

TITLE 15
PUBLIC IMPROVEMENTS

Chapters:

15.04 Sanitary Sewer System – Connections

15.06 Stormwater Management Program and Utility

15.08 Storm Sewers (Repealed)

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Chapter 15.04
SANITARY SEWER SYSTEM - CONNECTIONS¹

Sections:

- 15.04.010 Required connection determined by Governing Body.
- 15.04.020 Failure to connect after notification - Connection by City or bidder - Assessment against property.
- 15.04.030 Financing costs until assessment paid.
- 15.04.040 Disobedience to chapter deemed offense.

15.04.010 Required connection determined by Governing Body.

Any person or property owner owning buildings within the City, which buildings are, or shall be, located near a sanitary sewer, or in a block within any sanitary sewer district through which a sewer extends, may be required to make such connections with the sanitary sewer system as may be necessary in the judgment of the Governing Body of the City for the protection of the health of the public and for the purpose of disposing of all substances from any such building affecting the public health which may be lawfully and properly disposed of by means of such sanitary sewer. (History: Ord. SSS-328 §1, 65)

15.04.020 Failure to connect after notification - Connection by City or bidder - Assessment against property.

If any person or persons fail, neglect, or refuse to so connect any building or buildings with the sanitary sewer system for more than ten days after being notified in writing by the Governing Body to do so, the Governing Body may cause such buildings to be connected with the sanitary sewer system, or may advertise for bids for the construction and making of such sanitary sewer connections, and contract therefor with the lowest responsible bidder, and may assess the costs and expense thereof against the property and premises so connected. (History: Ord. SSS-328 §2, 65)

15.04.030 Financing costs until assessment paid.

All costs incurred by the City under the provisions of this chapter may be financed, until the assessment is paid, out of the general fund, or by the issuance of no-fund warrants. (History: Ord. SSS-328 §3, 65)

15.04.040 Disobedience to chapter deemed offense.

It is a public offense to disobey the provisions of this chapter. (History: Added during codification in accordance with KSA 12-3015)

1. For statutory provisions indicating that a City may require connections with a sewer system, and if the owner of property or other person required to so connect fails to do so, the City may cause such connections and assess the cost against the property and premises. See K.S.A. 12-631. For regulations governing connections with public sanitary sewer system as a prerequisite to issuance of a certificate of occupancy, see Chapter 18.52

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Chapter 15.06
STORMWATER MANAGEMENT PROGRAM AND UTILITY

Sections:

- 15.06.010 Definitions.
- 15.06.020 Findings and Statements of Policy.
- 15.06.030 Creation of a Storm Water Management Program; Establishment of a Storm Water Utility.
- 15.06.040 Administration.
- 15.06.050 Budget.
- 15.06.060 Storm Water Utility User Fee.
- 15.06.070 Appeal Procedure.
- 15.06.080 Storm Water Utility User Fee Collection.
- 15.06.090 Storm Water Utility Fund.
- 15.06.100 Severability.

15.06.010 Definitions.

In addition to the words, terms and phrases elsewhere defined in this ordinance, the following words, terms and phrases, as used in this ordinance, shall have the following meanings:

"Bonds" means obligations of the City, for which the principal of and the interest on is paid in whole or in part from special assessments, user fees, sales tax, general ad valorem taxes, or any available City or Storm Water Utility revenues heretofore or hereafter issued to finance the Costs of Capital Improvements.

"City" means the City of Overland Park, Kansas.

"City Manager" means the City Manager of the City or the City Manager's designee.

"Costs of Capital Improvements" means costs incurred by the Storm Water Utility in providing capital improvements as part of the Storm Water Management Program, including, without limitation, alteration, enlargement, extension, improvement, construction, reconstruction, and development of the Public Storm Sewers, professional services and studies connected therewith; principal and interest on Bonds heretofore or hereafter issued, including payment of any delinquencies; studies related to the operation of the system; costs related to water quality enhancements, costs related to complying with federal, state or local regulations; acquisition of real and personal property by purchase, lease, donation, condemnation or otherwise; and for the costs associated with purchasing equipment, computers, furniture and all other items necessary or convenient for the operations of the of the Storm Water Utility.

"Debt Service" means an amount equal to the sum of all interest payable on Bonds during any fiscal year or years, and any principal installments payable on the Bonds during such fiscal year or years.

"Director" means the Director of the City's Public Works Department or the Director's designee.

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"Dwelling Unit" means an enclosure containing sleeping, kitchen and bathroom facilities designed for and used or held ready for use as a permanent residence by one Family, as defined in Title 18 of the Overland Park Municipal Code.

"Equivalent Residential Unit" or "ERU" means a unit of measure that is equal to the average Impervious Area per Dwelling Unit located on Residential Property within the City limits.

"Equivalent Residential Unit Rate" or "ERU Rate" means the amount charged for each ERU in calculating the Storm Water Utility User Fee.

"Exempt Property" means public right-of-way, public trails, public streets, public alleys, public sidewalks, and public lands and/or easements in or upon which the Public Storm Sewers are constructed and/or located.

"Fiscal Year" means a twelve-month period commencing on the first day of January of any year.

"Governing Body" means the governing body of the City.

"Impervious Area" means the total number of square feet of hard surface area on a given property that either prevents or retards the entry of water into the soil matrix, or causes water to run off the surface in greater quantities or at an increased rate of flow, than it would enter under conditions similar to those on undeveloped land. "Impervious Area" includes but is not limited to, roofs, roof extensions, driveways, pavement and athletic courts.

"Nonresidential Property" means all property other than Residential Property.

"Operating Budget" means the annual budget established for the Storm Water Utility for the succeeding Fiscal Year.

"Operations and Maintenance" means, without limitation, the current expenses, paid or secured, by the Storm Water Utility, for operation, maintenance and repair and minor replacement of the Public Storm Sewers or for implementing the Storm Water Management Program, as calculated in accordance with generally accepted accounting practices, and includes, without limiting the generality of the foregoing, insurance premiums, administrative expenses including professional services, equipment costs, labor costs, and the cost of materials and supplies used for current operations.

"Public Storm Sewers" means all storm sewers within the City, and all appurtenances and ancillary structures thereto, which have been dedicated to and accepted by the City for ownership and maintenance or otherwise owned by the City.

"Residential Property" means property used primarily for one-family, two-family or multi-family Dwelling Units.

"Storm Water Management Program" means all aspects of work necessary to perform and provide storm and surface water services in the City, including but not limited to administration, planning, engineering, operations, maintenance, best management practices, control measures, public education, citizen participation, regulation and enforcement, protection, and capital improvement of Storm Water Management Systems, plus such non-operating expenses as reserves and bond debt service coverage as are associated with provision of the Storm Water Management Program.

"Storm Water Management System," means surface water and storm sewers and all appurtenances necessary in the maintenance, operation, regulation, and improvement of the same, including, but not limited to, pumping stations; enclosed storm sewers; outfall sewers; surface drains; street, curb and alley improvements associated with storm or surface water improvements; natural and manmade wetlands; channels; ditches; rivers; streams; detention and retention facilities; and other flood control facilities and works for the collection, conveyance, pumping, infiltration, treating, controlling, managing and disposing of water carried pollutants or storm or surface water.

"Storm Water Utility" means the utility created by this ordinance for the purpose of implementing and funding the Storm Water Management Program.

"Storm Water Utility User Fee" means a fee authorized by Charter Ordinance No. Seventy-Nine and this ordinance, charged to owners of property served and benefited by the Storm Water Utility.

