

SECTION 05-08 CONSTRUCTION STANDARDS

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Section 05-08-01. Monuments.

- A. Monuments shall be placed at all block and lot corners, angle points, points of curves in streets and at intermediate points as shall be required by the City. Monuments shall be metal and shall be placed by a Registered Land Surveyor. Monument placement shall meet the current accepted standards of practice for surveying including the Wright County Surveyor requirements.
- B. All lot corners and survey control monuments shall be set and in place at the time the plat is recorded. An exception to this requirement may be granted for up to one (1) year by the City Council, provided such approval is made part of the development contract and a financial guarantee in a form determined by the City Attorney is provided.
- C. Stakes showing the locations of easements shall be provided by the applicant upon request of the City. The stakes shall be wood laths and will be used only to insure the proper location of utilities on the easements. The stakes shall not be intended to be permanent survey monuments.

Section 05-08-02. Street and Alleys.

- A. Grading: The full width of the right-of-way of each Street and alley dedicated in the plat shall be cleared and graded in accordance with the plan approved by the City Engineer. Boulevards shall be graded to an approved gross slope not less than one (1) percent, nor more than six (6) percent.
- B. Paving: All streets and alleys shall be improved with a concrete or bituminous surface. Streets to be paved shall be surfaced for a nine (9) ton axle weight capacity using current Minnesota Highway Department design standards and in accordance with City standard design detail plates. Streets not to be paved shall be improved in accordance with the City standards. No

building permit shall be issued for any lot or parcel in a subdivision prior to the installation of the first lift (base course) of bituminous surfacing or concrete surfacing on the streets thereof. Exceptions to this provision may be granted by the City Council at their discretion as part of a development contract.

- C. Soil Investigation: To determine sub-grade soils classification and bearing capacity of the soils in the proposed development, a soil investigation report shall be prepared under the supervision of a soils engineer associated with a qualified soils testing service. Report of the results of the soils investigation shall be provided to the City Engineer. The report shall contain the design recommendation for Street section based on nine (9) ton design. An in proposed streets, soils investigation shall be performed at intervals not to exceed five hundred (500) lineal feet. The soil borings completed during the investigation shall be at least ten (10) feet in depth below the proposed finished grade or to a depth of two (2) feet below proposed utilities. Ground water levels shall be reported at each boring. Elevations shall be in mean sea level datum. Locations of borings shall measure in the field and accurately shown on the plans.
- D. Concrete Curb and Gutter: All curb shall be concrete with integral gutter. The standard curb shall be vertical face (Type B618) in accordance with City standard design templates. In new residential developments where access locations to lots are not known, a surmountable curb (Type D418) in accordance with City standard design templates may be used subject to the approval of the City Council if the radius of curvature of the Street is two hundred (200) feet or larger and except at intersections and catch basin inlets.
- E. Boulevards: All boulevards shall have four (4) inches of top soil (black dirt) placed on them and then shall be sodded or seeded.

Section 05-08-03. Sidewalks. Sidewalks shall be concrete, a minimum of five (5) feet in width, and shall be constructed in accordance with the City standard design detail plates.

Section 05-08-04. Public Utilities Design.

A. Watermain:

- 1. Watermain size shall be a minimum six (6) inch diameter. Watermain size up to eight (8) inch diameter may be utilized as a standard and minimum distribution size along with six (6) inch diameter. All “deadend” watermains must be eight (8) inch diameter. Watermain shall be ductile iron pipe and shall meet all the requirements of the City Engineer’s Association of Minnesota standard utility specification for watermain and service line

installation and American Water Works Association standard, as may be amended.

2. Mains shall be valved at intervals not to exceed eight hundred (800) feet. Wedge gate valve shall be installed as main valves. Valve shall also be installed at street intersection and branches in the distribution system or in locations as determined by the City Engineer.
3. "Dead end" mains shall be looped if exceeding the allowed length of a cul-de-sac. The distribution system may require installing a larger main to benefit the entire water service in the City. The City Engineer shall determine location and size of main larger than six (6) or eight (8) inches in residential areas. In commercial/industrial areas, watermain up to twelve (12) inches may be required to meet normal distribution required in the development. The cost of normal distribution size and appurtenances shall be the responsibility of the developer. Size of pipe over and above the normal shall be installed and financed in accordance with City policy.

B. Fire Hydrants:

1. Installation shall be pursuant to plans approved by the City Engineer and local fire fighting authority and shall be located in accordance with Insurance Service Office (ISO) standards, as may be amended.
2. Hydrants shall be placed at the end of all "dead ends", cul-de-sacs and at intersections. All hydrants shall have wedge gate valves and shall be easily accessible to fire fighting personnel and equipment. The single hydrant style shall be throughout the distribution system and that type is shown on the City of Howard Lake standard plates.

- C. Sanitary Sewer: Sanitary sewer shall be a minimum of eight (8) inch pipe and shall be of a material approved for use in the City by the City Engineer. Sanitary sewer grades and installation shall conform to the Recommended Standards for Sewage Works latest edition by the Great Lakes - Upper Mississippi River Board of State Sanitary Engineers and the City Engineer's Association of Minnesota standard utilities specification for sanitary sewer. Main size will be determined by the sewage flow and grade in accordance with the recommendations of the City Engineer.

Size of pipe shall be determined by lateral service and/or trunk service. Trunk service shall be the responsibility of the property served and City Council shall establish cost distribution policy. Lateral service shall be the responsibility of the property serviced and cost shall be borne by the serviced

property. Sanitary sewer service shall be a minimum of four inches and shall be installed in accordance with the City's standard detail templates.

