

Chapter 216

STREETS AND

SIDEWALKS

[HISTORY: Adopted by the Mayor and Council of the City of Hagerstown 10-28-2003 by Ord. No. 2003-36. Editor's Note: This ordinance also repealed former Ch. 216, Streets and Sidewalks, consisting of the following: Part 1, Miscellaneous Regulations, adopted 5-18-1982, as amended; Part 2, Utility Work Zones and Street Cutting Standards, adopted 10-9-1984 by Ord. No. 1984-49, as amended; and Part 3, Public Ways Construction, adopted 8-19-1986 by Res. No. 1986-21, as amended. Amendments noted where applicable.]

ARTICLE I General Regulations

§ 216-1. Statutory authority.

Pursuant to the authority granted by the Annotated Maryland Code, 1957, Article 23A, and the Charter of the City of Hagerstown, the following regulations are hereby adopted by the City of Hagerstown, Maryland. It shall be unlawful for a person, firm or corporation to be in conflict with or in violation of any of the provisions of this code.

§ 216-2. Administration/purpose.

- A. The City Engineering and Inspections Department shall be responsible for administering and enforcing this chapter.
- B. These regulations shall govern the design, construction and maintenance of all aspects and features of public ways within the corporate limits of the City of Hagerstown, Maryland.

§ 216-3. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

AASHTO — The American Association of State Highway and Transportation Officials.

ALLEY — A minor public way having a narrow right-of-way and affording a secondary means of access to abutting properties.

BOARD OF TECHNICAL APPEALS — The duly appointed Board of Technical Appeals of the City of Hagerstown established under Chapter 10 of the Code of the City of Hagerstown.

CELLAR DOOR — Metal door and frame system embedded in the public sidewalk to provide access to a cellar or basement.

CITY — The City of Hagerstown, Maryland, a municipal corporation.

CITY CONSTRUCTION SPECIFICATIONS — Unless otherwise defined, shall be the latest edition of the Maryland State Highway Administration's Standard Specifications for Construction and Materials, and these specifications are hereby made part of the Public Ways Construction Standards by reference, unless otherwise indicated. All present and future errata and addenda to these Standard Specifications by the Maryland State Highway Administration are to be made a part of the "city specifications." All references to the "Maryland State Highway Administration" in these Standard Specifications shall be construed to be the City of Hagerstown. All references to "state office" shall be construed to be that of the City of Hagerstown. All reference to the "Chief Engineer, his assistant(s) or representative(s)" shall be construed as the City Engineer or his representative(s).

CITY COUNCIL — The City Council of the City of Hagerstown, Maryland.

CITY ENGINEER — The duly designated City Engineer of the City of Hagerstown,

Maryland.

CITY STANDARDS — The Public Ways Construction Standards, latest edition, for the City of Hagerstown, which have been adopted by the Mayor and City Council and which are available in the Department of Engineering and Inspections. These standards are made a part of this chapter by reference.

CONSTRUCTION — The process of building, altering, repairing, improving or demolishing any structure, building or other improvement to real property.

ENGINEERING AND INSPECTIONS DEPARTMENT — The duly designated Department of Engineering and Inspections for the City of Hagerstown, managed and directed by the City Engineer.

FINAL PLAT — A plan of a proposed subdivision approved by the Planning Commission and recorded in the land records of Washington County.

FUNCTIONAL STREET CLASSIFICATION — Public ways such as arterial, collector or local road as defined in the Public Ways Construction Standards.

MARYLAND STATE HIGHWAY ADMINISTRATION (MDSHA) — Division of the Maryland Department of Transportation.

MAYOR — The Mayor of the City of Hagerstown, Maryland.

MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) — The latest edition, adopted and published by the Federal Highway Administration and adopted by the Maryland State Highway Administration. This document, and the Maryland Supplement to the Manual, are included in this chapter by reference.

NUISANCE — Condition which is detrimental to the property of others or which causes diminution of value of property in the neighborhood. This includes, but is not limited to, unsafe or substandard conditions as determined by the City of Hagerstown.

OPEN CHANNEL — Channel, swale, ditch that is graded for the conveyance of concentrated stormwater flows.

OWNER'S ENGINEER — The civil engineer, surveyor or landscape architect registered and in good standing with the State Board of Registration of Maryland who is the agent of the owner of the land which is proposed to be subdivided or developed.

PLANNING COMMISSION — The Planning Commission for the City of Hagerstown, Maryland.

PUBLIC WAYS or PUBLIC RIGHTS-OF-WAY — All streets, highways, alleys and their associated right-of-way accepted and/or maintained by the City of Hagerstown.

SIDEWALK — A public pedestrian walkway within the public right-of-way.

STORM DRAIN CULVERT — Single or multiple pipe(s) specifically installed to convey stormwater under a street, from one side to the other.

STORM DRAIN — A closed system of pipes, inlets, manholes for the collection and conveyance of stormwater.

STREET or HIGHWAY — Entire width between the boundary lines of any way or thoroughfare of which any part is used by the public for vehicular travel.

STREET TREE — Shall be defined as a tree located between the curb and sidewalk in the public right-of-way or a tree located in a tree well within the sidewalk in the public right-of-way.

SUBDIVIDE — The person(s), firm(s) or corporation(s) owning land, in the process of creating a subdivision of said land.

SUBDIVISION — The division of a lot, tract or parcel of land into two or more lots, plats, sites or other divisions of land for the purpose, whether immediate or future, of sale or of building development. It includes resubdivision and, when appropriate to the context, shall relate to the process of resubdividing or to the land or territory subdivided.

TRAFFIC SIGNS — To control traffic, pedestrian and vehicular flow shall be per the MUTCD and the Standard Sign Book published by Maryland State Highway Administration, latest edition.

TRANSPORTATION PLAN — The plan for streets and highways included in the transportation elements of the officially adopted Comprehensive Development Plan.

TREE — Shall be defined as a perennial woody plant having a single self-supporting trunk generally with a few or no branches on its lower part.

UTILITIES — Municipal and franchised utilities.

§ 216-4. Prevention of loads leaking from vehicles (24 hours).

It shall be unlawful to drive or move a vehicle on any street or highway unless such vehicle is so constructed, loaded, operated and maintained as to prevent any of its load from dropping, sifting, leaking or otherwise escaping there from. **Penalty:** \$200 municipal infraction citation.

§ 216-5. Covers required on certain vehicles (24 hours).

It shall be unlawful for a vehicle containing material of a light, dry, dusty or bulky nature to be driven or moved on any street or highway except in completely covered bodies or open bodies covered with heavy tarpaulins securely lashed to the frame of the bodies. **Penalty:** \$200 municipal infraction citation.

§ 216-6. Removal of material deposited onto streets (24 hours).

- A. Every person, company, utility or corporation, within 24 hours after being notified to do so by the City, shall remove from the streets and highways all earth, sand, rock, manure, rubbish, gasoline, petroleum products or any material that may have dripped, discharged, sifted, leaked from or otherwise escaped from vehicles. Hazardous conditions shall be removed immediately. **Penalty:** \$200 municipal infraction citation.
- B. If any person shall fail to comply with this section, the City shall remove the material, and the cost of such removal, and repair of any damage, shall be charged against the person responsible therefor.

§ 216-7. Removal of mud from tires of vehicles (24 hours).

