

CHAPTER 54: STORM WATER DRAINAGE

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GENERAL PROVISIONS

' 54.001 TITLE.

This chapter shall be known and may be referred to as the "Storm Water Drainage Ordinance, City of Anderson, Indiana" and shall hereafter be referred to as "this chapter."
(Ord. 6-05, passed 3-10-05)

' 54.002 PURPOSE.

(A) This chapter establishes standards for the planning and design of drainage systems and storm water control facilities within the jurisdictional area of the city. The purpose of this chapter is to control storm water drainage facilities, grading, excavation,

clearing, and other alterations of land in order to limit the dangers of personal injury or property damage that may be caused by storm water runoff.

(B) This chapter also establishes standards to reduce non-point source pollutant loads to Waters of the State located within the jurisdiction of the city to the maximum extent practicable in order to protect public health and safety and enhance water quality.

(C) It is recognized that smaller streams and drainage channels serving the city may not have sufficient capacity to receive and convey storm water runoff, as land changes from agricultural or open use to a more urbanized use. It is further recognized that deposits of sediment from developments during and after construction activities can reduce capacities of storm water drainage systems and result in damages to receiving waters. With this chapter, the city has a policy that storage and controlled release of storm water runoff will be required of all new development, redevelopment and other construction in the city's jurisdiction.
(Ord. 6-05, passed 3-10-05)

' 54.003 REGULATORY AUTHORITY.

This chapter regulates:

(A) Storm water drainage improvements related to development or redevelopment of lands located within the jurisdiction of the city.

(B) Erosion and sediment control systems installed during new construction or redevelopment and grading of lots and other parcels of land.

(C) The design, construction, and maintenance of storm water drainage facilities and systems.

(D) Prohibited discharges to the city municipal storm sewer system or Waters of the State.

(E) Illicit connection discharge detection and elimination requirements and procedures.
(Ord. 6-05, passed 3-10-05)

54.004 APPLICATION AND EXEMPTIONS.

(A) No individual, partnership, or corporation shall undertake or accomplish any land alteration of more than one foot in grade change without having in force a written Drainage Permit obtained from the City Engineer. The Drainage Permit must be obtained before any work is initiated, with the exception of activities outlined in this chapter.

(B) In order to obtain a Drainage Permit, the applicant must be an individual, partnership, corporation, or other entity that will be responsible for accomplishing the land alteration for which the permit was issued. Application for Drainage Permits shall be made to the City Department of Engineering. The application shall be in writing in a form prescribed by the City Engineer.

(C) No individual, partnership, or corporation shall undertake or accomplish any connection to the municipal storm sewer system within the city's jurisdiction without having in force a written Storm Sewer Connection Permit obtained from and approved by the City Engineer. Application for a Storm Sewer Connection Permit shall be made on a form provided for that purpose. An applicant for a Storm Sewer Connection Permit shall also be subject to the City Storm Water Availability fee. A Storm Sewer Connection Permit shall not be issued until all applicable fees are paid in full. After the work has been done, the individual securing the permit shall file in the City Engineer's Office an accurate statement of the work completed under the permit.

(D) The following activities are exempt from this chapter:

- (1) Excavation of cemetery graves;

(2) Excavation for wells, excavation and backfill for poles, conduits, and wires of utility companies;

(3) Exploratory excavation or soil testing under the direction and control of professional engineers, soil engineers, geologists, civil engineers, architects, or land surveyors, which are properly backfilled;

(4) Ordinary cultivation of agricultural land, including tilling, terracing, construction of minor open ditches, and crop irrigation;

(5) The planting and tilling of gardens, flower beds, shrubs, trees, and other common uses and minor landscaping of land appurtenant to residences;

(6) Fill and grading of a basement after demolition of a structure, to conform with adjacent terrain;

(7) Fill of small holes caused by erosion, settling of earth, or the removal of such materials as dead trees, posts, or concrete;

(8) Maintenance of drainage facilities;

(9) Installation of septic systems, when a proper permit has been obtained;

(10) Construction of a driveway, when a proper permit has been obtained;

(11) Installation of building sewers and laterals, when a proper permit has been obtained; and

(12) Construction of a deck or room addition, when a proper permit has been obtained.
(Ord. 6-05, passed 3-10-05)

54.005 DEFINITIONS.

For purposes of this code, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

AGRICULTURAL LAND USE. Use of land for the production of animal or plant life including forestry, pasturing or yarding livestock and planting, growing, cultivating, and harvesting crops for human or livestock consumption.

APPLICANT. An individual, partnership, corporation or other entity that applies for a permit to accomplish land alteration within the corporate limits of the city.

BEST MANAGEMENT PRACTICE (BMP). Design, construction, and maintenance practices and criteria for storm water control or drainage facilities that minimize the impact of storm water runoff rates and volumes, prevent erosion, and capture pollutants.

CITY. The City of Anderson.

CITY ENGINEER. The Anderson City Engineer or his/her authorized representative; or the Storm Water Department Superintendent, if the Superintendent is a registered professional engineer licensed in the State of Indiana or his/her authorized representative.

CHANNEL. A natural or artificial watercourse which periodically or continuously contains moving water, or which forms a connecting link between two bodies of water with a defined bed and banks.

CONTIGUOUS. Adjoining and/or in actual contact with.

CONTROLLED DISCHARGE. Storm water flow with a designed controlled release rate from a detention area.

COMBINED SEWER. A sewer intended to receive domestic sewage, treated or weak industrial wastes, and surface and storm water.

CULVERT. A circular, elliptical, arched or other enclosed geometric conduit used for the passage of surface drainage water under a roadway, railroad, walkway, driveway, etc.

DETENTION. The storage and controlled release of storm water following a precipitation event by means of an excavated pond, enclosed depression, tank or pipe.

DETENTION BASIN. A facility constructed or modified to restrict the runoff of storm water to a prescribed rate, and/or to detain excess waters that accumulate upstream from the outlet.

DEVELOPMENT. Means any of the following activities:

- (1) Structural development, including construction of a new building or other structure;
- (2) Expansion or alteration of an existing structure that results in an increase in the footprint of the building or structure;
- (3) Land alteration activities;
- (4) Creation or expansion of impervious surface;
- (5) Demolition activities.

DEVELOPER. An individual, partnership, corporation or entity that develops real estate, especially by preparing a site for residential or non-single family land use.

DIRECT DISCHARGE. Unimpeded storm water flow.

DRAINAGE FACILITIES. All ditches, channels, conduits, retention-detention systems, tiles, swales, storm sewers, flood control structures and other natural or manmade means of draining or conveying storm water.

DRAINAGE PERMIT. A permit required by the city to assure compliance with this chapter and related ordinances, rules and regulations.

DRAINAGE REQUIREMENTS. Minimum drainage standards established by the provisions of

this chapter; regulations promulgated by the City Engineer; obligations and requirements relating to drainage established under this chapter; requirements stated under this chapter including floodway zoning requirements; obligations and requirements relating to drainage established under the Drainage Board of Madison County, Indiana; conditions relating to drainage attached to a grant of variance by the City Engineer.

DRY BOTTOM DETENTION BASIN. A basin designed to be completely dewatered after having provided its planned detention of runoff during a storm event.

EASEMENT. A grant by a property owner for the use of a strip of land by the public, a corporation, or other entity for a specific purpose or purposes.

EQUIVALENT RESIDENTIAL UNIT (ERU). One ERU is equal to the average amount of impervious area found on a typical single-family residential parcel, which is 2,500 square feet. Therefore, one ERU equals 2,500 square feet of impervious area.

EROSION. The detachment and movement of soil, silt, sediment or rock fragments by water, wind, ice or gravity.

EROSION AND SEDIMENT CONTROL PLAN. A written description and drawings of pertinent information concerning erosion and sediment control measure designed to meet the requirements of this chapter.

FARM OR FIELD TILE. A subsurface pipe installed in an agricultural or previously agricultural area to allow drainage of farmland.

FLOOD. An overflow of water onto lands not normally covered by water.

FLOOD ELEVATION. The maximum level of high water for a flood of a given return period and rainfall duration.

FLOOD HAZARD AREA. Any floodplain, floodway, floodway fringe, or any combination which is subject to inundation by the regulatory flood; or any floodplain as delineated by Zone A on the current Flood Hazard Boundary Map (FHBM), Flood Insurance Rating Map (FIRM) or Conversion Letters produced by the Federal Emergency Management Agency.

FLOODPLAIN. A normally dry land adjoining the river or stream that has been or may be covered by floodwater (It consists of both the floodway and floodway fringe).

FLOODWAY. That portion of the floodplain that acts as a flow channel conveying flood waters.

FLOODWAY FRINGE. That portion of the floodplain lying outside the floodway that is inundated by the regulatory flood.

FOOTING DRAIN. A drainpipe installed along and adjacent to basement walls, foundations or crawl spaces to prevent water from entering a basement or crawl space.

FUEL DISPENSING FACILITY. Any area where vehicles, equipment, or tanks are refueled on the premises; whether a large-sized gas station, a single-pump maintenance yard, or a small-sized fuel tank. A fuel dispensing facility is defined as the area where fuel is transferred from bulk storage tanks to vehicles, equipment, and/or mobile containers including fuel islands, above- or below-ground fuel tanks, fuel pumps, and the surrounding pad.

GRADIENT. The inclination grade or slope of a channel, conduit or natural ground surface expressed as a ratio of the vertical rise or fall to the corresponding horizontal distance.

ILLICIT CONNECTION.

(1) Any pipe, hose, drain or any other similar structure, whether surface or subsurface, that allows a prohibited discharge to enter the municipal

storm sewer system regardless of whether the connection had been previously allowed, permitted or otherwise approved by a government agency in the past or;

(2) Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by the City Engineer.

IMPACT AREAS. Areas defined by the City Engineer which are unlikely to be easily drained because of one or more factors including but not limited to any of the following: soil type; topography; land where there is not an adequate outlet; a floodway or floodplain; land within 75 feet of each top of bank of a legal drain or within 75 feet of the centerline of any legal tile drain; and/or within the recorded easement of a legal drain.

IMPERVIOUS AREA. Area within developed land that prevents or significantly impedes the infiltration of storm water into the soil. Included in this definition are areas that have been paved and/or covered with buildings and materials which include, but are not limited to, concrete, asphalt, rooftop and blacktop, such that the infiltration of water into the soil is prevented. Excluded from this definition are undisturbed land, lawns and fields.

IMPROVEMENT LOCATION PERMIT. A permit for meeting all applicable improvement ordinances and rules such as zoning, set-back requirements, utilities, green space requirements, drainage, erection procedures, construction specifications, enlargement or moving of a building or structure, etc.

INDIVIDUAL. An individual, as well as, a firm, association, organization, partnership, trust, company, corporation, or other legal entity.

INLET or STORM SEWER INLET. An opening into a storm sewer system or drainage facility for the entrance of surface storm water runoff.

JUNCTION CHAMBER. Structure used to combine the flow from one or more conduits into a main conduit.

LAND ALTERATION. Any man-made change of the land surface of more than one foot in grade including: removing vegetative cover; excavating, filling, transporting or grading of soil; paving; increasing the runoff rate; changing the elevation; decreasing, increasing or changing drainage pattern; involving construction, enlargement, or location of any building on permanent foundation; or creating impoundments. (It includes any activity requiring a permit, but does not include agricultural land uses.)

