

Design Standards

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1.0 Conformity With Other Standards: A proposed subdivision shall conform to the Comprehensive Plan, Zoning Ordinance, Airport Zoning Ordinance, Official Map, and related policies adopted by the City, including lot size, landscaping requirements, and other requirements outlined in the Zoning Ordinance.

2.0 Interpretation of Requirements: The design features set forth in this section are minimum requirements. The City may impose additional or more stringent requirements concerning lot size, streets, and overall design as deemed appropriate considering the property being subdivided.

3.0 Land Requirements:

- A. Land shall be suited to the purpose for which it is to be subdivided. No plan shall be approved if the site is not suitable for the purposes proposed by reason of potential flooding, topography, or adverse soil, rock formation, or wetlands.
- B. Land subject to hazards to life, health, or property shall not be subdivided until all such hazards have been eliminated or unless adequate safeguards against such hazards are provided by the subdivision plan.
- C. Proposed subdivisions shall be coordinated with surrounding jurisdictions and/or neighborhoods so that the City as a whole may develop efficiently and harmoniously.

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- D. Grading for drainage. Lots shall be graded so as to provide drainage away from building locations and shall conform to the approved final grading plan. Storm water drainage from an improved lot shall not be directed at an adjoining property at a rate above a predevelopment condition except where drainage is directed to a designed drainage easement.
- E. Natural Features. In the subdividing of any land, due regard shall be shown for all natural features, such as tree growth, water courses, historic places or similar conditions, which, if preserved, will add attractiveness and stability to the proposed development.
- F. Frontage on Two Streets. Double frontage, or lots with frontage on 2 parallel streets shall not be permitted except where lots back on major collector or arterial streets, City or State highways or where topographic or other conditions render subdividing otherwise unreasonable. Additional lot depth and a minimum 20 foot wide landscaped buffer yard shall be provided for all double frontage lots for accommodate landscaping and/or berms.

4.0 Blocks:

- A. Block Length. In general, intersecting streets determining block lengths shall be provided at such intervals so as to serve cross-traffic adequately and to meet existing streets. Where no existing plats control, the blocks in residential subdivisions should not exceed 1,000 feet, nor be less than 500 feet in length, except where topography or other conditions justify a departure from this standard. In blocks longer than 1,000 feet, pedestrian ways and/or easements through the block may be required near the center of the block.
- B. Block Width. The width of the block shall normally be sufficient to allow two tiers of lots of appropriate depth. Blocks intended for business or industrial use shall be of such width as to be considered most suitable for their respective use, including adequate space for off-street parking and deliveries.

5.0 Lots:

- A. Area/Width. The minimum lot area and width shall not be less than that established by the Zoning Ordinance in effect at the time of adoption of the

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final plat.

- B. Corner Lots. Corner lots for residential use shall have additional width to permit appropriate building setback from both streets as required in the Zoning Ordinance.
- C. Side Lot Lines. Side lines of lots shall be approximately at right angles to street lines or radial to curved street lines.
- D. Building Sites. Each lot shall provide an adequate building site at least 18 inches above the top of the adjacent curb unless approved by the City Engineer upon the basis of plans submitted showing alternative, acceptable surface drainage measures.
- E. Setback Lines. Setback or building lines shall be shown on all lots intended for residential use and shall not be less than the setback required by the Zoning Ordinance.
- F. Watercourses. Watercourses shall be contained within abutting lots. Watercourses shall be protected by easement to the anticipated high water level (as determined by the City). Lots with easements protecting watercourses shall have sufficient dimensions and area above the normal water levels (as determined by the City) to equal or exceed the minimums specified in the zoning chapter for the district in which the lots are located.
- G. Drainage. Lots shall be graded so as to provide drainage away from building locations, subject to the approval of the City Engineer. A grading plan shall be submitted showing all grading and drainage provisions.
- H. Features. In the subdividing of any land, due regard shall be shown for all natural features, such as tree growth, watercourses, historic spots, or similar conditions which, if preserved, will add attractiveness and stability to the proposed development.
- I. Access to Major Collector Streets. In the case where a proposed plat is adjacent to a major collector street, as defined by the Comprehensive Plan, there shall be no direct vehicular access from individual lots to such streets and roads. In the platting of small tracts of land fronting on limited access highways or major collector streets where there is no other alternative, a temporary access may be granted, subject to terms and conditions defined