- A. It shall be unlawful to drive or move a vehicle onto any public street or alley unless the person driving or moving the vehicle shall first remove any mud or earth from the wheels, tires or tread of the vehicle in order to prevent such mud or earth from dropping, tracking or otherwise escaping therefrom onto the street or alley.
- B. If any person shall, after being notified by the City or the Maryland Department of the Environment to clean and remove any mud or earth which has been dropped or tracked from the wheels, tires or bed of vehicles driven or moved onto the streets or alleys, fail to do so within 24 hours after receiving such notice, the City shall have such street or alley cleaned and the cost of such removal, and repair of any damage, shall be charged against the owner of said vehicle. **Penalty:** \$200 municipal infraction citation.

§ 216-8. Tampering with barricades and signs in the public right-of-way (24 hours).

It shall be unlawful for any person to tamper with, remove or destroy barricades, barriers, signs, survey markers or signals placed in the public right-of-way by the City or agents thereof. **Penalty:** \$500 municipal infraction citation.

§ 216-9. Maintenance of vegetation and structures adjacent the public right-of-way (10 days).

- A. It shall be unlawful for any person to allow any tree, vegetation, poles, wires, signs or structures, which may be located on his property to obstruct the view of the public using the streets, alleys, railroad crossings and highways of the City.
- B. It shall be unlawful for any person to allow or permit the limbs or foliage of any tree on his property to extend over any public sidewalk of the City at a height less than seven feet from the ground or over any street or alley at a height less than 15 feet, or block traffic signals or traffic signs.
- C. After due notice has been given to the property owner by the Engineering and Inspections Department of the City of the obstruction of view, and upon the failure of the property owner to remove the obstruction within 10 days after said notice is given, then the City Department of Public Works shall have the right to remove such obstruction and to charge the cost thereof against the property owner and collect the same, which if unpaid, shall become a lien against the property.
- D. If the person owning any property where any such obstruction exists shall fail or refuse to have such conditions corrected, after having been duly notified to do so, or shall interfere with the City or its agents and servants in correcting the same, he shall be guilty of a misdemeanor and shall be punishable in accordance with the general penalty provisions of the Code of the City of Hagerstown.

§ 216-10. Trees.

- A. The following conditions apply to the installation of street trees:
 - (1) Any street tree shall be of the species indicated on the approved street tree list found in the Public Ways Construction Standards. No other types shall be allowed in the public right-of-way. Trees must be 1 3/4 inches in caliper or larger.
 - (2) The approved street trees shall be planted under the supervision and direction of the Department of Public Works and in such locations as approved by the Department of Public Works and the City Engineering Department. The planting location shall be approved after considering factors such as traffic, site distances, maintenance area and available growing space.
 - (3) Existing trees in the public right-of-way may be replaced with approved species under the supervision and direction of the Department of Public Works. A Maryland Department of Natural Resources permit is required, by the laws of the State of Maryland, to remove a street tree in the public right-of-way.
- B. It shall be the duty and obligation of the owner of the property abutting a sidewalk, alley or street or other public right-of-way to maintain all vegetation within or adjacent to these rights-of-way, except street trees (as defined in this chapter) which shall be maintained by the City Department of Public Works.
- C. The Department of Public Works shall have the right to trim or remove any vegetation in the public right-of-way for reason of obstruction or hazard. The Department of Public Works shall comply with the State of Maryland Department of Natural Resources street tree removal and replacement policies.
- D. No person shall cut, destroy or injure any tree or shrubbery on any of the streets, parks or other public places of the City without the consent of the City. Any person violating this section shall, on conviction thereof, be guilty of a misdemeanor and be punishable by a maximum five-hundred-dollar fine and 90 days imprisonment.
- E. All underground utilities must be located by Miss Utility prior to planting or digging.
- F. Trees shall be planted a minimum distance from all utilities, driveways and other infrastructure as specified in the Public Ways Construction Standards.
- G. All trees in the public right-of-way or on City-owned property shall be installed per the details of the Public Ways Construction Standards.
- H. See § 216-24 for replacement of sidewalk damaged by trees.
- I. Penalty. Any person violating this section (excluding Subsection D) shall be guilty of a municipal infraction citation and fined up to \$200.

§ 216-11. Underground utility to be installed or upgraded prior to street improvements.

- A. Utility companies and/or property owners abutting public right-of-way of the City which is about to be constructed, paved, repaved or repaired shall install or upgrade water, gas, sewer or other utility services, underground conduits, pipes and connections upon receiving written notice from the City.

- B. Except in case of emergency, open cutting of streets constructed or overlaid within the last five years is prohibited when other alternative construction methods are available. When open cuts are the only alternative, the size of the opening shall be minimized.

§ 216-12. Address numbers (10 days).

Address numbers shall be assigned by the Engineering Department with input from other agencies. It shall be unlawful for any property owner or other person to place any number on any building in the City until after such number is approved by the City. It shall be unlawful for any property owner or other person to maintain any number on any building in the City which does not correspond with the correct number of the building as already determined by the City or for any property owner or other person to change any number on any building after the building has been numbered by the City. Address numbers shall be installed on the building structure where they are legible (four-inch minimum height) when read from the adjoining public right-of-way, and of contrasting color to the background. **Penalty:** \$100 municipal infraction citation.

§ 216-13. Cellar doors (30 days).

- A. No new cellar doors shall be installed in the public right-of-way of the City without a building permit. Replacement of existing cellar doors is allowed in compliance with building permit.
- B. All cellar doors and supporting frame shall be kept in good repair. Doors and frames shall be flush with adjoining sidewalk and shall not deflect under the weight of pedestrians when closed. Surface of doors shall have a slip-resistant texture.
- C. Cellar doors shall remain closed when not in use. The property owner shall provide guards or other adequate protection when the door(s) is open. **Penalty:** \$200 municipal infraction citation.

§ 216-14. Materials stockpiled in public right-of-way (24 hours).

Materials may be placed or stockpiled in the public right-of-way, provided the duration is no longer than 24 consecutive hours, is outside the traffic lane and is not onto a public sidewalk. Materials left longer than 24 consecutive hours will constitute a violation of this section unless specific written permission is obtained from the City Engineering and Inspections Department. In all cases, materials shall be clearly marked by the use of adequate warning devices (cones, barrels, etc.), with retro reflective markings as outlined in latest edition of the Manual of Uniform Traffic Control Devices. **Penalty:** \$200 municipal infraction citation.

§ 216-15. Interference with City employees or agents.

It shall be unlawful for any person to interfere with, impede, hinder or obstruct in any manner the servants, employees, officers or agents of the City while engaged in constructing, altering, repairing, grading or cleaning the streets, alleys or highways of the City. Any person violating this section shall, on conviction thereof, be guilty of a

misdemeanor and be punishable by a maximum five-hundred-dollar fine and 90 days imprisonment.

§ 216-16. Discharge of water onto streets (10 days).

Other than roof drainage, surface drainage and utility maintenance, it shall be unlawful for any person to permit flow or discharge of water into the public right-of-way. Penalty: \$100 municipal infraction citation.

§ 216-17. Private signs and banners.

- A. **Penalty:** \$200 municipal infraction citation.
- B. It shall be unlawful for any person to install or display any private signs (nonstandard traffic signs) within the public right-of-way of the City unless a building permit is acquired (5 days).
- C. It shall be unlawful for any person to install or display any banners within the right-of-way of the City unless approved by the Mayor and Council (24 hours).

§ 216-18. Placement of leaves or grass clippings on streets (24 hours).

