B37452

STATE BOARD OF ACCOUNTS
302 West Washington Street
Room E418
INDIANAPOLIS, INDIANA 46204-2769

AUDIT REPORT

OF

DRAINAGE BOARD

CLARK COUNTY, INDIANA

January 1, 2008 to December 31, 2008

FILED

08/24/2010

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COUNTY OFFICIALS

Office	Official	Term
Surveyor	Robert Isgrigg	01-01-07 to 12-31-10
President of the Drainage Board	Leslie K. Kavanaugh	01-01-08 to 12-31-10
President of the County Council	David Abbott Jack A. Coffman	01-01-08 to 12-31-09 01-01-10 to 12-31-10
President of the Board of County Commissioners	M. Edward Meyer	01-01-08 to 12-31-10

STATE OF INDIANA

AN EQUAL OPPORTUNITY EMPLOYER

STATE BOARD OF ACCOUNTS
302 WEST WASHINGTON STREET
ROOM E418
INDIANAPOLIS, INDIANA 46204-2769

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TO: THE OFFICIALS OF CLARK COUNTY

We have audited the records of the Clark County Drainage Board for the period from January 1, 2008 to December 31, 2008, and certify that the records and accountability for cash and other assets are satisfactory to the best of our knowledge and belief, except as stated in the Audit Results and Comments. The financial transactions of this office are reflected in the Annual Report of Clark County for the year 2008.

STATE BOARD OF ACCOUNTS

May 19, 2010

DRAINAGE FUND OPERATING EXPENSES

The Board of County Commissioners passed Ordinance No. 3-2004 on January 29, 2004, establishing a Drainage Board Non-Reverting Fees Fund. The fund is financed with fees the Drainage Board charges to review drainage plans for potential residential and commercial developments throughout the County.

The following is a summary of operating type expenditures made without appropriation from the Drainage Non-reverting Fees Fund and approved by the Drainage Board during the year 2008:

Description	Amount
Engineering Services	$ 29,385
Legal Services	4,494
Board Secretary	2,000
Stormwater Study	84,050
Survey Services	2,870
Other	610
Total Expenditures	$ 123,409

Ordinance No. 3-2004 states the following:

"Pursuant to I.C. 36-1-3 (the 'Home Rule Statute'), the Board desires to establish the Clark County Drainage Board Non-reverting Fund."

"The Clark County Drainage Board (the Drainage Board) has previously been established and operates pursuant to I.C. 36-9-27-1 through I.C. 36-9-27-113, as amended."

"That the Fund shall only be used for the payment of operational expenses and staff salaries incurred by the Clark County Drainage Board through its duly authorized operations and activities pursuant to state law."

"The Fund shall not be appropriated by the County Council."

IC 36-9-27-11 states in part: "All expenses of the board shall be paid from the money appropriated from the county general fund. . . ."

IC 36-2-5-2(b) states: "The county fiscal body shall appropriate money to be paid out of the county treasury, and money may be paid out of the treasury only under an appropriation made by the fiscal body, except as otherwise provided by law."

IC 36-1-3-6(a) (Home Rule Statute) states: "If there is a constitutional or statutory provision requiring a specific manner for exercising a power, a unit wanting to exercise the power must do so in that manner."

County Bulletin and Uniform Compliance Guidelines, October 2001 states the following:

"A unit may exercise its Home Rule powers whenever it is 'necessary or desirable' to exercise any power, perform any function, provide any service -- and create the structural elements or procedures to do so--and;

(1) the laws and constitutions of the state and federal governments do not expressly or implicitly prohibit or preempt it from doing so; and

(2) state law does not already provide for exercising the power, providing the service, or performing the function or state law does provide for the foregoing but does not mandate any procedures to follow in implementing it."

NO GENERAL DRAIN IMPROVEMENT FUND

The County paid $8,800 to remove an obstruction from Lancassange Creek during the year 2008. The County has not established a general drain improvement fund as required by Indiana Code. Therefore, payment was made from the Drainage Non-reverting Fund that was established by Ordinance No. 3-2004 pursuant to IC 36-1-3 (Home Rule) without appropriation by County Council.

IC 36-9-27-73(a) states in part:

"There is established in each county a general drain improvement fund, which shall be used to pay the cost of . . . (2) removing obstructions from drains under IC 36-9-27.4. In addition, if a maintenance fund has not been established for a drain, or if a maintenance fund has been established and it is insufficient, the general drain improvement fund shall be used to pay the deficiency."

IC 36-1-3-6(a) (Home Rule Statute) states: "If there is a constitutional or statutory provision requiring a specific manner for exercising a power, a unit wanting to exercise the power must do so in that manner."

County Bulletin and Uniform Compliance Guidelines, October 2001 states the following:

"A unit may exercise its Home Rule powers whenever it is 'necessary or desirable' to exercise any power, perform any function, provide any service -- and create the structural elements or procedures to do so--and;

(1) the laws and constitutions of the state and federal governments do not expressly or implicitly prohibit or preempt it from doing so; and

(2) state law does not already provide for exercising the power, providing the service, or performing the function or state law does provide for the foregoing but does not mandate any procedures to follow in implementing it."

REMOVAL OF OBSTRUCTION IN A CREEK

The Drainage Board authorized the expenditure of $8,800 from the Drainage Non-reverting Fund in the year 2008 for the removal of an obstruction in Lancassange Creek. The following is additional information regarding this payment:

1. Investigation of Obstruction by Surveyor:

   Robert Isgrigg, County Surveyor, stated that he was not requested by the Drainage Board to investigate a complaint regarding an obstruction in Lancassange Creek and did not make a report to the Drainage Board regarding the obstruction. Robert Isgrigg stated: no petition was filed with his office; no notice was served to owners; and no public hearing held.

   IC 36-9-27.4-12 states in part:

   "(a) If a petition filed under this chapter alleges the obstruction of:

   (1) a drain; or

   (2) a natural surface watercourse;

   the county surveyor of the county in which the obstruction is alleged to exist shall promptly investigate whether the obstruction exists.

   (b) If the county surveyor, upon investigation, finds an existing obstruction in a drain or natural surface watercourse in the location alleged in the petition, the county surveyor shall report the existence of the obstruction to the drainage board.

   (c) Upon receiving a report from the county surveyor under subsection (b), the drainage board shall:

   (1) set a date for a hearing on the petition; and

   (2) serve notice of the hearing on each owner of the land on which the obstruction exists who can be identified in the records of the county recorder. . . ."

2. Payment for Cost of Removal:

   The Drainage Board approved the cost of the removal of the obstruction. No landowners were assessed the cost for removing the obstruction.

   IC 36-9-27.4-19 states the following:

   "(a) If:

   (1) a petition filed under this chapter concerns a drain; and

(2) the drainage board: (A) finds for the petitioner under section 14(a) of this chapter; but (B) does not find under section 15 of this chapter that the obstruction of the drain was created intentionally by any of the respondents; the drainage board shall enter an order under subsection (b)."

"(b) Upon a determination made under subsection (a), the drainage board shall enter an order:

(1) authorizing the petitioner to remove the obstruction;

(2) authorizing the respondents to remove the obstruction;

(3) directing the county surveyor to remove the obstruction; or

(4) directing that the obstruction be removed through the joint efforts of at least two (2) of the persons referred to in this subsection."

"(c) If an order is issued under subsection (b), the costs of removing the obstruction must be borne by the owners of all the tracts of land that are benefited by the drain. The order of the board must do the following:

(1) Identify all tracts of land that are benefited by the drain.

(2) Identify the owners of the tracts of land referred to in subdivision (1): (A) who are known to the drainage board; or (B) whose identity can be determined through the records of the county auditor.

(3) Apportion the costs of removing the obstruction among the tracts of land that are benefited by the drain, assigning to each tract a certain percentage of the total costs.

(4) Order the owners of each tract of land referred to in subdivision (1) to pay an amount equal to the product of the total costs of removing the obstruction multiplied by the percentage assigned to the tract under subdivision (3)."

"(d) The percentage of the total costs assigned to a tract under subsection (c) (3) must correspond to the ratio of the total length of the drain to the length of the particular segment of the drain that benefits the tract."

IC 36-9-27.4-21 states:

"In entering an order concerning the removal of an obstruction under this chapter, a drainage board may:

(1) provide for the costs of the removal work to be paid directly by one (1) or more of the persons subject to the order; or (2) authorize an advance on the general drain improvement fund established in the county under IC 36-9-27-73 for the payment of the costs of the removal work and provide for the amount advanced to be reimbursed by one (1) or more of the persons subject to the order."

IC 36-9-27-73 states in part the following:

"(a) There is established in each county a general drain improvement fund, which shall be used to pay the cost of . . . removing obstructions from drains under IC 36-9-27.4. . . ."

"(b) The general drain improvement fund consists of . . .

(3) costs collected from petitioners in a drainage proceeding;

(4) appropriations made from the general fund of the county, or taxes levied by the county fiscal body for drainage purposes . . ."

DRAINAGE BOARD
CLARK COUNTY
EXIT CONFERENCE

The contents of this report were discussed on May 18, 2010, with Robert Isgrigg, Surveyor. His official response has been made a part of this report and may found on pages 10 and 11.

The contents of this report were also discussed with Leslie K. Kavanuagh, President of the Drainage Board, and M. Edward Meyer, President of the Board of County Commissioners, on May 19, 2010. The County Attorney responded on behalf of the County and his response has been made a part of this report and may be found on pages 12 through 60.

The contents of this report were discussed on May 19, 2010, with Jack A. Coffman, President of the County Council.

Clark County Surveyor's Office
812-285-6281
Robert L. Isgrigg, P.E. P.L.S.
Room 421 County Gov. Bldg.
501 East Court Avenue
Jeffersonville IN 47130

TO: The State Board of Accounts

RE: 2008 Audit
Clark County Drainage Board

FROM: Robert L. Isgrigg, P.E., P.L.S.

DATE: July 2, 2010

In response to the "Confidential Discussion Draft Only" copy provided to me on July 1, 2010, I would like to add the following:

1. The Lancassange Creek Project was disguised as an obstruction removal. However, it was a project to repair the back yard of Deborah L. McDonald (a single woman) who was an acquaintance of Commissioner Mike Moore. This involved sand bagging, fill materials and rip rap. See photographs (attached) acquired after construction.

   There was no "obstruction" in the creek. The Lancassange Creek flood way channel at this location is 350 feet wide. There are hundreds of trees lying on the banks, which is natures way of preventing erosion but these are insignificant to the flood capacity of the creek. There are many yards that are caving in along the creek in this area as well.

   The County has, in the recent past, correctly rejected requests to repair bank cave-ins in this same area because these are all private properties. Also, there is no obligation as yet for the County to maintain the creek channel. No legal drain has been created. The letter to the U.S. Army Corps of Engineers dated September 12, 1984 from the Clark County Commissioners explicitly states it "does not constitute a contract." In the later lawsuit involving Oak Park, the judge's ruling clearly stated that the County Commissioners have no obligation to maintain Lancassange Creek. Subsequently, this project is all covered under "Drainage Law" which is correctly stated in the Audit draft.

Also, Brian Dixon's fees should be added to the projects cost for assessment. The bidding on Lancassange amounted to Brian Dixon, PE verbally discussing three prices supposedly acquired from three contractors. No written bids were ever presented and the bidding requirements under "Drain Law" were certainly not followed.