LEGAL DRAIN. A drain, either an open channel or closed tile/sewer, subject to the provisions of Indiana Drainage Code, I.C. 36-9-27.

LOT. A tract, plot or parcel.

MAINTENANCE. Cleaning out of, spraying, removing obstructions from, and making minor repairs in a drainage facility so it will perform the function for which it was designed and constructed.

MANHOLE. Storm or sanitary sewer structure through which a person may enter to gain access to a sewer or enclosed structure. (A manhole may also be an inlet for the storm sewer system.)

MAY. A permissive requirement.

MUNICIPAL STORM SEWER SYSTEM. A conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, storm drains, legal drains under the city's jurisdiction and the combined sewer system designed or used for collecting or conveying storm water, which is owned or operated by the city.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER DISCHARGE PERMIT. A permit issued by EPA (or by a state under authority delegated pursuant

to 33 U.S.C. ' 1342(b)) that authorizes the discharge of pollutants to Waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

NON-POINT SOURCE. Non-point source water pollution is water pollution originating from diffuse, nondiscrete sources that are not regulated as point sources by the Clean Water Act's National Pollutant Discharge Elimination System (NPDES) program. Non-point source water pollution generally results from land runoff, percolation, atmospheric deposition, hydrologic modification, or precipitation.

NON-SINGLE FAMILY RESIDENTIAL LAND USE. Use of land for commercial, manufacturing, industrial, wholesale, retail sale of goods or services, or any other non-single family residential land use.

OUTFALL. The point or location where storm water runoff discharges from a sewer, channel or detention facility into a body of water.

OWNER OR PROPERTY OWNER. The individual who is the legal record owner of the land, or where there is a recorded land sale contract, the purchaser thereof.

PEAK FLOW. The maximum rate of flow of water at a given point in a channel or conduit resulting from a specified storm or flood of a given return period or duration.

PERIMETER DRAIN. A tile drain around an absorption field or surrounding an area with the express purpose of lowering the water table to a specified/different elevation.

POINT SOURCE. Any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural storm water discharges and return flows from irrigated agriculture.

POLLUTANT. Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

PUBLICLY OWNED TREATMENT WORKS (POTW). Any devices or systems used in the collection, storage, treatment, recycling and reclamation of sewage or industrial wastes and any conveyances which convey wastewater to the wastewater treatment plant, which are owned by a unit of government. The term also means the government entity having jurisdiction over the industrial users and responsibility for the operation and maintenance of the treatment works.

PROHIBITED DISCHARGE. Any direct or indirect non-storm water discharge to the municipal storm sewer system, except as exempted in ' ' 54.110 *et. seq.*

RAINFALL INTENSITY. The rate of rainfall expressed as the amount of rain occurring within a given duration, normally expressed in inches per hour.

REACH. A specified length of river, channel or conduit.

RECORD DRAWING. "As Built Plans"; final revised drawings submitted to show the construction of the site or work as actually completed.

REDEVELOPMENT. Any construction, alteration or improvement that does not result in an

increase in the existing footprint of the building, structure or impervious area located on the property.

REGULATED AREA. All of the land under the jurisdiction of the City Engineer.

REGULATORY FLOOD. A flood with a probability of occurrence of 1% in any given year, which is commonly referred to as a "one hundred year flood" as calculated by a method and procedure that is acceptable to the City Engineer. (If a permit for construction in the floodway is required by the Indiana Department of Natural Resources, the regulatory peak discharge shall be calculated by the method and procedure acceptable to the City Engineer and the Indiana Department of Natural Resources.)

REGULATORY FLOODWAY. The channel of a river or stream and the portion of the floodplain adjoining the channel required to carry and discharge the peak flow of the regulatory flood of any river or stream.

RELEASE RATE. The amount of water released from a storm water control facility per unit of time.

RETENTION. A storm water storage facility without a defined/constructed discharge point.

RETURN PERIOD. The average interval of time within which a given rainfall event will be equaled or exceeded once. (A flood having a return period of one hundred years has a 1% probability of being equaled or exceeded in any one year.)

RIGHT-OF-WAY. An area of land appropriated for public use as a street, highway, driveway, alley or walkway or for any drainage or public utility purpose or other similar use.

RUNOFF. The portion of precipitation such as rainfall, snow melts, or irrigation water that flows over or under the ground surface and arrives at the point of consideration as surface water.

SEDIMENT. Material of soil or rock origin that is transported, carried, or deposited by water.

SEDIMENTATION. The process that deposits soils, debris and other materials either on ground surfaces or in bodies of water or watercourses.

SHALL. A mandatory requirement.

SHOULD. A preferred requirement.

SHOW NO IMPACT. Documentation proving that a proposed improvement causes no effect on existing facilities.

SINGLE FAMILY AREA LAND USE. A land use designation equal in size to or for developing a single family housing unit.

SITE. The entire area included in the legal description of the land on which a land disturbing activity is proposed in the permit application.

SPILLWAY. A waterway in or about a hydraulic structure for the escape of excess water.

STILLING BASIN. A structure used to dissipate the energy and/or velocity of flowing water, and to help enhance sedimentation.

STORAGE DURATION. The length of time water may be stored in any storm water control facility.

STORM SEWER. A conduit for conveying collected storm water.

STORM WATER. Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

STORM WATER CONTROL FACILITY. Any natural or man-made structure, system or area used for the purpose of storing, controlling the rate of flow or treating storm water.

STORM WATER DRAINAGE SYSTEM. All means, natural or man-made, used for conveying storm water to, through or from a drainage area.

SUBSURFACE DRAIN. A tile drain installed for lowering the groundwater table. See also Perimeter Drain.

SUMP PUMP. Any type of pump used to remove liquid from a basement, cellar, crawl space or any other below grade structure or area.

UNDEVELOPED. Area in pre-developed and natural (wooded or grassed) condition.

URBANIZATION. The development, change or improvement of any parcel of land consisting of one or more lots for residential, commercial, industrial, institutional, recreational or public utility purposes.

VALLEY STORAGE. Temporary storage of flood/storm water within stream banks or side slopes of a channel.

WATER OF THE STATE. Accumulations of water, surface and underground, natural and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this state, but the term does not include any private pond, or any pond, reservoir, or facility built for reduction or control of pollution or cooling of water prior to discharge unless the discharge therefrom causes or threatens to cause water pollution.

WATERCOURSE. Any natural or man-made drainageway having a defined channel and banks and into which storm water runoff or floodwaters flow either regularly or intermittently.

WATERSHED. Drainage area.

WET BOTTOM DETENTION BASIN/RETENTION BASIN. A basin designed to retain a permanent pool of water with additional capacity to detain and release excess runoff.

WETLAND. An area which has hydric soils, that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that, under normal circumstances, does support a prevalence of vegetation typically adapted for life in saturated soil conditions. (Wetlands generally include swamps, marshes, bogs, and similar areas.)

WORK. Any development, land alteration, or site preparation activities. This includes activities associated with the installation of any erosion and sediment control or storm water control BMPs. (Ord. 6-05, passed 3-10-05)

' 54.006 CONFLICTING ORDINANCES.

The provisions of this chapter shall be deemed as additional requirements to standards required by Madison County, State of Indiana, federal regulations and city ordinances. In the case of conflicting requirements, the most restrictive shall apply. (Ord. 6-05, passed 3-10-05)

' 54.007 STORM WATER CONTROL POLICY.

(A) It is recognized that storm sewer system structures, streams and drainage channels serving the drainage needs of the city may not have sufficient capacity to receive and convey storm water runoff resulting from continued development. All drainage in a developed area must be confined and maintained on site through perimeter structures or appurtenances including swales and inlets, detention or retention storage basins to the extent as described in ' ' 54.060 *et seq.*

(B) The developer shall submit to the City Engineer detailed computations of runoff based on pre-development and post-development conditions that demonstrate that runoff will not be increased as per requirements in ' ' 54.060 *et seq.* (Ord. 6-05, passed 3-10-05)

§ 54.008 DETERMINATION OF DRAINAGE IMPACT AREAS.

The City Engineer may classify certain geographical areas as Drainage Impact Areas, and enact and promulgate regulations to assure safety and health of residents in these areas. In determining Drainage Impact Areas, the City Engineer may consider such factors as topography, soil type, and carrying capacity of existing regulated drains and distance from adequate drainage facilities. The following areas may be designated as Drainage Impact Areas:

(A) A Flood Zone, Floodway or Floodway Fringe as designated by the Federal Emergency Management Agency's (FEMA's) current maps;

(B) Land with inadequate storm water outlet and or detention capacity as determined by the City Engineer.

(C) Areas served by the city combined sewer system.

(D) Areas not engineered by a professional engineer that are subject to ponding.
(Ord. 6-05, passed 3-10-05; Am. Ord. 66-06, passed 9-14-06)

DRAINAGE PERMIT APPLICATION PROCESS

§ 54.020 APPLICATION FOR DRAINAGE PERMIT.

To obtain a Drainage Permit, an application shall be made and submitted to the City Engineer. The application shall be in writing in a form prescribed by the City Engineer. A Drainage Permit will be issued if the following criteria are met:

(A) The drainage plan reflects compliance with the general drainage standards for the city.

(B) The application and supporting information have been properly prepared and submitted in
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accordance with provisions of this chapter and all applicable ordinances.

(C) Proof of all performance and maintenance guarantees required by the City Engineer have been submitted to the City Engineering Office.

(D) Covenants and declarations have been executed, if required by the City Engineer.

(E) Easements have been dedicated, if required by the City Engineer.

(F) All applicable Drainage Permit, Storm Water Availability, and Storm Water Connection fees have been paid in full.

(G) All other applicable permits shall be obtained prior to issuance of a City Drainage Permit (ex. INDOT, U.S. Army Corp of Engineers, IDEM, IDNR, Madison County Drainage Board) and a certification statement attesting to this is included with the Drainage Permit application.

(H) A Drainage Permit shall be valid for a period of two years from the issue date. If a Drainage Permit expires a new permit application shall be required and all Drainage Permit review fees shall be paid.
(Ord. 6-05, passed 3-10-05)

§ 54.021 FEES.

(A) The minimum Drainage Permit review fee is \$50. The fee for all developments greater than one acre is \$50 per acre for each review by the City Engineer.

(B) The minimum Storm Water Availability fee is \$100. The fee for all developments greater than one acre is \$100 per acre for the proposed development.

(C) The minimum Storm Water Connection fee is \$50. The fee for all developments with impervious

surface(s) greater than one Equivalent Residential Unit (1 ERU = 2500 ft²) is \$50 per ERU for the proposed development.

(D) Drainage Permit fees, Storm Water Availability fees, and Storm Water Connection fees shall be collected by the City Engineer. All collected Drainage and Storm Water fees shall be deposited into the Storm Water Utility.

(E) All Drainage Permit fees, Storm Water Availability fees, and Storm Water Connection fees shall be paid in full prior to issuance of a Drainage Permit.