"Undeveloped Land" means land that has not been built upon or altered from its natural condition in a manner that disturbed or altered the topography or soils on the property to the degree that the entrance of water into the soil matrix is prevented or retarded.

(History: Ord. SWU-2315 §1, 2001)

15.06.020 Findings and Statements of Policy.

A. The City of Overland Park, Kansas, desires to create a Storm Water Management Program pursuant to Charter Ordinance No. Seventy-Nine.

B. A Storm Water Management Program will provide both general and specific benefits to all property within the City and will include the provision of adequate systems of collection, conveyance, detention, retention, treatment and release of storm water; the reduction of hazards to property and life resulting from storm water runoff; improvement in general health and welfare through reduction of undesirable storm water conditions; improvement of water quality in the Storm Water Management System and its receiving waters; the provision of a planned and orderly system for managing and mitigating the effects of new development on storm water and appropriate balancing between development and preservation of the natural environment.

C. The Storm Water Management Program will also initiate innovative and proactive approaches to storm water management within the City to address problems in areas of the City that currently are

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prone to flooding, protect against replication of these types of problems and the creation of similar problems in newly developing areas of the City, protect property in the City from stream bank erosion and the attendant loss of natural resources and the reduction of property values, conserve natural stream assets within the City, enhance water quality, and assist in meeting the mandates of the National Pollutant Discharge Elimination System as created under the Federal Clean Water Act and associated state and federal laws and their supporting regulations.

D. Both standard and innovative storm water management is necessary in the interest of the public health, safety and general welfare of the residents, businesses and visitors of the City.

E. Implementation of the Storm Water Management Program will require the expenditure of significant amounts of public money.

F. All developed property in the City will benefit from the Storm Water Management Program.

G. The City desires to fairly distribute costs of the Storm Water Management Program implementation among all developed property which generates the need therefor.

H. The City has determined that the establishment of a Storm Water Utility is an appropriate method of funding certain portions of the costs of implementing the Storm Water Management Program.

I. The City has adopted Charter Ordinance No. Seventy-Nine, which grants to the City the authority to adopt, by ordinance, rules and regulations providing for the management and operation of a Storm Water Utility, fixing Storm Water Utility User Fees, requiring security for the payment thereof, providing methods and rules relating to the calculation and collection of the fees and for credits against the fees, and providing for the disposition of the revenues derived therefrom.

J. The City commissioned a study that was prepared by Camp Dresser & McKee Inc., to assist the City in developing the Storm Water Utility and to recommend an ERU and an ERU Rate.

K. The Governing Body has evaluated the study and recommendations and hereby determines that the fees set forth herein are reasonable and necessary and should be implemented.

L. The Storm Water Utility User Fee imposed by this Ordinance, is calculated by a formula that reasonably relates classes of property within the City to their anticipated use of or benefit from the Storm Water Management System, and such fee is neither a tax nor a special assessment, but a charge (in the nature of tolls, fees or rents) for services rendered or available.

M. The City has researched collection options and hereby determines that in order to promote

efficiency, eliminate duplication of services, and utilize the most economically feasible method of fee collection, the Storm Water Utility User Fee should be included on Overland Park ad valorem real property tax bills issued by Johnson County, in accordance with an agreement to be negotiated with the County, which will be placed on file in the office of the city clerk.

(History: Ord. SWU-2315 §2, 2001)

15.06.030 Creation of a Storm Water Management Program; Establishment of a Storm Water Utility.

Pursuant to City Charter Ordinance No. Seventy-Nine, the City's general home rule authority, its nuisance abatement authority, its police powers and all other authority, the Overland Park Governing Body does hereby create a Storm Water Management Program and does hereby establish a Storm Water Utility and declares its intention to operate the same.

(History: Ord. SWU-2315 §3, 2001)

15.06.040 Administration.

The Storm Water Utility, under the supervision of the Director, and not in contravention of any City ordinance, resolution or regulation, shall have the power to undertake the following activities to implement the Storm Water Management Program:

- A. Advise the Governing Body on matters relating to the Storm Water Management Program and to make recommendations to the Governing Body concerning the adoption of ordinances, resolutions, policies, guidelines and regulations in furtherance of the objectives of the Storm Water Management Program.
- B. To undertake studies, acquire data, prepare master plans, analyze policies or undertake such other planning and analyses as may be needed to address concerns related to storm water within the City and to further the objectives of the Storm Water Management Program, and to undertake activities designed to communicate, educate and involve the public and citizens in addressing these issues or in understanding and abiding by the elements of the Storm Water Management Program.
- C. Acquire, design, construct, operate, maintain, expand, or replace any element or elements of the Public Storm Sewers, including funding the acquisition of easements by eminent domain, and obtaining title or easements other than by eminent domain, over any real or personal property that is part of, will become part of or will protect the Public Storm Sewers, or is necessary or convenient for the implementation of the Storm Water Management Program.
- D. Regulate, establish standards, review, and inspect the design, construction or operation and maintenance of any Storm Water Management System that is under the control of private owners, whether or not such systems are required or intended for dedication to the Public Storm Sewer system, when such systems have the potential to impact, enhance, damage, obstruct or affect the operation and maintenance of the Public Storm Sewers or the implementation of the Storm Water Management Program.
- E. Regulate, establish standards, review and inspect land use or property owner activities

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when such activities have the potential to affect the quantity, timing, velocity, erosive forces, quality, environmental value or other characteristics of storm water which would flow into the Storm Water Management System or in any way effect the implementation of the Storm Water Management Program.

F. Undertake any activities related to storm water management when such activities are recommended by applicable federal, state or local agencies or when such activities are required by any permit, regulation, ordinance, or statute governing storm water or water quality concerns.

G. Analyze the cost of services and benefits provided by the Storm Water Utility and the structure of fees, service charges, credits, and other revenues on an annual basis and make recommendations to the Governing Body regarding the same.

H. Undertake expenditures as required to implement these activities, including all Costs of Capital Improvements, Operations and Maintenance, Debt Service, and other costs as required.
(History: Ord. SWU-2315 §4, 2001)

15.06.050 Budget.

The City shall, as part of its annual budget process, adopt capital and operating budgets for the Storm Water Utility. The operating budget shall conform with State law, City policy and generally accepted accounting practices. The initial operating budget will commence January 1, 2002, and ends December 31, 2002.

(History: Ord. SWU-2315 §5, 2001)

15.06.060 Storm Water Utility User Fee.

A. User Fee Established. Subject to the provisions of this ordinance, there is imposed on each Residential Property and Nonresidential Property, other than Exempt Property, property not served or benefited by the Storm Water Management Program or property consisting exclusively of Undeveloped Land, a Storm Water Utility User Fee. This fee is hereby imposed for the year 2001, and each subsequent year on all such property.

B. Equivalent Residential Unit. The Equivalent Residential Unit (ERU) is hereby established for purposes of calculating the Storm Water Utility User Fee. The ERU is hereby established to be 2,485 square feet of Impervious Area.

C. Equivalent Residential Unit Rate. The ERU rate to be used for calculating Storm Water Utility User Fees for each ERU is hereby established to be \$24.00 per year.

D. Storm Water Utility User Fee for Residential Property. Subject to subparagraph G below, the Storm Water Utility User Fee for Residential Property shall be the ERU Rate multiplied by the number of individual Dwelling Units existing on the property.

E. Storm Water Utility User Fee for Nonresidential Property. Subject to subparagraph G below, the Storm Water Utility User Fee for Nonresidential Property shall be the ERU Rate multiplied by a numerical factor calculated by dividing the total Impervious Area of the property by the number of

square feet in one ERU. In performing this calculation, the numerical factor shall be rounded to the nearest whole number. For Nonresidential Property with joint users of common Impervious Areas, the Director shall calculate and allocate the pro rata Storm Water Utility User Fee among the users.