It is my professional opinion that there is no competitive bidding taking place. These projects costs are simply negotiated such that substantially excessive contracts are awarded, resulting in obvious kickbacks, "Pay to Play". The awards are then rotated among a group of contractors or other favors are exchanged by Dixon (such as City of New Albany sewer work), which he supervises. This fact was documented in the records early in the Sunset Hills drainage (2009) where I acquired bids on the identical plans and received a $9075 bid for work the Commissioners were going to award a no bid contract for $52,500 - to a contractor no one had ever heard of, who had just incorporated the business and who had a serious criminal record. This contractor then disappeared from future discussions.

I am generally strongly in agreement with the audit and appreciate your efforts.

Respectfully,

Robert L. Isgrigg, P.E., P.L.S.
Clark County Surveyor

Mr. Robertson --

Thank you for the opportunity to submit a revised response to your agency's modified comments to the Drainage Board audit for 2008. My reply is as follows:

1. The Clark County Drainage Board was formed pursuant to the provisions of IC 36-9-27, et seq., by adoption of Ordinance No. 5-2000 (copy attached). This series of statutes pertain to the jurisdiction of a drainage board over regulated drains (see IC 36-9-27-15). There are NO regulated drains in Clark County as evidenced by the lack of a drain book maintained in the office of the County Surveyor (see IC 36-9-27-29(4)).

2. As there are no regulated drains in Clark County, there are no tax assessments arising therefrom. The sole funds in the County General Drain Improvement Fund consist solely of appropriations made from the general fund by the County Council (IC 36-9-27-73(b)(4)).

3. Nothing in Indiana law prohibits additional duties and powers from being delegated to the Drainage Board. The Commissioners delegated such additional duties and powers to the Drainage Board by the adoption of the following ordinances:

a. Ordinance No. 7-2002 (the Clark County Drainage Code) (copy attached) which regulates the drainage requirements for new developments and appoints the Drainage Board as the enforcement authority.

b. Ordinance No. 3-2004 (copy attached) which establishes a schedule of fees for review of drainage plans.

c. Ordinance No. 13-2007 (copy attached) which delegated additional investigation and remediation responsibilities to the Drainage Board for non-regulated drain issues on or affecting public properties.

4. As noted in your report Ordinance No. 3-2004 expressly permits the use of the non-reverting fund into which the design review fees are deposited to be used to pay the "operational expenses" of the Drainage Board. These expenses include the costs for engineering services, legal services, board secretary, storm water study, and survey services referenced on page 1 of your revised comments, as well as the $8,800 expenditure for the removal of the Lancassange Creek obstruction referenced on page 2. Such expenditures are <u>not</u> violative of Home Rule statutes as IC 36-9-27, *et seq*. does <u>not</u> in any manner "expressly or implicitly prohibit or preempt" the Commissioners from establishing such a non-reverting fund or permitting its use for such purposes (see also IC 36-1-3-8).

5. I previously forwarded documents evidencing the County's obligation to maintain federally funded improvements to Lancassange Creek consisting of correspondence with the United States Army Corps of Engineers and a judgment of the Clark Circuit Court. Your revised comments have wholly ignored the import of these documents. I concur that in the absence of these independently exisitng obligations, the Lancassange Creek situation should properly have been addressed in accordance with the provisions of IC 36-9-27.4, *et seq*. This area has now been

annexed by the City of Jeffersonville (thereby terminating the County's continuing maintenance responsibility), which I believe renders moot the possibility of a similar situation arising in the future. Since I became the Drainage Board attorney in August 2008 (after the completion of the Lancassange work), the Drainage Board has consistently followed the provisions of the obstruction investigation and removal statutes, specifically including referring the matter to inspection by the County Surveyor.

Your consideration of the foregoing, in addition to my prior comments, is greatly appreciated.

Respectfully submitted:

Greg Fifer,
Attorney for the Clark County Commissioners
and Clark County Drainage Board

ORDINANCE NO. S-2000

AN ORDINANCE FOR ESTABLISHMENT OF THE CLARK COUNTY DRAINAGE BOARD

WHEREAS, the Board of Commissioners of Clark County, Indiana ("the Commissioners"), comprises the executive branch of the Clark County, Indiana Government pursuant to I.C. 36-2-2-2. Further, and additionally, the Commissioners perform all legislative functions of Clark County, Indiana Government, as the legislative body, pursuant to I.C. 36-1-2-9.

WHEREAS, the Commissioners have authority to enact Ordinances concerning the creation of a Drainage Board pursuant to I.C. 36-9-27-4.

WHEREAS, certain needs have been brought to the attention of the Commissioners that the creation of a Drainage Board is warranted and is necessary to the public interests and for the improved internal functioning of the Clark County Government Unit.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COMMISSIONERS OF CLARK COUNTY, INDIANA AS FOLLOWS:

(1) That each and every recital set forth hereinabove is adopted and made a part of this ordinance.

(2) That the Board now hereby ordains, orders and establishes that pursuant to I.C. 36-9-27-4 the Board shall hereby be know as the "Clark County Drainage Board" (hereinafter "the Board").

(3) That pursuant to I.C. 36-9-27-5 the Board shall be composed of three members, each serving a three year term. The members terms shall be staggered.

(4) That the Board shall be comprised of the following:

a) one (1) member being a County Executive appointed by the County Executive.

b) two (2) members that must be resident freeholders of the County of Clark and have knowledge of drainage matters.

c) The County Surveyor serves as an ex officio, nonvoting member.

(5) That the two (2) resident freeholder members shall be paid a per diem of $40.00 per meeting and mileage costs in accordance with I.C. 36-9-27-10 and I.C. 36-9-27-11.

(6) That the Board shall have the rights and responsibilities as set out in the Indiana Code.

THIS ORDINANCE PASSED BY majority ~~UNANIMOUS~~ VOTE OF THE BOARD OF COMMISSIONERS OF CLARK COUNTY, INDIANA ON THIS 18TH DAY OF APRIL, 2000.

BOARD OF COMMISSIONERS OF
CLARK COUNTY, INDIANA:

M. Edward Meyer, President

absent
Dennis Hill, Commissioner

Ralph Guthrie, Commissioner

ATTEST:

Barbara Bratcher-Haas
Barbara Bratcher-Haas, Auditor
Clark County, Indiana

CLARK COUNTY
DRAINAGE ORDINANCE

7-2002

FOR RESIDENTIAL AND COMMERCIAL DEVELOPMENTS

7-2002

SECTION 1 - PURPOSE AND INTENT

The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of Clark County through the regulation of storm water runoff. This ordinance establishes guidelines for construction of residential and commercial properties within the jurisdiction of the Clark County Drainage Board.

SECTION 2 - ACRONYMS

For the purposes of this ordinance, the following shall mean:

1.	ASTM	American Society for Testing Materials
2.	CCDB	Clark County Drainage Board
3.	FEMA	Federal Emergency Management Agency
4.	HAC	Hot Asphalt Concrete
5.	INDOT	Indiana Department of Transportation
6.	NGVD	National Geodetic Vertical Datum
7.	NRCS	USDA Natural Resources Conservation Service
8.	SCS	Soil Conservation Service (Now known as the USDA Natural Resources Conservation Service)

SECTION 3 - DEFINITIONS

1. **ASTM.** American Society for Testing Materials, an association that publishes standards and requirements for materials used in the construction industry.
2. **Blue Line Stream.** Any stream depicted blue in color, solid or dashed, on a USGS Quad Map.
3. **Capacity of a Storm Drainage Facility.** The maximum flow that can be conveyed or stored by a storm drainage facility without causing damage to public or private property.
4. **Catch Basin.** A chamber usually built at the curb line of a street for the admission of surface water to a storm sewer or subdrain, having at its base a sediment sump designed to retain grit and detritus below the point of overflow.
5. **Channel.** A portion of a natural or artificial watercourse which periodically or continuously contains moving water, or which forms a connecting link between two bodies of water. It has a defined bed and banks, which serve to confine the water.

6. **Contour.** An imaginary line on the surface of the earth connecting points of the same elevation.

7. **Contour Line.** Line on a map which represents a contour or points of equal elevation.

8. **Crown of Pipe.** The elevation of the top of pipe.

9. **Culvert.** A closed conduit used for the conveyance of surface drainage water under a roadway, railroad, canal or other impediment.

10. **Datum.** Any level surface to which elevations is referred, usually using Mean Sea Level.

11. **Design Storm.** A selected storm event, described in terms of the probability of occurring once within a given number of years, for which drainage of flood control improvements are designed and built.

12. **Detention.** Managing storm water runoff by temporary holding and controlled release.

13. **Detention Basin.** A facility constructed or modified to restrict the flow of storm water to a prescribed maximum rate, and to detain concurrently the excess waters that accumulated behind the outlet.

14. **Detention Storage.** The temporary detaining of storm water in storage facilities, on rooftops, in streets, parking lots, school yards, parks, open spaces or other areas under predetermined and controlled conditions, with the rate of release regulated by appropriately installed devices. (Refer to Section 8).

15. **Detention Time.** The theoretical time required to displace the contents of a tank or unit at a given rate of discharge (volume divided by rate of discharge).

16. **Discharge.** Usually the rate of water flow. A volume of fluid passing a point per unit time commonly expressed as cubic feet per second, cubic meters per second, gallons per minute, or millions of gallons per day.

17. **Drainage Area.** The area draining into a stream at a given point. It may be of different sizes for surface runoff, subsurface flow and base flow, but generally the surface runoff area is considered as the drainage area.

18. **Drainage Board.** The Clark County Drainage Board.

19. **Drainage Improvement.** An activity within or adjacent to a natural stream or a man-made drain primarily intended to improve the flow capacity, drainage, erosion and sedimentation control, or stability of the drainage way.

20. **Drop Inlet.** A structure in which water drops through a vertical riser connected to a discharge conduit or storm sewer.

21. **Earth Embankment.** A man-made placement of soil, rock, or other material often used to form an impoundment.

22. **Emergency Spillway.** Usually a vegetated earth channel used to safely convey flood discharges around an impoundment structure.

23. **Grade.** (1) The slope of a road, a channel, or natural ground. (2) The finished surface of a canal bed, roadbed, top of embankment, or bottom of excavation; any surface prepared to a design elevation for the support of construction, such as paving or the laying of a conduit. (3) To finish the surface of a channel bed,

roadbed, top of embankment, or bottom of excavation, or other land area to a smooth, even condition.

24. **Head.** (1) The height of water above any plane of reference. (2) The energy, either kinetic or potential, possessed by each unit weight of a liquid, expressed as the vertical height through which a unit would have to fall to release the average energy possessed. Used in various compound terms, such as pressure head or velocity head.

25. **Head Loss.** Energy loss due to friction, eddies, changes in velocity, elevation, or direction of flow.

26. **Headwater.** (1) The source of a stream. (2) The water upstream from a structure or point on a stream.

27. **Hydrograph.** A graph showing for a given point on a stream the discharge, stage (depth), velocity, or other property of water with respect to time.

28. **INDOT.** Indiana Department of Transportation. Generally used here to refer to specifications contained in the publication "INDOT Standard Specifications."

29. **NGVD.** A particular elevation datum known as the National Geodetic Vertical Datum of 1929 (NGVD 1929).

30. **Invert.** The inside bottom of a culvert or other conduit.

31. **Professional Land Surveyor.** A person licensed under the laws of the State of Indiana to practice land surveying.

32. **Professional Engineer.** A person licensed under the laws of the State of Indiana to practice professional engineering.

33. **Rainfall Intensity.** The rate at which rain is falling at any given instant, usually expressed in inches per hour.

34. **Rational Method.** A means of computing storm drainage flow rates (Q) by use of the formula Q = CIA, where C is a coefficient describing the physical drainage area, I is the rainfall intensity and A is the area.

35. **Retention Facility.** A facility designed to completely retain a specified amount of storm water runoff without release except by means of evaporation, infiltration or pumping.