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by the City Council and applicable County or state agencies. As neighboring land becomes subdivided and more preferable access arrangements become possible, temporary access permits shall become void. In cases where direct lot access to collector or arterial streets is allowed, special traffic safety measures including, but not limited to, provisions for on-site vehicle turnaround shall be required. In cases where a proposed plat is adjacent to a County or state highway, the plat shall be subject to County and/or state approval.

- J. Outlots. Lot remnants and future subdivision development phases shall be platted as outlots. In cases where outlots are created or exist, their area shall not be utilized in calculating minimums for buildable lot area requirements. Outlots are also prohibited from qualifying for building permits.

6.0 Streets and Alleys.

- A. Contiguous Streets. Except for cul-de-sacs, streets shall connect with streets already dedicated in adjoining or adjacent subdivisions, provide for future connections to adjoining unsubdivided tracts, or shall be a reasonable projection of streets in the nearest subdivided tracts. The arrangement of arterials and collector streets shall be considered in their relation to the reasonable circulation of traffic, topographic conditions, runoff of storm water, public convenience and safety, and in their appropriate relation to the proposed uses of the area to be served and in compliance with the Comprehensive Plan.
- B. Local Streets and Dead-end Streets. Local streets should be so planned as to discourage their use by non-local traffic. Dead-end streets are prohibited, but cul-de-sacs shall be permitted where topography or other physical conditions justify their use. Cul-de-sacs shall not be longer than 500 feet, including a terminal turnaround which shall be provided at the closed end, with a right-of-way radius of not less than 50 feet. A 42-foot street surface radius will be required on all cul-de-sacs.
- C. Street Plans for Future Subdivisions. Where the plat to be submitted includes only part of the tract owned or intended for development by the developer, a tentative plan of a proposed future street system for the

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unsubdivided portion shall be prepared and submitted by the developer. When determined necessary by the City, the plan shall extend streets and utilities to the property line of the adjacent tract and/or tracts.

- D. Temporary Cul-de-sacs. In those instances where a street is terminated pending future extension in conjunction with future subdivision, a temporary turnaround facility shall be provided at the closed end in conformance with cul-de-sac requirements.

- E. Subdivisions Abutting Major Rights-of-Way. Wherever the proposed subdivision contains or is adjacent to the right-of-way of a U.S. or state highway or county thoroughfare, provision may be made for a marginal access street approximately parallel and adjacent to the boundary of the right-of-way; provided, that due consideration is given to proper circulation design, or for a street at a distance suitable for the appropriate use of land between the street and right-of-way. The distance shall be determined with due consideration of the minimum distance required for approach connections to future grade separations, or for lot depths.

- F. Trails. Trails shall be established in accordance with the Comprehensive Plan and City policies, and in other areas where trails will serve an important transportation or recreational purpose as recommended and approved by the City Council. Trail corridors shall meet the following minimum requirements unless otherwise permitted by the City Council:
 - 1. Dedicated to the City as outlots or as part of a homeowner's association with a public access easement;
 - 2. Minimum 20-foot wide corridor;
 - 3. Minimum eight-foot wide surface;
 - 4. Handicap accessibility wherever possible;
 - 5. No above-ground utilities (i.e. mailboxes, utility boxes) may be within the trail corridor;
 - 6. A landscape plan, including shrubs and trees, shall be required on trail corridors located in the side yard of residential lots.