F. Dwelling Unit and Impervious Surface Calculation. The Director shall make the initial calculations in accordance with the methods established in this section to determine the number of ERUs located on all Residential Property and Nonresidential Property and may from time to time change this calculation from the information and data deemed pertinent. With respect to new construction, the Director may require that the applicant for development approval submit square footage Impervious Area calculations and/or Dwelling Unit calculations. Any increase or decrease in the ERU calculation for a Residential Property or Nonresidential Property associated with new construction shall commence upon the issuance of the temporary certificate of occupancy, certificate of occupancy or certificate of compliance, whichever is first issued. The Storm Water Utility User Fee shall be based on the status of the property on January 1, 2001, for the year 2001 and upon the status of the property on May 31, for all subsequent years.

G. Storm Water Utility User Fee Credits. The Governing Body may, by ordinance, establish a system of credits, which may reduce the Storm Water Utility User Fee that is imposed in Section 15.06.060A., above.

H. Storm Water Utility User Fee Request for Recalculation. If the owner of Residential Property or Nonresidential Property, for which a Storm Water Utility User Fee has been imposed disagrees with the calculation of the Storm Water Utility User Fee imposed upon such owner's property, the owner may request a recalculation of the fee.

I. Procedure. Requests for credit or recalculation must be submitted, in writing, by the owner of Residential Property or Nonresidential Property, for which a Storm Water Utility User Fee has been imposed, to the Director on or before 5:00 p.m. on November 30 of the year for which the credit or recalculation is requested. The owner shall provide information substantiating the request, including detailed calculations of the amount of credit requested and the basis therefor or evidence of a mistake in initial fee calculation. The Director shall issue a determination in writing within 15 days of the receipt of the request.

(History: Ord. SWU-2315 §6, 2001)

15.06.070 Appeal Procedure.

Owners of Residential Property or Nonresidential Property, for which a Storm Water Utility User Fee has been imposed, who disagree: (1) with the calculation of the Storm Water Utility User Fee; or (2) with the decision that their property is entitled to a credit or the continuation of a credit or on the amount of a credit, may appeal the calculation or finding to the City Manager. The owner must file a written notice of appeal with the City Clerk on or before 5:00 p.m. on December 31 of the current year being appealed. The owner, by the date set in writing by the Director, which shall not be less than seven days, shall provide information concerning the basis of the appeal, including a land survey prepared by a registered surveyor showing Dwelling Units, total property area, type of surface material and Impervious

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Area, as appropriate, and any other information that the Director shall request in writing to the owner. The Director may waive the submission of a land survey, if the Director determines that the survey is not necessary to make a determination on the appeal. The owner shall be afforded a hearing on the matter before the City Manager within sixty (60) days of filing the appeal. The burden of proof shall be on the owner to demonstrate, by clear and convincing evidence, that the determination of the Director, from which the appeal is being taken, is erroneous. Based on information provided in writing and at the hearing, the City Manager shall make a determination as to whether the Storm Water Utility User Fee and/or the credit should be adjusted or eliminated for the subject property. The City Manager shall notify the owner in writing of the decision.

The filing of a notice of appeal shall not stay the imposition, calculation or duty to pay the fee. The owner shall pay the Storm Water Utility User Fee, as stated in the billing, to the Johnson County, Kansas, Treasurer. If the City Manager determines that the owner should not pay a fee, pay a fee amount less than the amount appealed from, or receive a credit, the City shall issue a check to the owner in the appropriate amount within 10 business days of the date of the applicable written decision, which in no event shall be more than the amount of the fee paid by the owner as of the date the check is issued. If the credit is larger than the amount paid and additional fees are due for the same year, the City will issue the remaining credit within 10 business days after the remaining fees have been paid in full. All refunds shall be without interest.

The decision of the City Manager shall be final.
(History: Ord. SWU-2315 §7, 2001)

15.06.080 Storm Water Utility User Fee Collection.

The Storm Water Utility User Fee shall be billed by the Johnson County, Kansas, Clerk and collected by the Johnson County, Kansas, Treasurer. The Storm Water Utility User Fee shall be shown as a separate item on the County's annual ad valorem real property tax statement, in accordance with the procedures established in an agreement, pursuant to K.S.A. 12-2908, between the City and the County, as hereby authorized. The payment of Storm Water Utility User Fee bills for any given property shall be the responsibility of the owner of the property.

To the extent permitted by applicable law, Storm Water Utility User Fees shall be subject to interest for late payment at a rate that is the same as the rate prescribed in K.S.A. 79-2004, as amended and K.S.A. 79-2968, as amended, shall constitute a lien on the applicable property, and shall be collected in the same manner as ad valorem real property taxes collected by the County, regardless of whether the Storm Water Utility User Fees were incurred when a property owner was in possession of the property or a non-owner was in possession of the property.
(History: Ord. SWU-2315 §8, 2001)

15.06.90 Storm Water Utility Fund.

Storm Water Utility User Fees, dedicated ad valorem taxes and other available revenues shall be paid into a fund that is hereby created and shall be known as the "Storm Water Utility Fund." This fund shall be used for the purpose of paying Costs of Capital Improvements, Operations and Maintenance, Debt
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Service and any other costs associated with the implementation and operation of the Storm Water Management Program.

(History: Ord. SWU-2315 §9, 2001)

15.06.100 Severability.

If any section, subsection, sentence, clause, phrase, or portion of this ordinance is for any reason held invalid or unconstitutional by any court or administrative agency of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portions hereof.

(History: Ord. SWU-2315 §10, 2001)

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Chapter 15.08
STORM SEWERS
(This entire chapter has been repealed. See Chapter 15.10)

Sections:

Article I. General Regulations

- 15.08.010 General. (Repealed. See 15.10.100)
- 15.08.015 Approval of Construction. (Repealed. See 15.10.150)
- 15.08.020 Purpose. (Repealed)
- 15.08.025 Generally. (Repealed)

Article II. Design Requirements

- 15.08.030 Design Formula for Rate of Runoff. (Repealed. See 15.10.100)
- 15.08.040 Rainfall and Intensity. (Repealed. See 15.10.100)
- 15.08.050 Runoff Coefficients. (Repealed. See 15.10.100)
- 15.08.060 Drainage Area. (Repealed. See 15.10.100)
- 15.08.070 Design Formula Information. (Repealed. See 15.10.100)
- 15.08.080 Design Calculations and Storm Sewer Plans. (Repealed. See 15.10.100)
- 15.08.090 Velocities and Discharge Design. (Repealed. See 15.10.100)
- 15.08.100 Methods of Conveying Storm Water. (Repealed. See 15.10.200)
- 15.08.110 Design of Rigid Conduits. (Repealed. See 15.10.100)
- 15.08.120 Underground Culverts or Conduits - Length - Handrails. (Repealed. See 15.10.100)
- 15.08.130 Figure 1 - Rainfall Intensity Duration Frequency Curves. (Repealed. See 15.10.100)