It shall be unlawful for any person, firm, corporation or legal entity to place, rake or store any leaves, grass, clippings or any similar material on or upon the public streets, ways, alleys, rights-of-way or sidewalks within the corporate limits of the City of Hagerstown. **Penalty:** \$200 municipal infraction citation.

§ 216-19. Unimproved rights-of-way.

Adjoining property owners are entitled to the use of unimproved right-of-way to the center line of such right-of-way until such time it is deemed necessary that the right-of-way is required for public purpose, subject to the following conditions:

- A. Upon demand of access by the City or other property owners who also abut on said right-of-way, the property owner using this right-of-way for his purpose must allow such access.
- B. The abutting property owner shall not erect any permanent structures on such right-of-way.
 - (1) Temporary structures and parked vehicles are allowed, provided they can be moved within 48 hours' notice.
 - (2) Fences can be erected, provided they can be removed and reset on demand.
 - (3) Gardens and other planting are permitted, provided it is understood that such plantings may be damaged by access across such right-of-way by others.
- C. Abutting property owner is responsible for keeping this unimproved right-of-way and items on this unimproved right-of-way in good maintenance and repair at all times, as outlined in Chapter 64.

ARTICLE II Sidewalks and Curbs

§ 216-20. General sidewalk and curb regulations.

- A. Curbs and sidewalks shall be designed and constructed in accordance with the Public Ways Construction Standards.
- B. The property owner repairing and/or replacing the curb and sidewalk shall be responsible for any damages caused to the roadway facilities or private property by himself, his representative, his contractors or subcontractors or their agents.
- C. Integral construction of curbs and sidewalks shall not be permitted. Curb and sidewalks shall be formed, poured and constructed separately.
- D. Maintenance of sidewalks and curbs shall be in accordance with § 216-24 of this chapter.
- E. All sidewalks adjoining City streets shall have a minimum width of five feet and conform to the Public Ways Construction Standards. Replacement sidewalk shall match existing width but shall never be less than three feet in width.
- F. Utility poles shall be installed in a manner not to impede pedestrian traffic and shall be installed to provide a minimum three-foot clear sidewalk. Sidewalk shall be widened by the utility as needed. Poles shall be located at intersections to allow the standard minimum curb radius to be constructed.
- G. Any damage to public streets, curb, sidewalk, utilities, storm drain, etc., caused by the permittee or his agents shall be repaired to the satisfaction of the City by the permittee.

§ 216-21. South Prospect Street Historic District regulations.

Due to the historic significance of this area, the following standards established within this section shall apply to those curbs and sidewalks along South Prospect Street only and shall not be applicable along any other street within the South Prospect Historic District or the City in general.

- A. Curb height.
 - (1) Existing curb. An existing curb determined to be in good condition by the City may remain in place regardless of height.
 - (2) Replacement curb shall be in accordance with the Public Ways Construction Standards; the curb height for replacement shall be three inches to six inches above the existing pavement.
- B. Curb material.
 - (1) Concrete curbs as specified in the Public Ways Construction Standards are permitted. Stone curbs, including slate, granite, etc., in good condition may be installed or reused, provided that the curb is reset per the Public Ways Construction Standards.
 - (2) "Good condition" means that the curb is structurally sound, surface

deformations are less than 1/2 inch from normal dimensions and the curb sections can be placed to allow less than a one-half-inch joint between sections.

- (3) Sidewalk. All sidewalks shall have a brick surface and be constructed in accordance with the Public Ways Construction Standards . Existing concrete sidewalks may continue in existence until such time as their condition warrants replacement in accordance with City Engineering Department policies.

C. Driveway entrances. All driveway entrances shall have a brick surface and be constructed in accordance with the adopted standards for brick driveway entrances, and the design shall be approved by the City Engineer. Existing concrete driveway entrances may continue in existence until such time as their condition warrants replacement in accordance with City Engineering Department policies.

§ 216-22. Sidewalk construction permit and fees.

- A. No sidewalks or curbs shall be constructed, reconstructed, repaired or altered without first obtaining a curb and sidewalk construction permit to perform the work. A fee shall be charged for such permit as established by Mayor and Council resolution. Curbs and sidewalks for new developments may be considered as part of a general street construction permit for work in designated public rights-of-way, issued under the provisions of Article V of this chapter.
- B. A curb and sidewalk permit will be issued effective for a period of 60 calendar days, under the following conditions:
 - (1) Before issuance of a permit, the location of a particular curb and sidewalk to be constructed must be approved by the City Engineer or his duly authorized representative.
 - (2) Payment of the permit fee.
 - (3) The project is not idle for more than 15 calendar days after portions of the existing sidewalk or curb are removed. Permittee must show reasonable progress in completing the work under the permit.
 - (4) Violations of this section shall be subject to the penalties outlined in § 216-25. In addition, it shall be the obligation of the property owner to correct any incorrect or defective work performed by his contractor or subcontractor, representative, agent or himself. Failure to do so in the time allotted by the City, such condition shall constitute a nuisance and may be abated per § 216-24.

§ 216-23. Entrance permits and fees.

Refer to § 216-48 for requirements on entrance construction and access permits. A fee shall be charged for such permit as established by Mayor and Council resolution.

§ 216-24. Responsibility for construction and repair of sidewalks and curbs and abatement of nuisance.

- A. Sidewalks and curbs along the public streets and thoroughfares within the corporate

limits of the City shall be constructed and kept in a reasonable state of repair by the abutting property owner.

B. Nuisances.

- (1) In the event that a sidewalk or curb within the corporate limits of the City of Hagerstown shall be determined by the City Engineer or his designee, based on policies approved by the Mayor and City Council, to be in such a condition as to be detrimental to the health, safety, welfare or property of others, such condition shall constitute a nuisance. In the event that any person allows any nuisance as defined herein to exist on any premises or property within the corporate limits of the City, said person or corporation shall be provided 90 calendar days' written notice from the Department of Engineering of the City to abate said nuisance.
- (2) In the event that said nuisance is not abated within 90 calendar days of receipt of such notice, such person or corporation shall be in violation of this subsection and shall be subject to the abatement procedures contained herein.
- (3) In the event that said nuisance is not abated within 90 calendar days of receipt of such notice, the City shall have the authority at any time thereafter, within the discretion of the City Engineer or his designee, to cause the nuisance and violation to be abated. All costs for any such abatement, plus reasonable administrative fees, shall be the responsibility of the abutting property owner who was notified under this section. Said person or corporation shall be provided a prompt billing notice of all reasonable charges and fees incurred in connection with the abatement. Payment for said charges and fees shall be due in full from the abutting property owner within 30 days of the date the billing notice was mailed by the City. Failure to remit payment in full may result in collection pursuant to Article III, Tax Liens, § 223-11 of the City Code, or by other civil proceeding or remedy.

C. When an abutting property owner is given notice by the Engineering Department of the City to construct or repair a sidewalk or curb, or both a sidewalk and curb, and said owner fails to comply with said notice by the date set forth by the Engineering Department of the City in the official notice, then the person or corporation failing to observe the provisions of this section shall, on conviction thereof, be guilty of a municipal infraction and shall be fined in an amount not to exceed \$500 for each offense. A separate offense shall be deemed committed on each day during or on which such a violation is permitted to exist. This penalty is in addition to the abatement procedure and penalties outlined in Subsection B herein.

D. The time frame of 90 calendar days may be extended to 12 calendar months when said curb and/or sidewalk is adjacent to a planned City street overlay and the condition of the curb and/or sidewalk is not a safety hazard as deemed by the inspector.

