



Kenton C. Ward, CFM Surveyor of Hamilton County Phone (317) 776-8495 Fax (317) 776-9628 Suite 188 One Hamilton County Square Noblesville, Indiana 46060-2230

March 8, 2011

To: Hamilton County Drainage Board

Re: Clay Creek Drain, Crooked Stick Estates Section 4 Arm 1

Attached is a petition, plans, drain map, and drainage shed map for the reconstruction of the Clay Creek regulated drain, Crooked Stick Estates, Section 4 Arm 1. This proposed regulated drain is located in Clay Township near the South West corner of 116<sup>th</sup> Street and N.Ditch Road.

The Thomas Hussey drain was petitioned for reconstruction on April 12, 2010 by four (4) property owners, in Crooked Stick Estates, Section 4, representing 18.18 % of the proposed watershed of Clay Creek, Crooked Stick Estates Section 4, Arm 1.

Crooked Stick Estates Section 4 is part of the Thomas Hussey Watershed. The Thomas Hussey Watershed includes the Thomas Hussey drain, the Queens Manor Arm, and the Pollack Reconstruction.

The Thomas Hussey drain was constructed per order of the Commissioners Court per the viewers report dated October 4, 1901. The drain was placed on maintenance on September 19, 1977, per Drainage Board meeting minutes, Book 1, page 242. The Queens Manor Arm was placed on maintenance on October 6, 1980, per Drainage Board meeting minutes, Book 1, page 373. The Pollack Reconstruction was approved on October 5, 1981, per Drainage Board Meeting minutes, Book 1, page 436.

The total drainage area within the Thomas Hussey drainage shed covers 296.28 acres and 50 lots. It is located in Clay Township, Section 3, and 4, Township 17 North, Range 3 East. The Thomas Hussey drain ultimately flows to the Williams Creek drain.

Crooked Stick Estates is part of the Southwest Clay Township Annexation Agreement by the City of Carmel. The City of Carmel, as part of this annexation agreement, has agreed to correct identified drainage issues in this subdivision and has listed this subdivision as a first level priority.

#### Known Problems:

The Crooked Stick Estates subdivision was developed in the early 1970's. Section 4 is built around the pond near the 8<sup>th</sup> hole on the Crooked Stick Golf Course. This pond is on property owned by the golf course. The storm drains on the north side of Crooked Stick Estates, Section 4 pick up stormwater in street catch basins and then direct the flow through corrugated metal pipes that outlet under water (submerged) into this pond.

The grade from the street to the pond is slight. During rain free periods the storm water pipes hold water that back up from the pond to the street catch basins. The catch basins normally have about two (2) feet of water in them. During rain events the pond backs up into the storm water pipes and flows out the top of the catch basins into the street.

The property located at 1535 Prestwick Lane has a catch basin and storm drain pipe on both the east and west property line. Mr. Thomas McCullough has a sump line in his basement that outlet to the catch basin near his north-west property line. When the pond elevation comes up, the water backs up into the storm drain pipes and come out of the catch basin in the street. The sump line has no where to discharge water and his basement floods. The properties on both sides of this property also experience flooded basements.

The overall design of this subdivision would not be approved today. The Surveyor's office does not allow submerged discharge pipes or the use of CMP as storm sewer. The pipe on the eastern property line is nearly flat. The pipe material of CMP has a short life span and the pad grades would be higher above the normal pool elevation than the existing pad grade.

## Reconstruction Project-Option 1

This option will collect the storm water from a portion of Crooked Stick golf course, front yard drainage from the residential property on a section of Prestwick Lane, and roadway drainage on Prestwick Lane. This drainage would be routed to the east in a new storm drain system along the center of Prestwick Lane and then north through the center of Prestwick Court and outlet to the Clay Creek regulated drain, Crooked Stick Estates, Section 4 Arm. There are multiple utility line constraints that have been avoided with this design.

The existing CMP's on both property lines of the McCullough property would be partially filled with flow-able fill concrete. This will block the backflow from the pond. The existing catch basins near the north-west and north-east property lines of the McCullough property will be replaced, 1086 linear feet of 24 inch RCP will be installed in Prestwick Lane and Prestwick Court, and the existing catch basin in the Prestwick Circle cul-de-sac will be replaced. The 24 inch RCP will outlet from the new catch basin to the Clay Creek regulated drain, Crooked Stick Estates, Section 4 Arm. Included in this reconstruction will be four (4) manholes, a pipe end section and rip rap at this outlet.

Reconstruction Project-Option 1 will add the following to the Clay Creek drain.