(F) No work shall commence on a site until a Drainage Permit is obtained from the City Engineer. (Ord. 6-05, passed 3-10-05)

54.022 PLAN SUBMITTAL AND REVIEW PROCESS.

(A) Local drainage review shall be typically accomplished as follows: a detailed drainage plan, including the submittal of all required drainage calculations, shall be submitted prior to or with the primary plat. In addition to the information required by the platting process, other information shall be required, as noted in this section.

(B) In the case where the site has already been platted, but the development plan approval has not been granted, the drainage review process shall be completed in conjunction with the site development plan application.

(C) Prior to initiation of any land alteration, applicants shall follow specific guidelines and submit to the City Engineer development plans for review and approval as described below.

(D) Table 2-1 illustrates the standard information submission process for applicants including all required plan submittals.

(E) Plan review shall be completed within 14 days of submittal. A written response shall be forwarded to the developer/owner by mail.

Table 2-1 Standard Information Submission Process for Developers																			
1.	Drainage Plan Submittal																		
A.	Drainage Plan Requirements																		
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B.	Technical Information Report																		
C.	Other Required Information																		
2.	Provide Post-Construction Submittal																		
A.	Record Drawings																		
B.	Maintenance Guarantees																		

(Ord. 6-05, passed 3-10-05)

54.023 DETAILED DESIGN DRAINAGE PLAN.

(A) The detailed drainage plan shall be incorporated into the primary plat, as part of the

construction drawings, or with a final site development plan.

(B) All final development and construction plans shall be submitted bearing the seal and signature of a Licensed Professional Engineer, Licensed Architect or Licensed Surveyor. All sheets shall be 24 inches x 36 inches size drawn to scale at a minimum one inch equals 50 feet and a maximum one inch equals ten feet with the exception of the vicinity map on the title sheet, unless otherwise approved by the City Engineer. The drainage component of the final construction plans shall be incorporated into the following sheets.

(C) Two hard copy sets and an electronic copy of the Detailed Design Drainage Plan compatible with AutoCad or ESRI ArcView/ArcInfo software or other software application approved by the City Engineer shall be submitted.

(D) Plans submitted for review shall observe the following format:

(1) Title sheet. The following information shall be submitted as part of the title sheet:

(a) Name of the project.

(b) Name and address of the owner, developer, and individual who prepared the plans.

(c) Boundary lines of adjacent tracts of land.

(d) A key or vicinity map at a scale of one inch equals 400 feet or less, showing the boundaries of the proposed project and covering the general area within which it is to be located.

(e) A statement of the proposed land uses, including a brief description of all residential and non-residential buildings, the types of proposed business(es) (residential, commercial or industrial) in order to reveal the effects of the project on traffic patterns, fire hazards, and congestion of population.

(2) Existing site conditions. The following information shall be submitted as part of the existing site conditions:

(a) Location, widths, and type of construction of all existing streets, street names, alleys, or other public ways and easements, railroad and utility rights-of-way or easements, parks, wooded areas, cemeteries, watercourses, drainage ditches, designated wetlands, low areas subject to flooding, permanent buildings, bridges, and the locations of all existing storm water facilities. Storm sewers, manholes and other structures shall be located by dimensions on the plans, in relation to surrounding physical features. The plans shall include direction of flow, elevation of inverts, gradient, materials and size of existing storm drains.

(b) Existing water mains, fire hydrants, storm sewers, sanitary sewers, culverts, bridges, and all other utility structures or facilities within, adjacent to, serving the subject land; including pipe sizes, grades, and locations as can best be obtained from public or private records.

(c) Existing contours based on U.S.G.S. data shall not exceed one foot. At least two benchmarks which are easily accessible and relocatable shall be shown. A statement of data used shall also be included.

(d) The water elevation shall be delineated and indicated on the plans from the date of the survey of lakes, streams, or designated wetlands within the project or affecting it. The plan shall also show the boundary of the regulatory flood (100-year flood) and the floodway fringe boundary.

(3) Proposed site conditions. The following information shall be submitted as part of the proposed site conditions:

(a) Location, widths, grades and type of construction of all existing and proposed streets, street names, alleys, or other public ways and easements, railroad and utility rights-of-way or

easements, parks, wooded areas, cemeteries, watercourses, drainage ditches, designated wetlands, low areas subject to flooding, permanent buildings, bridges, and other data considered pertinent by the city for the subject land.

(b) Existing and proposed water mains, fire hydrants, storm sewers, sanitary sewers, culverts, bridges, and all other utility structures or facilities within, adjacent to, or serving the subject land, including pipe sizes, grades, and locations as can best be obtained from public or private records.

(c) Building setback lines, showing dimensions.

(d) Full description and details, including engineering calculations, for provision of storm water drainage storage.

(e) Interior and perimeter sidewalk system/pedestrian circulation plan.

(f) Contours for proposed storm water storage facilities shall not exceed one foot. The plan shall also show the boundary for the floodway fringe boundary. Spot elevations will be satisfactory for other proposed improvements, unless otherwise directed by the City Engineer.

(4) Erosion Control Plan.

(a) Erosion and sediment control plans shall be approved by the City Engineer. The City Engineer may employ the Madison County Soil and Water Conservation District (MCSWCD) for plan review, site inspection or other related activities. The city may pay the MCSWCD fees for the aforementioned services in an amount and frequency mutually agreed upon by both parties.

(b) The Erosion Control Plan shall include the following statement: "All erosion control practices shall be in accordance with the latest edition of the *IDNR Indiana Handbook For Erosion Control*

In Developing Areas and the NRCS Field Office Technical Guide."

(c) The following information shall be submitted as part of the Erosion Control Plan. The Erosion Control Plan must comply with all current provisions of 327 I.A.C. 15-5, Storm Water Run-Off Associated with Construction Activity:

1. Location widths, grades and type of construction of all existing and proposed streets, street names, alleys, or other public ways and easements, railroad and utility rights-of-way or easements, parks, wooded areas, cemeteries, watercourses, drainage ditches, designated wetlands, low areas subject to flooding, permanent buildings, bridges, and other data considered pertinent by the city for the subject land.

2. Proposed contours shall not exceed one foot.

3. Details of terrain and area drainage, including the identity and location of watercourses, intermittent and perennial streams, receiving waters, and springs, and the total acreage of land that will be disturbed.

4. A designated area for trash containment and/or receptacles with proper erosion and drainage control design.

5. The direction of drainage flow and the approximate grade of all existing or proposed streets.

6. Detailed plans and locations of all surface and subsurface drainage devices, walls, dams, sediment basins, storage reservoirs, and other protective devices to be constructed with, or as part of, the proposed project, together with a map showing drainage area, the complete drainage network, including outfall lines and natural drainageway which may be affected by the proposed development, and the estimated runoff of the area served by the drainage facilities.

7. A description of the methods to be employed in disposing of soil and other material removed from the site, including the location of the disposal site.

8. Measures for soil erosion and sediment control which meet or exceed the methods and standards adopted by the Indiana Department of Natural Resources and/or set forth in the *Indiana Handbook For Erosion Control in Developing Areas* and which comply with the design principles, performance standards, and requirements set forth in this chapter.

9. A schedule of the sequence of installation of planned erosion and sediment control measures as related to the progress of the project, including the total area of soil surface that is to be disturbed during each stage, the anticipated starting and completion dates, and a schedule for the maintenance of such measures.

10. Additional erosion control measures in the field as conditions warrant per discretion of the City Engineer and the MCSWCD.

(5) Plat-like dedication sheet. The following information shall be submitted as part of the plat, if a plat-like dedication document for easements and rights-of-way is deemed necessary by the City Engineer:

(a) Parcels of land proposed to be dedicated or reserved for public use, or reserved for common use of all property owners within the project, with the proposed conditions and maintenance requirements, if any, designated as such and clearly labeled on the plans;

(b) Radii, internal angles, points of curvature; tangent bearings and lengths of all arcs, chord bearings; and

(c) Accurate location of all survey monuments erected, corners and other points established in the field in their proper places.

(6) Storm sewer plan and profile.

(a) For all pipe intended to be dedicated to the city, a storm sewer plan and profile shall be submitted. For sections of pipe that will not be dedicated to the public, pipe and invert size, material and slope must be shown. The plan shall be shown on the upper portion of the drawing. The plan shall be drawn on a scale that is clear and legible and not greater than one inch equals 50 feet. The plan shall show appropriate right-of-way and easement limits. The profile shall be shown under the plan and shall extend a sufficient distance downstream of the outlet to show information pertinent to this chapter. For each pipe, the length, size, material and class shall be shown on the profile sheet near the dimension line.

(b) The storm sewer and inlet profile shall generally be drawn on a scale of one inch equals 50 feet horizontal and one inch equals five feet vertical. Where a storm sewer is located inside the limits of an existing or proposed pavement or shoulder, the centerline grade of the road shall be shown. Where a storm sewer is located outside pavement or shoulder, the existing ground over the storm sewer with proposed grading shall be shown. If the storm sewer is to be constructed on fill, the profile of the undisturbed earth, at the storm sewer location shall be shown. All utility locations at intersections with the storm sewer location shall be shown.

(7) Standard detail sheets. Standard detail sheets as approved by the City Engineer shall be included as part of the submittal.

(8) Technical information report.

(a) A completed technical information report is required as part of the drainage plan application. All reports shall be prepared by a Licensed Professional Engineer, Licensed Architect or Licensed Surveyor engaged in storm water drainage design. The technical information report shall contain the following information:

1. A written narrative describing the proposed drainage system and the results of the design, including a summarization of calculations and design recommendations for the collection system and the storm water pond (including primary and emergency spillways);

2. Existing site conditions, with specific problem areas identified during site inspections.

3. Downstream conditions/restrictions (with a justification for the level of downstream analyses performed).

(b) Design calculations are required as part of the storm water plan and shall, at a minimum, include:

1. Estimation of storm water runoff/hydrographs/peak runoff rates for all design storms as applicable per ' ' 54.060 *et seq.*;

2. Drainage area calculations;

3. Area calculations in square feet of all pervious and impervious area for the proposed development;

4. Closed conduit and open channel design computations;

5. Size of pipe or channel cross-section;

6. Pipe or channel slopes in percent;

7. Pipe/channel material and roughness coefficient;

8. Design velocities for channels, pipes, and pond outfalls, in feet per second;

9. Design calculations for culvert pipes;

10. Design capacity of channels and pipes in cubic feet per second, capacity of the pond in acre-feet by pool elevation (stage-storage relationship);

11. Design of the pond's outfall control structure, with stage-discharge relationship;

12. Computations of the routings of the design hydrographs through the proposed storm water pond, indicating the maximum routed pond discharge rate and the maximum routed 100-year pool elevation;

13. Design of the emergency spillway, including the routing of the 100-year storm through the pond with the primary spillway inoperative, and showing the maximum pool elevation and flow through the emergency spillway;

14. Information regarding the computer models used, including printouts and an identification of the pertinent output data; and

15. Summary of planned erosion control measures to be utilized.

(9) Required information.

(a) The City Engineer may require additional information to evaluate and determine the adequacy of the proposed storm water facility. The additional information may include, but is not limited to, written documentation of the following:

1. Utility encroachment approvals;

2. Madison County Drainage Board approval;

3. Other local, state and federal approvals, including other city departments;

4. Inspection and testing agreements with the City Engineer; and

5. Reviews by other consultants as required by the City Engineer.

6. Easements and rights-of-way not on a plat-like document shall be submitted in the form prescribed by the City Engineer and include both a full legal description and a drawing exhibit.