E. Curbs, curb and gutter or sidewalks damaged by street trees (as defined in this chapter) shall be replaced by the City of Hagerstown. Curb, curb and gutter or sidewalks damaged by any other trees shall be replaced by the adjoining property owners.

§ 216-25. Violation and penalties for permit violation.

- A. When the City Engineer or his representative determines that a violation of City-issued permit or an approved construction plan has occurred, the inspector shall notify the on-site personnel or the permittee in writing of the violation, describing the required corrective action and the time period in which to have the violation corrected.
- B. If the violation persists after the date specified for corrective action in the notice of violation, the City Engineer or his representative shall determine the extent to which work shall be stopped, which may include all work on the site except that work necessary to correct the violation, and issue a citation. Except when specifically defined otherwise herein, any violation of this article shall be considered a municipal infraction. The penalty shall be \$200 for each day the violation occurs.
- C. If a person is working without a permit, the City Engineer or his representative shall stop work on the site immediately, except activity necessary to provide health and safety, until a permit is secured. Fees shall be doubled for said permit.

ARTICLE III Snow and Ice Removal

§ 216-26. Removal from sidewalks.

Refer to Chapter 64, Article III, for requirements on the removal of snow and ice from sidewalks.

§ 216-27. Removal from streets.

Refer to Chapter 207 for requirements on snow removal from streets and snow emergencies.

ARTICLE IV Work Zones and Street Cutting Standards

§ 216-28. Purpose.

The purpose of this article is to establish standards for excavations in public right-of-way and to regulate and improve the safe flow of traffic through work zones.

§ 216-29. Statutory authority.

This article is adopted pursuant to the Annotated Code of Maryland Article 23A, the Transportation Article, § 25-106 and the Charter of the City of Hagerstown, which provide that a local authority may require the placement of appropriate traffic control devices to carry out the Maryland Vehicle Law.

§ 216-30. Permits.

- A. Pavement openings in existing streets, alleys or other public rights-of-way shall require permit for street opening issued by the City Engineering and Inspections Department. Work plans and traffic control plans shall be required and approved prior to issuance of the permit. Emergency street openings can be made without a permit by public utility companies. In such cases, a permit shall be obtained at the earliest possible time, but not more than 24 hours after the excavation is made. (In case an emergency occurs on a weekend or holiday, a permit should be obtained within the first eight working hours of the City Engineering and Inspections Department.)
- B. It is the intent of the City to charge a permit fee which approximates the actual cost of required inspection services, the loss of the useful life of the affected street or alley and the increased maintenance efforts by the City to attend to the street patch over the future years. A permit application fee of \$25 will be charged in addition to a pavement degradation fee and marking damage fee in accordance with the following schedule:

Type of Street	Individual Trenches [Trench less than or equal to 25 linear feet (fee per each individual trench)]	Continuous Trenches [Overall trench greater than 25 linear feet (fee charges per 100 linear feet or parts of)]
Newly constructed streets (year 0 through 5)	\$500	\$600
Newly constructed streets (after year 5 prior to overlay)	\$125	\$200
Overlay streets (year 0 to year 5)	\$250	\$300
Overlay streets (after year 5 to next overlay)	\$125	\$200

(1) Where existing traffic lines or traffic markings exist and are destroyed by the permittee's work, a marking damage fee shall be levied to cover the cost of the City to replace or repaint these traffic lines and markings as follows, with a minimum charge of \$5:

(a) Line paintings (four inches wide) at \$3 per linear foot.

(b) Markings (greater than four inches wide) at \$20 per square foot.

(2) Existing traffic signs shall be maintained in work zones by the permittee and shall only be removed with permission by a representative of the City Engineering and Inspections Department. Where existing traffic signs are misplaced or destroyed by the permittee's work, the permittee shall correct the situation within two working days. If the permittee fails to correct the situation, the City Department of Public Works shall correct the situation and the permittee shall reimburse the City of all costs.

B.1. Technology fee. In addition to the current permit fee required herein, a \$25 Technology fee will be required in connection with the issuance of each permit.

[Added 7-27-2004 by Ord. No. 2004-32]

C. Except in case of an emergency, open cutting of streets constructed or overlaid within the last five years is prohibited when other alternative construction methods are available. When open cuts are the only alternative, the size of the opening shall be minimized.

D. It shall be the responsibility of all utilities to complete all necessary main and lateral upgrades on all streets scheduled to be resurfaced prior to the start of the overlay. A fifty-percent reduction in permit fees shall be granted to utilities performing mainline replacements (in excess of 25 linear feet) within two years prior to a scheduled overlay.

E. Construction plans and specifications along with a traffic control plan shall be submitted to the City Engineer for approval prior to receipt of a permit, A copy of the permit shall be available for inspection at all times at the construction site while work is in progress.

F. Utilities shall assume full responsibility to the State Highway Administration for securing permits required for openings and their repair on U.S. Route 40.

§ 216-31. Performance surety.

A. Prior to the issuance of a permit for work and/or excavation within a City right-of-way, the City Engineer may require a performance surety. If required, the permittee shall file with his permit a performance surety. This shall be presented in a form acceptable with the City Attorney. The surety shall be in an amount not less than the estimated value of the restoration of the public right-of-way costs. Said surety shall be in full force and effect until after final inspection and acceptance by the City Engineering Department of the restoration work.

B. For utilities that require frequent permits, the City Engineer may request an annual surety for work anticipated in the following calendar year. The amount of said surety,

to be determined by the City Engineer during the first week in December of each year, will cover a one-year period beginning January 1.

§ 216-32. Period of validity of permits.

- A. All permits shall be valid for a period of 45 days unless it is determined by the City Engineer that the nature and scope of the project justifies a longer period. This time exception shall be requested by the permittee and shall be identified on the permit.
- B. At the expiration date of the permit, the repairs shall be complete and ready for inspection. If the permit expiration date is between May 1 and October 31, the work done under these permits shall be permanently repaired in accordance with the Public Ways Construction Standards. Failure to comply with this section shall be considered a municipal infraction and subject to a daily penalty set forth in § 216-35.
- C. Work done under permits expiring between November 1 and April 30 can be temporarily repaired in accordance with § 216-33O. The permanent repair shall be done during the following months of April through May 30. It shall be the permittee's responsibility to maintain all temporary repairs until the permanent work is completed. Failure to comply with this section shall be considered a municipal infraction and subject to the daily penalty set forth in § 216-35.

§ 216-33. General regulation for street openings.

The City Engineer shall require all work to be accomplished at such times or on such days as may be required to minimize traffic interference in accordance with rules and regulations established by the State Highway Administration and incorporated in § 216-34 herein. Restoration of the right-of-way structures and surfaces shall be done by the permittee. All costs shall be borne by the permittee. General requirements for street openings are as follows:

- A. A contractor, corporation, public utility or franchise utility shall maintain one lane of traffic, utilizing traffic control standards referenced in § 216-34.
- B. No more than 250 linear feet measured longitudinally shall be opened in any street at any one time unless special permission is granted, in writing, by the City Engineer.
- C. Any existing utility encountered or affected shall be protected from damage. It shall be the permittee's responsibility to notify any affected utilities involved. Damage caused by the contractor's work shall be required at the contractor's expense to the satisfaction of the respective utility or owner. Any damage to public street, curb, sidewalk, utilities, storm drain, etc., caused by the permittee or his agents shall be repaired to the satisfaction of the City by the permittee.
- D. Work interfering with the established drainage system shall be accomplished with provisions made for temporary drainage facilities.
- E. Trench excavation, backfill, construction procedures and pavement restoration shall be followed by the permittee throughout the progress of the work and shall conform to City of Hagerstown Public Ways Construction Standards and shall comply with federal safety regulations, as required by law.