1086 LF of 24 in RCP 100 LF of 18 in CMP (existing) 5 catch basins (2- existing) 4 manholes

All of the other storm drain improvements within Crooked Stick Estates will be maintained by the City of Carmel.

The work will be performed in the existing road right of way, and the storm drain easements located upon Lot 64, Parcel No. 17-13-04-00-055.000 and Lot 65, Parcel No. 17-13-04-00-056.000.

This option will allow a lateral from Manhole #3 to be stubbed for the McCullough property to outlet their sump drain, keeping their basement from flooding.

Option 1 Reconstruction Cost Estimate

				Total
Item Description	Quantity	Unit	Unit Cost	Cost
Mobilization	11	LS	3000.00	\$3,000
Clearing, remove fence at Cul-de-sac	1	LS_	4500.00	\$ <u>4</u> ,500
24 inch RCP	1,086	LF	35.00	\$38,010
24 inch metal end section	1	EA	750.00	\$750
Manhole	4	ĒΑ	3500.00	\$14,000
Join existing CMP storm drain	2	EA	1500.00	\$3,000
Flowable fill road repair	1	LS	8000.00	\$8,000
Flowable fill in existing SD pipe	690	LF	30.00	\$20 <b>,</b> 700
Surface repair	1	LS	3500.00	\$3,500
Curb repair	3	EA	800.00	\$2,400
Remove existing catch basin, install new catch basin, curb repair	_3	LS	4500.00	\$13 <u>,</u> 500
Grade and seeded erosion control mat	1	LS	2500.00	\$2,500
Rip Rap(7"to9")installed	35	ton	46.00	\$1,610
Silt Fence	600	LF	1.25	\$750
Curb inlet protection	5	EA	500.00	\$2,500
Fence repair	1	LS	2500.00	\$2,500
Seeded erosion control blanket	1	LS	3700.00	\$3,700
Miscellaneous seeding R/W repair	1	LS	1200.00	\$1,200
Clean Prestwick Lane, Prestwick Cir	1	LS	900.00	\$900
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**Sub-TOTAL** \$127,020 15%

**TOTAL** \$146,073

Contingency

\$19,053

## Reconstruction assessment-Option 1

There will be no reconstruction assessment to the landowners because the City of Carmel has agreed to cover the cost per their South West Clay Township Annexation Agreement.

Mr. McCullough and his adjacent landowners are in favor of this option.

## Reconstruction Option 2

This option would lower the normal pool of the pond four (4) feet. The two outlet pipes would outlet above water in normal conditions. A new 24 inch RCP outlet pipe would be installed on the south side of the pond that would extend to the Thomas Hussey regulated drain.

This option would include replacement of the existing 21 inch CMP on the west property line of the McCullough property. The City of Carmel has requested this pipe be replaced with a 21 inch reinforced concrete pipe to ensure longevity of the pipe.

Reconstruction Option 2 will add the following to the Thomas Hussey drain.

#### 85 LF of 24 in RCP

All other existing storm drain improvements within Crooked Stick Estates will be maintained by the City of Carmel.

The work will be performed in the existing road right of way, and the storm drain easements of the pond and the Thomas Hussey regulated drain.

The proposed 21 inch RCP will be installed within the existing storm drain easement on Lot 73, Parcel No. 17-13-04-00-066.00 and Lot 74, Parcel No. 17-13-04-00-00-067.000.

Option 2 Reconstruction Cost Estimate

Item Description	Quantity	Unit	Unit Cost	Total Cost	
Mobilization	1	LS	3000.00	\$3,000	
Clear trees	1	LS	7500.00	\$7,500	
24 inch RCP	85	LF	35.00	\$2,975	
24 inch metal end section	2	EA	750.00	\$1,500	
21 inch RCP	305	FT	30.00	\$9,150	
21 inch metal end section.	1	EA	750.00	\$750	
catch basin and connections to exist.	1	EA	4500.00	\$4,500	
Flowable fill road repair,	30	CYD	80.00	\$2,400	
Surface repair	4	ton	40.00	\$160	

Curb repair - Crooked Stick Lane	2	EA	800.00	\$1,600
Rip Rap(7"to9")installed	60	ton	46.00	\$2,760
Silt Fence	500	LF	1.25	\$625
Curb inlet protection	2	EA	500.00	\$1 <b>,</b> 000
Turf repair at two outlets	2	LS	800.00	\$1,600
Dewatering	1	LS	2500.00	\$2,500

Sub-TOTAL \$42,020

15% Contingency

\$8,404

TOTAL

\$50,424

## Reconstruction assessment-Option 2

There will be no reconstruction assessment to the landowners because the City of Carmel has agreed to cover the cost per their South West Clay Township Annexation Agreement.