Article III. Excavation and Trenching

- 15.08.140 Scope. (Repealed. See 15.10.100)
- 15.08.150 General Requirements. (Repealed. See 15.10.100)
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- 15.08.170 Unauthorized Excavation. (Repealed. See 15.10.100)
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- 15.08.210 Crushed Rock or Gravel Fills. (Repealed. See 15.10.100)
- 15.08.220 Trench Excavation. (Repealed. See 15.10.100)
- 15.08.230 Alignment, Grade and Minimum Cover. (Repealed. See 15.10.100)
- 15.08.240 Limiting Trench Widths and Pipe Clearances. (Repealed. See 15.10.100)
- 15.08.250 Unauthorized Trench Widths. (Repealed. See 15.10.100)
- 15.08.260 Mechanical Excavation. (Repealed. See 15.10.100)
- 15.08.270 Excavation Below Pipe Subgrade. (Repealed. See 15.10.100)
- 15.08.280 Artificial Foundations in Trenches. (Repealed. See 15.10.100)
- 15.08.290 Bell Holes. (Repealed. See 15.10.100)
- 15.08.300 Pipe Embedment. (Repealed. See 15.10.100)
- 15.08.310 Embedment Classes. (Repealed. See 15.10.100)

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- 15.08.320 Placement and Compaction. (Repealed. See 15.10.100)
- 15.08.330 Trench Backfill. (Repealed. See 15.10.100)
- 15.08.340 Tamped Backfill. (Repealed. See 15.10.100)
- 15.08.350 Uncompacted Backfill. (Repealed. See 15.10.100)
- 15.08.360 Structure Backfill. (Repealed. See 15.10.100)
- 15.08.370 Drainage Maintenance. (Repealed. See 15.10.100)
- 15.08.380 Protection of Trench - Backfill in Drainage - Courses. (Repealed. See 15.10.100)
- 15.08.390 Disposal of Excess Excavated Materials. (Repealed. See 15.10.100)
- 15.08.400 Maximum Trench Widths. (Repealed. See 15.10.100)
- 15.08.410 Minimum Trench Widths. (Repealed. See 15.10.100)
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- 15.08.450 Joints. (Repealed. See 15.10.100)
- 15.08.460 Rubber Gasket Joints. (Repealed. See 15.10.100)
- 15.08.470 Mastic Joints. (Repealed. See 15.10.100)
- 15.08.480 Mortar Joints. (Repealed)
- 15.08.490 Fine Aggregate. (Repealed. See 15.10.100)
- 15.08.500 Marking. (Repealed. See 15.10.100)
- 15.08.510 Joint Opening. (Repealed. See 15.10.100)
- 15.08.520 Test Reports. (Repealed)
- 15.08.530 Bends. (Repealed. See 15.10.100)
- 15.08.540 Handling. (Repealed. See 15.10.100)
- 15.08.550 Cleaning. (Repealed. See 15.10.100)
- 15.08.560 Alignment. (Repealed. See 15.10.100)
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Article V. Corrugated Metal Pipe

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- 15.08.694 Handrail and Fence. (Repealed. See 15.10.100)
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- 15.08.700 Curb Inlets. (Repealed. See 15.10.100)
- 15.08.710 Area Inlets. (Repealed. See 15.10.100)
- 15.08.720 Manholes and Junction Boxes. (Repealed. See 15.10.100)
- 15.08.730 Box Culverts. (Repealed)
- 15.08.740 Easements. (Repealed. See 15.10.100)

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- 15.08.750 Maintenance. (Repealed. See 15.10.500)
- 15.08.760 Inspections. (Repealed)
- 15.08.770 Variance Submission. (Repealed. See 15.10.800)
- 15.08.780 Engineer's Approval. (Repealed. See 15.10.150)

Article X. Insurance and Surety

- 15.08.790 Insurance. (Repealed. See 15.10.600)
- 15.08.795 Surety Submission – Amount - Period. (Repealed. See 15.10.700)

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ARTICLE I. GENERAL REGULATIONS

15.08.010 General.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §3, 2000; SDR-1275 §1, 84)

15.08.015 Approval of Construction.

Repealed. See 15.10.150.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §2, 2000; SDR-1340 §1, 85; SDR-349 §1, 65)

15.08.020 Purpose.

Repealed.

(History: Ord. SDR-2192 §44, 2000; SDR-349 §2, 65)

15.08.025 Generally.

Repealed.

(History: Ord. SDR-2192 §44, 2000; SDR-1275 §1, 84)

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ARTICLE II. DESIGN REQUIREMENTS

15.08.030 Design Formula for Rate of Runoff.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-1275 §2, 84; SDR-703 §3-1 (part), 72; SDR-349,B §3-1, 71; SDR-349 §3-1, 65)

15.08.040 Rainfall and Intensity.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §4, 2000; SDR-703 §3-2 (part), 72; SDR-349,B §3-2, 71; SDR-349, §3-2 65)

15.08.050 Runoff Coefficients.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §5, 2000; SDR-1275 §3, 84; SDR-703 §3-3, 72; SDR-349,B §3-3, 71; SDR-349 §3-3, 65)

15.08.060 Drainage Area.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-703 §3-4, 72; SDR-349,B §3-4, 71; SDR-349 §3-4, 65)

15.08.070 Design Formula Information.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §6, 2000; SDR-1275 §4, 84; SDR-703 §3-5, 72; SDR-349,B §3-5, 71; SDR-349 §3-5, 65)

15.08.080 Design Calculations and Storm Sewer Plans.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §7, 2000; SDR-1275 §5, 84; SDR-703 §3-6, 72; SDR-349,B §3-6, 71; SDR-349 §3-6, 65)

15.08.090 Velocities and Discharge Design.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §8, 2000; SDR-1275 §6, 84; SDR-703 §3-7, 72; SDR-349,B §3-7, 71; SDR-349 §3-7, 65)

15.08.100 Methods of Conveying Storm Water.

Repealed. See 15.10.200.

(History: Ord. SWM-2505 §2, 2004; SDR-2390 §1, 2002; SDR-2192 §9, 2000; SDR-1820 §1, 93; SDR-1612 § 1, 89; SDR-1558 §1, 88; SDR-1340 §2, 85; SDR-1275 §7, 84; SDR-703 §3-8, 72; SDR-349,B §3-8, 71; SDR-349 §3-8, 65)

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15.08.110 Design of Rigid Conduits.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-703 §3-9, 72; SDR-349,B §3-9, 71; SDR-349 §3-9, 65)

15.08.120 Underground Culverts or Conduits - Length - Handrails.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §10, 2000; SDR-1340 §3, 85; SDR-703 §3-10, 72; SDR-349,B §3-10, 71; SDR-349,A §3-10, 68)

15.08.130 Figure 1 - Rainfall Intensity Duration Frequency Curves.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §11, 2000; SDR-703 §3-10 (part), 72; SDR-349,B §1 (part), 71; SDR-349 §3 (part), 65)

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ARTICLE III. EXCAVATION AND TRENCHING

15.08.140 Scope.

Repealed. See 15.10.100.
(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-1, 65)

15.08.150 General Requirements.

Repealed. See 15.10.100.
(History: Ord. SWM-2505 §2, 2004; SDR-2379 §1, 2002; SDR-349 §4-2, 65)

15.08.160 Blasting.

Repealed. See 15.10.100.
(History: Ord. SWM-2505 §2, 2004; SDR-1275 §8, 84; SDR-349 §4-3, 65)

15.08.170 Unauthorized Excavation.

Repealed. See 15.10.100.
(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-4, 65)

15.08.180 Removal of Water.

Repealed. See 15.10.100.
(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-5,65)

15.08.190 Sheeting and Shoring.

Repealed. See 15.10.100.
(History: Ord. SWM-2505 §2, 2004; SDR-1820 §2, 93; SDR-349 §4-6, 65)

15.08.200 Stabilization.

Repealed. See 15.10.100.
(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-7, 65)

15.08.210 Crushed Rock or Gravel Fills.

Repealed. See 15.10.100.
(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-8, 65)

15.08.220 Trench Excavation.

Repealed. See 15.10.100.
(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-9, 65)