36. **Runoff.** That portion of precipitation that flows from a drainage area on the land surface, in open channels, or in storm water conveyance systems.

37. **Sinkholes.** A sinkhole is any closed depression in a limestone region formed by the removal of water, surfacial soil, rock or other material, that is connected to a cavern or underground passage. The sinkhole drainage area shall include any area that contributes surface water directly to the sinkhole.

38. **Slope.** Degree of deviation of a surface from the horizontal, measured as a numerical ratio or percent. Expressed as a ratio, the first number is commonly the horizontal distance (run) and the second is the vertical distance (rise) – e.g., 2:1. However, the preferred method for designation of slopes is to clearly identify the horizontal (H) and vertical (V) components (length (L) and Width (W) components for horizontal angles). Also note that according to international standards (Metric), the slopes are presented as the vertical or width component shown on the numerator—e.g., 1V: 2H. Slope expressions in

this handbook follow the common presentation of slopes—e.g., 2:1 with the metric presentation shown in parenthesis—e.g., (1V: 2H). Slopes can also be expressed in "percents." Slopes given in percents are always expressed as (100V/H) –e.g., a 2:1 (1V: 2H) slope is a 50% slope.

39. **Soil.** The unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants. Also see alluvial soil, Clay, Cohesive soil, Loam, Permeability (soil), Sand, Silt, Soil horizon, Soil profile, Subsoil, Surface soil, Topsoil.

40. **Storm Event.** An estimate of the expected amount of precipitation within a given period of time. For example, a 10-yr. frequency, 24-hr. duration storm event is a storm that has a 10% probability of occurring in any one year. Precipitation is measured over a 24-hr. period.

41. **Storm Frequency.** The time interval between major storms of predetermined intensity and volumes of runoff—e.g., a 5-yr., 10-yr. or 20-yr. storm.

42. **Storm Sewer.** A sewer that carries storm water, surface drainage, street wash, and other wash waters but excludes sewage and industrial wastes. Also called a storm drain.

43. **Storm Water.** Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation

44. **Surface Runoff.** Precipitation that flows onto the surfaces of roofs, streets, the ground, etc., and is not absorbed or retained by that surface but collects and runs off.

45. **Time of Concentration (t_c).** Is the travel time of a particle of water from the most hydraulically remote point in the contributing area to the point under study. This can be considered the sum of an overland flow time and times of travel in street gutters, storm sewers, drainage channels, and all other drainage ways.

46. **Watershed Area.** All land and water within the confines of a drainage divide.

47. **Zoning Ordinance.** Clark County Indiana Zoning Ordinance of 1998 or any replacement zoning ordinance and its amendments.

SECTION 4 – GENERAL PROVISIONS

APPLICABILITY

This ordinance shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted by this ordinance.

RESPONSIBILITY FOR ADMINISTRATION

The Clark County Drainage Board (CCDB) shall administer, implement, and enforce the provisions of this ordinance. Any powers granted or duties imposed upon the CCDB may be delegated in writing by the Drainage Board to the enforcement personnel.

SERVER ABILITY

The provisions of this ordinance are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Ordinance or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this Ordinance.

ULTIMATE RESPONSIBILITY

The standards set forth herein and promulgated pursuant to this ordinance are minimum standards.

NOTICE OF VIOLATION

Whenever the Clark County Drainage Board finds that a person or developer has violated or failed to meet a requirement of this Ordinance, the CCDB may order compliance by written notice of violation to the responsible person.

APPEAL OF NOTICE OF VIOLATION

Any person receiving a Notice of Violation may appeal the determination of the CCDB. The notice of appeal must be received within 10 days from the date of the Notice of Violation. Hearing on the appeal before the CCDB shall take place within 30 days from the date of receipt of the notice of appeal. The decision of the CCDB shall be final.

ENFORCEMENT MEASURES AFTER APPEAL

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal, within five days of the decision of the CCDB may pursue all remedies provided for in this ordinance or by law.

INJUNCTIVE RELIEF

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Ordinance. If a person has violated or continues to violate the provisions of this ordinance, the CCDB may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

CIVIL PENALTIES

Any person, firm, or corporation who shall violate or fail to comply with any of the provisions of this ordinance shall be liable for civil penalties to the CCDB up to $2,500.00. Each day that the violation exists or continues shall be deemed a separate offense. Any such person, firm or corporation shall also reimburse the CCDB for all attorneys' fee incurred in any enforcement action.

VIOLATIONS DEEMED A PUBLIC NUISANCE

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Ordinance that is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

REMEDIES NOT EXCLUSIVE

The remedies listed in this ordinance are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the authorized enforcement agency to seek cumulative remedies.

SECTION 5 - DESIGN METHODOLOGY FOR STORM SEWERS

This chapter establishes the minimum required standards for the planning and design of drainage systems and storm water management facilities within Clark County.

STORM SEWER DESIGN PARAMETERS

All storm sewers, whether private or public, and whether constructed on private or public property shall be designed to handle the flow for a minimum storm return period of 10 years (10 year storm). In addition, storm systems shall be designed to store the return period of 100 years (100 year storm). These design parameters will allow surface water to drain into the storm system and not allow water to stand outside the public right-of-way and easements.

The runoff calculation procedures to be utilized depends upon the size of the proposed development or project as follows:

1. If the total tributary area to an existing or proposed storm water facility project site is 50 acres or less, or storage design is required for a site containing 1 acre or less, the method of runoff calculation shall be the Rational Method.
2. If the total project drainage area is greater than 50 acres, or storage design is required for a site containing more than 1 acre, a discharge hydrograph must be calculated using the NRCS method or another method that has been approved by the CCDB.
3. The Rational Method may be used to design through drainage channel if the drainage area of the channel is 50 acres or less, otherwise, the channel shall be designed by NRCS runoff calculation methodology or another method that has been approved by the CCDB.

FREQUENCY/RETURN PERIOD

The elevation of the 100-year pre- and post- development discharged shall be checked for all drainage system designs to assure conformance with the guidelines of the FEMA Program. In the areas of the County not covered by a Flood Insurance Study, the Design Engineer or Land Surveyor must determine the pre-development 100-year Flood Elevation. The elevation for the 100-year post-development discharge shall be conveyed within the limits of the proposed easement.

RAINFALL DURATION

The minimum design storm duration for planning and design is dependent upon the runoff method used.

A. The Rational Method calculates peak discharge only (as opposed to developing a runoff hydrograph for an area). It makes a basic assumption that the design storm has constant rainfall intensity for a time period (storm duration) equaling the project area time of concentration. The minimum time of concentration (tc) for overland flow to the first inlet or structure of any facility shall be 10 minutes.

B. The NRCS Method will utilize the NRCS Type II 24-hour rainfall distribution. The exception is for the design of detention/retention basins where the 6-hour storm is used.

RAINFALL DEPTH

Rainfall Intensity-Duration Curves for Louisville, Kentucky shall be utilized in the Rational Method to determine rainfall depths and storm intensities for Clark County.

SURFACE CONDITION DATA

Maps depicting the NRCS Hydrologic Soil Groups, Existing Land Use, and Projected Land Use for each watershed should be evaluated to determine the appropriate surface condition factors for use in runoff calculations.

RUNOFF CALCULATION METHODS (DESIGN FLOW)

DETERMINATION OF RUNOFF QUANTITIES:

Runoff quantities shall be computed for the area of the parcel under development plus the area of the watershed flowing into the parcel under development. The quantity of runoff which is generated as the result of a given rainfall intensity shall be calculated as follows:

For areas up to and including 50 acres and storage design required for a site containing 1 acre or less the Rational Method may be used. In the Rational Method, the peak rate of runoff, Q, in cubic feet per second is computed as:

$Q = CIA$

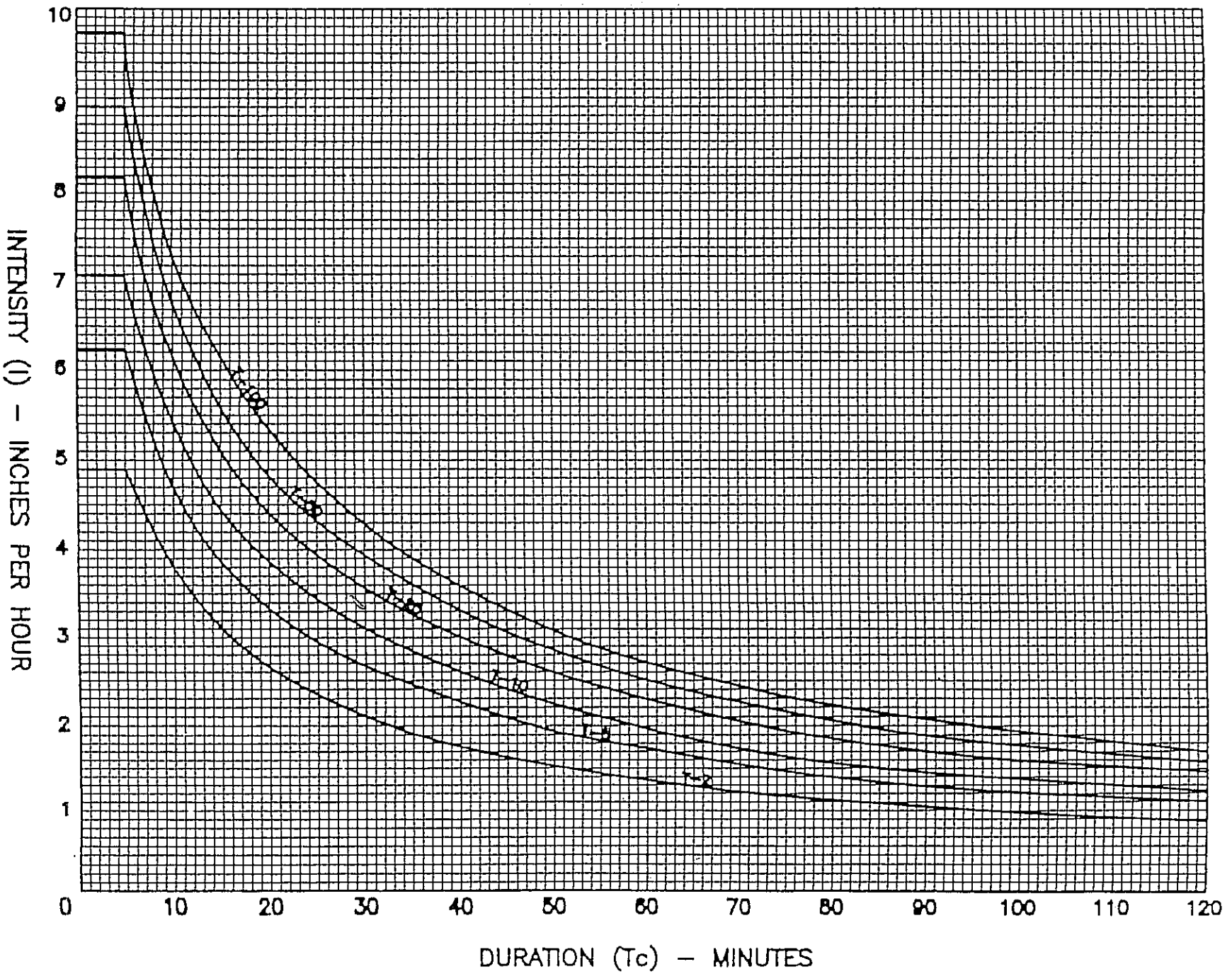
Where:	C =	Runoff coefficient, representing the characteristics of the drainage area and defined as the ratio of runoff to rainfall.
	I =	Average intensity of rainfall in inches per hour for a duration equal to the time of concentration (tc) for a selected rainfall frequency.
	A =	Tributary drainage area in acres.