The landowners are not in favor of this option because there would be removal of large, older trees on the west property line of Mr. McCullough's property.

#### Maintenance Assessment

If reconstruction Option 1 is approved, a portion of the Thomas Hussey Drainage shed will no longer drain to the Thomas Hussey drain. The portion that will drain to the north will be removed and become the proposed Clay Creek Drain, Crooked Stick Estates Sec. 4 Arm 1.

The area to be removed from the Thomas Hussey drainage shed is as follows:

Golf Course Acreage

1.20 acres

Residential Acreage

9.93 acres

Carmel Hwy.

5.55 acres

This will reduce the annual assessment for the Thomas Hussey Drain by \$197.90.

If reconstruction Option 2 is approved, the Thomas Hussey Drainage shed will not change and the annual maintenance collection remains the same.

The Clay Creek drain, Crooked Stick Estates Section 4 Arm became regulated on April 26, 2010, per Drainage Board Meeting Minutes, Book 12, pages 487 and 488.

The Clay Creek drain, Crooked Stick Estates Section 4 Arm is not on maintenance.

I recommend the Clay Creek drain, Crooked Stick Estates Sec 4 Arm and Arm 1 be placed on a maintenance program as set out in I.C. 36-9-27-38.

The nature of the maintenance work, which may be required, is as follows:

- A. Removal and/or prevention of brush within the drainage easement by hand, mechanical or spray methods.
- B. Re-excavating of open ditch to original grade line.
- C. Installation and/or repair of surface water structure as might be required.
- D. Bank erosion protection and/or seeding as might be required.
- E. Repair of private tile outlet ends as might be required.
- F. Repair of regulated tile outlet at drain end.
- G. Replacement of broken tile outlet ends as might be required.
- H. Cleaning and/or repair of existing catch basins as might be required.
- I. Installation of catch basins or inlets as may be required
- J. Removal of debris and/or blockage from the existing tile drains including jetting or video work.
- K. Installation and/or repair of breather pipes.
- L. Removal of debris and/or blockage from the existing open drain.
- M. Maintain grass filter strips.
- N. Any other repairs necessary to restore the drain to its original intended condition.

The frequency with which maintenance work should be performed annually is as required by the condition of the drain.

The current assessment rates for Clay Creek are \$5.00 per acre, with a \$50.00 minimum assessment and roads are \$10.00 per acre, with a \$50.00 minimum.

The annual maintenance collection will be \$ 768.10.

I recommend the Board set a hearing for this proposed reconstruction and maintenance for April 25, 2011.

Sincerely,

Christie Kallio P.E.

Project Engineer

Hamilton County Surveyors Office

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#### FINDINGS AND ORDER

#### CONCERNING THE MAINTENANCE OF THE

Clay Creek Drain, Crooked Stick Estates Section 4 Arm 1

On this 25th day of April, 2011, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the Clay Creek Drain, Crooked Stick Estates Section 4 Arm 1.

Evidence has been heard. Objections were presented and considered. The Board then adopted the original/amended Schedule of Assessments. The Board now finds that the annual maintenance assessment will be less than the benefits to the landowners and issues this order declaring that this Maintenance Fund be established.

HAMILTON COUNTY DRAINAGE BOARD

President

Member

Member

Attest Squette Maskauf

STATE OF INDIANA )

COUNTY OF HAMILTON )

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD NOBLESVILLE, INDIANA

IN THE MATTER OF THE RECONSTRUCTION OF THE

Clay Creek Drain, Crooked Stick Estates Section 4 Arm 1

### FINDINGS AND ORDER FOR RECONSTRUCTION

The matter of the proposed Reconstruction of the *Clay Creek*Drain, Crooked Stick Estates Section 4 Arm 1 came before the Hamilton County Drainage Board for hearing on March 25, 2011, on the Reconstruction Report consisting of the report and the Schedule of Damages and Assessments. The Board also received and considered the written objection of an owner of certain lands affected by the proposed Reconstruction, said owner being:

Evidence was heard on the Reconstruction Report and on the aforementioned objections.

The Board, having considered the evidence and objections, and, upon motion duly made, seconded and unanimously carried, did find and determine that the costs, damages and expenses of the proposed Reconstruction will be less than the benefits accruing to the owners of all land benefited by the Reconstruction.