- F. Access to private driveways shall be provided except when actual construction operations prohibit provision of such access. Free access must be provided at all times to all fire hydrants, except those under repair or otherwise deactivated. When a fire hydrant is to be deactivated or temporarily put out of service, the permittee shall notify the Fire Chief 48 hours in advance.
- G. Pedestrian movements shall be maintained. Temporary walkways are required, when possible, for projects with a duration of more than three working days. When sidewalks must be closed, closure and temporary signage must comply with standard details available from the City Engineering and Inspections Department.
- H. The construction site shall be thoroughly cleaned of all excavated materials, tools, equipment, barricades or litter upon completion of the work. While work is in progress, the site shall be left in a neat and clean condition at the end of each working day with traffic control in place and operational. Excavated materials shall be placed so as to cause a minimum of inconvenience to public travel.
- I. Individuals, City departments, corporations, etc., making pavement cuts and permanent street repairs shall be responsible for any work performed for a period of one year after final inspection and acceptance by the City inspector. If the repair becomes defective in any way within the one-year warranty period, the permittee shall replace the repair to City Standards and a new one-year warranty period begins.
- J. It shall be the responsibility of the utility to notify the City Engineer prior to and after the completion of work when any traffic lane will be temporarily blocked or there are any deviations from the approved traffic control plans. Refer to § 216-34.
- K. When the utility is notified that the City is planning a street construction or reconstruction project, the utility may be required to provide the City, within 90 days of said notice, an engineering report on the utility system in the project area. Said report shall include, but not be limited to the following:
 - (1) System description (size, location, depth, age, materials, etc.).
 - (2) Adequacy to serve projected needs (20 years minimum).
 - (3) Statement of condition.
 - (4) Proposed improvements to system, time schedule, etc.
- L. All underground utilities marked with the rights-of-way of the City of Hagerstown shall comply with the following color code set forth by Maryland State Law:

Utility	Color	Symbol
Electric	Red	-E-
Gas/oil	Yellow	-G-/-O-
Communications	Orange	-Tel-/Tv-
Water	Blue	-W-
Sewer	Green	-S-
Proposed excavation	White	-

NOTE: Anyone intending to excavate shall contact Miss Utility at 1-800-257-7777 a minimum of two working days before the excavation is planned.

- M. General safety requirements to be followed by the permittee throughout the progress of the work shall conform to Maryland Occupational Safety Standards.
- N. Temporary traffic control signs, channelization devices and barricades shall have suitable reflectorized portions to be effective at night and shall be in conformance with the Manual of Uniform Traffic Control Devices.
- O. At the end of each working day, excavations shall be plated, backfilled and temporarily restored with bituminous material or shall be adequately protected by barricades and devices per the Manual of Uniform Traffic Control Devices. Plates shall be securely anchored to the road surface, shall be ramped with asphalt and advance warning signs installed. Patches shall be permanently restored prior to the expiration date of the permit as outlined in § 216-32.

§ 216-34. Traffic control in utility work areas.

- A. Any person, firm, business, corporation or utility company, including employees of the City, who has obtained permission to excavate any of the streets, lanes or alleys of the City is required to take all proper measures to ensure the safety of passing vehicles and pedestrians from loss of life or injury to person or property. All temporary traffic control measures shall comply to current Manual of Uniform Traffic Control Devices (MUTCD) regulations and the Maryland State Highway Administration's Book of Standard Traffic Control Plans. These MDSHA traffic control plans may be modified with approval of the City Engineer or his designee, when appropriate for conditions within the City.
- B. The Engineering and Inspections Department shall review and approve all traffic control plans. Special requirements may be placed on the permittee based on traffic patterns and additional restrictions may apply in the morning and evening peak traffic volume periods.
- C. Emergency operations, at a minimum, shall use advance warning sign(s), flashing lights on the vehicle and channelizing devices. For extensive emergency operations it is expected that additional traffic control devices will be placed as soon as possible to present an array of devices which are consistent with the Manual of Uniform Traffic Control Devices (MUTCD) regulations and the Maryland State Highway Administration's Book of Standard Traffic Control Plans. These MDSHA traffic control plans may be modified with approval of the City Engineer or his designee, when appropriate for conditions within the City.
- D. For nonexcavation activities that are mobile, short-term or short duration (as defined in the MUTCD), traffic control shall still be provided in accordance with the Maryland State Highway Administration's Standard Traffic Control Plans and the MUTCD. Typically, mobile operation shall utilize warning lights in front and rear of the vehicle, and also a rotating and/or yellow flashing light on top of the vehicle. However, there will be situations where additional traffic control devices such as signs, strobe lights, flags and/or channelizing devices should be used.
 - (1) Additional traffic control devices should be placed in advance on a hill or curve which obstructs the approaching traffic's view of a stopped mobile operation. A vehicle should not occupy or be stopped in a lane beyond a horizontal curve or vertical curve (hill). Vehicles stopping are to be pulled as far off the road as

possible or be otherwise parked in a manner as to inhibit the movement of traffic as little as necessary.

- (2) Mobile operations that encroach on a travel lane reducing the effective lane width to less than nine feet may not take place during the aforesaid peak hours.
- E. Prior to beginning any work operations, any person, firm, business, corporation, utility company or governmental body, which in the course of its work operations will impede or impair the normal flow of traffic, a traffic control plan must be submitted to the City Engineer for approval. The City Engineer or designee shall review the traffic control plan for its adherence to the applicable traffic control standard drawings and/or the MUTCD before granting a permit. The traffic control plan in utility work areas will be kept on file at the City Engineering and Inspections Department along with any subsequent additions or amendments thereto. An exception to this will only be considered for emergencies and short-term (less than one day) operations.

§ 216-35. Violations and penalties.

- A. When the City Engineer or his representative determines that a violation of City-issued permit or an approved construction plan has occurred, the inspector shall notify the on-site personnel or the permittee in writing of the violation, describing the required corrective action and the time period in which to have the violation corrected.
- B. If the violation persists after the date specified for corrective action in the notice of violation, the City Engineer or his representative shall determine the extent to which work shall be stopped, which may include all work on the site except that work necessary to correct the violation, and issue citation. Except when specifically defined otherwise herein, any violation of this article shall be considered a municipal infraction. The penalty shall be \$200 for each day the violation occurs.
- C. If a person is working without a permit, the City Engineer or his representative shall stop work on the site immediately, except activity necessary to provide health and safety, until a permit is obtained. Fees shall be doubled for said permit.

§ 216-36. Enforcement and abatement.

Whenever the City Engineer or his duly authorized representative finds that work areas under a permit fail to conform to the approved traffic control plan, these rules and regulations or to the City standards for pavement and street openings, he may, by written order, suspend work until direct conformance has been achieved or he may direct that such other measures be performed that he deems necessary under the circumstances. In cases where the permittee is unable or refuses to perform, the City Engineer may order the appropriate City department or agent of the City to correct the problem and charge the permittee for the cost of all labor, material and equipment, plus 15% for administration and billing.

ARTICLE V General Street Construction Permits

§ 216-37. Purpose and general regulations.