The rainfall intensity factor, I, should be obtained from the Louisville, Kentucky Rainfall Intensity-Duration Curves.

The time of concentration (tc) to be used shall be the sum of the inlet time and flow time in the drainage facility from the most remote part of the drainage area to the point under consideration. The flow time in the storm sewers may be estimated by the distance in feet divided by velocity of flow in feet per second. The velocity shall be determined by the Manning's Formula. Inlet time is the combined time required for the runoff to reach the inlet of the storm sewer. It includes overland flow time and flow time through established surface drainage channels such as swales, ditches and sheet flow across such areas as lawns, fields and other graded surfaces.

The time of concentration (duration), tc, shall be determined by calculating the time for a particle of water to travel from the most hydrological remote point of the project area

RAINFALL INTENSITY-DURATION CURVES



to the point of interest. Time of concentration to the first inlet or structure may be estimated by the Kirpick Equation (tc = 0.0078*L^0.77*s^-0.385) where L equals length of travel in feet and S equals slope in foot per foot. Other methods to derive time of concentration such as TR-55 and the Kinematic Wave method will be acceptable. The minimum tc shall not be less than 10 minutes. Manning's Equation should be used to estimate any in-pipe or channel travel.

Guidance to selection of the runoff coefficient "C" is provided by Table 1 and Table 1A which show values for different types of surface and local soil characteristics. The composite "C" value used for a given drainage area with various surface types shall be the weighted average value for the total area calculated from a breakdown of individual areas having different surface types.

USDA NATURAL RESOURCES CONSERVATION SERVICE METHODS

The NRCS Methods are required for runoff calculation procedures for project sites where the total project area is greater than 50 acres and storage design is required for a site containing more than 1 acre.

METHODS

The NRCS methods also include the TR-20 and TR-55 Methods. Detailed descriptions, example calculations **and** worksheets for these methods are available in:

1. Project Formulation - Hydrology, Technical Release No. 20 User's Manual;
2. Urban Hydrology for Small Watersheds Technical Release No. 55; and
3. A guide to Hydrologic Analysis Using NRCS Methods.

CURVE NUMBER

The curve number is similar to the Rational Method C-Factor in that it is based on the surface condition of the project site.

The appropriate figures and hydrology in the Watershed Plans should be utilized to determine the hydrologic soil group and land use definition for the particular area.

For through drainage systems, post developed curve numbers shall be based on a watershed as developed at the time of design.

DESIGN FLOWS

At a minimum, the facility must have the capacity to transport the 10-year post-development discharge except in unusual cases, such as retrofit projects. The CCDB shall determine design criteria for retrofit projects or other unusual cases. The water surface profile and through system capacity shall be checked for the 100-year post-development discharge. All drainage systems shall be capable of passing the 100-year design flow within the drainage easement. Additional facility specific requirements are found in the following portions of this ordinance.

TABLE 1

Urban Runoff Coefficients

Type of Surface	Runoff Coefficient "C"
Concrete	0.85
Asphalt	0.82
Roof	0.85
Lawns (Sandy)	
Flat (0-2% Slope)	0.07
Rolling (2-7% Slope)	0.12
Steep (greater than 7%)	0.17
Lawns (Clay)	
Flat (0-2% Slope)	0.16
Rolling (2-7%) Slope	0.21
Steep (greater than 7%)	0.30

1. The coefficients of this tabulation are applicable to storms of 5 to 10 year frequencies. Coefficients for less frequent higher intensity storms shall be modified as follows:

Return Period (yrs)	Multiply "C" by
25	1.1
50	1.2
100	1.25

TABLE 1A

Rural Runoff Coefficients

Type of Surface	Run Coefficient "C"
Woodland (Sandy)	
Flat (0-5% Slope)	0.10
Rolling (5-10% Slope)	0.25
Steep (greater than 10% Slope)	0.30
Woodland (Clay)	
Flat	0.30
Rolling	0.35
Steep	0.50
Pasture (Sandy)	
Flat	0.10
Rolling	0.16
Steep	0.22
Pasture (Clay)	
Flat	0.30
Rolling	0.36
Steep	0.42
Cultivated (Sandy)	
Flat	0.30
Rolling	0.40
Steep	0.52
Cultivated (Clay)	
Flat	0.50
Rolling	0.60
Steep	0.72

1. The coefficients of this tabulation are applicable to storms of 5 to 10 year frequencies. Coefficients for less frequent higher intensity storms shall be modified as follows:

Return Period (yrs)	Multiply "C" by
25	1.1
50	1.2
100	1.25

SECTION 6 - STORM SEWER DESIGN STANDARDS

The Professional Engineer or Professional Land Surveyor shall refer to the Ten State Standards for design methodology for storm sewers. The exception being that all storm sewer systems will be designed for the 10-year event. The 100-year discharge elevation must be checked for all locations to avoid flood damage to adjacent structures. Manning's Equation is recommended to calculate pipe flow and velocity. The storm sewer hydraulic grade line for the 100-year event shall be contained within the storm sewer system.

Hydraulic Capacity

The hydraulic capacity of storm sewers shall be determined using Manning's Equations:

$$V = \frac{1.486\ R^{2/3}\ S^{1/2}}{n}$$

V = mean velocity of flow in feet per second

R = the hydraulic radius in feet

S = the slope of the energy grade line in feet per foot

N = toughness coefficient (for reinforced concrete pipe, n = 0.013)

Roughness coefficient (n) values for other sewer materials can be found in standard hydraulics texts and references.

Minimum Size:

To minimize the potential for pipes to become clogged, the minimum size of all storm sewers shall be 12 inches. This does not pertain to outlet structures for detention/retention basins. (The rate of release for detention storage shall be controlled by an orifice plate of other devices, subject to approval of the Board, where the 12-inch pipe will not limit rate of release as required.)

Grade:

Sewer grade shall be such that, in general, a minimum of 18 inches of cover will be maintained over the top of the pipe. Pipe cover less than the minimum may be used only upon approval of the Board. 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 allowable slopes shall be those capable of producing velocities of two and one-half and 15 feet per second, respectively, when the sewer is flowing full.

Alignment:

In general, storm sewers shall be straight between structures. Where long radius curves are necessary to conform to street layout, the minimum radius of

curvature shall be no less than 100 feet for sewers 42 inches and larger in diameter. Deflection of pipe sections shall not exceed the maximum deflection recommended by the pipe manufacturer. The deflection shall be uniform and finished installation shall follow a smooth curve.

Manholes:

Structures shall be installed to provide access to continuous underground 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 an abrupt change in alignment occurs.
4. Where a change in grade occurs.
5. At suitable intervals in straight sections of sewer.
6. Pipe materials change.

The maximum distance between storm sewer manholes shall be as follows:

Size of Pipe (inches)	Maximum Distance (feet)
12 thru 42	400
48 and larger	600

Inlets:

Inlets or drainage structures shall be utilized to collect surface water through grated openings and convey it to storm sewers, channels or culverts. Inlets contained within roadways shall be placed at low points with a maximum spacing of 400 feet from high points and addition inlets upstream and downstream. The inlet grate opening provided must be adequate to pass the design 10-year flow with 50% of the sag inlet areas clogged. Additional, positive drainage shall be designed in low areas to minimize property damage.

Workmanship and Materials:

The specifications for the construction of storm sewers shall not be less stringent than those set forth in the latest revision of the Indiana Department of Highways' "Standard Specifications."

Materials:

Storm sewer manholes and inlets shall be constructed of cast in place concrete or precast reinforced concrete. Material and construction shall conform to Indiana Department of Highways' "Standard Specifications," Section 720.

Pipe and fittings used in storm sewer construction must be reinforced concrete pipe (ASTM C-76). In areas where there is no anticipation of heavy loads (i.e.

trucks, tractors, farm equipment) ADS pipe can be installed using proper bedding material and installation practices.

Catch Basin inlets contained in roadways shall be Neenah type R-3260-A. Inlets in ditches and swales shall be Neenah type R-4353. Equiv. Type inlets may be used only with the approval of the County Engineer.

Pipe Bedding, Backfill and Surface Restoration:

1. All pipes must be bedded on four (4) inches and covered by twelve (12) inches of Indiana No. 57-crushed limestone.
2. Where pipe is installed in earth areas, not immediately adjacent to a street or road, the remainder of the trench must be backfilled with selected earth materials, humped over the trench to allow for settling.
3. Where pipe is installed in a graveled area, the remainder of the trench must be backfilled with Bank Run sand to a point eight (8) inches below original grade.
4. Where pipe is installed in an asphalt street, driveway, or parking area, the remainder of the trench must be backfilled with Bank Run sand to a point nine (9) inches below original grade. The trench must then be trimmed back six (6) inches on each side and filled with 3000-psi concrete. After all construction is completed, the trench must be cleaned, primed and paved with a one (1) inch compacted thickness of INDOT HAC Surface to be flush with the surrounding area. All patch seams can only be saw cut, cut smooth, straight and tarred.
5. Where pipe is installed in a concreted area, the remainder of the trench must be backfilled with Bank Run sand to a point nine (9) inches below original grade. The trench must then be trimmed back six (6) inches along each side and filled with 3000-psi concrete flush with original grade. All patch seams must be saw cut only, smooth and straight.
6. All cutting of trenches in existing asphalt or concrete pavements must be done with a saw only to provide a straight, smooth joint when new paving is done.

SECTION 7 - OPEN CHANNEL DESIGN STANDARDS

This section describes the technical criteria necessary to design storm water channels and ditches using conventional design procedures. These procedures shall be applied to roadside and rear yard ditches and highly urbanized channel. All blue line streams (especially in undisturbed areas) shall be designed using Natural Channel Design techniques, if possible. This criterion represents minimum requirements.

Manning's equation is required, except in cases where backwater conditions are significant. All calculations must be submitted for review.

Channels and ditches should be capable of conveying the 10-year storm flow within their banks. Through drainage systems (culverts, storm sewers, etc.) shall generally be designed to collect and transport the post development rate of runoff for the 10-year design storm. In all cases, the 100-year discharge elevation shall be checked to ensure that adjacent structures do not suffer flood damage.

All through systems constructed must be capable of passing the 100-year design flow within the drainage easement.

All open channels, whether private or public, and whether constructed on private or public land, shall conform to the design standards and other design requirements contained herein.

Manning Equation:

The waterway for channels shall be determined using Manning's Equation.

Where:

$$V = \frac{1.486}{n} R^{2/3} S^{1/2}$$

V = mean velocity of flow in feet per second

R = The hydraulic radius in feet

S = The slope of the energy grade line in feet per foot

n = roughness coefficient

The hydraulic radius, R, is defined as the cross sectional area of flow divided by the wetted flow surface or wetted perimeter.

Channel Cross Section and Grade:

The design capacity, the material in which the channel is to be constructed, and the requirements for maintenance determine the required channel cross-section and grade. 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 1.5 feet per second should be avoided because siltation will take place and ultimately reduce the channel cross-section.

Side Slopes:

Earthen channel side slopes shall be no steeper than 3 to 1. Flatter slopes may be required to prevent erosion and for ease of maintenance. Where concrete lined channels are required, side slopes shall be no steeper than 1 – 1/2 to 1 with adequate provisions made for weep holes or subsurface drainage. Side slopes steeper than 1-1/2 to 1 may be used for lined channels provided that the side lining is designed and constructed as a retaining wall with provisions for live and dead load surcharge.