(b) The City Engineer may waive information requirements when he/she determines that it is not necessary for evaluating or determining the adequacy of the proposed storm water facility. (Ord. 6-05, passed 3-10-05)

' 54.024 DEVIATIONS FROM APPROVED PLANS.

Deviations from approved plans and specifications shall not be made after the City Engineer grants formal plan approval. Written application for deviation(s) from approved plans shall be filed with and approved by the City Engineer prior to implementation of the revision or change(s). Copies of the revisions or changes, if approved, shall be attached to the original plans and specifications.

(Ord. 6-05, passed 3-10-05)

' 54.025 PERFORMANCE AND MAINTENANCE GUARANTEES.

(A) The city shall require the submittal of financial guarantees such as performance bonds, or irrevocable letters of credit for all drainage facilities, which will become property of the city. The principal shall be the owner of the affected land, the developer, or any other party, parties, or entity. The bond shall name the city as a party who can enforce the obligations thereunder. In the issuance of platting, the bond may be a part of the total bonding required by the City Engineer. The City Engineer may, as an alternative to the posting of the bond, accept other appropriate security, such as a properly conditioned irrevocable letter of credit, which meets the same

objectives as the performance bond described in this chapter, subject to the approval of any other department or agency whose interests are protected by the same bonding requirement.

(1) Submission of performance guarantees.

(a) Performance guarantees shall be required to cover total installed cost for storm sewer pipe, culvert, manhole, box inlet installation, site filling, grading, open drainage swales, and storm water storage facilities, which will become property of the city.

(b) Performance bonds shall be in the amount of 125% of the estimated total project cost.

(c) An erosion and sediment control guarantee shall be required in a minimum amount of \$10,000 for all costs associated with the implementation of sediment and erosion control measures.

(2) Release of performance guarantees. Release of performance guarantees shall depend upon successful completion of the following:

(a) Within 30 days after completion of the construction and notification of the owner to the City Engineer, a final walkthrough and a thorough site inspection shall take place by the City Engineer or his/her representative, the project contractor and the owner's representative. The City Engineer or his/her representative will provide in writing a release stating satisfactory completion of the construction project.

(b) The owner shall submit to the City Engineer two final sets of "Record Drawings" that include proper certification by a Licensed Professional Engineer, Licensed Architect or Licensed Surveyor. In addition, the owner shall submit a final as built electronic version compatible with the city's AutoCad/GIS system.

(c) The owner shall submit a copy of all televised storm sewer inspections recorded on CD, DVD, or VHS videotape.

(d) The owner shall submit to the City Engineer a maintenance guarantee as described in this chapter.

(B) Maintenance guarantees. The owner, upon completion of a construction project, shall submit a maintenance guarantee. The maintenance guarantee shall cover a period of three years in the amount of 25% of the total project cost. The maintenance guarantee shall be in a form approved by the City Attorney. The maintenance guarantee shall address the city owned and operated storm water drainage systems. (Ord. 6-05, passed 3-10-05)

' 54.026 FINAL PLAN SUBMITTALS.

Final plan submittals shall be in both forms of hard copy and electronic copy compatible with the city's AutoCad or GIS system. (Ord. 6-05, passed 3-10-05)

' 54.027 RECORD DRAWINGS.

(A) As part of the final acceptance process, record drawings of the drainage facilities must be submitted to the City Engineer, as set forth herein, for all platted subdivisions. A Licensed Professional Engineer, Licensed Architect or Licensed Surveyor shall certify record drawings. Record drawings shall provide the following information:

- (1) Flow line elevations of the highpoint along yard swales;
- (2) Pipe size and pipe material;
- (3) Lengths of all pipe structures;

(4) Data regarding the storm water storage basin, including top of bank elevation, invert elevations of primary and emergency spillways, size and pipe material of primary spillway, emergency spillway shape and dimensions, and width of top of embankment;

(5) Structure invert, pipe invert, and top-of-casting elevations;

(6) Horizontal alignment of storm sewer pipes, culverts, streets and storm sewer structures;

(7) The horizontal location and/or bank cross-sections for all wet-bottom or dry-bottom storage facilities or other information sufficient to verify that the constructed storm water storage facility provides the required minimum runoff storage volume;

(8) Certified statement on plans stating the completed storm drainage system substantially complies with construction plans as approved by the City Engineer; and

(9) Other information that may be requested by the City Engineer.

(B) Record drawings shall be submitted as paper copies and electronic copies compatible with the city's AutoCad or GIS software format as approved by the City Engineer.

(C) Video recorded on VHS tapes, CDs, or DVDs of all clean storm sewer pipes shall also be submitted. (Ord. 6-05, passed 3-10-05)

' 54.028 INVESTIGATIONS AND INSPECTIONS.

(A) The power to make investigations and inspections of land alterations, private storm sewer systems, private storm water storage facilities, or any area associated with a land alteration project shall be

vested in the City Engineer, the City Building Commissioner, and their authorized representatives.

(B) Investigation and inspection of any land alteration, private storm sewer system or private storm water storage facility may be made at any time by going upon, around or about the premises on which the land alterations have occurred. Such investigation and inspection may be made either before, during, or after the land alteration is completed; and it may be made for the purposes, among others, of determining whether the land alteration meets drainage requirements, and ascertaining whether the land alteration has been accomplished in a manner consistent with plans and specifications.

(C) Efforts to afford an opportunity for investigation and inspection of the land alteration shall be made by individuals working on or having control of the land alteration, including making available a copy of plans and specifications submitted to obtain a Drainage Permit.
(Ord. 6-05, passed 3-10-05)

' 54.029 STOP-WORK ORDER.

(A) Whenever the City Engineer or his/her authorized representatives discover the existence of any of the circumstances listed below, a stop-work order may be issued:

(1) The city has previously notified the owner of a problem at the site and the situation remains uncorrected;

(2) Land alteration is proceeding in an unsafe or unauthorized manner;

(3) Land alteration is occurring in violation of a drainage requirement; or

(4) Land alteration for which a Drainage Permit is required is proceeding without a Drainage Permit being in force.

(B) This sanction shall in no way limit the city from proceeding with other means of enforcement or collection of penalties as provided in this chapter.
(Ord. 6-05, passed 3-10-05)

***GENERAL STORM WATER DRAINAGE
REQUIREMENTS***

**' 54.040 CONSTRUCTION SITE
REQUIREMENTS.**

(A) The city may require developers and individuals to furnish copies of all necessary state certifications and construction plans for any land alteration activity within the city's jurisdiction.

(B) All excavations for construction or installation of private drainage facilities shall be adequately guarded with barricades and lights to protect the public from hazard. Streets, sidewalks, parkways and other public property disturbed in the course of the work shall be restored in accordance with the specifications and standards for storm drainage works of the city.

(C) For construction activities that are one acre or larger, the city shall require a Sedimentation and Erosion Control Plan in strict compliance with the provisions of this chapter and all current provisions of 327 I.A.C. 15-5, Storm Water Run-Off Associated with Construction Activity. The plan shall clearly indicate the construction sequence for establishment of all erosion and sedimentation control work, both temporary and permanent.

(D) Protection of adjacent properties. Adjacent properties, public rights-of-way or easements shall be protected from damage during grading operations and/or sediment deposition by appropriate use of vegetative buffer strips, sediment barriers or filters, dikes or mulching, or by a combination of these measures and other appropriate BMP's. The applicant shall restore public improvements damaged by his/ her operations to the satisfaction of the City Engineer.

(E) Underground utility construction. The construction of underground utility lines shall be limited, where feasible, to no more than 500 feet of open trench at any one time. When consistent with the safety and space considerations, excavated material shall be placed on the uphill side of the trench. Dewatering devices shall discharge to an appropriate sediment trap or pond, preceded by adequate energy dissipation, prior to runoff leaving the site.

(F) All pollutants other than sediment that occur on-site during construction shall be handled and legally disposed of in a manner that does not cause contamination of surface waters. Pollutants of concern include, but are not limited to fuels, lubricants, solvents, concrete by-products and construction materials.

(G) Filling or disturbing of wetland areas. The applicant shall be responsible for obtaining and coordinating all required state or federal permits associated with the filling or disturbing of wetlands prior to conducting any construction activity that may result in any change in the physical or hydrological condition of wetland areas.

(H) All debris and trash must be contained on-site during construction. All garbage receptacles must have high sides or covers to prevent airborne transport of debris such as plastic and paper. In addition, hazardous materials used during the construction process must be stored and disposed of properly to ensure that they do not enter any drainage structure or Water of the State.

(I) The individual or firm responsible for the site development is responsible for removing or the cost of removing debris, trash and other hazardous material from drainage structures and Waters of the State.

(J) If deposition of any material from a construction site results in damage to the habitat or aquatic biota of a Water of the State the individual or firm responsible shall be responsible for all associated restoration cost.

(K) The city may require individuals, contractors, or developers to elevate structures being

constructed or substantially reconstructed in areas subject to flooding or ponding due to inadequate drainage or areas declared as drainage impact areas. (Ord. 6-05, passed 3-10-05; Am. Ord. 66-06, passed 9-14-06)

• 54.041 CONNECTION OF PRIVATE DRAINAGE SYSTEMS TO THE MUNICIPAL STORM SEWER SYSTEM.

(A) The city shall have no responsibility for the maintenance and repair of privately owned storm sewer systems or storm water storage facilities. The city may require the owner of a privately owned storm water system or storm water storage facility to perform maintenance if the current condition of the system is: causing or contributing to a public health hazard, decreasing the storage capacity of a storm water storage facility, or causing or contributing degradation of an aquatic habitat or aquatic biota.

(B) No newly constructed drain shall cross the property of another private owner unless such private owner has granted an easement for the private drain and the easement has been duly recorded in the office of the County Recorder.

(C) All costs and expenses incident to the installation and connection of the private drain or storm sewer system shall be paid by the property owner. The owner shall indemnify the city for any loss or damage directly or indirectly occasioned by the construction or installation of the private drain or storm sewer system, including damages from back flow from the municipal storm sewer system.

(D) The connection or outlet of a private drain or storm sewer system into the public drainage system shall conform to city specifications and standards for storm sewer drainage works and must be approved by the City Engineer prior to construction of the connection.

(E) No unauthorized individual shall uncover, make any connection with or opening into, use, alter or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the office of the City Engineer.

inspected and approved by the City Engineer. In cases where a connection is made and concealed the city may cause the said connection to be excavated and exposed or the city may terminate the connection and require the responsible party to reimburse the department for its costs and expenses for excavation, exposure, termination, reconnection and restoration activities. This sanction shall in no way limit the city from proceeding with other means of enforcement or collection of penalties as provided in this chapter.

(G) No property owner shall change the storm water runoff pattern of their property in such a way that neighboring private properties or city properties are adversely affected. The City Engineer has no authority to require any property owner to make restitution for damages caused to a private property due to another property owner altering a surface water runoff pattern. (Ord. 6-05, passed 3-10-05)

§ 54.042 PENALTY.