The Engineering and Inspections Department shall issue a general street construction permit for street construction in designated public rights-of-way or rights-of-way to be dedicated to the City, and from time to time establish by Mayor and Council resolution such fees as deemed necessary to cover the cost of administering the provisions of this article.

- A. Site plan and/or plat approval by the Planning Commission is a prerequisite to obtaining a permit to construct any facility or improvement within a public right-of-way or proposed right-of-way, unless otherwise provided herein.
- B. No person, firm, partnership, association, corporation, company, agency or organization of any kind shall construct, alter or demolish any facility within a designated right-of-way in any manner without first obtaining a permit to do so. Surface maintenance activities by City agencies are exempt from general street construction permits. However, utility improvements and street openings are subject to Article IV of this chapter. No work in public rights-of-way or to construct proposed public ways shall commence until a permit is obtained. Work without a permit shall be considered a violation of this chapter and subject to § 216-43.
- C. No application will be considered and no permit will be granted unless it is accompanied by detailed plans and specifications of the proposed work and such other information as may be required to determine the adequacy and conformance of the proposed work to the Public Ways Construction Standards.
- D. All applications for permits for general street construction in public rights-of-way shall be made at the Engineering and Inspection Department. All applications will be reviewed for conformance with the Public Ways Construction Standards. All construction plans for work in existing public right-of-way or proposed public right-of-way shall conform to the requirements of the City Engineering Department with respect to design, final record set submission and as-builts.
- E. If any anticipated work covered by the general street construction permit requires approval by any other local, state or federal agency, the applicant shall obtain all approvals prior to the issuance of said general street construction permit.
- F. Any damage to public streets, curb, sidewalk, utilities, storm drain, etc., caused by the permittee or his agents shall be repaired to the satisfaction of the City by the permittee.

§ 216-38. Issuance of general permit; fees.

- A. Filing fee. The filing fee shall be a flat fee of \$25 per subdivision or street, as the case may be.
- B. Inspection fee. The inspection fee shall be 2% of the City Engineer-approved estimated cost of all proposed construction in the existing or proposed public right-of-way, excluding utility work.

§ 216-39. Other required permits.

Unless covered by the general street construction permit, a separate permit shall be required for grading, the construction of driveway entrances, curbs and sidewalks or street openings as provided elsewhere in this chapter.

§ 216-40. Insurance and bonds.

- A. Insurance policy. When requested, the applicant shall file certificate of insurance policy with the City as coinsured, conditioned to protect and save harmless the City of Hagerstown from all claims for damages to property or injury to person by reason of such construction, alteration or demolition work.
- B. Security or performance bond. By the provisions of Chapter 219, Subdivision of Land, the applicant shall file a surety, cash bond, performance bond (from a company qualified to transact business in the State of Maryland), an irrevocable letter of credit or other means of surety. The amount shall be equal to the estimated cost of the required public improvements, whereby these improvements, including public utilities, may be installed without cost to the City in the event of default of the applicant.
- C. Bonding and insuring agencies shall be released from financial responsibility upon official acceptance of the work and with the expiration of the one-year guaranteed maintenance period.

§ 216-41. Supervision and control.

- A. Administration.
 - (1) All construction, alteration and demolition work for which a permit is granted hereunder shall be under the administration of the City Engineer.
 - (2) The City Engineer shall have the authority to cause all operations for which a permit is granted hereunder to cease when the permittee fails to comply with the approved plans and/or conditions of the general street construction permit.
- B. Time limits; extension of time. When a permit has been issued, work thereunder must be commenced within 60 days and thereafter be continued to the conclusion of all work covered. A permit shall automatically expire two years after its issuance. Upon showing a reasonable necessity, the City Engineer may extend the expiration date of a permit without payment of additional fee.
- C. Inspection services. Inspection services will be performed and administered by the Engineering and Inspections Department, or designees, to assure compliance with the permit.
- D. Failure to complete work. Upon failure of the permittee to comply with the terms of the permit or correct deficient work, the City Engineer may order the work corrected or completed and the cost thereof recovered under the obligation of the surety or this may be cause for the City to reject acceptance of said work until corrected or completed.
- E. Building permits for properties contiguous to the public way shall not be issued until

streets and all other public improvements are accepted for ownership and maintenance by the City of Hagerstown or adequate surety is provided to ensure proper construction of the public improvements per Chapter 219, Subdivision of Land.

§ 216-42. Approval of work.

- A. Final approval. Final approval of construction work under the general street construction permit shall be given by the City Engineer after a final field inspection shows that the work conforms in all respects to the City standards and the requirements of the permit.
- B. Partial approval. The permittee may request final approval of a part (less than all) of the work covered by a general street construction permit. A corresponding reduction in the surety amount can be requested by the permittee and released at the absolute discretion of the City Engineer.

§ 216-43. Violations and penalties.

- A. When the City Engineer or his representative determines that a violation of City-issued permit or an approved construction plan has occurred, the inspector shall notify the on-site personnel or the permittee in writing of the violation, describing the required corrective action and the time period in which to have the violation corrected.
- B. If the violation persists after the date specified for corrective action in the notice of violation, the City Engineer or his representative shall determine the extent to which work shall be stopped, which may include all work on the site except that work necessary to correct the violation, and issue a citation. Except when specifically defined otherwise herein, any violation of this article shall be considered a municipal infraction. The penalty shall be \$200 for each day the violation occurs.
- C. If a person is working without a permit, the City Engineer or his representative shall stop work on the site immediately, except activity necessary to provide health and safety, until a permit is obtained. Fees shall be doubled for said permit.

ARTICLE VI Street Design Criteria

§ 216-44. Street classification system.

The street classification system for public streets shall be defined and set forth in Public Ways Construction Standards adopted by the City of Hagerstown and included herein by reference. This classification will be the basis for specific construction details and design criteria.

§ 216-45. Design elements.

- A. Vertical and horizontal alignment, rights-of-way and pavement widths and all shall be in conformance with the Public Ways Construction Standards and specifications adopted by the City of Hagerstown and included herein by reference.
- B. Design elements not specifically contained in the Public Ways Construction Standards shall comply with the minimum requirements of the latest edition of the AASHTO (American Association of State Highway and Transportation Officials) design publications, or the Maryland State Highway Administration Standards and Specifications or other standards approved by the City Engineer.
- C. Traffic impact studies shall be completed by developers following the latest Engineering and Inspections Department guidelines. Impacts caused by development shall be mitigated per these guidelines and constructed per the Public Ways Construction Standards.

§ 216-46. Street pavement.

- A. Streets shall be so designed and constructed that they meet the minimum typical paving sections requirements of the Public Ways Construction Standards based on street classifications as determined by the City Engineer. The City Engineer may add additional requirements for pavement thickness, drainage, etc., based on specific field conditions.
- B. Alternate design. Any alternate pavement design other than those given in the Public Ways Construction Standards must be approved by the City Engineer.
- C. Utilities. No work on street construction above the subgrade shall be started until all underground utilities have been installed.

§ 216-47. Alley pavement.

- A. Alleys shall be so designed and constructed that they meet the minimum pavement section requirements of the Public Ways Construction Standards, based on residential or commercial use as determined by the City Engineer. The City Engineer may add additional requirements for pavement thickness, drainage, etc., based on specific field conditions.
- B. Alternate design. Any alternate pavement design other than those given in the Public Ways Construction Standards must be approved by the City Engineer.

- C. Utilities. No work on alley construction above the subgrade shall be started until all underground utilities have been installed.

