CHAPTER 141

STREET RECONSTRUCTION

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- **141.01 SHORT TITLE.** This chapter shall be known and may be cited as the Asbury Street Reconstruction Ordinance.
- **141.02 PURPOSE.** The purpose of this chapter is to establish minimum standards for the design, development and improvement for street reconstruction so that adequate provisions are made for public services and to promote the health, safety and general welfare in the City.
- **141.03 DEFINITIONS.** For the purpose of this Chapter certain terms or words used herein shall be interpreted or defined as follows:
 - 1. "Alley" means a platted, dedicated, and recorded public right-ofway, other than a street, 20 feet or less in width, affording secondary means of access to abutting property, and located between rear or side lines of lots.
 - 2. "Block" means an area of land within a subdivision that is entirely bounded by streets or highways, and/or the exterior boundaries of the subdivision, and containing one or more lots.
 - 3. "Collector Street" means a street of minor continuity subject to area traffic volume with a minimum right-of-way of 50 feet.

(Ord. 3-2016 – May 16 Supp.)

- 4. "Cul-de-sac" means a minor street having one end open to traffic and terminated by a vehicular turn-around, with a minimum right-of-way of 40 feet.
- 5. "Easement" means a portion of a lot or block in which the City and all public utilities enfranchised by the City have a right of passage and to install and maintain pipes, poles, conduits and other equipment necessary to carry out public services.
- 6. "Engineer" means the City Engineer or consulting engineer acting in that capacity and so designated by contract with the City Council.
- 7. "Major Collector Street" means a street of considerable continuity connecting various sections of town designated as a major collector

street on the official street plan of the City or roads designated arterial road by the County with a minimum right-of-way width of 66 feet.

(Ord. 3-2016 – May 16 Supp.)

8. "Local Street" means a street which is used primarily for access to the abutting properties with a minimum right-of-way width of 50 feet.

(Ord. 3-2016 – May 16 Supp.)

9. "Performance Bond" means a surety bond or cash deposit made out to the City, in an amount equal to the full cost of the improvements, said cost estimated by the City Engineer, and said surety bond or cash being legally sufficient to secure to the City that said improvements will be constructed in accordance with the City, specifications and details and with this chapter.

141.04 GENERAL REQUIREMENTS. The following general requirements shall be followed for all street reconstructions.

- 1. Relation to Existing Streets.
 - A. The arrangement character, extent, width, grade and location of all streets shall be considered in their relation to existing and planned streets, to topographic conditions, to public convenience and safety, and in their appropriate relation to the proposed uses of land to be served by such streets.
- 2. Street Geometrics.
 - A. Street jogs with centerline offsets of less than one hundred twenty-five (125) feet shall be avoided.
 - B. A tangent at least one hundred (100) feet long shall be introduced between reverse curves on arterials and collector streets.
 - C. When connecting street lines deflect from each other at any one point by more than ten (10) degrees, they shall be connected by curve with a radius adequate to insure a sight distance of not less than two hundred (200) feet for minor and collector streets, and of such greater radii as the Commission shall determine for special cases.
 - D. Major collector and collector streets shall be a minimum right-of-way width of fifty (50) feet with a minimum of thirty-seven (37) feet road width.
 - E. Street right-of-way widths shall be as shown on the City's Master Plan, but in no event less than fifty (50) feet, with a minimum of thirty-one (31) feet road width.

(D - E Ord. 3-2016 – May 16 Supp.)

- 3. Intersections.
 - A. Insofar as practical, acute angles between streets at their intersections are to be avoided.
 - B. Property lines at street intersections shall be rounded with a radius of ten (10) feet, or of a greater radius where the City Council may deem it necessary.
- 4. Street Grades.
 - A. Street grades, wherever feasible shall not exceed ten percent (10%), with due allowance for reasonable vertical curves.
 - B. No street grade shall be less than one-half (1/2) of (1) percent.
- 5. Street Lighting. Construction for street lighting shall be in accordance with the provisions of the City's street light standards.
- 6. Site Drainage. Street reconstruction projects are required to provide engineered site plans in sufficient detail to ensure the rate of flow of the surface water drainage from the development onto the downstream properties will be no greater than before development.
- **141.05 IMPROVEMENTS REQUIRED.** A street reconstruction shall be installed and constructed in accordance with the applicable standard specifications and details of the City and the Iowa Department of Natural Resources and under the supervision of the City Council and its satisfaction.
 - 1. Roadways. All roadways shall be surfaced with Portland cement concrete in conformance to minimum standards of the Portland Cement Association, or surfaced in accordance with the Asphalt Institute. There shall be a minimum thickness of Portland cement concrete of six (6) inches and equivalent thickness of asphaltic concrete. All pavement shall be constructed with a minimum six (6) inch thick granular base or subbase consisting of clean, well-graded crushed stone meeting the requirement of Section 4121 of the Iowa Department of Transportation Standard Specifications (latest revision). Positive gravity drainage should be provided for longitudinal shoulder drains with a minimum diameter of four (4) inches. The longitudinal shoulder drain line trenches should be backfilled with clean, well-graded granular material meeting specifications for the Iowa Department of Transportation, "porous backfill" Section 4131. Granular backfill for the drain lines should be hydraulically connected to the granular base or subbase in the pavement section. The invert of the longitudinal shoulder drain lines should extend to a depth of at least four (4) feet below the finished subgrade elevation for the roadways. Placement of at least twelve (12)