15.08.230 Alignment, Grade and Minimum Cover.

Repealed. See 15.10.100.
(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-9-1, 65)

15.08.240 Limiting Trench Widths and Pipe Clearances.

Repealed. See 15.10.100.
(History: Ord. SWM-2505 §2, 2004; SDR-2192 §12, 2000; SDR-349 §4-9-2, 65)

15.08.250 Unauthorized Trench Widths.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-9-3, 65)

15.08.260 Mechanical Excavation.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-9-4, 65)

15.08.270 Excavation Below Pipe Subgrade.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §13, 2000; SDR-1275 §9, 84; SDR-349 §4-9-5, 65)

15.08.280 Artificial Foundations in Trenches.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-9-6, 65)

15.08.290 Bell Holes.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-9-7, 65)

15.08.300 Pipe Embedment.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §14, 2000; SDR-349 §4-10, 65)

15.08.310 Embedment Classes.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR- 2379 §2, 2002; SDR-349 §4-10-1, 65)

15.08.320 Placement and Compaction.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §15, 2000; SDR-349 §4-10-2, 65)

15.08.330 Trench Backfill.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-11, 65)

15.08.340 Tamped Backfill.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR- 2379 §3, 2002; SDR-2192 §16, 2000; SDR-1275 §10, 84; SDR-349 §4-11-1, 65)

15.08.350 Uncompacted Backfill.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §17, 2000; SDR-349 §4-11-2, 65)

15.08.360 Structure Backfill.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §18, 2000; SDR-1275 §11, 84; SDR-349 §4-12, 65)

15.08.370 Drainage Maintenance.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-13, 65)

15.08.380 Protection of Trench - Backfill in Drainage - Courses.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §19, 2000; SDR-349 §4-14, 65)

15.08.390 Disposal of Excess Excavated Materials.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §4-15, 65)

15.08.400 Maximum Trench Widths.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §20, 2000; SDR-349 §4-16, 65)

15.08.410 Minimum Trench Widths.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-1820 §3, 93; SDR-349 §4-17, 65)

15.08.420 Figure 2 - Embedment for Conduits.

Repealed.

(History: Ord. SDR-2192 §44, 2000; SDR-349 §4 (part), 65)

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ARTICLE IV. CONCRETE CULVERT PIPE

15.08.430 Specifications Generally.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §21, 2000; SDR-1275 §12, 84; SDR-349 §5-1, 65)

15.08.440 Reinforcement.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §5-2, 65)

15.08.450 Joints.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §22, 2000; SDR-1275 §13, 84; SDR-349 §5-3, 65)

15.08.460 Rubber Gasket Joints.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §23, 2000; SDR-349 §5-3.1, 65)

15.08.470 Mastic Joints.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §24, 2000; SDR-1275 §14, 84; SDR-349 §3.2, 65)

15.08.480 Mortar Joints.

Repealed.

(History: Ord. SDR-1275 §15, 84; SDR-349 §5-3.3, 65)

15.08.490 Fine Aggregate.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §5-4, 65)

15.08.500 Marking.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-1275 §16, 84; SDR-349 §5-5, 65)

15.08.510 Joint Opening.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §25, 2000; SDR-1275 §17, 84; SDR-349 §5-6, 65)

15.08.520 Test Reports.

Repealed.

(History: Ord. SDR-2192 §44, 2000; SDR-349 §5-7, 65)

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15.08.530 Bends.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §5-8, 65)

15.08.540 Handling.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §26, 2000; SDR-349 §5-9, 65)

15.08.550 Cleaning.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §5-10, 65)

15.08.560 Alignment.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §27, 2000; SDR-1275 §18, 84; SDR-349 §5-11, 65)

15.08.570 Laying Pipe.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-1275 §19, 84; SDR-349 §5-12, 65)

15.08.580 Rubber Gasketed Joints.

Repealed.

(History: Ord. SDR-2192 §44, 2000; SDR-349 §5-13, 65)

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ARTICLE V. CORRUGATED METAL PIPE

15.08.590 Materials.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-1413 §1, 86; SDR-1275 §20, 84; SDR-349 §6-1, 65)

15.08.600 Handling and Installation.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §6-2, 65)

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ARTICLE VI. CONCRETE LINED DITCH

15.08.610 Design Requirements.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §28, 2000; SDR-1275 §21, 84; SDR-349 §7-1, 65)

15.08.620 Concrete.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §29, 2000; SDR-2096 §1, 98; SDR-1275 §22, 84; SDR-1168 §1, 82; SDR-349 §7-2, 65)

15.08.630 Testing.

Repealed.

(History: Ord. SDR-2192 §44, 2000; SDR-1275 §23, 84; SDR-349 §7-2.1, 65)

15.08.640 Ditch Shape.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-349 §7-3, 65)

15.08.650 Reinforcing.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §30, 2000; SDR-349 §7-4, 65)

15.08.660 Expansion and Contraction Joints.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §31, 2000; SDR-1275 § 24, 84; SDR-349 §7-5.1, 65)

15.08.670 Weep Holes.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §32, 2000; SDR-1275 §25, 84; SDR-349 §7-5.2, 65)

15.08.680 Cut-off Walls.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-1275 §26, 84; SDR-349 §7-5.3, 65)

15.08.690 Easements.

Repealed.

(History: Ord. SDR-2192 §44, 2000; SDR-349 §7-5.4, 65)

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ARTICLE VII. CONCRETE BOX CULVERTS

15.08.692 Structural Design.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §1, 2000)

15.08.694 Handrail and Fence.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §1, 2000)

15.08.696 Bridge Box.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §1, 2000)

15.08.698 Pre-cast Box Joint Openings.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §1, 2000)

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ARTICLE VIII. MISCELLANEOUS REGULATIONS

15.08.700 Curb Inlets.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2379 §4, 2002; SDR-2192 §34, 2000; SDR-1820 §4, 93; SDR-1736 §1, 92; SDR-1275 §27, 84; SDR-1168 §2, 82; SDR-349 §8-1.1, 65)

15.08.710 Area Inlets.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §35, 2000; SDR-1275 §28, 84; SDR-1168 §3, 82; SDR-349 §8-1.2, 65)

15.08.720 Manholes and Junction Boxes.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §36, 2000; SDR-1736 §2, 92; SDR-1275 § 29, 84; SDR-1168 §4, 82; SDR-349 §8-2, 65)

15.08.730 Box Culverts.

Repealed.

(History: Ord. SDR-2192 §44, 2000; SDR-1275 §30, 84; SDR-1168 §5, 82; SDR-349 §8-3, 65)

15.08.740 Easements.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §33, 2000; SDR-349 §7-5.4, 65)

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ARTICLE IX. MAINTENANCE AND INSPECTION

15.08.750 Maintenance.

Repealed. See 15.10.500.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §38, 2000; SDR-1275 §32, 84; SDR-349 §8-5, 65)

15.08.760 Inspections.

Repealed.

(History: Ord. SDR-2192 §40 & §44, 2000; SDR-1275 §34, 84; SDR-349 §8-7, 65)

15.08.770 Variance Submission.

Repealed. See 15.10.800.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §41, 2000; SDR-349 §8-8, 65)

15.08.780 Engineer's Approval.

Repealed. See 15.10.150.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §42, 2000; SDR-1275 §35, 84; SDR-349 §9, 65)

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ARTICLE X. INSURANCE AND SURETY

15.08.790 Insurance.

Repealed. See 15.10.600.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §37, 2000; SDR-1275 §31, 84; REP-1061 §1, 80; SDR-349 §8-4, 65)

15.08.795 Surety Submission – Amount - Period.

Repealed. See 15.10.700.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §39, 2000; SDR-1820 §5, 93; SDR-1397 §1, 86; SDR-1275 §33, 84; SDR-349 §8-6, 65)

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ARTICLE XI. PENALTY - ENJOINMENT

15.08.800 Violation - Penalty.

Repealed. See 15.10.900.