- D. House Services: Each house service shall be run from the main to the property line, where a cap or plug shall be placed until the service is extended to the structure, A one (1) inch Type "K" copper water service, or approved equal; corporation cock, curb box and stop; and four (4) inch PVC plastic pipe, or approved equal, sewer service shall be the minimum requirements. All products shall be of the type approved by the City Engineer.
- E. Reproducible "as-built" drawings showing all utilities and improvements shall be furnished to the City by the applicant of all required improvements in developments where the applicant has been responsible for improvements. Such "as-built" drawings shall be certified to be true and accurate by the registered engineer responsible for the installation of the improvements.

Section 05-08-05. Water Supply.

- A. Water lines shall be installed and connected to the public system to serve all lots within the proposed subdivision under the provisions of applicable statutes and ordinances. The City Council shall require the installation of watermains, at the applicant's expense or under the provisions of applicable statutes and ordinances, unless said applicant can prove to the City Council that extension of the existing water system is not feasible in the development of the subdivision and that adequate water facilities will be otherwise provided, in which case the Council may permit the installation of individual wells.
- B. An individual well, if permitted by the City Council, shall be constructed in accordance with the Minnesota State Well Code, as may be amended. The applicant shall provide evidence that lots proposed for individual wells will have a good chance of securing an adequate supply of potable water.

Section 05-08-06. Sewage Disposal.

- A. Sanitary sewer lines shall be installed and connected to the public system to serve all lots within the proposed subdivision under the provisions of applicable statutes and ordinances. The City Council shall require the installation of sanitary sewer mains, at the applicant's expense or under the provisions of applicable statutes and ordinances.
- B. When a subdivision will be able to be served by sanitary sewer within six (6) years, the City may require that sewer mains and service connections be installed within the subdivision and the entire system connected to a temporary, private central sewage treatment mechanism. The cost for such

improvements is to be borne by the applicant.

- C. In areas being developed for building sites with lots totaling twenty thousand (20,000) square feet or more for soil absorption sewage disposal and the City does not have plans to provide public sewer and water within six (6) years, individual on-site sewage disposal systems may be provided for each lot.
- D. There shall be no overflow outlets from septic tanks or seepage pits allowing effluent to flow to any waterway, drainage way or roadside ditch.
- E. The applicant or owner shall be required to provide appropriate soil borings and percolation tests in order to determine proper sewage system design. Where on-site residential sewer systems are to be installed, the rules and regulations of the Minnesota Pollution Control Agency, Minnesota Individual Sewage Treatment Systems Standards (Minnesota Rules, Chapter 7080), as may be amended.
- F. Any means or methods of sewer disposal including septic tanks and seepage pits in the subdivision shall be allowed to exist only if in compliance with FEMA rules and regulations, requirements of the Minnesota Pollution Control Agency, and Minnesota Rules 7080, as may be amended.

Section 05-08-07. Drainage. All surface and underground drainage systems shall be installed by the applicant to adequately remove all natural drainage that accumulates on the developed property. All such systems shall provide complete removal and a permanent solution for the removal of drainage water and shall be subject to City review and approval.

Section 05-08-08. Building Site Improvements For Flood-Prone Areas.

- A. No lot will be sold or building constructed in an area subject to flood prior to completion of all flood protection works or measures planned for such lot and necessary facilities.
- B. No subdivision shall be approved for floodway areas if anticipated levees, fill, structures or other features will individually or collectively increase flood flows or damages. The City Council shall reasonably assume an equal degree of encroachment on the opposite side of the watercourse in calculating possible effects of the proposed uses.
- C. New building sites for any structures, residences, motels, resorts and all manufactured home parks/subdivisions, and similar uses for human occupation shall not be permitted in floodway areas. These uses may be permitted outside the floodway if building sites are filled to a height not more than one (1) foot above the regulatory flood protection elevation for the particular area. Required fill areas must extend fifteen (15) feet beyond the limits of extended structures. If the subdivision is not to be serviced with

sewer, it must include areas for on-site waste disposal at or above the flood protection elevation in accordance with FEMA rules and regulations, as may be amended.

- D. Building sites for structures other than those used for human occupancy outside of floodway areas shall ordinarily be filled as provided above, However, the City Council may allow subdivision of areas for commercial and industrial use at a lower elevation if the applicant protects the areas to the regulatory flood protection elevation by levees, floodwalls, channels modifications or other protective techniques; or if the applicant agrees to protect uses through structural floodproofing, flood warning systems or other techniques specified in this Ordinance.
- E. Should the City Council determine that only a part of a proposed plat can be safely developed, it shall limit development to that part and require that the specifications for development be consistent with its determination.
- F. When someone other than the applicant intends to develop the plat, and the City Council determines that additional use controls are required to insure safe development, it may require the applicant to impose appropriate deed restrictions on the land. Such deed restrictions shall be inserted in every deed and noted on the face of the final recorded plat.

Section 05-08-09. Utilities Location. Except as expressly allowed by the City, all utilities, including but not limited to telephone, cable television, electric and/or gas lines shall be placed underground. All underground work shall be completed prior to street surfacing.

Section 05-08-10. Street Lighting Requirements. The minimum requirement for street lighting facilities shall be one (1) eight thousand (8,000) lumen light, or equal, at each Street intersection within or abutting the subdivision. At least one (1) street light shall be erected within blocks having a length of nine hundred (900) feet or greater and no Street light shall be located within two hundred fifty (250) feet of another street light except for white-way areas. Light standards shall be approved by the City.

Section 05-08-11. Inspection. All required improvements shall be inspected by the City Engineer or City approved consultant during construction, at the expense of the applicant.

Section 05-08-12. Certificate of Occupancy. No certificate of occupancy shall be issued by the City Building Official for any building in the subdivision prior to all improvements outlined in the development contract having been installed. Exceptions to this provision may be granted by the City Council at their discretion as part of the development contract.