Individuals who fail to comply with these requirements may be subject to fines for each violation and other remedial actions authorized by the city. (Ord. 6-05, passed 3-10-05)

***STORM WATER RUNOFF CONTROL
REQUIREMENTS***

**§ 54.050 DESIGN OF STORM WATER
MANAGEMENT SYSTEMS.**

The following storm water management practices should be reviewed in developing site storm water management plans in the following order:

(A) Protect and preserve as much natural or vegetated area on the site as possible, minimizing impervious surfaces, and directing runoff to vegetated

areas rather than to adjoining streets, storm sewers and ditches;

(B) Flow attenuation of storm water by use of open vegetated swales and natural depressions;

(C) Storm water wet detention facilities (including percolation facilities); and

(D) Other storm water management practices including but not limited to underground storage facilities.

(E) A combination of successive practices may be used to achieve applicable minimum control requirements per the City Engineer's approval. (Ord. 6-05, passed 3-10-05)

**§ 54.051 POLLUTION CONTROL BEST
MANAGEMENT PRACTICE
REQUIREMENTS.**

(A) The requirements in this section apply to all development or redevelopment where vehicles, equipment, or tanks are refueled on the premises; whether a large-sized gas station, a single-pump maintenance yard, or a small-sized fuel tank. A fuel dispensing facility is defined as the area where fuel is transferred from bulk storage tanks to vehicles, equipment, and/or mobile containers (including fuel islands, above- or below-ground fuel tanks, fuel pumps, and the surrounding pad). Propane tanks are exempt from these requirements.

(B) Requirements.

(1) Cover. The fuel dispensing area shall be covered with a permanent canopy, roof, or awning so precipitation cannot come in contact with the fueling activity area. Rainfall shall be directed from the cover to an approved storm water control.

(a) Covers ten feet high or less shall have a minimum overhang of three feet on each side. The overhang shall be measured relative to the

perimeter of the hydraulically isolated fueling activity area it is to cover.

(b) Covers higher than ten feet shall have a minimum overhang of five feet on each side. The overhang shall be measured relative to the perimeter of the hydraulically isolated fueling activity area it is to cover.

(2) Pavement. A paved fueling pad of asphalt or concrete shall be placed under and around the fueling activity area and shall meet all applicable building code requirements. Sizing of the paved area shall be adequate to cover the activity area, including placement and number of the vehicles or pieces of equipment to be fueled by each pump. Fuel pumps shall be located a minimum of seven feet from the edge of the fueling pad.

(3) Drainage. The paved area beneath the perimeter of the cover shall be hydraulically isolated through grading, berms, or drains. This will prevent uncontaminated storm water from running onto the area and carrying pollutants away. Drainage from the hydraulically isolated area shall be directed to an approved city sanitary sewer or authorized pretreatment facility. Surrounding runoff shall be directed away from the hydraulically isolated fueling pad to a storm water control that meets all storm water management requirements of this chapter and other applicable rules, regulations and laws.

(4) Installation of spill control manhole. A spill control manhole shall be installed on the discharge line of the fueling pad (before the domestic waste line tie-in). The tee section shall extend 18 inches below the outlet elevation, and 60 cubic feet of storage volume shall be provided below the outlet elevation for storage of oil, grease, and solids. The manhole shall be located on private property. For more information about spill control manholes contact the Pretreatment Section of the City Water Pollution Control Department.

(5) Installation of Shut Off Valves. Fueling pads require a valve downstream of the spill control manhole. Valves installed on sanitary sewer systems

shall be installed before the domestic waste line tie-in. These valves shall be kept closed, and opened only to allow incidental drainage activities that do not pose a threat or risk to the disposal point system. The valve shall be closed immediately after drainage activities are completed.

(6) Traffic pathways that surround fueling pads are considered high-use/high-risk areas and will require a valve on the storm drainage system. Valves installed on storm drainage systems shall be installed downstream of all applicable private stormwater quality facilities to accommodate spill containment. These valves shall be left open to facilitate stormwater flows during normal conditions, and immediately closed in the event of a spill.

(C) Per the discretion of the City Engineer, the city reserves the right to require existing fuel dispensing facilities, not undergoing redevelopment activities, to install pollution control measures as described in this chapter if it is determined that such facilities present an imminent risk to public health and safety or cause or contribute to a water quality violation in a Water of the State within or downstream of the city's jurisdiction. (Ord. 6-05, passed 3-10-05)

54.052 MAINTENANCE OF PRIVATE STORM WATER MANAGEMENT SYSTEMS.

(A) All storm water management facilities shall be designed to:

- (1) Minimize the need of maintenance; and
- (2) Provide access for maintenance purposes.

(B) The owner of any private drainage system shall maintain the site to prevent discharge of pollutants to the municipal storm sewer system or a Water of the State. This maintenance shall include, but is not limited to, sediment removal, bank erosion repairs, maintenance of vegetative covers, and

removal and proper disposal of debris from pipes and other storm sewer structures.
(Ord. 6-05, passed 3-10-05)

HYDROLOGY AND HYDRAULICS

54.060 DETERMINATION OF RUNOFF QUANTITIES.

(A) All runoff generated on a project site shall be subject to the controlled release rate provisions as described in this section. Runoff from adjoining property that flows through the project site must also be addressed. Runoff for developed conditions shall be calculated under the assumption that the tributary drainage area is in its ultimate, fully developed condition.

(B) All drainage calculations included in a Drainage Permit application shall be prepared using one of the following methods:

- (1) Hydrologic Engineering Centers River Analysis System (HECRAS);
- (2) Interconnected Channel and Pond Routing Model (ICPR);
- (3) Technical Release No. 20 (TR-20); or
- (4) Technical Release No. 55 (TR-55).
(Ord. 6-05, passed 3-10-05)

54.061 GENERAL DRAINAGE SYSTEM DESIGN STANDARDS.

(A) The drainage system shall be constructed and installed in accordance with plans and specifications approved by the City Engineer. All streets shall have a storm water drainage system consisting of curbs, gutters and storm sewers, unless an alternative design is approved by the City Engineer.

(B) Pre-development runoff rates.

(1) For all pre-development runoff rate calculations for new development and redevelopment a ground cover description that limits surface water runoff rates to at least the rate of an area that is covered in continuous meadow in good condition shall be used.

(2) For all pre-development runoff rate calculations that require the input of a soil type or description, the selected soil type(s) shall be assumed to be moderately well or well drained with at least a moderate rate of water transmission of 0.15 to 0.30 inches/hour.

(C) Storm water drainage structure design criteria. All storm water drainage structures must meet the minimum design criteria specified in Table 5-1.

Table 5-1 Minimum Storm Frequency Design Criteria	
Drainage Structure	Storm Frequency
Storm sewer pipes, gutters, swales and small channels	10-year
Inlets, catch basins and manholes	10-year
Streets and rights-of-way	25-year
Detention release to pipes leading to combined sewer systems	2-year based on pre-development conditions, or case by case as determined by the City Engineer
Detention release to separated storm sewer systems or Waters of the State	5-year based on pre-development conditions



Drainage Structure		Storm Frequency
Detention/retention storage of incoming surface water flow		50-year based on post-development conditions
Culverts	Local street	25-year
	Collector street	50-year
	Arterial street	100-year

(D) Storm sewer design specifications. All storm sewers shall conform to the design specifications and other requirements contained in this chapter and the most current editions of *Model Specifications for Water and Sewer Main Construction in Indiana*, or the *Storm Water Drainage Manual* by Christopher B. Burke or *INDOT Standards and Specifications*.

(E) Velocity. The minimum velocity of flow in a pipe shall not be less than two and one-half feet per second. The maximum allowable pipe velocity is eight feet per second.

(F) Minimum pipe size. The minimum pipe size of all storm sewers shall be 12 inches in diameter. The minimum pipe size for all underdrains shall be six inches in diameter.

(G) Grade. Storm sewer grade shall be such that, in general, a minimum of two feet of cover is maintained over the top of the pipe. Uniform slopes shall be maintained between inlets, manholes, and inlets to manholes. Final grade shall be set with full consideration of the capacity required, sedimentation problems, and other design parameters. Minimum and maximum slopes shall be those capable of producing velocities in the range of two and one-half to eight feet per second, respectively, when the storm sewer is flowing full.

(H) Alignment. Storm sewers shall be straight between manholes.

(I) Manholes. Manholes shall be installed to provide access to storm sewers for the purpose of inspection and maintenance. Manholes shall be provided at the following locations:

- (1) Where two or more storm sewers converge;
- (2) Where pipe size changes;
- (3) Where a change in horizontal alignment occurs;
- (4) Where a change in vertical grade occurs; and
- (5) At suitable intervals in straight sections of the storm sewer. The maximum distance between storm sewer manholes shall be 400 feet for pipes 12 inches through 24 inches and 500 feet for pipes larger than 24 inches.

(J) Inlets. Inlets or drainage structures shall be used to collect surface water through grated openings and convey it to storm sewers, channels or culverts. Inlet design and spacing shall be approved by the City Engineer; standard spacing shall not be more than 400 feet apart.

(K) Protection of embankment. Erosion protection shall be provided for the primary outlet so that the storm water storage facility embankment will be adequately protected.

(L) Outlet velocity. In those instances where the discharge velocity from the primary outlet or emergency spillway is excessive in the opinion of the City Engineer, energy dissipation may be required. In general, outlet velocities in excess of eight feet per second in earth/grassed channels are considered excessive.

(M) Sediment control. Sediment in runoff water shall be trapped by the use of such methods as debris basins and silt traps until the disturbed area is stabilized.

(Ord. 6-05, passed 3-10-05)

' 54.062 STORM SEWER PIPE MATERIALS.

Acceptable pipe materials include RCP, PVC and HDPE. Class and strength of pipe materials shall depend on depth of cover and shall be subject to the City Engineer's approval.

(Ord. 6-05, passed 3-10-05)

' 54.063 DITCH/SWALE DESIGN STANDARDS.

(A) Material. Materials acceptable for use as channel lining are grass, revetment riprap, concrete, pre-cast cement concrete riprap, grouted riprap, and gabions.

(B) Manning Equation. Ditch/swale design shall be based on the Manning Equation.

(C) Minimum size. The required channel cross-section and grade are determined by the design capacity, the material in which the channel is to be constructed, and the requirements for maintenance. A minimum depth may be required to provide adequate outlets for subsurface drains, tributary ditches or streams. The channel grade shall be such that the velocity in the channel is high enough to prevent siltation but low enough to prevent erosion. Velocities less than one and one-half feet per second shall be avoided because siltation will take place and ultimately reduce the channel cross-section. Developments through which the channel is to be constructed must be considered in design of the channel section.

(D) Side slopes. Side slopes for grass-lined channels shall be no steeper than three to one. Side slopes for rock riprap-lined channels shall be no steeper than two to one. Channels with vertical walls or with gabions may be constructed, with approval of the City Engineer.

(E) Drainage of vegetated waterways. Vegetated waterways that have less than 1% slope, are subject to low flows of long duration, or where wet conditions prevail shall be drained with an

underdrain or low flow structure. Lines may be outletted through a drop structure at the end of the waterway or through a standard tile outlet.

(F) Effects of channel improvements. Culverts and bridges which are modified or added as part of channel improvement projects shall be approved by the City Engineer, and have a minimum capacity based on storm frequencies as per Table 5-1 (' 54.061).