Channel Stability:

1. All channels constructed shall have the following characteristics:

a. It neither aggrades nor degrades beyond tolerable limits.

b. The channel banks do not erode to the extent that the channel cross-section is changed appreciably.

c. Excessive sediment bars do not develop.

d. Excessive erosion does not occur around culverts, bridges or elsewhere.

e. Gullies do not form or enlarge due to the entry of uncontrolled surface flow to the channel.

2. Channel stability shall be determined for an aged condition and the velocity shall be based on the design flow or the bank full flow, whichever is greater, using "n" values for various channel linings. In no case is it necessary to check channel stability for discharges greater than that from a 100-year return period storm.

SECTION 8 - DETENTION BASINS

Detention basins shall be designed in accordance with the following Criteria:

Detention basins are typically designed to remain empty during dry weather and to backup or detain excessive runoff generated during a storm.

Basin Volume Design

a. A minimum basin volume shall be the difference in runoff volume discharged from the project area to the basin site between the pre-development and post-development 100-year storm. In cases where the volume requirement governs, the design calculations must not only show that the required volume has been created, but that the basin functions to detain the volume difference.

b. In many areas of the county the increased runoff volumes can be as critical, if not more critical, than the rate of discharge. CCDB will address this issue on a site-specific basis. All development submittals will be evaluated for the impacts of increased runoff and volume control. Satisfying the volume requirement may be met onsite, at approved off-site locations, or by purchase of volume in a Flood Compensation Bank if one is available in the watershed.

c. Maximum basin side slopes shall be 3:1, unless paved.

d. Low flow channels shall be grass if the channel grade is greater than 1.0%.

e. Basin design must include maintenance accessibility and responsibility.

f. The Professional Engineer shall provide for anti-seep collars, extended detention basins, wet ponds, soil bioengineering, baffles, outlet protection and length to width ratios.

g. Detention basins must be completely within a recorded permanent Detention Basin Easement.

Basin Discharge shall be designed with the following criteria:

a. Discharge control structures shall be multi-stage and capable of limiting 2, 10, and 100-year post-development discharges to the respective pre-development peak discharge rates or downstream system capacity and shall be constructed of concrete or approved alternate.

b. The emergency spillway shall be sized to accommodate a flow equal to the design overflow of the 100-year storm post-development discharge without overtopping the dam. Erosion protection must be provided for the spillway and receiving stream.

c. The dam elevation shall not be less than one foot above the 100-year storm storage and overflow elevation.

d. Appropriate downstream channel protection must be installed.

e. Storage, discharge, and routing calculations for the 2-, 10-, and 100-year discharges must be submitted for review.

f. Spillways shall be protected from erosion and shall employ energy dissipation, if necessary.

g. Detention basins shall be fully discharged within 36 hours after the storm event unless specifically approved by the Clark County Drainage Board.

h. The detention basin shall be the first item of construction and must be designed to function as a sediment basin through the construction period. The Basin design must be checked for capacity due to additional runoff generated by disturbed site conditions.

SECTION 9 - SINKHOLES

General

The use of sinkholes as storm water management facilities is not permitted, unless there are no other cost-effective alternatives. Then a submittal must be sent to the Clark County Drainage Board for approval.

Design

Specific design requirements for the use of sinkholes, when permitted, include but are not limited to:

a) The sinkhole shall have the volume to store a 100-year, 24-hour NRCS storm with a no outlet condition.

b) Stormwater discharge into a sinkhole shall not be increased over its preexisting rate according to standards as established by the county drainage board. Depressions containing sinkholes shall not be utilized for stormwater detention unless no other alternatives exist.

c) Photographic evidence should be submitted to the board showing the current condition of the sinkhole feature. If recent subsidence is evident, the sinkhole shall not be used for stormwater drainage unless the feature has been evaluated by a Geotechnical Engineer, and he/she has determined that the feature can be treated so that significant future subsidence is not likely.

d) To confirm the suitability for an existing feature to accept a given runoff volume, the feature must be pump tested using at least 80% of the 100-year design storm for an 8-hour duration. The condition of the sinkhole before and after the pump test should be documented by a licensed professional engineer registered in the State of Indiana. Any evidence of significant subsidence that occurs during or after the test will be taken as unsuitability of the feature to accept runoff.

   To confirm that runoff into the sinkhole feature will not affect adversely adjacent properties, flourescein dye should be injected into the sinkhole during the pump testing. A geotechnical engineer, registered in the State of Indiana, should be retained to make observations of the fate of the dye in the surrounding area.

e) Protective measures for the sinkhole inlet must be applied prior to the start of construction activities. Surface water runoff from stripped areas should be directed away from the sinkhole until the areas have been developed or ground cover has been installed and has become established.

f) An alternate means of surface water disposal must be provided in the event that the sinkhole ceases to accept runoff or significant subsidence occurs in the feature.

g) Stormwater runoff from paved areas or structures shall not directly enter a sinkhole. Drainage plans shall be designed to route runoff through vegetative filters or other filtration measures before it enters a sinkhole. Such filters or filtration methods must be reviewed by the board.

h) A Geotechnical Engineer, licensed in the State of Indiana, must supervise the design and installation of sinkhole treatment measures. The engineer shall also observe installation of treatment measures and shall document that treatment measures comply with approved plans. The engineer shall

be responsible for documenting significant subsidence or other changes in the existing sinkhole feature during treatment that may affect the effectiveness or practicality of the approved treatment method.

i) Any instances of significant subsidence must be fully documented and a Geotechnical Engineer, licensed in the State of Indiana, must supervise design of treatment measures, must inspect treatment installation, and must document construction of repairs prior to bond release..

SECTION 10 - FINAL DRAINAGE PLANS

Final drainage plans shall be submitted to the CCDB. Before final subdivision plat approval or before construction for all other developments, the final construction plans shall provide or be accompanied by calculations, maps and/or other descriptive material including:

Cover Sheet

a. Location Map with the site outlined.

b. Title Block: Title of Development, name and address of developer, name and address of Professional Engineer or Professional Land Surveyor, date of preparation, revision dates.

c. Index of Sheets

d. Engineer's or Land Surveyor's Seals and Signatures

e. Construction notes

Composite Drainage Plan

a. Topography: Minimum Scale 1" = 100' with existing contours at 2-foot intervals, NGVD datum. Contours to extend a minimum of 50 feet beyond property lines.

b. Proposed Development: Street rights-of-way, street names, street centerline stationing, lot lines, lot numbers, property boundary, existing drainage structures, proposed drainage structures (labeled by number or other designation) and easements with widths shown.

c. Hydrologic Data: Designate drainage areas (in acres) to individual inlets, and off-site drainage areas (acres), which generate through drainage.

d. Pipe Chart: Pipe number, drainage area, coefficient of runoff ©, time of concentration, intensity, discharge (Q), size, length, slope, capacity, velocity.

e. 100-year FEMA and Local Regulatory floodplain and conveyance zone, if applicable, with flood elevations noted.

f. Identification of Outlet System.

Plan and Profile (Road) Sheets

Plan View

a. Catch Basins: Line and station number (structure number), grate type and elevation, invert elevation(s).

b. Pipes: Length, size, type, slope, pipe number of designation.

c. Headwalls: Type, invert elevation.

d. Ditches and Swales: Number or designation, type, stations

e. Easements: Type, size, existing with deed book and page numbers, proposed.

f. Utilities: Existing and proposed (including sanitary sewers).

g. Other drainage structures to be labeled accordingly.

Profile View

a. Storm lines and structures to be shown on road profiles.

b. Utility and sanitary sewer crossings.

Storm Drainage Profiles (pipes, ditches, box culverts)

a. Catch Basins: Station or number, type, grate type and elevation, invert elevation(s).

b. Pipes: Length, size, type, class, grade, line number, headwater elevations for 10 and 100-year storms (determined from inlet and outlet control analysis)

c. Ditches:

Type

Grade

Flow line elevation at grade changes (P.V.I)

Design Depth

Manning's "n"

Slope

10 and 100 year discharge depths

d. Headwalls: Type and invert elevation.

e. Existing and proposed ground surfaces.

5.22 Drainage and Storm Water Management

A. Applicability

1. This section shall apply to all types of development which require a local permit and/or approval from Clark County, the Clark County Plan Commission or any other agency of Clark County.

2. Projects that require only individual Improvement Location Permits for a single family dwelling, a two-family dwelling, or their accessory structures are not subject to these requirements.

3. Projects that are for agricultural structures in locations included in current soil and water conservation plans that have been approved by the Clark County Soil and Water Conservation District are also exempt from these requirements.

4. The provisions of this section shall be deemed as additional requirements to minimum standards required by other ordinances of the county. In the case of conflicting requirements, the most restrictive shall apply.

5. The Commission may grant a waiver from any requirements of these regulations if there are exceptional circumstances applicable to the site such that strict adherence to the provisions of these regulations will result in unnecessary hardship and not fulfill the intent of these regulations.

ADOPTION OF ORDINANCE

This ordinance shall be in full force and effect after publication requirements are met. All prior ordinances and parts of ordinances in conflict with this ordinance are hereby repealed.

PASSED AND ADOPTED this 25 day of April, 2002 by the following vote:

President

Member

Member

Member

Member

Attest: Barbara Bratcher-Haas
Barbara Bratcher-Haas
Clerk County Auditor
4/25/02

Soil Map Legend

HSG	Symbol	Soil Name
D	AddA	Avonburg silt loam, 0 to 2 percent slopes
D	AddB2	Avonburg silt loam, 2 to 4 percent slopes, eroded
D	AvA	Avonburg silt loam, 0 to 2 percent slopes
D	AvB	Avonburg silt loam, 2 to 4 percent slopes
D	Ba	Bartle silt loam
D	BbhA	Bartle silt loam, 0 to 2 percent slopes
B	BcrAW	Beanblossom silt loam, 1 to 3 percent slopes, occasionally flooded, very brief duration
B	BcrAQ	Beanblossom silt loam, 1 to 3 percent slopes, rarely flooded
C	BdA	Bedford silt loam, 0 to 2 percent slopes
C	BdB	Bedford silt loam, 2 to 6 percent slopes
C	BdoA	Bedford silt loam, 0 to 2 percent slopes
C	BdoB	Bedford silt loam, 2 to 6 percent slopes
C	BeF	Berks channery silt loam, 18 to 35 percent slopes
C	BfcC3	Blocher, soft bedrock substratum-Weddel complex, 6 to 12 percent slopes, severely eroded
C	BtbC2	Blocher-soft bedrock substratum-Weddel silt loams, 6 to 12 percent slopes, eroded
C	BnyD3	Bonnell clay loam, 12 to 22 percent slopes, severely eroded
C	BobE3	Bonnell-Hickory clay loams, 15 to 30 percent slopes, gullied
C	Bo	Bonnie silt loam
C/D	BodAW	Bonnie silt loam, 0 to 1 percent slopes, occasionally flooded, very brief duration
B	BvoG	Brownstown-Gilwood silt loams, 25 to 75 percent slopes
C	CcaG	Caneyville-Rock outcrop complex, 25 to 60 percent slopes
C	CcB2	Cincinnati silt loam, 2 to 6 percent slopes, eroded
C	CcC2	Cincinnati silt loam, 6 to 12 percent slopes, eroded
C	CcC3	Cincinnati silt loam, 6 to 12 percent slopes, severely eroded
C	CcD2	Cincinnati silt loam, 12 to 18 percent slopes, eroded
C	CcD3	Cincinnati silt loam, 12 to 18 percent slopes, severely eroded
C	CkkB2	Cincinnati silt loam, 2 to 6 percent slopes, eroded
C	CldC2	Cincinnati-Blocher silt loams, 6 to 12 percent slopes, eroded