The Board having considered the evidence and objections, upon motion duly made, seconded and unanimously carried, did adopt the Schedule of Assessments as proposed, subject to amendment after inspection of the subject drain as it relates to the lands of any owners which may have been erroneously included or omitted from the Schedule of Assessments.

The Board further finds that it has jurisdiction of these proceedings and that all required notices have been duly given or published as required by law.

Wherefore, it is ORDERED, that the proposed Reconstruction of the Clay Creek Drain, Crooked Stick Estates Section 4 Arm 1 be and is hereby declared established.

Thereafter, the Board made inspection for the purpose of determining whether or not the lands of any owners had been erroneously included or excluded from the Schedule of Assessments. The Board finds on the basis of the reports and findings at this hearing as follows:

HAMILTON/COUNTY DRAINAGE BOARD

Member

Member

ATTEST



Development

Construction

Investments

Development Services

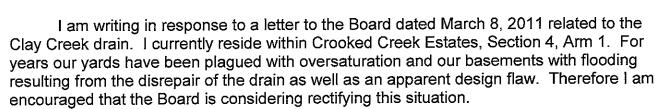
Property Management

SECRETARY

March 30, 2011

Hamilton County Drainage Board c/o Christie Kallio P.E., Project Engineer One Hamilton County Square Noblesville, IN 46060

Dear Members,



I am very much in favor of Reconstruction Project – Option 1 and am hopeful that the Board will concur. Reconstruction Project – Option 2 would impose a practical difficulty at my home in particular, as over 50 aged trees currently sit on my west property line. Under Reconstruction Project - Option 2, those trees would need to be removed in order to install new drain pipe. In addition, it is my opinion that lowering the pond by 4 feet will create an eyesore thus lowering the value of our homes.

Lastly, as a member of Crooked Stick Golf Club, lowering the pond by 4 feet would have a dramatic affect on the aesthetics of the golf course, one which would be impossible to rectify. With the upcoming BMW Golf Championship in September 2012, our community will be exposed to a national audience; therefore I would be discouraged to see the integrity of the course compromised in this fashion. Again, I encourage the Board to approve Option 1 and reroute the drain to the north.

Thank you for your consideration in this matter.

Sincerely,

James W. Browning

Kent Ward Hamilton County Drainage Board One Hamilton County Square Suite # 88 Noblesville, IN 46060

RE: Letter of Support for Option #1

Clay Creek Drainage System

**Crooked Stick Estates Section 4 ARM 1** 

Dear Mr. Ward:

I am writing this letter in **SUPPORT** of Option #1 to the above referenced project as outlined in the report dated March 8<sup>th</sup>, 2011 by Christie Kallio.

As a property owner in affected area of Crooked Stick Estates, I feel that Option # 2 would negatively impact the value of our property and cause an "eye sore" to our neighborhood.

Thank you for your public service. If you have any questions, please feel free to contact me.

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Address:

This copy is from the Digital Archive of the Hamilton County Surveyor's Office; Noblesville, In 46060

Kent Ward Hamilton County Drainage Board One Hamilton County Square Suite # 88 Noblesville, IN 46060

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Clay Creek Drainage System
Crooked Stick Estates Section 4 ARM 1

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Address:

Sincerely

Kent Ward Hamilton County Drainage Board One Hamilton County Square Suite # 88 Noblesville, IN 46060

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Crooked Stick Estates Section 4 ARM 1

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Thank you for your public service. If you have any questions, please feel free to contact me.

Sincerely,

Address:

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Kent Ward Hamilton County Drainage Board One Hamilton County Square Suite # 88 Noblesville, IN 46060

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Crooked Stick Estates Section 4 ARM 1

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Crooked Stick Estates Section 4 ARM 1

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Thank you for your public service. If you have any questions, please feel free to contact me.

Address:

Since

1640 prestwick lane

Curinel In 46032

Kent Ward Hamilton County Drainage Board One Hamilton County Square Suite # 88 Noblesville, IN 46060

RE: Letter of Support for Option #1
Clay Creek Drainage System
Crooked Stick Estates Section 4 ARM 1

Dear Mr. Ward:

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Thank you for your public service. If you have any questions, please feel free to contact me.

Address:

1408 prestwick lane Carmel In 46032

#### OFFICE OF

### HAMILTON COUNTY DRAINAGE BOARD

Notice of Hearing on Reconstruction & Schedule of Assessments and Damages on the Clay Creek Drain, Crooked Stick Estates Section 4 Arm 1.

