuments and interior controlling corners shall be set prior to the submission of the final plat to the Planning Commission for approval.
4. The final plat must be signed by the county prior to submitting the final plat to the Planning Commission for final approval.

## **4.113 Buffer Strips, Landscaping and Screening Standards**

1. A buffer strip or setback of open space may be imposed by the Planning Commission as a condition of rezoning or as a requirement imposed on a preliminary plat when deemed appropriate to buffer a commercial or industrial use of a property from adjacent residential use or property. A buffer strip or setback of open space may be imposed by the Zoning Administrator during a site plan review of commercial or industrial development when deemed appropriate to buffer a commercial or industrial use of a property from adjacent residential use or property. The decision of the Zoning Administrator is subject to appeal to the Board of Zoning Appeals.
2. The Planning Commission shall determine the depth of a buffer zone based on the character of nearby uses and existing environmental features. In general, a buffer strip should be a minimum of fifteen (15) feet when the planting of trees is required in order to accommodate the growth of trees to maturity.
3. A buffer strip shall be located within the zone for which it is required.
4. A buffer strip shall be provided in addition to any required setback.
5. A buffer space shall be used for no other purpose than open space, the erection of a fence or screen, and/or landscape planting.
6. When the planting in a buffer space is to serve the purpose of a screen, the plants used shall be of a species that provides a screening effect all year long and shall be planted at a density sufficient to provide full screening from reasonably anticipated off-site viewing angles. The vegetation planted to meet a screening requirement shall be of species or maturity which can reasonably be expected to create the desired screen within five years from the time of planting.
7. The erection of a screen or fence in a buffer strip, or the planting of vegetation to create a screen in a buffer strip, may be imposed by the Planning Commission as a condition of rezoning or as a requirement imposed on a preliminary plat when deemed appropriate to screen a commercial or industrial use of a property from adjacent residential use or property. The erection of a screen or fence in a buffer strip, or the planting of vegetation to create a screen in a buffer strip, may be imposed by the Zoning Administrator during a site plan review of commercial or industrial development when deemed appropriate to screen a commercial or industrial use of a property from adjacent residential use or

property. The decision of the Zoning Administrator is subject to appeal to the Board of Zoning Appeals.

8. The height of man-made screens shall conform to the fence heights authorized in Section 7.300 of this UDC. The fence height variance authority authorized by Section 7.300 also applies to screens.
9. Man-made screens, or fences which are fulfilling a screening purpose shall not have openings through which that being screened can be ascertained as to form or function. Man-made screens, or fences which are fulfilling a screening purpose may be constructed of any common building material.
10. Nothing in this Article is to be interpreted as preventing the installation of a combination of screens, fences, and vegetation in a buffer space as may be required to meet the intent of this Article or the desires of the land owner.