§ 216-48. Driveways and entrances.

Driveway entrances shall be constructed in accordance with the Public Ways Construction Standards and in accordance with the following:

- A. Access permits shall be issued in conformance with the policies of the City Engineering Department. No access to a City street or right-of-way from a public or private development shall be allowed except at points approved by the City Engineer and at points for which an entrance permit has been obtained. An entrance permit for lots in new developments may be considered as part of a general street construction permit to work in public rights-of-way issued under the provisions of Article V of this chapter.
- B. The owner of the property under which an entrance is being constructed shall be held responsible for any damages caused to the roadway facilities or private property by himself, his representatives, his contractor or subcontractor or their agents.
- C. Unless contained in the general street construction permit for work in designated public rights-of-way, an entrance permit will be issued effective for a period of 60 calendar days after the following procedures have been satisfactorily completed:
 - (1) The proposed entrance location as it pertains to public safety and adequate drainage facilities is approved by the City Engineer.
 - (2) If requested, an acceptable form of surety for an amount not less than \$1,000 shall be obtained in order to insure satisfactory completion.
 - (3) The payment of the permit fee.
 - (4) The project is not idle for more than 15 calendar days after portions of the existing entrance is removed. Permittee must show reasonable progress in completing the work under the permit.
- D. An entrance permit may be renewed at the discretion of the Engineering and Inspections Department by remitting a renewal fee, equal to the original permit fee.
- E. An entrance permit may be revoked under the following circumstances:
 - (1) The entrance is not completed after the initial sixty-calendar-day permit period.
 - (2) Construction is not in accordance with the terms of the permit or the Public Ways Construction Standards.
- F. If a bond is not obtained and the work is unsatisfactory, it is the obligation of the property owner to correct any incorrect or defective work performed by his contractor, subcontractor, representative agent or himself. Failure to do so in the time allotted by the City shall constitute a nuisance and may be abated per § 216-24.
- G. If any entrance permit is revoked, the City will so notify the property owner of the reasons(s), and the Engineering and Inspection Department shall itemize the corrective actions which must be undertaken to make an entrance acceptable. After being so revoked, a property owner must reapply for a new permit and comply with

all conditions therein. The City Engineer may modify or add additional requirements to the entrance standards provided in the Public Ways Construction Standards based on field conditions, proposed use, traffic volumes, type of traffic, etc.

- H. The center line of entrances and driveways shall be at a right angle to the center line of the highway. An angle between 90° and 60° shall be acceptable only if physical constraints require a skew angle less than 90°. An angle less than 60° is prohibited.
- I. No entrance radius or depression of curb for an entrance shall extend beyond the property frontage which the entrance serves.
- J. In general, the distance between a public street intersection and a proposed entrance shall be maximized, and approved by the City Engineer.
- K. The City reserves the right to close any driveway entrance which is causing a hazard to the traveling public or causing undue traffic impediment. The City shall give adequate, written notice to the property owner and seek alternatives before enforcing this subsection.
- L. The access entrance shall be designed to facilitate the movement of vehicles off the street to prevent the queuing of vehicles on the traveled way. The City Engineer may require street improvements to accommodate turning vehicles using the entrance.
- M. Access permits shall not be approved for parking areas that require backing maneuvers within a City right-of-way. All off-street parking areas must include on-site maneuvering areas and aisles to permit user vehicles to enter and exit the site in forward drive without hesitation. The only exception shall be for residential driveways on local streets, when approved by the City Engineer.
- N. Unused entrances or entrances without a stone or paved driveway may be ordered replaced by the property owner with standard curb and sidewalk at the discretion of the City.

§ 216-49. Violations and penalties.

- A. When the City Engineer or his representative determines that a violation of City-issued permit or an approved construction plan has occurred, the inspector shall notify the on-site personnel or the permittee in writing of the violation, describing the required corrective action and the time period in which to have the violation corrected.
- B. If the violation persists after the date specified for corrective action in the notice of violation, the City Engineer or his representative shall determine the extent to which work shall be stopped, which may include all work on the site except that work necessary to correct the violation, and issue citation. Except when specifically defined otherwise herein, any violation of this article shall be considered a municipal infraction. The penalty shall be \$200 for each day the violation occurs.
- C. If a person is working without a permit, the City Engineer or his representative shall stop work on the site immediately, except activity necessary to provide health and safety, until a permit is obtained. Fees shall be doubled for said permit.

ARTICLE VII Storm Drainage Design Criteria

§ 216-50. General criteria.

- A. Storm drainage systems shall be designed on the basis of ultimate development of the tributary watershed. Where the nature of future development is uncertain, the Engineering Department should be consulted by the designer for the purpose of estimating the type of future development to be expected.
- B. A "public drainage system" is generally defined as those pipes and structures intercepting water from public streets. The City of Hagerstown shall only maintain storm drain systems in the accepted public right-of-way or accepted easements specifically for City maintenance of the storm drain.
- C. Reinforced concrete pipe shall be used for all storm drain systems and culverts in the public right-of-way. All pipe shall be a minimum Class IV.
- D. All materials and construction must be in accordance with the Public Ways Construction Standards and the Maryland State Highway Administrations Standard Specifications for Construction and Materials.

§ 216-51. Estimation of runoff.

For drainage areas less than 100 acres, runoff may be estimated by the Rational Formula (Q CIA). For drainage areas in excess of 100 acres, runoff shall be estimated by the methods and procedures as described in the United States Department of Agriculture, Soil Conservation Service publication entitled "Urban Hydrology for Small Watersheds" (Technical Release No. 55) or by other methods and procedures acceptable to the Maryland Department of the Environment and the City Engineer.

- A. The Rational Formula is as follows:

$$Q = CIA$$

Where

Q = The quantity of runoff expressed in cubic feet per second.

C = The coefficient of runoff.

I = The intensity of rainfall expressed in inches per hour for a given storm frequency.

A = The drainage area expressed in acres.

- B. The values for the coefficient of runoff (C) and the intensity of rainfall (I) shall be selected from the Maryland State Highway Administration Drainage Manual. Design method shall be per this manual and the following:
 - (1) Runoff coefficient (C). The runoff coefficient, used in computing flow to a point under consideration, shall be a composite of the C factors for all the areas tributary to this point. For drainage areas containing several different types of soil, cover or slopes, a weighted value of C must be used.
 - (2) Rainfall intensity (I). Rainfall intensity shall be determined from the rainfall

intensity curves provided in the Maryland State Highway Administration Highway Drainage Manual.

- (3) Time of concentration (TC). The "time of concentration" shall generally be defined as the total time required for runoff to flow from the most remote point in the drainage area to the point of investigation. It shall be the sum of the duration of flow for all types such as overland flow (sheet and shallow concentrated flow), swale flow, ditch flow and pipe flow (each if applicable). The selected flow path shall be representative of the drainage area as a whole. Overland flow through most areas will become channel flow within 400 feet. Stream or channel flow time should be computed by estimating the average velocity in each type of course and dividing it into the total length of flow through that course. In no instance shall a time of concentration of less than six minutes be used for any drainage computation.
- (4) Drainage area (A). Care should be taken to assure that all areas delivering runoff to the point under consideration shall be included. The extent of the drainage area should be determined from field observations and one of the following sources (the highest order of information available shall be used):
 - (a) Photogrammetric maps available at the City Engineering Department.
 - (b) Washington County photogrammetric maps.
 - (c) United States Geological Survey quadrangle maps.
 - (d) Field observations.