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7. Due regard shall be shown for trees, wetlands and other environmental features when locating and constructing trails.
 8. Type of Surface: Bituminous or concrete as determined by the City Council.
- G. Compliance with City, County and State Transportation Plans. All subdivisions incorporating streets which are identified in the city, County and State Transportation Plans, as amended, shall comply with the minimum right-of-way, surface width, and design standards as outlined in the plans.
- H. Street Design. Minimum right-of-way widths, paving widths, angles of intersection, curb radii, distances along sides of sight triangles, horizontal alignments, vertical alignments, as well as maximum grades shall be in accordance with the following table:

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Design Element	Major Collector	Minor Collector	Local Streets	Cul-de-Sacs
ROW width	100 ft.	60 ft.	60 ft.	50 ft./50 ft. R
Street width	52 ft.	36 ft.	32 ft.	32 ft./42 ft. R
Maximum grade	7.5%	7.5%	7.5%	7.5%/7.5% R
Minimum grade	0.6%	0.6%	0.6%	0.6%/0.6% R
Cross grade	----- 6 in. Crown -----			
Design section	9 ton	9 ton	7 ton	7 ton
Minimum angle intersection	90	80	70	70
Minimum curb radius	35 ft.	25 ft.	25 ft.	25 ft.
Grades for 25 feet before intersection	3.0%	3.0%	3.0%	3.0%
Site triangles (Distance along sides of) through st./stop street	500 ft./30 ft.	500 ft./30 ft.	250 ft./25 ft.	250 ft./25 ft.
Horizontal align (min. radius of center line)	600 ft.	450 ft.	215 ft.	75 ft.
Vertical curves (min. sight distance)	475 ft.	325 ft.	200 ft.	100 ft.

NOTE: Right-of-way requirements may be increased for specific thoroughfares if existing or anticipated traffic flow warrants it, or if drainage easements parallel such thoroughfares. Increased width will be set by the City Council upon recommendation of the Planning Commission and City Engineer.

- I. Reverse Curves. Minimum design standards for major collector streets shall comply with Minnesota Department of Transportation State Aid Standards.

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- J. Reserve Strips. Reserve strips controlling access to streets shall be prohibited except under conditions accepted by the City Council.
- K. Private Streets. Private streets, except in the case of planned unit developments, shall generally be discouraged. Private streets, where allowed, shall meet the design requirements of public streets.
- L. Street Intersections. Intersections having more than four corners shall be prohibited. Adequate land for future intersections and interchange construction needs shall be dedicated. Angles formed by the intersection of two streets shall comply with the provisions of division (I.) above.
- M. Street Intersection Offsets. Street intersection jogs with center line offsets of less than 200 feet shall be prohibited.
- N. Center Line Curvature. The minimum horizontal curvature of streets shall be in accordance with the MNDOT Highway Design Manual for the type of street and design speed. The minimum curvature shall be 250 feet radius.
- O. Half Streets. Half streets shall be prohibited except where it will be practical to require the dedication of the other half when the adjoining property is subdivided, in which case the dedication of a half street may be permitted. The probable length of time elapsing before dedication of the remainder shall be considered in this decision. No permanent street improvement shall be permitted within a half street right-of-way. All lots having frontage or access solely from a half street are prohibited from being eligible for building permits.
- P. Dedication. All proposed streets shown on the plat shall be in conformity to City, County, and State plans and standards and be offered for dedication as public streets unless otherwise determined by the City Council.
- Q. Restriction of Access. Access of local streets onto major collector streets shall be discouraged at intervals of less than 500 feet.
- R. Curbs and Gutters. Concrete curbs and gutters shall be required on all streets. The City Council shall designate the type of curb (mountable or other type) for streets at the time the preliminary plat is approved.

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S. Pavement.

1. The aggregate base course shall consist of the latest Minnesota Department of Transportation approved material, having a thickness of not less than twelve inches. The aggregate base shall be placed over a sand layer having a thickness of at least 12 inches. The City Council shall have the right to determine whether the proposed thickness is adequate for the type of street that has been proposed.
2. Pavement shall be required on all streets. The bituminous shall be placed in two lifts. The first lift shall be a minimum of 2 inches thick. The second lift of bituminous shall be placed at least one year after the first lift and shall be a minimum of 1 ½ inches thick. If the street is constructed with concrete, the proposed pavement design must first be approved by the City Engineer.
3. Street boulevards shall be constructed which are uniformly and thoroughly compacted by rolling and level with the tops of curbs.