(History: Ord. SWM-2505 §2, 2004; SDR-2192 §43, 2000; SDR-1275 §36, 84; SDR-349 §10, 65)

15.08.810 Enjoinment.

Repealed. See 15.10.950.

(History: Ord. SWM-2505 §2, 2004; SDR-1275 §37, 84; SDR-349 §11, 65)

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Chapter 15.09
STORMWATER DETENTION
(This entire chapter has been repealed. See Chapter 15.10)

Sections:

- 15.09.010 Approval of Design and Construction. (Repealed. See 15.10.150)
- 15.09.020 Purpose. (Repealed. See 15.10.100)
- 15.09.030 Applicability. (Repealed. See 15.10.400)
- 15.09.040 Definitions. (Repealed. See 15.10.100)
- 15.09.050 Maximum Release Rate. (Repealed. See 15.10.100)
- 15.09.060 Detention Storage Volume. (Repealed. See 15.10.100)
- 15.09.070 Emergency Spillways. (Repealed. See 15.10.100)
- 15.09.080 Project Site Information. (Repealed. See 15.10.100)
- 15.09.090 Design Data by City Engineer. (Repealed. See 15.10.100)
- 15.09.100 Plans, Specifications, and Calculations. (Repealed. See 15.10.100)
- 15.09.110 Required Preliminary Studies. (Repealed. See 15.10.100)
- 15.09.120 Detention Methods. (Repealed. See 15.10.100)
- 15.09.130 Stormwater Runoff Not Detained. (Repealed. See 15.10.100)
- 15.09.140 Construction. (Repealed. See 15.10.100)
- 15.09.150 Slopes. (Repealed. See 15.10.100)
- 15.09.160 Appearance. (Repealed. See 15.10.100)
- 15.09.170 Access. (Repealed. See 15.10.100)
- 15.09.180 Outflow Control Structures. (Repealed. See 15.10.100)
- 15.09.190 Low Flow Bypass. (Repealed. See 15.10.100)
- 15.09.200 Underground Storage. (Repealed. See 15.10.100)
- 15.09.210 Easements and Maintenance. (Repealed. See 15.10.500)
- 15.09.220 Surety Submission. (Repealed. See 15.10.700)
- 15.09.230 Inspections. (Repealed. See 15.10.100)
- 15.09.240 Variances. (Repealed. See 15.10.800)
- 15.09.250 Engineer's Approval. (Repealed. See 15.10.150)
- 15.09.255 Downstream Improvement Alternative. (Repealed. See 15.10.450)
- 15.09.260 Violation - Penalty. (Repealed. See 15.10.900)
- 15.09.270 Enjoinment. (Repealed. See 15.10.950)

15.09.010 Approval of Design and Construction.

Repealed. See 15.10.150.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §1, 83)

15.09.020 Purpose.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §2, 83)

Chapter 15.09

15.09.030 Applicability.

Repealed. See 15.10.400.

(History: Ord. SWM-2505 §2, 2004; SD-1365 §1, 86; SD-1276 §1, 84; SD-1234 §3, 83)

15.09.040 Definitions.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §5, 83)

15.09.050 Maximum Release Rate.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §5, 83)

15.09.060 Detention Storage Volume.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §6, 83)

15.09.070 Emergency Spillways.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §7, 83)

15.09.080 Project Site Information.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1276 §2, 84; SD-1234 §8, 83)

15.09.090 Design Data by City Engineer.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1276 §3, 84; SD-1234 §9, 83)

15.09.100 Plans, Specifications, and Calculations.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §10, 83)

15.09.110 Required Preliminary Studies.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §11, 83)

15.09.120 Detention Methods.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §12, 83)

15.09.130 Stormwater Runoff Not Detained.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §13, 83)

15.09.140 Construction.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §14, 83)

15.09.150 Slopes.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §15, 83)

15.09.160 Appearance.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §16, 83)

15.09.170 Access.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §17, 83)

15.09.180 Outflow Control Structures.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §18, 83)

15.09.190 Low Flow Bypass.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §19, 83)

15.09.200 Underground Storage.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §20, 83)

15.09.210 Easements and Maintenance.

Repealed. See 15.10.500.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §21, 83)

15.09.220 Surety Submission.

Repealed. See 15.10.700.

(History: Ord. SWM-2505 §2, 2004; SD-1394 §1, 86; SD-1234 §22, 83)

15.09.230 Inspections.

Repealed. See 15.10.100.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §23, 83)

Chapter 15.09

15.09.240 Variances.

Repealed. See 15.10.800.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §24, 83)

15.09.250 Engineer's Approval.

Repealed. See 15.10.150.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §25, 83)

15.09.255 Downstream Improvement Alternative.

Repealed. See 15.10.450.

(History: Ord. SWM-2505 §2, 2004; SD-1821 §1, 93; SD-1365 §2, 86)

15.09.260 Violation - Penalty.

Repealed. See 15.10.900.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §26, 83)

15.09.270 Enjoinment.

Repealed. See 15.10.950.

(History: Ord. SWM-2505 §2, 2004; SD-1234 §27, 83)

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Chapter 15.10
STORMWATER MANAGEMENT PROGRAM - STANDARDS AND PERMITTING

Sections:

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15.10.100 Stormwater Management Standards.

A. Standards

All methods of stormwater management constructed or modified in the City, shall be in accordance with the requirements in this Chapter and the current requirements for stormwater conveyance facilities set forth in the Standards as defined and incorporated by reference in Chapter 13.10, on file in the office of the City Clerk. Stormwater management includes, but is not limited to, storm sewers, natural or engineered channels, stormwater detention facilities, and dams.

B. Adoption of and Amendment to Standards

The requirements for stormwater conveyance facilities contained within the Standards shall be adopted and amended by the City Engineer in accordance with Section 13.10.020.

(History: Ord. SWM-2853 §1, 2010; SWM-2668 §1, 2008; SWM-2505 §1, 2004; SDR-2379 §§1 through 4, 2002; SDR-2192 §§ 1, 3 through 8, §§10 through 14, §§16 through 20, §§22 through 36 & §44, 2000; SDR-2096 §1, 98; SDR-1820 §§2 through 4, 93; SDR-1736 §1 and §2, 92; SDR-1413 §1, 86; SDR-1340 §3, 85; SD-1276 §2 and §3,84; SDR-1275 §§1 through 6, §§8 through 14, §§17 through 22 & §§24 through 29, 84; SD-1234 §2, §§4 through 20 & §23, 83; SDR-1168 §§1 through 4, 82; SDR-703 §3-1 (part), §3-2 (part), §§3-3 through 3-7 & §§3-9 through 3-10, 72; SDR-349,B §1 (part), §§3-1 through 3-7 & §§3-9 through 3-10, 71; SDR-349,A §3-10, 68; SDR-349 §3 (part), §4 part, §§3-1 through 3-7, §3-9, §§4-1 through 4-9-7, §§4-10 through 4-10-2, §§4-11 through 4-11-2, §§4-12 through 4-17, §§5-1 through 5-3.2, §5-4, §5-6, §5-8 through 5-12, §§6-1 through 6-2, §§7-1 through 7-5.4, §§8-1.1 through 8-1.2 & §8-2, 65)