inches of properly compacted cohesive soil or pavement surfacing above the shoulder drain backfill is recommended to minimize infiltration of surface water into the drainage system.

- 2. Curb and Gutter. Curb and gutter shall be required on all streets. All curb and gutter shall be constructed to the grade approved by the City Council. All curb and gutter shall be constructed according to the provisions of Chapter 140 of this Code of Ordinances.
- 3. Sidewalks.
 - A. At the time of reconstruction, sidewalks may be required on public street frontages and constructed in accordance with the provisions of Chapter 136 of this Code of Ordinances at the discretion of City Council.
 - B. (Deleted by Ordinance 3-2016 May 16 Supp.)
 - C. (Deleted by Ordinance 3-2016 May 16 Supp.)
- 4. Crushed Stone Roadway and Trail Shoulder. The work covered under this section shall consist of furnishing all materials, equipment, tools and labor required to execute the filling, compaction, and testing of shoulder for all un-curbed, paved roadways or trails in the City of Asbury.
 - A. Crushed Stone Fill. All crushed stone shoulder fill materials shall conform to Section 4120.04 of the Iowa Department of Transportation, Division of Highways, English Standard Specifications for Highway and Bridge Construction.
 - B. Preferred aggregate Iowa DOT Aggregate Gradation No.11.
 - C. Allowed aggregate Must meet the following criteria:
 - (1) Sound, well graded angular crushed stone or crushed gravel.
 - (21) Free of organic debris.
 - (22) No particles larger than three inches (3").
 - D. Construction Methods.
 - (1) Remove material comprising the existing shoulder to a minimum width of eighteen inches (18") and a minimum depth of twelve inches (12") or until stone road sub-base is encountered. Remove all existing vegetation, sod and organic materials.

- (23) Avoid damage to pavement edge with excavation equipment. Repair any damage pavement with like pavement material and thickness. Minimum pavement patch allowed is 24" in width.
- (24) When a drop-off is created temporarily during shoulder construction, provide proper traffic and pedestrian barriers for any excavation adjacent to a roadway or trail until vertical differentials have been eliminated.
- (25) If placing earth backfill material is necessary in preparing the subgrade, thoroughly compact the earth backfill material by tamping or rolling in layers not exceed 3 inches (3") in depth.

E. Crushed Stone Shoulder Construction.

- (1) Place stone shoulder material on the prepared subgrade so no material is deposited on the adjacent pavement surface. Immediately remove material inadvertently spilled on the adjacent pavement using shovels and brooms.
- (26) Spread and compact the stone shoulder material flush to surrounding pavement and to a depth and width conforming to above standards.
- (27) Compact stone shoulder material with suitable equipment to minimize rutting, shoulder movement and pavement edge damage.
- (28) Shoulder grade shall provide for proper runoff drainage away from pavement surface.
- (29) Reshape adjacent turf to granular shoulder to provide lateral support for shoulder material. Seed, sod or similarly restore turf cover.

F. Limitations.

- (1) When vehicle or pedestrian traffic is maintained on adjacent pavement, construct shoulders on one side of the pavement at a time. Conduct operations resulting in a minimum inconvenience to traffic. Fill the portion of the shoulder excavated with granular material and compact prior to removing protective barriers. The City may modify this requirement for unusual and justifiable conditions.
- (30) Bring shoulder material up to the pavement edge elevation for the full width of the shoulder, at the required cross slope, prior to winter season.

(Ord. 14-2011 – Dec. 11 Supp.)

141.06 ACTION BY THE CITY COUNCIL. Upon recommendation of the City Engineer, the City Council shall by resolution approve the final improvement plans.

(Ch. 141 - Ord. 5-2010 - Dec. 10 Supp.)

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