(G) Disposition of spoil. Spoil material resulting from clearing, grubbing and channel excavation shall be removed from the site unless it is to be used as part of the approved grading plan. In no case shall spoil be deposited in a floodway. Excavated materials, when stored temporarily on-site, must be handled in accordance with this chapter and all applicable rules and regulations.

(Ord. 6-05, passed 3-10-05)

' 54.064 STREET DRAINAGE.

Street drainage shall be divided to drain on both sides of the street; alternative drainage methods are subject to approval by the City Engineer.

(Ord. 6-05, passed 3-10-05)

' 54.065 SPECIAL HYDRAULIC STRUCTURES.

Detailed specifications of special hydraulic structures, including but limited to junction chambers, drop manholes, inverted siphons, stilling basins, etc. shall be included with the Drainage Permit application and subject to approval by the City Engineer.

(Ord. 6-05, passed 3-10-05)

' 54.066 STORM WATER DETENTION SYSTEMS.

(A) All storm water detention structures shall be constructed to temporarily store storm water runoff and release stored runoff in accordance with the specifications detailed in Table 5-1 (' 54.061).

(B) The City Engineer may waive requirements for storm water detention for development properties that are adjacent to and have direct discharge to White River, Little Killibuck Creek or Killbuck Creek, with supported calculations indicating no onsite flooding. However, such developments shall submit to the City Engineer approvable designs for: (1) erosion control of outfalls; and (2) structural and nonstructural Best Management Practices (BMP's). Consideration shall be made to the potential impacts on the Water Quality of the receiving stream.

(C) The following criteria shall direct the design of all storm water detention systems:

(1) Acceptable storage methods. Increased rates and volumes of storm water runoff resulting from a proposed development shall be detained on-site through the use of an appropriate storm water detention system. When a storm water detention system is utilized to comply with city drainage requirements, retention of storm water shall not be allowed to occur within any swales, ditches, streams, creeks and other drainage ways.

(2) Allowable release rate.

(a) The allowable release rate of storm water discharging from a proposed development shall not exceed the pre-development storm water release rate for a storm event of a specified frequency. The allowable release rates to the municipal storm sewer system or a Water of the State are specified in Table 5-1 (' 54.061).

(b) In the event the downstream storm sewer or receiving stream is inadequate to accommodate the release rate specified in Table 5-1 (' 54.061), the allowable release rate shall be reduced to a rate determined by the capacity of the receiving downstream channel or storm sewer system, and additional storage volume, to be determined by the City Engineer, shall be required to store that portion of the runoff exceeding the capacity of the receiving sewers or waterways.

(c) Drainage system emergency overflow or spillway design. Drainage overflow or

spillway systems shall have adequate capacity to convey the storm water runoff from all upstream tributary areas through the development for a storm with a statistically based 100-year return period based on the post development condition of the upstream tributary land area.

(D) Detention system specifications and configurations.

(1) Outlet control structures shall be designed to operate as simply as possible and shall require little or no maintenance or attention for proper operation. The structures should be designed to allow easy access from the embankment to remove trash and debris from the outlet structure.

(2) The overflow facility shall be of such design that its operation is automatic and does not require manual attention.

(3) Grass or other vegetative cover approved by the City Engineer shall be planted throughout the entire detention basin area.

(4) Debris and trash removal and other necessary maintenance shall be performed regularly by the designated body (e.g., owner, developer or homeowner's association) to insure continued operation in conformance with the design specifications.

(5) All storm water detention facilities shall be located in a drainage/utility easement.

(6) Dry bottom detention facilities must include an underdrain to drain the bottom of the storm water detention facility. In addition, the bottom of the facility shall be designed to have a longitudinal slope of 1% and traverse grade to the outlet, so the facility will empty, leaving no ponded water.

(7) Outlets shall include properly designed grates to keep trash and debris out of the drainage system.

(Ord. 6-05, passed 3-10-05)

' 54.067 RETENTION DESIGN REQUIREMENTS.

(A) A storm water retention basin may be designed to hold a continuous pool of water for aesthetic purposes. A storm water storage facility may include both detention and retention, in which cases all provisions of detention systems shall apply.

(B) The following conditions shall apply to all systems designed to hold a continuous pool of water:

(1) Operation, maintenance and ownership of retention systems shall be the sole responsibility of the designated body;

(2) If fish are to be maintained in the pond, a minimum depth of approximately ten feet shall be maintained over at least 25% of the pond area;

(3) If fish are not to be maintained, the minimum permanent water level depth shall be eight feet over at least 25% of the pond or where a limiting layer prevents excavation to that depth, a minimum of six feet over at least 50% of the pond area shall be required;

(4) In excavated ponds, the underwater side slopes in the pond shall be designed and constructed in a manner to insure their stability;

(5) A safety ledge a minimum of six feet in width at a ten to one (10:1) slope is required and must be installed in all ponds approximately 30 inches below the permanent water level;

(6) Erosion control measures must be installed to prevent erosion from wave action and wet-dry cycles;

(7) Outlets shall include properly designed grates to keep trash and debris out of the drainage system; and

(8) Shall be located in a drainage or utility easement.

(Ord. 6-05, passed 3-10-05)

' 54.068 PAVED PARKING LOT STORAGE.

Paved parking lots may be designed to provide temporary storage of storm water on all or a portion of their surfaces, up to a maximum depth of six inches. Outlets shall be designed to empty the stored waters slowly. Ponding should be confined to those positions of the parking lots farthest from the area served. Ponding areas shall not conflict with handicapped parking and access routes.

(Ord. 6-05, passed 3-10-05)

' 54.069 FACILITY FINANCIAL RESPONSIBILITY.

The construction cost of all storm sewer and storm water control structures shall be the responsibility of the owner and/or developer.

(Ord. 6-05, passed 3-10-05)

' 54.070 DEDICATION OF STORM WATER SYSTEMS.

After construction, storm water facilities may be dedicated to the city, as long as they lie within rights-of-way or designated easements and the city is willing to accept the proposed easements and associated structures.

(Ord. 6-05, passed 3-10-05)

' 54.071 INSTALLATION OF TEMPORARY AND PERMANENT EROSION CONTROL SYSTEMS.

Temporary erosion control measures shall be installed prior to initiation of construction and during the course of site development. Perimeter and entrance/exit erosion facilities are required prior to the start of any site work. Basins should be designed to collect sediment and debris at specific locations.

(Ord. 6-05, passed 3-10-05)

' 54.072 STORM WATER STORAGE FACILITIES IN FLOODWAY.

No construction is allowed within a floodway unless all required permits are obtained from all applicable regulatory agencies; at this time the applicant may apply for a City Drainage Permit.
(Ord. 6-05, passed 3-10-05)

' 54.073 OFF-SITE DRAINAGE PROVISIONS.

When the allowable runoff is released in an area that is susceptible to flooding, the developer may be required to construct appropriate storm sewers through the area to avert increased flood hazard caused by the release of allowable runoff at a single discharge location, instead of through the natural flow path.
(Ord. 6-05, passed 3-10-05)

' 54.074 SUBSURFACE DRAINAGE.

Subsurface drainage shall be provided in areas having high water table and shall be sufficient to intercept seepage that would: (1) affect earth slope stability or stability of building foundations; or (2) create undesirable wetness.
(Ord. 6-05, passed 3-10-05)

' 54.075 BLOCKING DRAINAGEWAYS.

No excavations or fills shall block or otherwise impede the free drainage of surface water in a drainage swale or channel.
(Ord. 6-05, passed 3-10-05)

' 54.076 DRIVEWAY CULVERTS.

Driveways that must cross over swales or ditches shall be constructed only within public rights-of-way or easements with appropriate sized culverts or other approved structures.
(Ord. 6-05, passed 3-10-05)

SOIL EROSION AND SEDIMENTATION CONTROL

' 54.090 EROSION CONTROL PLAN REQUIREMENTS.

An Erosion Control Plan shall be required for all developments required to obtain a Drainage Permit from the City Engineer. The Erosion Control Plan shall include all information described in ' ' 54.020 *et seq.* and shall be in compliance with all requirements in 327 I.A.C. 15-5. All erosion control practices shall be in accordance with the latest edition of the *IDNR Indiana Handbook For Erosion Control In Developing Areas* and the *NRCS Field Office Technical Guide*.
(Ord. 6-05, passed 3-10-05)

' 54.091 EROSION AND SEDIMENTATION CONTROL REQUIREMENTS.

(A) All individuals who cause, in whole or in part, any land alteration to occur shall provide soil erosion and sedimentation control so as to adequately prevent soils from being eroded and discharged or deposited into adjacent properties or into a storm water drainage system, a public street or right-of-way, floodplain, body of water or watercourse.

(B) During any land alteration, which exposes soil to an increased risk of erosion or sediment track-out, the property owner and other individuals causing or participating in the land alteration activity shall do the following:

(1) Comply with provisions of this chapter, and the requirements of all applicable county, state and federal rules and regulations;

(2) Prevent damage to any public utilities or services within the limits of grading and within any routes of travel or areas of work of construction equipment;

(3) Prevent damage to or impairment of any receiving water on or near the location of the land alteration or affected thereby;

(4) Prevent damage to adjacent or nearby land;

(5) Apply for all required approvals or permits prior to the commencement of work;

(6) Proceed with the proposed work only in accordance with approved plans and permits in compliance with this chapter;

(7) Maintain all required soil erosion and sedimentation control measures, including but not limited to, measures required for compliance with the terms of this chapter;

(8) Promptly remove all soil, sediment, debris or other materials applied, dumped, tracked, or otherwise deposited on any lands, public streets, sidewalks, or other public ways or facilities, including catch basins, storm sewers, ditches, drainage swales, or water bodies. Removal of all such soil, sediment, debris or other materials within 24 hours shall be considered to be in compliance with this requirement, unless such materials present an immediate hazard to public health and safety; and

(9) Developers shall not conduct any land alteration activities at locations adjacent to any of the following: public streets, sidewalks, alleys, or other public or private property without providing adequate support or other measures so as to protect such adjacent properties.

(C) Sediment control measures must be properly installed by the developer before construction activity begins. Control measures may be adjusted during dry weather to accommodate short-term activities, such as activities that require the passage of large vehicles or equipment.

(D) Sedimentation basins must have a minimum surface area equal to at least 1% of the area draining

to basin, and be constructed in accordance with accepted design specifications including access for assessment and maintenance. Basin discharge rates must also be controlled to prevent erosion in the discharge channel.

(E) The applicant shall install erosion and sediment controls at locations directed or per final approval by the City Engineer. Minimum requirements include silt fences, rock check dams, or other equivalent control measures along slopes. Silt fences are required along channel edges to reduce the potential of sediment introduction into any water channel. Silt fences, rock check dams, etc. must be regularly inspected and maintained.

(F) Sufficient silt fence shall be required to intercept all overland flow runoff generated at an individual site, until it can either infiltrate or seep through the silt fence pores.

(G) Dewatering control measures shall discharge into an appropriate sized and designed sediment trap or pond.

(H) All temporary and permanent erosion and sediment control BMP's shall be maintained in a manner to insure continued performance of their intended function. The owner/developer shall be responsible for insuring that any erosion and sediment control measures damaged during floods or other adverse weather conditions are returned to normal operating condition as soon as possible.