15.10.150 Approval of Construction.

Any person or entity proposing to construct or modify any stormwater management improvement or modify a natural channel within the City shall apply to the City Engineer for

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approval of the location, dimensions, design and construction methods and materials of such stormwater management facility. The application shall be in writing and shall contain such information including maps, plats, diagrams, detailed drawings and specifications as the City Engineer may require. If the City Engineer finds that the proposed work will conform to the Standards, the City Engineer shall issue approval in writing. If the City Engineer finds that the proposed work will not conform to the Standards, the City Engineer may grant a written variance to the Standards, but not to any other provisions of this Chapter. Any variance granted by the City Engineer shall follow the guidelines established in Section 15.10.800. The City Engineer shall issue a written notice of disapproval when such a determination has been made. Any interested party may appeal the action of the City Engineer to the Governing Body by filing written notice with the City Clerk within ten days of the date of the action of the City Engineer. In case of a timely filed appeal for an approval by the City Engineer, approval shall be suspended until final disposition of the matter by the Governing Body. No stormwater management facility or modification to a channel shall be commenced within the City until a Public Improvement, Site Development, or Building permit authorizing the approved work is issued by the City, unless said work is exempt from obtaining all City permits and will not negatively impact storm drainage.

(History: Ord. SWM-2853 §2, 2010; SWM-2668 §2, 2008; SWM-2505 §1, 2004; SDR-2192 §§2 & 42, 2000; SDR-1340 §1, 85; SDR-1275 §35, 84; SD-1234 §§1 & 25, 83; SDR-349 §§1 & 9, 65)

15.10.200 Methods of Conveying Stormwater.

As required by Section 13.10.020, the City Engineer will adopt, maintain and make available the Standards for methods of conveyance for stormwater, except for building roof drains which are regulated by the currently adopted version of the International Building Code. Additionally, Chapter 18.365 establishes City criterion for protecting natural streams and Section 18.365.030 provides specific exceptions which allow storm sewer improvements.

Methods of conveying stormwater vary, depending on the natural watershed size. Watersheds with tributary areas less than 40 acres may utilize the natural stream OR underground storm sewers combined with overland flow. Watersheds with tributary areas greater than 40 acres shall utilize the natural stream for stormwater conveyance. When the watershed's tributary area is greater than 40 acres, underground storm sewer systems may be authorized only when one of the following is met:

- A. Chapter 18.365 criterion provides relief from dedication of a stream corridor.
- B. The project qualifies for an exception in Section 18.365.030.
- C. A deviation is granted, as provided in Section 18.365.100.

Engineered channels and/or relocating natural streams are not approved methods of conveyance for stormwater; however, the City Engineer may adopt standards for these methods of conveyance for use under the following conditions:

- A. A deviation, as specified in Section 18.365.100, is granted.
- B. A variance may be granted by the Governing Body when the Section 18.365.100 deviation process does not apply.
- C. In an RE District, if the watershed is less than 40 acres and the channel is outside of street right-of-way, an engineered channel is allowed. In addition to the setback requirements established in Chapter 18.365, no building shall take place within 60 feet of the centerline of any channel in the RE District.
- D. A "bioswale" or similar facility is designed as an integral part of a stormwater treatment facility. Limitations for usage, locations and building setbacks for such facilities are provided in the Stormwater Treatment Standards as set forth under Chapter 16.210 of this Code.

(History: Ord. SWM-2853 §3, 2010; SWM-2668 §3, 2008; SWM-2505 §1, 2004; SDR-2390 §1, 2002; SDR-2192 §9, 2000; SDR-1820 §1, 93; SDR-1612 §1, 89; SDR-1558 §1, 88; SDR-1340 §2, 85; SDR-1275 §7, 84; SDR-703 §3-8, 72; SDR-349,B §3-8, 71; SDR-349 §3-8, 65)

15.10.300 Lakes and Ponds.

In addition to the Standards, private lakes and ponds in subdivisions shall conform to the following minimum standards, which have been established to limit routine maintenance expenses experienced by the private lake and pond owners.

- A. The minimum surface area is two acres per lake or pond, with the minimum maintained depth of four feet, or ten feet if intended to support fish, except that decorative water features not serially connected to the storm drainage system of the development are exempt from the minimum area requirement. Minimum depth requirements are not applicable to all or portions of such facilities designed as a stormwater treatment facility. Design requirements for stormwater treatment facilities are set forth under Chapter 16.210;
- B. Design priority must be given for ease of removing accumulations of silt, including access for equipment and trucks, drainage of the lake or pond and upstream tilling or silt basins if feasible;
- C. Provisions must be provided for aeration facilities;

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- D. Plans for lakes and ponds must be approved by the City Engineer and include emergency spillway design in accordance with state law and the Standards, and provisions for suitable soil testing for dam and lake or pond construction;
- E. Necessary state approvals and permits are to be obtained by the developer; and
- F. An agreement running with the land must be executed by the applicant and approved by the Law Department declaring that the City has no past, present or future obligation to expend any public funds or to take any other action to maintain or improve the lake, lakes, pond, or ponds, including any inlet or outlet structures, or any portion of the drainage facilities approved by private facilities. This agreement must require that funds be collected from property owners sufficient to pay for the maintenance of lake, pond and storm sewer facilities.

(History: Ord. SWM-2853 §4, 2010; SWM-2668 §4, 2008; SWM-2505 §1, 2004)

15.10.400 Stormwater Detention.

Stormwater detention facilities shall be constructed with all proposed developments that result in an increase in peak discharge from the site whenever downstream homes or habitable buildings are flooded in a 1% or more frequent storm, or when such homes and buildings would be flooded as a result of future development, either individually or cumulatively in the watershed, or whenever streets are subjected to flooding in excess of the Standards, except that detention is not required under any of the following circumstances:

- A. When such flooding occurs within the Special Flood Hazard Area, as defined in Chapter 18.360 and the watershed is greater than 5000 acres.
- B. If the project does not increase impervious area.
- C. When such development is a lot of one-half acre or less and not part of a larger development; or the cumulative additional impervious area in a significant watershed of the site is less than 8000 square feet and there is not an annually certified existing stormwater detention facility on the site in the same watershed. Cumulative impervious area shall be measured from September 1984, the effective date of the first detention ordinance.
- D. Problems are identified in a watershed that had not previously required a detention study, and if the remaining increase in flooding caused by the cumulative remaining development in the watershed is less than 0.05 feet for building flooding or 0.2 feet for roadway flooding, or if the increase in peak flow rate from the cumulative remaining development in a basin is less than 0.5%.
- E. If the City Engineer determines that detention would be ineffective to prevent flooding or would aggravate existing flooding conditions.

- F. When the City Engineer determines that reasonably anticipated future problems can be solved by alternate storm drainage improvements constructed through the use of escrowed funds in accordance with this Section or other funding methods, or when alternative storm drainage improvements are constructed by the developer or when such downstream problems are due to a unique characteristic of a downstream building or buildings that could be corrected at reasonable cost and effort by their owner or owners.
- G. Either a current or previous owner of a development site tributary to the Kingston Lake Regional Detention Facility has contributed funds to 151st Street Associates for the construction of that facility, and there is no flooding of homes and habitable structures or flooding of streets in excess of the Standards between the development site and Kingston Lake.
- H. "Flooding" of homes and habitable buildings, for the purposes of stormwater detention, shall be defined as when the structure's lowest adjacent grade is less than one foot above the energy grade line of the 1% storm for fully developed conditions upstream AND the property owner is unable to fill adjacent to the structure to meet this criteria.
(History: Ord. SWM-2853 §5, 2010; SWM-2668 §5, 2008; SWM-2505 §1, 2004; SD-1365 §1, 86; SD-1276 §1, 84; SD-1234 §3, 83)

15.10.450 Downstream Improvement Alternative to Storm Water Detention.

In cases where a downstream flooding problem may reasonably be anticipated due to future development in a watershed, the City Engineer may, at his discretion and with the developer's consent, approve a plan of downstream flood relief in lieu of on-site detention. In such instances, an escrow deposit in the form of cash or an irrevocable letter of credit in accord with City policy and in an amount sufficient to pay an area-based proportional share of the cost of constructing a downstream flood relief project shall be required. The amount of the escrow deposit shall be calculated by the City Engineer for each drainage basin based on sufficient funds being collected to correct the problem when undetained development in the basin is one-half of the watershed area.