§ 216-52. Return frequencies.

- A. All enclosed storm drain systems shall be designed for the ten-year design storm frequency.
- B. All cross culverts shall be designed based on ultimate development of the contributing watershed and the following design storms:

City Roadway Classification Design Storm Frequency

Local	25
Minor collector	25
Major collector	25
Arterial	50

- C. The spacing of storm sewer inlets on closed roadways shall be determined by the use of a two-year storm design storm frequency.

§ 216-53. Design of pipe and culvert size.

- A. The minimum diameter of storm drain pipe shall be 15 inches (or the equivalent pipe arch size). Where abrupt alignment changes are required, an inlet, manhole or bend structure shall be placed at the point of change.

- B. Storm drain shall typically be laid on a straight horizontal and vertical alignment. Pipes may be deflected per manufacturer's recommendation.
- C. The minimum slope of pipe shall not be less than 0.40%, and the ten-year design storm velocity in the pipe shall not be less than three feet per second, unless otherwise approved by the City Engineer. The top of all pipes shall be at least six inches below the subgrade elevation of the pavement.
- D. Manning's equation shall be used for determining storm sewer pipe sizes.
- E. The procedure contained in the Hydraulic Engineering Circular No. 5, Hydraulic Charts for the Selection of Highway Culverts, as prepared by the United States Department of Transportation, shall be used for the design of culverts.
- F. Under entrance control conditions, the normal maximum relationship of the headwater depth to the pipe diameter (HW/D) shall be 1.2. The computed highwater elevation thus created must not cause damage to existing properties and must be at least 0.5 foot below the edge of the roadway shoulder. The value of HW/D may be greater than 1.2 only with the approval of the City Engineer.

§ 216-54. Storm drain system design.

Storm drains and all closed systems passing longitudinal or transverse to the roadway shall be designed based on the procedures outlined in the Maryland State Highway Administration Drainage Manual. The hydraulic gradient for the ten-year storm shall be a minimum of one foot below the bottom of manhole covers and inlet grates. The hydraulic gradient shall be determined for all storm drain systems. Inlets may be spaced to intercept the portion of the gutter flow for the two-year storm, but storm drain pipes shall be designed for the total flow from the ten-year design storm at any location.

- A. Inlets. Inlets shall be designed based on the procedures in the Maryland State Highway Administration Drainage Manual and the following criteria:
 - (1) Inlets shall be spaced with runoff from the two-year storm. The allowable spread of water in a curb or curb-and-gutter section shall be eight feet. Inlets shall be located at the upgrade side of all public road intersections and median breaks, and in superelevation transitions approximately 50 feet ahead of the section where the cross slope is level. Inlets on a continuous grade shall be spaced to intercept at least 85% of the total gutter flow where practical. Flow bypassing that inlet shall be included in the total gutter flow contributing to the next inlet downstream unless it is carried off on a side street or is otherwise intercepted.
 - (2) For closed roadways (with curb), runoff from cut slopes and areas off the right-of-way shall, wherever possible, be intercepted by channels in order to reduce the amount of water flowing onto the street pavement, particularly on the high side of superelevated roadways.
 - (3) All inlets shall be City standard inlets as designated in the Public Ways Construction Standards.
- B. Bend structures. The use of bend structures is discouraged and may only be used on pipe sizes 24 inches in diameter and larger with the approval of the City Engineer.

C. Manholes and other structures.

- (1) Structures shall be as designated in the Public Ways Construction Standards. Refer to this document for structures, flow channels and field connections.
- (2) For pipe 24 inches in diameter and smaller, manholes or other structures providing access to the pipe from the surface shall be placed at intervals not exceeding 400 feet. On pipes 27 inches in diameter and larger, access structures may be spaced at greater interval.
- (3) The grade of the main line pipe should normally be carried through the invert of structures unless greater drop is required by hydraulic conditions. A minimum drop of 0.1 foot shall be provided through the invert of any structure.
- (4) The use of field connections is discouraged and may only be used with the approval of the City Engineer.

§ 216-55. Design of open channels.

The hydraulic design of channels consists of determining whether the proposed channel is sufficient to carry the design peak flow and determining the type of lining necessary to prevent scour or undesirable sedimentation in the channel. The second phase of the design should also include the determination of the point where the ditch lining must change from one erosion protective lining to another.

- A. Design: Open channels shall be designed based on procedures outlined in the Maryland State Highway Administration Drainage Manual.
- B. Location and alignment: Drainage channels shall be located as to change the original drainage course as little as possible. Design should provide gradual horizontal alignment changes and located near or on a property line when feasible.
- C. Limiting velocities: The maximum velocity in ditches shall be taken from the following table, according to the type of lining.

Type of Lining	Allowable Velocity (feet per second)
For new construction:	
Seed and mulch	2.0
Solid sodding	4.0
Soil stabilization matting	6.0 (or manufacturer's recommendation)
Dumped or placed riprap (four-inch to seven-inch stone)	Refer to SHA chart
Concrete or macadam paving	No maximum
Storm drain outlet protection	Refer to Maryland Standards for Soil Erosion and Sediment Control
For investigation of existing ditches:	
Earth, without vegetation	1-3

Grains, stiff-stemmed grasses	2-3
Stiff clay or clay and gravel	5
Meadow-type grasses, short pliant blades	5
Lawn grasses, short pliant blades	6
Coarse gravel (shingled channels)	5-8
Shale and rock	No maximum

- D. Ditch lining. Concrete or macadam paved ditches are to be considered as the final alternate or solution to be employed as ditch protection and, as such, shall be avoided whenever possible.

§ 216-56. Structural considerations.

- A. Pipes, manholes, inlets, etc., located under existing or proposed paving or public right-of-way shall be designed for a minimum HS-20 truck load in accordance with the requirements set forth in the latest applicable Maryland State Highway Regulations. Maximum and minimum depths of cover allowable on pipes under various loading conditions shall be obtained from the pipe loading tables published and certified by the certified pipe manufacturer.
- B. Reinforced concrete box culverts or bridges shall be designed in accordance with the latest applicable Maryland State Highway Regulations.

§ 216-57. Storm drain connection permits.

- A. No person or firm shall make any connection to any storm drain appurtenance without first obtaining a written permit from the City Engineer. The permit fee shall be \$150 per connection.
- B. The owner or his agent shall make application on a form furnished by the City of Hagerstown. The permit application shall be supplemented by any plans, specifications or other information considered pertinent in the judgment of the City Engineer.

§ 216-58. Stormwater management.

Refer to Chapter 213, Stormwater Management, for criteria on the management of runoff caused by development or grading.

§ 216-59. Violations and penalties.

Except when specifically defined otherwise herein, any violation of this article shall be considered a municipal infraction. Citations shall be \$200 for each day the violation occurs.

§ 216-60. Appeals.

Any person, corporation, taxpayer or department of the City, aggrieved by any decision resulting in a disapproval of a properly filed application for a permit, issuance of a written notice of violation or any alleged failure to properly enforce the chapter in regard to a specific application, shall have the right to appeal the action to the Board of Technical Appeals of the City of Hagerstown. Each appeal to the Board of Technical Appeals shall be filed in writing on the appropriate form accompanied with the appropriate fee within 20 days of the date of official transmittal of the final decision or determination to the applicant, and shall state clearly the grounds on which the appeal is based, and shall be processed in the manner prescribed for hearing administrative appeals under the Code of the City of Hagerstown.