Soil Map Legend

HSG	Symbol	Soil Name
C	CldC3	Cincinnati-Blocher silt loams, 6 to 12 percent slopes, severely eroded
D	Ce	Clermont silt loam
C(drained)	ClfA	Cobbsfork silt loam, 0 to 1 percent slopes
D	CbF	Colyer shaly silt loam, 18 to 35 percent slopes
C	ComC	Coolville silt loam, 6 to 12 percent slopes
C	CoD	Coolville-Rarden complex, 12 to 18 percent slopes
C	ConC3	Coolville-Rarden complex, 6 to 12 percent slopes, severely eroded
D	CoE	Corydon stony silt loam, 12 to 25 percent slopes
D	CoG	Corydon stony silt loam, 25 to 70 percent slopes
B	GspA	Crider silt loam, 0 to 2 percent slopes
B	CspB2	Crider silt loam, 2 to 6 percent slopes, eroded
C	CrA	Crider silt loam, 0 to 2 percent slopes
C	CrB2	Crider silt loam, 2 to 6 percent slopes, eroded
C	CrB3	Crider silt loam, 2 to 6 percent slopes, severely eroded
C	CrC2	Crider silt loam, 6 to 12 percent slopes, eroded
C	CrC3	Crider silt loam, 6 to 12 percent slopes, severely eroded
C	CrD2	Crider silt loam, 12 to 18 percent slopes, eroded
C	CrD3	Crider silt loam, 12 to 18 percent slopes, severely eroded
B	CtrB2	Crider silt loam, karst, undulating, eroded
B/C/B	CtwB	Crider-Bedford-Navilleton silt loams, 2 to 6 percent slopes
B	CxgC3	Crider-Haggatt complex, 6 to 12 percent slopes, severely eroded
B	CxnC3	Crider-Haggatt complex, karst, rolling, severely eroded
B	CxhC2	Crider-Haggatt silt loams, 6 to 12 percent slopes, eroded
B	CxmC2	Crider-Haggatt silt loams, karst, rolling, eroded
B	CwaAQ	Cuba silt loam, 0 to 2 percent slopes, rarely flooded
C	DbrG	Deam silty clay loam, 20 to 55 percent slopes
B	DdsAW	Dearborn silt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration
C	DtvC2	Deputy-Trappist silt loams, 6 to 12 percent slopes, eroded

Soil Map Legend

HSG	Symbol	Soil Name
C	DmA	Dubois silt loam, 0 to 2 percent slopes
C	EbpD2	Eden silty clay loam, 12 to 25 percent slopes, eroded
C	EsaG	Eden silty clay loam, 25 to 60 percent slopes, very rocky
B	EesA	Elkinsville-Millstone silt loams, 0 to 2 percent slopes
B	EesD2	Elkinsville-Millstone silt loams, 12 to 18 percent slopes, eroded
B	EesFQ	Elkinsville-Millstone silt loams, 18 to 40 percent slopes, rarely flooded
B	EesB	Elkinsville-Millstone silt loams, 2 to 6 percent slopes
B	EesC2	Elkinsville-Millstone silt loams, 6 to 12 percent slopes, eroded
D	FaE	Fairmount silty clay loam, 12 to 25 percent slopes
D	FcG	Fairmount stony silty clay loam, 25 to 70 percents slopes
C	GlC2	Gilpin silt loam, 6 to 12 percent slopes, eroded
C	GlC3	Gilpin silt loam, 6 to 12 percent slopes, severely eroded
C	GlD2	Gilpin silt loam, 12 to 18 percent slopes, eroded
C	GlD3	Gilpin silt loam, 12 to 18 percent slopes, severely eroded
C	GlE2	Gilpin silt loam, 18 to 25 percent slopes, eroded
B	GgbG	Gilwood-Brownstown silt loams, 25 to 75 percent slopes
B	GgfE2	Gilwood-Wrays silt loams, 12 to 25 percent slopes, eroded
B	GgfD	Gilwood-Wrays silt loams, 6 to 18 percent slopes
C/D	GmaG	Gnawbone-Kurtz silt loams, 20 to 60 percent slopes
B	GrA	Grayford silt loam, 0 to 2 percent slopes
B	GrB2	Grayford silt loam, 2 to 6 percent slopes, eroded
B	GrC2	Grayford silt loam, 6 to 12 percent slopes, eroded
B	GrC3	Grayford silt loam, 6 to 12 percent slopes, severely eroded
B	GrD2	Grayford silt loam, 12 to 18 percent slopes, eroded
B	GrD3	Grayford silt loam, 12 to 18 percent slopes, severely eroded
B	GrE2	Grayford silt loam, 18 to 25 percent slopes, eroded
D	Gu	Gullied land
B	GyaD2	Grayford silt loam, 12 to 25 percent slopes, eroded

Soil Map Legend

HSG	Symbol	Soil Name
B	GyaD5	Grayford silt loam, 12 to 25 percent slopes, gullied
B	GyaD3	Grayford silt loam, 12 to 25 percent slopes, severely eroded
B	GykD2	Grayford silt loam, karst, hilly, eroded
B	GykD3	Grayford silt loam, karst, hilly, severely eroded
C	HaC2	Hagerstown silt loam, 6 to 12 percent slopes, eroded
C	HaD2	Hagerstown silt loam, 12 to 18 percent slopes, eroded
C	HaE2	Hagerstown silt loam, 18 to 25 percent slopes, eroded
C	HcC3	Hagerstown silty clay loam, 6 to 12 percent slopes, severely eroded
C	HcD3	Hagerstown silty clay loam, 12 to 18 percent slopes, severely eroded
C	HcE3	Hagerstown silty clay loam, 18 to 25 percent slopes, severely eroded
C(B/C)	HtzD3	Haggatt-Caneyville complex, 12 to 25 percent slopes, severely eroded
C(B/C)	HtjD3	Haggatt-Caneyville complex, karst, hilly, severely eroded
C(B/C)	HtwD2	Haggatt-Caneyville silt loams, 12 to 25 percent slopes, eroded
C(B/C)	HthD2	Haggatt-Caneyville silt loams, karst, hilly, eroded
C	HcaA	Hatfield silt loam, 0 to 2 percent slopes
C	HccB2	Haubstadt silt loam, 2 to 6 percent slopes, eroded
C	HceC3	Haubstadt-Shircliff complex, 6 to 15 percent slopes, severely eroded
C	HcdC2	Haubstadt-Shircliff silt loams, 6 to 15 percent slopes, eroded
B	Hd	Haymond silt loam
B	HcgAH	Haymond silt loam, 0 to 2 percent slopes, frequently flooded, brief duration
B	HcgAV	Haymond silt loam, 0 to 2 percent slopes, frequently flooded, very brief duration
B	HcgAW	Haymond silt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration
C	HeA	Henshaw silt loam, 0 to 2 percent slopes
C	HkE2	Hickory silt loam, 18 to 25 percent slopes
C	HerE	Hickory-Bonnell complex, 12 to 25 percent slopes
C	HoA	Hosmer silt loam, 0 to 2 percent slopes
C	HoB2	Hosmer silt loam, 2 to 6 percent slopes, eroded
C	HoC2	Hosmer silt loam, 6 to 12 percent slopes, eroded

Soil Map Legend

HSG	Symbol	Soil Name
C	HoC3	Hosmer silt loam, 6 to 12 percent slopes, severely eroded
C	HoD2	Hosmer silt loam, 12 to 18 percent slopes, eroded
B	Hu	Huntington silt loam
B	HufAK	Huntington silt loam, 0 to 2 percent slopes, occasionally flooded, brief duration
C	JaeB2	Jennings silt loam, 2 to 6 percent slopes, eroded
C	JafC2	Jennings-Blocher hard bedrock substratum, silt loams, 6 to 12 percent slopes, eroded
C	JafC3	Jennings-Blocher hard bedrock substratum, silt loams, 6 to 12 percent slopes, severely eroded
C	JeA	Jennings silt loam, 0 to 2 percent slopes
C	JeB2	Jennings silt loam, 2 to 6 percent slopes, eroded
C	JhB2	Jennings silt loam, heavy subsoil variant, 2 to 6 percent slopes, eroded
C	JhC2	Jennings silt loam, heavy subsoil variant, 6 to 12 percent slopes, eroded
C	JhC3	Jennings silt loam, heavy subsoil variant, 6 to 12 percent slopes, severely eroded
C	JhD2	Jennings silt loam, heavy subsoil variant, 12 to 18 percent slopes, eroded
D	JoA	Johnsburg silt loam, 0 to 2 percent slopes
C(C/B/C)	KxlE3	Knobcreek-Haggatt-Caneyville complex, 12 to 25 percent slopes, severely eroded
C(C/B/C)	KxlC3	Knobcreek-Haggatt-Caneyville complex, 6 to 12 percent slopes, severely eroded
C(C/B/C)	KxmE2	Knobcreek-Haggatt-Caneyville silt loams, 12 to 25 percent slopes, eroded
C	KxpD2	Knobcreek-Haggatt-Caneyville silt loams, karst, hilly, eroded
C(C/B)	KxkC2	Knobcreek-Navilleton silt loams, 6 to 12 percent slopes, eroded
C(C/B/B)	KxoC2	Knobcreek-Navilleton-Haggatt silt loams, karst, rolling, eroded
C	LpoAK	Lindside silt loam, 0 to 2 percent slopes, occasionally flooded, brief duration
C	MdqDQ	Markland silt loam, 12 to 25 percent slopes, eroded, rarely flooded
C	MenGQ	Markland silt loam, 18 to 50 percent slopes, eroded, rarely flooded
C	McgC2	Markland silt loam, 6 to 12 percent slopes, eroded
C	MeuDQ	Markland silty clay loam, 12 to 25 percent slopes, severely eroded, rarely flooded
C	McpC3	Markland silty clay loam, 6 to 12 percent slopes, severely eroded
C	MhuA	McGary silt loam, 0 to 2 percent slopes
C	MhyA	Medora silt loam, 0 to 2 percent slopes

Soil Map Legend

HSG	Symbol	Soil Name
C	MhyB2	Medora silt loam, 2 to 6 percent slopes, eroded
C	MhyC2	Medora silt loam, 6 to 12 percent slopes, eroded
C	MhyC3	Medora silt loam, 6 to 12 percent slopes, severely eroded
D	Mo	Montgomery silty clay
D	MsvA	Montgomery silty clay loam, 0 to 1 percent slopes
C	NaaA	Nabb silt loam, 0 to 2 percent slopes
C	NaaB2	Nabb silt loam, 2 to 6 percent slopes, eroded
C	Ne	Newark silt loam
C	NbhAK	Newark silt loam, 0 to 2 percent slopes, occasionally flooded, brief duration
B	OfbAW	Oldenburg loam, 0 to 2 percent slopes, occasionally flooded, very brief duration
C	PcrB2	Pekin silt loam, 2 to 6 percent slopes, eroded
C	PcrC2	Pekin silt loam, 6 to 12 percent slopes, eroded
C	PcrC3	Pekin silt loam, 6 to 12 percent slopes, severely eroded
C	PeB2	Pekin silt loam, 2 to 6 percent slopes, eroded
C	PhaA	Peoga silt loam, 0 to 1 percent slopes
	Pml	Pits, quarry
	Ppu	Pits, sand and gravel
B	Pu	Rope silt loam
C	RblD3	Rarden silty clay loam, 12 to 18 percent slopes, severely eroded
C	RbmD5	Rarden silty clay, 6 to 18 percent slopes, gullied
C	RdC2	Rarden silt loam, 6 to 12 percent slopes, eroded
C	RdD2	Rarden silt loam, 12 to 18 percent slopes, eroded
C	ReC3	Rarden silty clay loam, 6 to 12 percent slopes, severely eroded
C	ReD3	Rarden silty clay loam, 12 to 18 percent slopes, severely eroded
D	RkF	Rockcastle silt loam, 18 to 55 percent slopes
D(D/B)	RplG	Rohan-Jessietown complex, 25 to 60 percent slopes, rocky
C	RoA	Rossmoyne silt loam, 0 to 2 percent slopes
C	RoB2	Rossmoyne silt loam, 2 to 6 percent slopes, eroded