The developer may deposit either cash or an irrevocable letter of credit on an acceptable financial institution payable to the City, collectible no later than one year from the date of recording of the plat. The cash or irrevocable letter of credit shall be deposited with the City's Director of Finance, Budget and Administration. The funds collected shall be placed in an escrow account and set aside for the construction of the downstream flood relief project. The improvements will be made within 20 years from the time cash is placed into escrow or within 19 years from the cashing of the irrevocable letter of credit. In the event that the improvements are not made within the respective times stated above, the funds from the escrow account together with the actual accrued interest shall be returned to the developer or his successors in interest. In the event the actual construction costs are less than that estimated by the City Engineer, a proportionate share of the surplus funds shall be returned to the developer or his successors in interest.

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(History: Ord. SWM-2505 §1, 2004; SD-1821 §1, 93; SD-1365 §2, 86)

15.10.500 Maintenance.

All public storm sewer systems constructed in conformance with the Standards and located within public drainage easements shall be maintained by the City upon final inspection and acceptance of the project. For a period of two years after the final inspection, the contractor shall be responsible for repair of all work he was authorized to perform by the Public Improvement Permit, as defined in Section 13.10.010, or other permit type requiring a maintenance bond. The contractor shall further be responsible, for two years from the final inspection, for the repair of streets, roadways, curbs, sidewalks or other surface facilities due to backfill settlement above the underground conduits.

Privately constructed stormwater treatment facilities as required under Chapter 16.210 shall be privately maintained even when they receive drainage from public storm drainage facilities. Generally, public maintenance shall include the public storm sewer pipe system, end section and any required energy dissipation from the pipe system. For stormwater treatment facilities that discharge to a public storm drainage facility, public maintenance shall begin at the public storm sewer inlet. Maintenance of such private stormwater treatment facilities is intended to include cleanup and removal of silt, trash, debris, spills and other pollutants conveyed into the private facility by the public facility.

Compliance with Chapter 7.26, providing for property maintenance, shall be required as applicable.

- A. **Swales** -- Engineered swales, as defined by the Standards, constructed in residential subdivisions are the responsibility of the property owner to preserve and maintain. It is the responsibility of the property owner to install and maintain the grades to convey stormwater in accordance with the approved grading and building site plans. Prior to issuance of a temporary certificate of occupancy, the grades shall be inspected by the City. If any form of certificate of occupancy is issued prior to the City's approval of the grading, the permit applicant shall complete the grading within 60 days.
- B. **Stormwater Detention Facilities** -- Stormwater detention facilities are most often private stormwater management facilities constructed to the Standards. Maintenance of detention facilities shall be the responsibility of the property owner and shall include: (1) debris removal and cleaning; (2) cutting of vegetation; (3) repair of erosion; (4) removal of silt; and (5) maintenance of structural facilities not located in a public drainage easement.

Upon completion of construction and after final stabilization, the owner of each detention basin shall furnish certification by a licensed professional engineer to the City Engineer that the detention basin has full storage capacity, all inlet and outlet structures are fully functional, all

inlet and outlet structures are fully functional, and the basin is vegetated in conformance with the approved detention plans. Subsequently, maintenance certifications by a licensed professional engineer shall be submitted on or before May 1 the first full year following initial certification and every two years thereafter.

(History: Ord. SWM-2853 §5, 2010; SWM-2668 §6, 2008; SWM-2505 §1, 2004; SDR-2192 §38, 2000; SDR-1275 §32, 84; SD-1234 §21, 83; SDR-349 §8-5, 65)

15.10.550 Private Improvements in Easements Containing Public Drainage Facilities.

Subject to the provisions of Section 18.140.270(A) (10) and (11), the City Engineer may allow private improvements to be constructed in easements containing public drainage facilities. The Governing Body has, by resolution, adopted administrative policies for installation of private improvements in easements containing public drainage facilities. Any private improvements constructed in easements containing public drainage facilities shall be removed at the direction of the City if the encroachment impairs the strength or interferes with the use and/or maintenance of the public drainage facilities. The removal shall be at the sole cost and expense of the property owner and the City will bear no cost associated therewith.

(History: Ord. SWM-2851 §1, 2010)

15.10.600 Insurance.

All contractors shall secure and maintain insurance coverage in accordance with provisions of Chapter 13.01.

(History: Ord. SWM-2505 §1, 2004; SDR-2192 §37, 2000; SDR-1275 §31, 84; REP-1061 §1, 80; SDR-349 §8-4, 65)

15.10.700 Surety Submission; Amount and Period.

All contractors shall submit a surety in the amount and for the period set out in accordance with the provisions of Chapter 13.01 except private storm water detention facilities are not required to post a maintenance bond. The City Engineer may also waive the requirement for a storm water detention facility surety when: 1) the work is authorized by a building permit to construct a building of greater value than the required storm water detention surety or 2) all building permits within a residential subdivision are withheld until the detention facility is completed.

(History: Ord. SWM-2505 §1, 2004; SDR-2192 §39, 2000; SDR-1820 §5, 93; SDR-1397 §1, 86; SD-1394 §1, 86; SDR-1275 §33, 84; SD-1234 §22, 83; SDR-349 §8-6, 65)

15.10.800 Variances.

- A. Any variance of the provisions in this Chapter shall be submitted to and approved by the Governing Body.
- B. The City Engineer may grant a variance to the Standards which have been adopted by the City Engineer provided all of the following conditions are met:
 - 1. The variance complies with the general spirit and intent of the Standards.

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2. The granting of the variance will not adversely affect the rights of adjacent landowners.
3. The granting of the variance will not result in substantial public expense, create nuisances, cause fraud on or cause harm to the public or conflict with existing local, federal or state laws, rules or regulations.
4. The variance will not adversely affect the public health, safety, morals, order, convenience, prosperity or general welfare.

C. Appeals of decisions made by the City Engineer related to the Standards shall be made to the Governing Body.

(History: Ord. SWM-2853 §6, 2010; SWM-2668 §7, 2008; SWM-2505 §1, 2004; SDR-2192 §41, 2000; SD-1234 §24, 83; SDR-349 §8-8, 65)

15.10.900 Violation – Penalty.

Any person or entity violating any provision of this chapter is guilty of a public offense and upon conviction thereof shall be fined in a sum of not less than two hundred dollars (\$200.00) nor more than five hundred dollars (\$500.00). Every day this Chapter is violated shall constitute a separate offense.

(History: Ord. SWM-2505 §1, 2004; SDR-2192 §43, 2000; SDR-1275 §36, 84; SD-1234 §26, 83; SDR-349 §10, 65)

15.10.950 Enjoinment.

Notwithstanding the foregoing penalty section the City may institute civil actions to enjoin violations of this ordinance.

(History: Ord. SWM-2505 §1, 2004; SDR-1275 §37, 84; SD-1234 §27, 83; SDR-349 §11, 65)

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