Rogers, Scott D & Abbie F 1640 Prestwick Ln Carmel, IN 46032

Under the Indiana Drainage Code, all land which drains directly, or indirectly, is assessed for either maintenance cost or reconstruction cost within the drain. In making the calculation for each parcel, the Drainage Board must calculate the percentage of the cost attributable to each parcel of land benefitted. The Drainage Board has received a reconstruction report and schedule of assessments which affects your land. The purpose of the reconstruction project is to perform work which will substantially improve the drainage for the entire watershed served by the drain.

You are hereby notified that the reconstruction report of the County Surveyor and the schedule of assessments made by the Drainage Board have been filed and are available for public inspection in the office of the County Surveyor. The chart below contains your proposed assessment and your percentage of the total reconstruction assessment.

The reconstruction report of the Surveyor and schedule of damages and benefits as determined by the Drainage Board for the proposed improvement known as the Clay Creek Drain, Crooked Stick Estates Section 4 Arm 1 have been filed and are available for inspection in the office of the County Surveyor. The schedule of assessments shows the following lands in your name are affected as follows. This assessment is not a charge for services associated with regulating the quality of storm water within your city or town.

Description of Land 17-13-04-00-00-061.000	Current acres benefited to Thomas Hussey	Current maintenance assessment to Thomas Hussey	Revised acres benefited to Thomas Hussey	Revised maintenance assessment to Thomas Hussey	Proposed acres benefited to Clay Creek	Proposed maintenance assessment to Clay Creek	Percent of Total Benefit		
Crooked Stick 4th Lot 69, 1.74 Ac	1.74 Ac	\$35.00	0.00 Ac	\$0.00	1.74 Ac	\$50.00	6.92%		
Cost of reconstruction to be paid by City of Carmel. Damages are set at zero.									

The hearing on the Surveyor's reconstruction report and on the schedules of damages and assessments are set for hearing at 9:15 A.M. on April 25, 2011, in the Commissioner's Court. The law provides that objections must be written and filed not less than 5 days before the date of the hearing. Objections may be for causes as specified by law and which are available at the Surveyor's Office. Written evidence in support of objections may be filed. The failure to file objections constitutes a waiver of your right to thereafter object, either before the Board or in court on such causes, to any final action of the Board. On or before the day of the hearing before the Board, the Surveyor shall and any owner of affected lands may cause written evidence to be filed in support of or in rebuttal to any filed objections.

HAMILTON COUNTY DRAINAGE BOARD One Hamilton County Square, Ste. 188 Noblesville, IN 46060-2230

For a copy of the Surveyor's Report to the Drainage Board and a copy of the map, if applicable, please go to www.hamiltoncounty.in.gov/drainageboardnotices.

# BEFORE THE HAMILTON COUNTY DRAINAGE BOARD IN THE MATTER OF

# Clay Creek Drain Crooked Stick Estates Section 4, Arm 1

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Notice is hereby given of the hearing of the Hamilton County Drainage Board concerning the reconstruction of the Clay Creek Drain, Crooked Stick Estates Section 4, Arm 1 on April 25, 2011, at 9:15 A.M. in Commissioners Court, Hamilton County Judicial Center, One Hamilton County Square, Noblesville, Indiana. Construction and maintenance reports of the Surveyor and the Schedule of Assessments proposed by the Drainage Board have been filed and are available for public inspection in the office of the Hamilton County Surveyor.

Hamilton County Drainage Board

Attest:Lynette Mosbaugh

ONE TIME ONLY

STATE	OF	INDIANA	)				
			)	SS	BEFORE	THE	HAMILTON
			)				
COUNTY	COF	HAMILTON	)		DRAINA	SE BO	DARD

IN THE MATTER OF Clay Creek Drain, Crooked Stick Estates Section 4 Arm 1

#### NOTICE

Notice is hereby given that the Hamilton County Drainage Board at its regular meeting April 25, 2011 adopted the reconstruction report of the Surveyor and the Amended Schedule of damages and assessments including annual assessment for periodic maintenance, finding that the costs, damages and expense of the proposed improvement would be less than the benefits which will result to the owner of lands benefited thereby.

The Board issued an order declaring the proposed improvement established. Such findings and order were marked filed and are available for inspection in the Office of the Hamilton County Surveyor.

If judicial review of the findings and order of the Board is not requested pursuant to Article VIII of the 1965 Indiana Drainage Code as amended within twenty (20) days from the date of publication of this notice, the findings and order shall become conclusive.

HAMILTON COUNTY DRAINAGE BOARD

BY: Steven A. Holt PRESIDENT

ATTEST: Lynette Mosbaugh
SECRETARY