Soil Map Legend

HSG	Symbol	Soil Name
C	RoB3	Rossmoyne silt loam, 2 to 6 percent slopes, severely eroded
B	RtcA	Ryker silt loam, 0 to 2 percent slopes
B	RtcB2	Ryker silt loam, 2 to 6 percent slopes, eroded
B	RzrB2	Ryker silt loam, karst, undulating, eroded
B	RztC2	Ryker-Grayford silt loams, 6 to 12 percent slopes, eroded
B	RztC3	Ryker-Grayford silt loams, 6 to 12 percent slopes, severely eroded
B	RzvC2	Ryker-Grayford silt loams, karst, rolling, eroded
B	RzvC3	Ryker-Grayford silt loams, karst, rolling, severely eroded
C	SceB2	Scottsburg silt loam, 2 to 4 percent slopes, eroded
C	SfyB	Shircliff silt loam, 2 to 6 percent slopes
C	SfyB	Shircliff silt loam, 2 to 6 percent slopes
C	SoaB	Spickert silt loam, 2 to 6 percent slopes
C	SodB	Spickert silt loam, terrace, 1 to 4 percent slopes
C(C/B)	SolC2	Spickert-Wrays silt loams, 6 to 12 percent slopes, eroded
C	StaA0	Stff silt loam, 0 to 2 percent slopes, rarely flooded
C	StdAW	Stendal silt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration
C	StdA0	Stendal silt loam, 0 to 2 percent slopes, rarely flooded
C	ThbD5	Trappist silty clay loam, 6 to 18 percent slopes, gullied
C	TsaC3	Trappist-Deputy complex, 6 to 12 percent slopes, severely eroded
D(C/D)	ThcD3	Trappist-Rohan complex, 12 to 25 percent slopes, severely eroded
D(C/D)	ThdD	Trappist-Rohan silt loams, 12 to 25 percent slopes
C	TrC2	Trappist silt loam, 6 to 12 percent slopes, eroded
C	TrC3	Trappist silt loam, 6 to 12 percent slopes, severely eroded
C	TrD2	Trappist silt loam, 12 to 18 percent slopes, eroded
C	TrD3	Trappist silt loam, 12 to 18 percent slopes, severely eroded
	UaoAK	Udifluvents, cut and filled-Urban land complex, 0 to 2 percent slopes, occasionally flooded, brief duration
	Uaa	Udorthents, cut and filled
B	UnB2	Uniontown silt loam, 2 to 6 percent slopes

Soil Map Legend

HSG	Symbol	Soil Name
B	UnC2	Uniontown silt loam, 6 to 12 percent slopes
	UedA	Urban land-Aquents, clayey substratum, complex, lake plain, 0 to 3 percent slopes
	UnsB	Urban land-Udarents, clayey substratum, complex, hills, 2 to 10 percent slopes
	UngB	Urban land-Udarents, fragipan substratum, complex, till plains, 0 to 12 percent slopes
	UnpA	Urban land-Udarents, loamy substratum, complex, terrace, 0 to 3 percent slopes
	UnkB	Urban land-Udarents, silty substratum, complex, terrace, 0 to 6 percent slopes
	UndAY	Urban land-Udifluvents complex, leveed, 0 to 2 percent slopes
C	Wa	Wakeland silt loam
C	WaaAV	Wakeland silt loam, 0 to 2 percent slopes, frequently flooded, very brief duration
C	WaaAW	Wakeland silt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration
	W	Water
C	WedB2	Weddell silt loam, 2 to 6 percent slopes, eroded
C/D	WcG	Weikert channery silt loam, 35 to 90 percent slopes
C	WeA	Weinbach silt loam, 0 to 2 percent slopes
B	WhcD	Wellrock-Gnawbone silt loams, 6 to 20 percent slopes
B	WhB2	Wheeling fine sandy loam, 2 to 6 percent slopes, eroded
B	WhC2	Wheeling fine sandy loam, 6 to 12 percent slopes, eroded
B	WlA	Wheeling silt loam, 0 to 2 percent slopes
B	WlB2	Wheeling silt loam, 2 to 6 percent slopes, eroded
B	WlC2	Wheeling silt loam, 6 to 12 percent slopes, eroded
B	WlD2	Wheeling silt loam, 12 to 18 percent slopes, eroded
C	WnmA	Whitcomb silt loam, 0 to 2 percent slopes
B	Wm	Wilbur silt loam
B	WokAV	Wilbur silt loam, 0 to 2 percent slopes, frequently flooded, very brief duration
B	WokAW	Wilbur silt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration
B	WprAW	Wirt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration
C	ZaB3	Zanesville silt loam, 2 to 6 percent slopes, severely eroded
C	ZaC2	Zanesville silt loam, 6 to 12 percent slopes, eroded

Soil Map Legend

HSG	Symbol	Soil Name
C	ZaC2	Zanesville silt loam, 6 to 12 percent slopes, severely eroded
C	ZaD2	Zanesville silt loam, 12 to 18 percent slopes, eroded
C	ZaD3	Zanesville silt loam, 12 to 18 percent slopes, severely eroded
D	Zp	Zipp silty clay

BY THE BOARD OF COUNTY
COMMISSIONERS FOR CLARK
COUNTY, INDIANA

ORDINANCE NO. 3 -2004

AN ORDINANCE ADOPTING A DRAINAGE REVIEW FEE SCHEDULE AND FOR ESTABLISHING THE CLARK COUNTY DRAINAGE BOARD NON-REVERTING FEES FUND

WHEREAS, the Board of Commissioners of Clark County, Indiana (the "Board") is the County Executive pursuant to I.C. 36-2-2-2; and

WHEREAS, the Board is the legislative body for Clark County, Indiana, pursuant to I.C. 36-1-2-9; and

WHEREAS, the Clark County Drainage Board (the "Drainage Board") has previously been established and operates pursuant to I.C. 36-9-27-1 through I.C. 36-9-27-113, as amended, and

WHEREAS, the Drainage Board's duties include reviewing drainage plans for potential residential and commercial developments throughout the County; and

WHEREAS, to better facilitate the professional services needed to properly function, the Drainage Board recommended at its November 13, 2003 meeting, after study and review, that the Board adopt a drainage review fee schedule, such proposed fee schedule being attached herewith and made a part hereof; and

WHEREAS, the attached fee schedule is applicable for the first submittal of plans; if the fist review of the plans reveals missing items as required by the County Drainage Ordinance, then the applicant must correct and complete the review and pay half of the required amount of the first submittal; and

WHEREAS, the Board has determined there is a need to establish a non-reverting fund for the Drainage Board wherein the drainage review fees can be deposited and utilized solely by the Drainage Board for enhanced and improved operations; and

WHEREAS, pursuant to I.C. 36-1-3 (the "Home Rule Statute"), the Board desires to establish the Clark County Drainage Board Non-Reverting Fees Fund pursuant to provisions contained herein; and

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF CLARK COUNTY, INDIANA, AS FOLLOWS:

(1) That the Board shall, and does hereby, adopt the attached schedule of drainage review fees effective as of February 1, 2004;

(2) That the Clark County Drainage Board Non-Reverting Fees Fund (the "Fund") is hereby established;

(3) That the Fund shall be non-reverting and cumulative;

(4) That the Fund shall not be appropriated by the County Council;

(5) That the Fund shall only be used for the payment of operational expenses and staff salaries incurred by the Clark County Drainage Board through its duly authorized operations and activities pursuant to state law.

(6) That the Drainage Board shall follow all applicable County and State rules, regulations, and procedures concerning the submission and payment of claims.

PASSED by the Board of Commissioners of Clark County, Indiana, on the 29th day of January, 2004.

BY THE BOARD OF COMMISSIONERS OF CLARK COUNTY, INDIANA

Vicky Kent Haire, President

Absent

Raymond "Buddy" Parker

David A. Lewis

David A. Lewis

ATTEST:

Barbara Haas

Barbara Bratcher-Haas,
Clark County Auditor

SCHEDULE OF DRAINAGE REVIEW FEES

	Engineering Review and Inspection	Soils Conservation Review	Total
Residential Developments			
4 lots or less	$350	$100	$450
4 - 25 lots	$500	$200	$700
26-75 lots	$1,000	$300	$1,300
76-150 lots	$1,500	$400	$1,900
151 lots or more	$2,500	$500	$3,000
Commercial Developments			
5.0 acres or less	$500	$200	$700
5.1 - 10.0 acres	$1,200	$300	$1,500
10.1 -25.0 acres	$2,000	$500	$2,500
25.1 acres or more	$2,500	$600	$3,100

BOARD OF COMMISSIONERS
OF CLARK COUNTY, INDIANA

AN ORDINANCE DESIGNATING AND AUTHORIZING FUNCTIONS AND DUTIES TO CLARK COUNTY DRAINAGE BOARD

ORDINANCE NO. 13 -2007

WHEREAS, the Board of Commissioners of Clark County ("Board") is the County Executive under I. C. 36-2-2-2 and also functions as the County legislative body under I. C. 36-1-2-9(1);

WHEREAS, a need exists to better identify the scope of designated duties to the Clark County Drainage Board ("Drainage Board") in a manner that serves the best interests of Clark County citizens;

WHEREAS, a further need exists to authorize the Drainage Board to perform duties of inquiry, within the parameters and limitations of law, to evaluate reported "drainage problems" in the County, place them in proper context, and refer them to the appropriate agency (if any) for addressing or curing a situation when it is the responsibility of the County, distinguished from the responsibility of private landowners or other contractors or developers;

NOW, THEREFORE, BE IT ORDAINED by the Board as follows:

1. That each and every recital set forth hereinabove is made a part of this Ordinance;

2. The scope of functions of the Clark County, Indiana Drainage Board ("Drainage Board"), as an agency of County Government created by this Board is hereby designated to include the following additional duties and responsibilities:

(a) To perform inquiries into reports of drainage defects, incidents or drainage problems in the unincorporated County that is not within any remaining two-mile fringe jurisdiction of any city or town in Clark County, Indiana, regardless of when the reported event or problem arose;

(b) To make reasonable businesslike inquiry into situations described within subparagraph (a) above, without limitation by the date upon which the Drainage Board was formally created.

(c) To engage and authorize any professional persons under contract with the Drainage Board (in a contract approved by the Board of Commissioners) to render written reports of inquiries made concerning the subject matter of subparagraph (a) above.

(d) To take official action of referral to any agency that has/had legal supervisory authority over persons, contractors or circumstances in the area where the drainage defect, drainage incident or drainage problem has been reported and has been made the subject of the written report referenced above.

(e) To render all technical and professional assistance, as is reasonable and necessary, to the agency subject to the above referral, that is dedicated to the goal of reasonably and efficiently remediating the situation under inquiry to the extent it is within the legal jurisdiction of Clark County, Indiana government, and its Drainage Board pursuant to this Ordinance.