(I) Removal of temporary BMP's. All temporary erosion and sediment control BMP's shall be removed within 30 days after final site stabilization is achieved. The removal of temporary erosion and sediment control BMP's may not be required for those projects, such as single-family plats, that will be followed by additional construction under a different permit. In these circumstances, the need for removing or retaining the measures will be evaluated on a site-specific basis by the City Engineer.

(J) Changes in site topography. The maximum surface gradient on any artificially created slope shall

be two feet of horizontal run to one of vertical fall (2:1). This gradient may be increased if it can be demonstrated through engineering calculations to be stable.

(K) At all times, the contractor shall have sufficient materials, equipment and labor on-site to stabilize and prevent erosion from all denuded areas within 12 hours as site and weather conditions dictate.

(L) Water removed from the site by pumping must be treated by temporary sedimentation basins, geotextile filters, grit chambers, sand filters, up-flow chambers, hydro-cyclones, swirl concentrators or other appropriate controls. Such water shall not be discharged in a manner that causes erosion or flooding of the site, receiving channels, adjacent property or a wetland.

(M) All erosion and sediment control BMP's shall be constructed and functional before any land alteration activities occur.

(N) Cut and fill slopes shall be constructed in a manner that will minimize erosion.

(O) Whenever construction vehicle access routes intersect paved roads, provisions must be made to minimize the transport of sediment onto the paved road by use of appropriate BMP's such as a stabilized construction entrance. At a minimum, temporary rock construction entrances shall be required whenever vehicles enter and exit a site. If sediment is transported onto a road surface, the road shall be thoroughly cleaned. Sediment shall be removed from roads by shoveling or sweeping and be transported to a sediment disposal area. Street washing shall be allowed only after sediment is removed in this manner.

(P) For soil stockpiles, the toe of the pile must be more than 25 feet from all roads, drainage channels or storm water inlets. If such stockpiles will be left for more than 14 days, they must be stabilized with mulch, vegetation or suitable covers. If left for less than 14 days, erosion from stockpiles must be controlled with silt fences or rock check dams.

(Q) If for any reason a soil stockpile of any size is located closer than 25 feet from a road, drainage channel or storm sewer inlet, and will be left for more than seven days, it must be stabilized with mulch, vegetation, or suitable covers.

(R) All storm drain inlets made operable during construction shall be protected so storm water runoff shall not enter the conveyance system without first being filtered or otherwise treated with silt fence or an equivalent barrier designed to remove sediment.

(S) All temporary on-site conveyance channels shall be designed, constructed and stabilized to prevent erosion from the expected flow velocity from a two-year frequency, 24-hour duration storm for the post-development condition. Stabilization adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream reaches shall be provided at the outlets of all conveyance systems.

(T) The City Engineer or designated representative has the authority to inspect all construction activities to ensure that owners/ developers comply with this chapter and all applicable county, state and federal regulations.

(U) During construction, the individual or firm responsible for the site development is responsible for maintenance of erosion and sedimentation control devices in compliance with this chapter.
(Ord. 6-05, passed 3-10-05)

WATERCOURSE AND DRAIN PROTECTION

54.100 WATERCOURSE AND DRAIN PROTECTION.

(A) Any individual owning property through which a watercourse passes, or such individual's lessee, shall keep and maintain the part of watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute,

contaminate, or significantly retard the flow of water through the watercourse.

(B) The property owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse. The owner or lessee shall not remove healthy vegetation beyond that actually necessary for maintenance, nor remove said vegetation in such a manner as to increase the vulnerability of the watercourse to erosion. The property owner shall be responsible for maintaining and stabilizing that portion of the watercourse that is within their property lines in order to protect against erosion and degradation of the watercourse originating or contributed from the property.

(C) (1) Easements intended for periodic or occasional use to convey the flow of surface water runoff shall be maintained in an unobstructed condition by the owners of the properties they cross. When specified as a restrictive covenant, the City Engineer shall have the right to determine if any obstruction exists and to repair and maintain, or require such repair and maintenance by the property owner if the owner is deemed responsible for the obstruction, as shall be necessary to maintain proper operation of the drain.

(2) It shall be unlawful for any individual to stop, fill, dam, confine, pave, alter the course of, or otherwise interfere with any natural or constructed drain, or drainage way without first submitting a drainage plan to the city in accordance with the provisions of this chapter.

(D) No filling, blocking, fencing or planting of vegetation shall take place within a floodway without obtaining all required permits from all agencies with jurisdiction over such activity.

(E) Shrubs, trees or other vegetation shall not be planted over the top of an underground storm sewer or over the top of the easement within which the storm sewer has been installed.

(Ord. 6-05, passed 3-10-05)

PROHIBITED DISCHARGES AND ILLICIT CONNECTION ELIMINATION

54.110 BUILDING STORM WATER MANAGEMENT.

(A) Downspouts and roof drains. All newly constructed and existing single family residential home downspouts or roof drains shall discharge no closer to the street than 48 inches from the building setback line. In no case shall any downspout or roof drain from any property be connected to a sanitary sewer. In no case shall a single family residential home downspout or roof drain be connected to a combined sewer unless one of the following conditions exist:

(1) Due to the distance between homes disconnection of downspouts or roof drains from the combined sewer will result in flooding or property damage to an adjacent property.

(2) Due to the lot size of a home, discharge from downspouts or roof drains will be discharged into the city right-of-way and could present a public safety concern regarding flooding of a city street or hazards associated with storm water freezing during winter months.

(3) Property owners shall contact the city if they believe either of the aforementioned conditions exists on their property. City personnel shall determine if it is appropriate for the downspouts or roof drains to remain connected to the combined sewer system. The owner of any home with the downspouts or roof drains found to be connected to the sanitary or combined sewer without authorization from the city shall be in violation of this chapter and subject to the enforcement procedures as specified in this chapter.

(B) Sump pumps. In no case shall a sump pump be used for more than one function; sump pumps shall be used only for the discharge of storm water or groundwater. Sump pumps used for temporary relief from storm water or ground water accumulation in basements or crawl spaces shall discharge onto a grass

surface within the boundaries of the affected property. The sump pump discharge shall be conducted in a manner that does not adversely affect adjacent properties.

(C) Footing drains.

(1) In no case shall a footing drain discharge to a sanitary sewer.

(2) Discharge from permanently installed footing drains may be connected to municipal storm sewers if a Storm Sewer Connection Permit has been obtained from the City Engineer.

(a) Connections from footing drains to the municipal storm sewer system made prior to the adoption date of this chapter are not required to obtain a Storm Sewer Connection Permit.

(b) Connections from footing drains to the municipal combined sewer system are prohibited unless one of the following conditions exists:

1. Due to the distance between homes, disconnection of footing drains from the combined sewer will result in flooding or property damage to an adjacent property.

2. Due to the lot size of a home, discharge from footing drains will be discharged into the city right-of-way and could present a public safety concern regarding flooding of a city street or hazards associated with storm water freezing during winter months.

(3) Property owners shall contact the city if they believe either of the aforementioned conditions exists on their property. City personnel shall determine if it is appropriate for the footing drains to remain connected to the combined sewer system. The owner of any home with the footing drain found to be connected to the sanitary or combined sewer without authorization from the city shall be in violation of this chapter and subject to the enforcement procedures as specified in this chapter.

(D) Basement floor drains. Basement floor drains shall be connected to sanitary or combined sewers. In no case shall basement floor drains discharge to the municipal storm sewer system.

(Ord. 6-05, passed 3-10-05)

' 54.111 PROHIBITED DISCHARGES.

(A) No individual shall discharge or cause to be discharged into the municipal storm sewer system, a privately owned water body, or a Water of the State any materials, including but not limited to pollutants or waters containing any pollutants that may cause or contribute to a violation of applicable water quality standards, other than storm water. This includes any material that may obstruct flow in the system or cause damage to the system or interfere with the proper operation of the system or creates a hazard to the public. Any individual responsible for the discharge of a prohibited substance into the municipal storm sewer system shall be subject to all remedial and punitive enforcement procedures specified in this chapter.

(B) It is an affirmative defense to any enforcement action for a violation of ' 54.111 that the discharge was composed entirely of one or more of the following categories of discharges:

(1) A discharge authorized by, and in full compliance with, an NPDES permit;

(2) A discharge or flow resulting from fire fighting activities by a Fire Department, if the Fire Department properly notifies the City Water Pollution Control Department at the time the Fire Department responds to the incident;

(3) A discharge or flow from water line flushing;

(4) A discharge or flow from lawn watering, or landscape irrigation;

(5) A discharge or flow from a diverted stream flow, natural spring, riparian habitat or wetland;

(6) A discharge or flow from uncontaminated pumped groundwater or rising groundwater;

(7) Uncontaminated discharge or flow from a foundation drain, crawl space pump, or footing drain;

(8) A discharge or flow from a potable water source not containing any harmful substance or material from the cleaning or draining of a storage tank or other container;

(9) A discharge or flow from individual residential car washing; or

(10) Dechlorinated swimming pool discharges.

(C) No affirmative defense shall be available under ' 54.110(B) if:

(1) The discharge or flow in question has been determined by the Water Pollution Control Department to be a source of a pollutant or pollutants to the Waters of the State or to the municipal storm sewer system;

(2) Notice of such determination has been provided to the discharger; and

(3) The discharge has continued after the expiration of the time given in the notice to cease the discharge.

(Ord. 6-05, passed 3-10-05)

' 54.112 ILLICIT CONNECTION AND PROHIBITED DISCHARGE ELIMINATION REQUIREMENTS.

(A) The construction, use, maintenance or continued existence of illicit connections and or prohibited discharges to the municipal storm sewer system, privately owned water body or a Water of the State is prohibited.

(B) This prohibition includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

(C) This prohibition also includes prohibited discharges originating from a property which, due to subsurface or groundwater discharge, may not initially be detected within the boundaries of the property responsible for the prohibited discharge.

(D) The current owner of the property, where the illegal connection exist, shall be responsible for all costs associated with eliminating the illegal connection and insuring that all sanitary and storm water connections originating from the property are in full compliance with this chapter and all applicable county, state and federal rules and regulations.
(Ord. 6-05, passed 3-10-05)

' 54.113 INSPECTIONS AND DISCHARGE MONITORING.

(A) The City Engineer or the Water Pollution Control Utility Superintendent or their designated representatives have the authority to inspect the interior and exterior of all buildings and structures and adjacent property for the purpose of determining the origin of a prohibited discharge or illicit connection.

(B) The city may also conduct sampling and other related activities, including but not limited to collection of storm water/wastewater samples, dye testing and smoke testing of drains, during the course of the investigation.

(C) City personnel shall present valid city identification, which includes the individual's name, job title, and employee identification number prior to entry to any privately owned building.

(D) Refusal of entry by a property owner after city personnel present valid identification shall constitute a violation of this chapter and subject the

property owner to enforcement as specified in this chapter.

(E) Upon refusal of entry, the City Attorney may file an application with a municipal or county court judge to obtain a search and/or seizure warrant. The warrant shall specify what may be searched and/or seized at the property described in the warrant. (Ord. 6-05, passed 3-10-05)

• 54.114 SUSPENSION OF UTILITY SERVICE AND MS4 ACCESS.