7.0 Easements:

- A. Width and Location. An easement for drainage and utilities at least ten feet wide shall be provided along front lot lines and centered along shared side and rear lot lines. If necessary for the extension of main water or sewer lines or similar utilities, easements of greater width may be required along lot lines or across lots.
- B. Continuous Utility Easement Locations. Drainage and utility easements shall connect with easements established in adjoining properties. These easements, when approved, shall not thereafter be changed without approval of the City Council after a public hearing.

8.0 Erosion and Sediment Control.

- A. The development shall conform to the natural limitations presented by topography and soil so as to create the least potential for soil erosion.
- B. Erosion and siltation control measures shall be coordinated with the different stages of construction. Appropriate control measures shall be installed prior to development when necessary to control erosion.

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- C. Land shall be developed in increments of workable such that adequate erosion and siltation controls can be provided as construction progresses. The smallest practical area of land shall be exposed at any one period of time.
- D. When soil is exposed, the exposure shall be for the shortest feasible period of time, as specified in the development agreement.
- E. Where the topsoil is removed, sufficient arable soil shall be set aside for re-spreading over the developed area. Topsoil shall be restored or provided to a depth of three inches and shall be of a quality at least equal to the soil quality prior to development.
- F. Natural vegetation shall be protected wherever practical.
- G. Based upon the review and recommendation of the City Engineer, it may be necessary to divert runoff water to a sedimentation basin before being allowed to enter the natural drainage system.

9.0 Drainage: All subdivision designs shall incorporate adequate provisions for storm water runoff, shall meet all state and county requirements, and shall be subject to the review and approval of the City Engineer.

10.0 Protected Areas:

- A. Where land proposed for subdivision is deemed environmentally sensitive by the City due to the existence of wetlands, drainageways, watercourses, floodable areas, or steep slopes, the design of the subdivision shall clearly reflect all necessary measures of protection to insure against adverse environmental impact.
- B. Based upon the necessity to control and maintain certain sensitive areas, the City shall determine whether protection will be accomplished through lot enlargement and redesign or dedication or those sensitive areas in the form of easements or outlots.
- C. In general, measures of protection shall include design solutions which allow for construction and grading involving a minimum of alteration to sensitive areas. Where these areas are to be incorporated into lots within the proposed subdivision, the developer shall be required to demonstrate that the proposed design will not require construction on slopes over 18%,

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or result in significant alteration to the natural drainage system such that adverse impacts cannot be contained within the plat boundary.

11.0 Mail and Paper Box Locations:

- A. Definitions. For the purpose of this section the following definitions shall apply unless the context clearly indicates or requires a different meaning.
1. Boxes. All mail boxes, paper boxes and advertising boxes, wherein either mail is distributed, newspapers and magazines are distributed or advertising placed for the use of residents of the City.
 2. Rural Farm Areas. Homes located on premises within the city limits with at least five acres or more.
- B. Requirements. The placement of all boxes shall comply with the following:
1. The minimum height from the top of the curb to the bottom of the frame holding the box shall be no less than 36 inches;
 2. No newspaper boxes can be below 36 inches from the top of the curb;
 3. The bottom of the mail box shall be approximately 42 inches from the top of the curb;
 4. Boxes shall be allowed to be placed in the boulevard of all City streets except those streets where the curb reaches the sidewalk and there is no boulevard.
- C. Location of Boxes on City Streets.
1. No boxes shall be placed within ten feet of any storm sewer inlet or any fire hydrant.
 2. Where there is more than one house on a City block, boxes shall be located in a cluster. Paper boxes and advertising boxes must be located in the same cluster as the mail boxes. The clusters shall be centrally located in the middle of the homes to be served. The clusters shall be placed on the north or east side of the street on a City street that is not a cul-de-sac, unless the line of travel for postal

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delivery requires placement elsewhere as directed by the Post Office.

3. For cul-de sacs, the cluster shall be placed on the left side of the road facing the entrance to the cul-de-sac; and the cluster shall be placed a minimum of ten feet from the beginning of the radius of the cul-de-sac.