3. Nothing contained in this Ordinance shall authorize any agent, member or representative of the Drainage Board to perform official government acts, or actions, upon private property owned by private individuals or in relation to private contracts made by private individuals. This Ordinance does not, and cannot, authorize members, agents or retained experts of the Drainage Board to interfere with covenants that run with the land ("CRWL") of any private subdivision, when such CRWL are subject to private enforcement by developers of such subdivisions and/or by the residents thereof;

4. To the extent, after inquiry and after the written report described above issues to the Drainage Board, that such Board identifies the real estate described in the inquiry as within public ways or public right-of-ways in unincorporated Clark County, Indiana, and when another agency is not responsible for oversight of any party or circumstances that may have contributed to the drainage problem, incident, or defect, the Drainage Board is authorized to develop and adopt an efficient action plan for remediation to the extent of its available funding for such purposes.

5. In circumstances when the Drainage Board is in need of funds, or funding, for purposes of this Ordinance, the duly appointed officers of the Drainage Board, after an approval vote of its membership in a public meeting, may file the requisite documentation before the Auditor of Clark County and the Clark County Council to seek appropriations or additional appropriations from the General Fund of the County for expenses connected with performing the functions authorized by this Ordinance;

6. Notwithstanding any other provision or section hereof, the Drainage Board is directed and ordered to deliver a written report of its activities within the scope of this Ordinance, at least on a quarterly basis, to the Board, with the first such report being due and delivered to the offices of the Board of Commissioners on or before December 31, 2007;

7. The Board retains the jurisdiction and authorization to review, amend or revoke any provisions of this Ordinance from time-to-time as this Board deems necessary and appropriate to meet the public interest.

SO ORDAINED THIS 18 DAY OF OCTOBER, 2007.

Members voting Aye:

Members voting Nay:

(1 COUNCIL ABSENT)

ATTEST:

Barbara Haas
Auditor of Clark County

BOARD OF COMMISSIONERS
CLARK COUNTY
CITY-COUNTY BUILDING
JEFFERSONVILLE, INDIANA 47130
812 - 283-4451 Ext. 25 or 26

LARRY R. DEAN, President
PAUL F. GARRETT
LARRY G. COATS

DAVID P. VARBLE JR., Attorney
ROBERT L. SCOTT, Superintendent

September 12, 1984

Colonel Dwayne G. Lee
District Engineer
U. S. Army Corps of Engineers
Attn: ORLPD-S
P. O. Box 59
Louisville, Kentucky 40201

Dear Colonel Lee:

The Board of Clark County Commissioners (hereinafter called the "Local Sponsor") are interested in obtaining assistance in alleviating the flooding problem on Lancassange Creek in Clark County, Indiana. In this regard, the Local Sponsor submits this updated letter of intent and requests that the Corps of Engineers proceed with the authorization of the project and with preparation of the project plans and specifications for reducing the flooding problem along Lancassange Creek in Clark County under the authority of Section 205 of the 1948 Flood Control Act, as amended (33 USC 701s).

The Local Sponsor has reviewed in detail the project plan recommended by the Corps of Engineers in their draft detailed project report. We are in agreement with this plan. It is our intention to act as the Local Sponsor for the flood control plan described as the selected plan in that report (Plan 6). We are not interested in any recreation development as a part of this flood control project at this time. If the flood control project is authorized under Section 205 of the 1948 Flood Control Act, as amended, the Local Sponsor will provide the required assurances of local cooperation as listed below.

The Local Sponsor is aware that its responsibility in project participation includes the following:

a. Provide without cost to the United States all lands, easements, rights-of-way, access routes, relocations and alterations of all buildings, utilities, highways, highway bridges, sewers, and facilities whether or not shown on the project plans, necessary for project construction and subsequent operation and maintenance of the project.

b. Hold and save the United States free from damages due to the construction, operation, and maintenance of the project, excepting damages,

PLAINTIFF'S EXHIBIT B 5/9/08

if any, due to the fault or negligence of the United States or its contractors, and adjust all claims concerning water rights.

c. Maintain and operate the project after completion without cost to the United States in accordance with regulations prescribed by the Secretary of the Army.

d. Assume full responsibility for all project costs, if any, in excess of the Federal cost limitation, according to statute, of $4,000,000.

e. Prevent future encroachment which might interfere with proper functioning of the project for flood control.

f. Execute a local assurance agreement incorporating all required measures of local cooperation.

We have received and have reviewed a sample assurance agreement that is typical of the binding agreement to be signed by Federal and local interests prior to construction activity. We understand that detailed project costs will be determined by the District Engineer near the completion of plans and specifications, and we further understand that construction of any project under the Continuing Authority Program is contingent upon showing that the considered works of improvement are cost effective and in the overall public interest for reducing flood damages.

Clark County has authority to tax property with a 1984 assessed valuation of $ 300,000,000 and the property tax rate presently levied on said property for our purposes is $ N/A per $100 assessed value. The revenue derived therefrom does/does not generate a surplus which can be applied to the nonfederal financing of the proposed project. The means which the County intends to use to finance the nonfederal portion of the proposed project are:

Not Available

In carrying out the specified nonfederal responsibilities for the channel improvement project recommended in the detailed project report for Lancassange Creek, the Local Sponsor agrees to comply with the provisions of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970," Public Law 91-646, approved 2 January 1971, and Section 221, Public Law 91-611, approved 31 December 1970, as amended. We have received and are familiar with the provisions of Title VI of the "Civil Rights Act of 1964," Public Law 88-352, and the "Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970," Public Law 91-646, and our attorneys have advised us that the Local Sponsor is legally and financially capable of entering into binding and enforceable contractual agreements pursuant to the provisions of Section 221 of Public Law 91-611.

It is the intention of the Local Sponsor to use its authority in fulfilling the above-listed measures of local cooperation. It is understood that the purpose of this letter is to establish the Local Sponsor's intent and does not constitute a contract involving the expenditure of any set sum of money.

Sincerely,

September 12, 1984

Larry R. Dean, President
Board of Clark County Commissioners

September 12, 1984

David Varble
Clark County Attorney

IN THE CLARK CIRCUIT COURT

STATE OF INDIANA

BOARD OF COMMISSIONERS OF
CLARK COUNTY, INDIANA
Plaintiffs

VS. CAUSE NO. 10C01-8905-CP- 159

OAK PARK CONSERVANCY DISTRICT
Defendant

FINDINGS, CONCLUSIONS AND DECLARATORY JUDGMENT

This matter having come before the Court upon the previously filed Complaint for Declaratory Judgment and Findings, filed on behalf of the Board of Commissioners of Clark County, Indiana, seeking specific Findings and a Declaratory Judgment, which Complaint is in words and figures as follows:

(H.I.)

And the Court being duly advised in the premises and having examined the pleadings, received evidenced and having reviewed the applicable law does now make the following Findings of Fact and Conclusions of Law:

(1) The Board of Commissioners of Clark County, Indiana is the County Executive pursuant to I.C. 36-2-2-2 and has standing to bring an action pursuant to I.C. 34-4-10-2 for purposes of having this Court declare its rights, status and legal relations and positions in relation to the proposed dredging and reconstruction of Lancassange Creek ("Lancassange Creek Project"), located in the unincorporated area of Clark County, Indiana, which proposed dredging and reconstruction project is submitted to the Court as being a major project performed in conjunction with the United States Army Corps of Engineers ("Corps of Engineers");

(2) That the Oak Park Conservancy District was created and approved by the Clark Circuit Court on July 15, 1960 under Cause No. 32868 for purposes of (a) providing for the collection, treatment and disposal of sewage and other liquid waste produced within the District and (b) improving drainage. On August 28, 1967 this Court approved an additional purpose for said District, to wit: that of

PLAINTIFF'S EXHIBIT C

(c) providing water supply, including treatment and distribution for domestic, industrial and public use;

(3) That the Plaintiff Commissioners, as County Executive, have the exclusive authority in the county to enter into contracts on behalf of the county;

(4) That it is necessary to the public interest that the Lancassange Creek dredging and reconstruction project, to be performed in conjunction with the Corps of Engineers, be instituted and take place. The Commissioners have made this submission to the Court and the Court now approves same by way of this Finding;

(5) That there are no legal drains established pursuant to I.C. 36-9-27 et seq. in Clark County, Indiana and, thus, local sponsorship of the Lancassange Creek Project, in conjunction with the Corps of Engineers, is not a function of the Clark County Drainage Board;

(6) That the Defendant Oak Park Conservancy District ("District") has begun instituting steps to delete, from among its legal purposes, that purpose which require them to improve drainage in the District. The defendant, Oak Park Conservancy District, in its Amendment No. 2 to the District Plan filed in the Clark Circuit Court on March 31, 1971, stated that no improvements had been made in surface drainage other than in the construction of sanitary sewers and that no further improvements in drainage were contemplated. Further, said District does not now, nor has it ever had, a tax rate from which it could raise funds to perform the function, duty and purpose of improving drainage in the District;

(7) That the District, by and through its Board of Directors, has concluded, and communicated to the Plaintiffs, that it cannot, and will not, assume local sponsorship of the Lancassange Project, in conjunction with the Corps of Engineers, nor does it contemplate any works of drainage improvement other than sanitary sewer construction;

(8) That an improved, dredged and reconstructed Lancassange Creek waterway, and surrounding banks, in Clark County, Indiana will likely benefit all citizens of Clark County, Indiana in that less danger will be posed to the general public from flash flooding, less

damage to private residential property will occur from occasional flooding, an improved and more manageable waterway will result from completion of said project and more land will likely be made available to future development, along the banks of Lancassange Creek, once it is reasonably assured that the historical flooding problems that have occurred in prior years will not consistently re-occur once the creek is dredged and properly reconstructed;

(9) That in view of the abstention of the District from performing any duties relating to improving drainage in the geographical conservancy district, in view of the District's efforts to delete said legal purpose from its operational purposes and in view of the public interest to be served by dredging and reconstruction of said creek, a local sponsor is necessary to cooperate, in conjunction with the Corps of Engineers, with the Lancassange Creek Project;

(10) That the Board of Commissioners of Clark County, Indiana, as County Executive, in view of the above Findings and Conclusions, should be, and now hereby is, specifically authorized to contract, on behalf of Clark County, Inddana, as local sponsor, with the United States Corps of Engineers, Louisville district office, for purposes of participating, on behalf of Clark County, by contract and other commitments made on behalf of the county, with said Corps of Engineers office for the Lancassange Creek Project hereinabove referenced;

IT IS, THEREFORE, CONSIDERED, ORDERED, ADJUDGED AND DECREED AS FOLLOWS:

(A) That this Court specifically adopts each and every Finding and Conclusion set out hereinabove and makes each of said Findings and Conclusions a part of this Declaratory Judgment;

(B) The Court now adjudges and declares that Clark County, Indiana, by and through its Board of Commissioners, is empowered and authorized, as a matter of law, to enter into all necessary contracts with the United States Army Corps of Engineers, as local sponsor, for purposes of initiating, managing and completing the Lancassange Creek dredging and reconstruction project that has been presented, by way

of evidence, in open court;

(C) It is hereby further adjudicated and declared that the Board of Commissioners of Clark County, Indiana, as County Executive, is empowered and authorized to expand county funds, from its Contract Services account, or other appropriate account, for purposes of paying the county's local share of monies toward said Lancassange Creek dredging and reconstruction project and that such expenditures are necessary to the public interest and serve the public interest;

(D) It is further adjudicated and declared that the Board of Commissioners of Clark County, Indiana be, and it hereby is, empowered and authorized to perform such other administrative and ministerial functions and duties as are necessary in order to effectuate completion of said project and it is authorized to seek further orders of clarification or authorization from this Court if the need for same arises in the future.

THESE FINDINGS, CONCLUSIONS AND THIS JUDGMENT MADE AND ENTERED THIS 24TH DAY OF APRIL, 1989.

DANIEL F. DONAHUE, JUDGE
CLARK CIRCUIT COURT

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