(A) The city may, without prior notice, suspend water service, sanitary sewer service, and/or municipal storm sewer system access to an individual discharging to the municipal storm sewer system, Waters of the State, or the Publicly Owned Treatment Works (POTW) when such suspension is necessary to stop an actual or potential discharge which:

(1) Presents or may present imminent and substantial danger to the environment or to the health or welfare of the public; or

(2) Presents or may present imminent and substantial danger to municipal storm sewer system structures, the POTW or the Waters of the State.

(B) As soon as is practicable after the suspension of service or municipal storm sewer system discharge access, the City Engineer or the Water Pollution Control Superintendent shall notify the violator of the suspension in person or by certified mail, return receipt requested, and shall order the violator to cease the discharge immediately. When time permits, the City Engineer or the Water Pollution Control Superintendent should also attempt to notify the violator prior to suspending service or access.

(C) In non-emergency situations the city may terminate the city provided water supply, sanitary sewer connection, and/or municipal storm sewer system access to any individual discharging to the

municipal storm sewer system who is in violation of this chapter or other applicable county, state and federal rules and regulations.

(1) In such cases the City Engineer or the Water Pollution Control Superintendent will notify a violator, in writing, of the proposed termination of service ten days prior to disconnection. All termination notices shall be sent certified mail to the recipient.

(2) The violator may petition the City Engineer and/or the Water Pollution Control Superintendent for reconsideration. Petition must be made in writing and received by the appropriate party prior to the expiration of the ten day period.

(D) If the violator fails to comply with this chapter after being notified by the city in writing via certified mail, the city may take such steps as is necessary to prevent or minimize damage to the municipal storm sewer system or Waters of the State, or to minimize danger to persons.

(E) The city shall not reinstate suspended services to the violator until:

(1) The violator presents proof, satisfactory to the City Engineer or Water Pollution Control Superintendent, that the noncompliant discharge has been eliminated and its cause determined and corrected;

(2) The violator pays the city for all costs the city incurred in responding to, abating, and remediating the discharge or threatened discharge; and

(3) The violator pays the city for all costs the city will incur in reinstating service or access.

(F) A violator whose service or access has been suspended or disconnected may appeal such enforcement action to the City Engineer or the Water Pollution Control Superintendent, in writing, within ten days of notice of the suspension in accordance with this chapter.

(G) The city may obtain a lien against the property to recover its response costs.

(H) The remedies provided by this section are in addition to any other procedures stated in this chapter. Suspension of service shall not limit the city from taking other action against a violator.
(Ord. 6-05, passed 3-10-05)

• **54.115 ACCIDENTAL DISCHARGES.**

Any individual who accidentally discharges into any waterway any substance other than storm water or an exempted discharge as specified in this chapter shall immediately notify the City Engineering Office and the City Water Pollution Control Utility. It is also the discharger's responsibility to notify any county, state or federal agencies if such notification is required. Verbal notification shall be made within two hours of the event. The city may require the discharger to submit a written report within five working days of the event. The written report shall specify the following:

(A) The date, time and estimated volume of the discharge;

(B) A detailed description of the composition of the discharge;

(C) A narrative description of the events leading up to the discharge and the believed cause of the discharge;

(D) All measures taken to clean up the discharge; and

(E) Full contact information including name, telephone number, and business address for the individual submitting the report, the business or property owner, and individuals who were involved with the equipment, process, etc. just prior to the discharge.
(Ord. 6-05, passed 3-10-05)

ENFORCEMENT

• **54.130 NOTICE OF VIOLATION.**

(A) Any individual who is found to be in violation of any provision of this chapter shall be deemed to have committed a storm water drainage violation and may be issued a Notice of Violation (NOV) by the city. The NOV shall be served by personal service, or by certified mail. The NOV shall contain, at a minimum, the following information:

(1) The name and address of the individual responsible for the violation;

(2) The address or a description of the building, structure, or land upon which the violation has occurred;

(3) A statement specifying the nature of the violation;

(4) A statement of the corrective or remedial measures necessary to bring the property into compliance with this chapter and a date required to complete such measures; and

(5) If a penalty is to be assessed against the individual to whom the NOV is directed, a statement of the penalty shall be included in the NOV.

(B) The corrective or remedial measures the city may require include but are not limited to the following:

(1) Submission of corrected documentation related to a Drainage Permit Application;

(2) Installation and maintenance of erosion and sediment or pollution control measures;

(3) Removal of buildings, structures, debris or excessive vegetation within a legally designated drainage easement or within the floodway; and

(4) Immediate cessation of prohibited discharges and/or permanent elimination or illicit connections.

(C) The NOV may include a civil penalty not to exceed \$2,500 per day per violation. Each day a violation remains uncorrected after the deadline specified in the NOV is a distinct and separate violation of this chapter and is subject to the assessment of an additional penalty.

(D) The NOV may include a requirement to reimburse the city for any or all costs associated with the inspection and investigation of the violation including but not limited to sampling and analyses cost, equipment cost, overtime cost for city personnel, and contractors or consultants cost.

(E) The NOV may include a requirement to reimburse the city for any or all cost associated with the remediation of damages caused by a violation including but not limited to equipment cost, overtime cost for city personnel, and contractors or consultants cost.

(F) The NOV may include a requirement to reimburse the city for any or all cost associated with the remediation or abatement of damages to the city municipal storm sewer system, a legal drain, or a Water of the State caused by the violation including but not limited to equipment cost, overtime cost for city personnel, and contractors or consultants cost.

(G) Any individual receiving a NOV may appeal the findings or contest the stated requirements. The notice of appeal must be received in writing within seven days from the date of receipt of the NOV by the City Engineering Department. Hearing on the appeal before the City Engineer or the Water Pollution Control Superintendent shall take place within 15 days of receipt of the notice of appeal. The decision made at the conclusion of this hearing shall be final.

(H) If an individual who receives an NOV fails to correct the observed violation, pay the assessed fine, or respond to the city within the time allotted in

the NOV, the City Attorney may file a civil lawsuit as prescribed by applicable laws and ordinances, and seek penalties as prescribed in this section. An individual adjudged to have committed a storm water drainage violation in a court of law is liable for all associated court costs and attorney fees.

(Ord. 6-05, passed 3-10-05)

54.131 CEASE AND DESIST ORDERS.

If the violation is determined by the City Engineer or the City Water Pollution Control Superintendent to be a threat to public health or safety, the City Engineer or City Water Pollution Control Superintendent may order the land use or prohibited discharge to cease and desist immediately, regardless of whether a NOV has been issued.

(Ord. 6-05, passed 3-10-05)

54.132 REMEDIES NOT EXCLUSIVE.

The remedies stated in this chapter are not exclusive of any other remedies available under any applicable section of local, state, or federal ordinance, rule, regulation, or law and it is within the discretionary authority of other government bodies to pursue additional remedies as stated in the aforementioned ordinances, rules, regulations, or laws.

(Ord. 6-05, passed 3-10-05)

IMPLEMENTATION

54.140 DISCLAIMER OF LIABILITY.

The degree of protection required by this chapter is considered reasonable for regulatory purposes and is based on historical records, engineering and scientific methods of study. Larger storms may occur or storm water runoff depths may be increased by man-made or natural causes. This chapter does not

imply the land uses permitted will be free from storm water damage. This chapter shall not create liability on the part of the city or any officer or employees thereof for any damages that may result from reliance on this chapter or on any administrative decision lawfully made thereunder.

(Ord. 6-05, passed 3-10-05)

▪ **54.141 CORRECTIVE ACTION.**

Nothing herein contained shall prevent the city from taking such other lawful action as may be necessary to prevent or remedy any violation. All costs connected therewith shall accrue to the individual or individuals responsible.

(Ord. 6-05, passed 3-10-05)

▪ **54.142 EXEMPT PROJECTS.**

Any subdivision or construction project that has received a final Drainage Permit approved by the City Engineer prior to July 1, 2005, shall be considered legally non-conforming. As such, the plan may be implemented as approved. If, however, the project is expanded or otherwise altered, these regulations specified in this chapter shall apply.

(Ord. 6-05, passed 3-10-05)

CHAPTER 55: GENERAL UTILITY PROVISIONS

Section

55.01 Authorized expenditures and activities for water pollution control and stormwater utilities

55.02 Solid waste disposal fee

' 55.01 AUTHORIZED EXPENDITURES AND ACTIVITIES FOR WATER POLLUTION CONTROL AND STORMWATER UTILITIES.

The following expenditures and activities on behalf of the utilities are now hereby authorized and approved, subject to all normal and existing Board and claim approval procedures:

(A) Memberships of the utilities of the Anderson Area Chamber of Commerce and other organizations of a similar nature which the Board deems will further the objectives and operations of the utility.

(B) Reimbursement for employees of the utilities who attend, on behalf of the utilities, luncheons, dinner meetings, conferences, and activities of a similar nature for meals and incidental expenses related to such attendance. In addition, guests of the utilities attending conferences and meetings on behalf of the utilities shall receive their meals paid for by the utility.

(C) Community service advertising which will further customer relations and community standing including holiday greetings, advertisements in area publications, and such other advertising expenses of a similar nature.

(D) Educational and instructional course expenses of a reasonable nature for the utility employees relative to the employee's official duties.

(E) Expenses incurred in promoting good customer relations with its residential, industrial and commercial purchasers of power.

(F) Expenditures and activities of the utilities in conformity with the provisions herein made by the utility are retroactively approved.
(Ord. 29-03, passed 7-10-03)

' 55.02 SOLID WASTE DISPOSAL FEE.

(A) For purposes of this section, a **RESIDENTIAL USER OF DISPOSAL SERVICES** shall mean that person who is either the owner or occupant of a residential premises and in whose name other utility services are maintained with the city. **RESIDENTIAL PREMISES** shall mean a group of rooms located within a building forming a single-family dwelling. The term shall include complexes containing four or fewer separate or contiguous single-family dwelling units, either owner occupied or rented, or whose owner has not elected to procure commercial waste removal by a contracted hauler.

(B) There is now hereby established a solid waste disposal fee equal to the sum of \$10.70 per month, which fee shall be charged to each residential user of the disposal services of the city. Provided, that for any residential user in whose name the account holder is a person age 65 or older, the fee shall be the sum of \$7.70 per month. Such fee shall commence on the first day of the month following final passage and promulgation of the ordinance.

(C) The fee shall be rendered only to residential premises as described above, within the confines of the corporate limits of the city. The monthly fee shall be billed to each residential unit and collected in conjunction with other utility services provided by the city. When the utility account covers a residential premises containing greater than one single-family unit, the account shall reflect, for purposes of the fee, the name of the current account holder for the other city utility services. Any residential premises requiring more than two standard trash receptacles per premises shall be charged an additional fee of \$4 per receptacle per month.

(D) In accordance with the provisions of I.C. 36-9-30-21(j), any user of the services provided does not pay the fee within 30 days after it is due, the amount of fee, together with a penalty of 10% and a reasonable attorney's fee, may be recovered by the city in a civil action brought in the name of the unit.

(E) The Board of Works is hereby empowered to promulgate such rules and regulations, and to enter into such contracts with third parties as necessary to carry out solid waste collection and disposal within the city. (Ord. 22-09, passed 7-9-09)