SURVEYOR'S OFFICE

Hamilton County

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

May 8, 2020

To: Hamilton County Drainage Board

Re: RJ Craig Drain, South Village Reconstruction

Attached are petition and plans for the proposed reconstruction of a portion of the RJ Craig Drain. This project is to be paid for by the City of Fishers. The proposal is to reconstruct the existing drain per the construction plans by A&F Engineering called "RJ Craig Drain Plans Nickel Plate Drainage, dated 12/11/2019.

The City of Fishers has undertaken the redevelopment of the downtown area. The RJ Craig Drain is a primary drainage outlet in this area. Redevelopment areas involving previous reconstructions of the RJ Craig Drain have included redevelopment areas north and south of 116th street. The redevelopment north of 116th street included the following RJ Craig drain reconstructions: George White Arm – Maple Street Reconstruction in 2014; George White Arm – Fishers' Maple Street Redevelopment in 2014; Fishers Urban Development in 2015; and Jaycee Street Vacation in 2020. Redevelopment south of 116th street involved the 2019 petition for Nickel Plate - South Street Reconstruction. The redevelopment area associated with this current petition is called "South Village" and generally encompasses an area including lots north of Morgan Street on the north side to parcels south of Fishers Pointe Blvd., and from the open ditch on the west side to I-69 on the east side.

The South Village reconstruction of the RJ Craig Drain is being proposed to accommodate additional storm water runoff that will result from the City of Fishers redevelopment efforts in the South Village area. This proposal is part of a master plan for the RJ Craig Drain in the South Village Area of Fishers. The drainage report for this master plan is titled, "RJ Craig Regulated Drain Phase 3 – South Village" by A&F Engineering dated October 2019.

The South Village reconstruction will progress in three phases. The first phase involves installing a 60" orifice on an existing 66" RCP crossing pipe under Fishers Pointe Blvd. The second stage involves widening the open ditch to provide storage

volume. The third phase will involve installing a box culvert to a proposed detention pond south of Fishers Pointe Blvd.

Phase One -

Per the plans by A&F Engineering, the Phase 1 reconstruction will occur between Stations 0+44.75 and 0+52.75, which is on the crossing pipe under Fishers Pointe Blvd. The existing pipe is classified as a crossing pipe on the open drain. It was permitted and was installed as a crossing pipe to facilitate Fishers Pointe Blvd crossing over the open regulated drain. This location corresponds with the original stations 32+08 and 32+00 of the George White Drain (now arm to RJ Craig Drain) installed in 1919.

The Phase 1 reconstruction will consist of the following:

8' of 60" RCP

The length of the Phase 1 reconstruction will be 8'. This project will occur in the same location as the existing drain and will not change the overall length of the RJ Craig drain. The existing open drain at this location will be replaced by the proposed 8' section of 60" RCP. The purpose of the 60" pipe is to serve as an orifice to control downstream flow rates.

The drain will be reconstructed on the following parcels:
Within the right-of-way of Fishers Pointe Blvd, owned by the City of Fishers.; and Heritage Meadows, Sec. 1 Common Area, Parcel No. 15-14-01-02-06-040.000 owned by the Heritage Meadows Homeowners Association, Inc.

Regarding easement, this project is proposed to be constructed within existing right-of-way and drain easement. The ditch is located within existing easement in Heritage Meadows Subdivision, Common Area, as per the secondary plat recorded in the office of the Hamilton County Reorder.

Phase Two –

Per the plans by A&F Engineering, the Phase 2 reconstruction will begin at Station 0+52.75, on the open ditch located north of Fishers Pointe Blvd. The side slopes of the open ditch will be laid back to provide more storm water storage capacity. The upstream end of this reconstruction will be at Station 18+15.11, which is located south of Morgan Drive. This location corresponds with the original stations 32+00 and 49+62 of the George White Drain (now arm to RJ Craig Drain) installed in 1919.

The Phase 2 reconstruction will consist of the following:

1,762' of open drain

The length of the Phase 2 reconstruction will be 1,762'. This project will occur in the same location and will not change the overall length of the RJ Craig drain.

The drain will be reconstructed on the following parcels:

Heritage Meadows, Sec. 1 Common Area, Parcel No. 15-14-01-02-06-040.000 owned by the Heritage Meadows Homeowners Association, Inc.;

Heritage Meadows, Sec. 2 Common Area, Parcel No. 15-14-01-02-07-020.000 owned by the Heritage Meadows Homeowners Association, Inc.;

Heritage Meadows, Sec. 4 Common Area, Parcel No. 15-14-01-02-10-031.000 owned by the Heritage Meadows Homeowners Association, Inc.;

Heritage Meadows, Sec. 5 Common Area, Parcel No. 15-14-01-02-12-031.000 owned by the Heritage Meadows Homeowners Association, Inc.;

Regarding easement, Phase 2 is proposed to be reconstructed within existing drain easement. The ditch is located within existing easement in Heritage Meadows Subdivision, Common Area, as per the secondary plats recorded in the office of the Hamilton County Reorder. Note: On the east side of the drain, the Regulated Drain Easement is 75' measured from the top of bank. This easement is located on lots adjacent to the ditch in Morgan Meadows subdivision, South Village of Nickel Plate subdivision, Royal Drive, and South Pointe Apartments. As those parcels are redeveloped or as the need arises, the owners of those lots may apply for a non-enforcement.

Phase Three -

Per the master plan, future development will trigger the construction of a new detention area and installation of storm pipe by the City of Fishers. For more information regarding the proposed sequence that will trigger the Phase 3 installation, see attached letter by Jason Taylor, Fishers Director of Engineering, dated March 17, 2020.

Per the plans by A&F Engineering, Phase 3 will install a 5' x 10' box culvert under Fishers Pointe Blvd to a proposed detention area. The new pipe will become regulated drain. The detention pond will be owned and maintained by the City of Fishers and will not be considered regulated drain.

The Phase 3 drain will consist of the following:

165' of 5'x 10' Box Culvert

The length of the Phase 3 drain installation will be 165'. This phase will add 165' to the overall length of the RJ Craig drain.

The Phase 3 project will occur on the following parcels:
Heritage Meadows, Sec. 1 Common Area, Parcel No. 15-14-01-02-06-040.000 owned by the Heritage Meadows Homeowners Association, Inc.; and

Right-of-way of Fishers Pointe Blvd, owned by the City of Fishers.; and

Parcel No. 15-14-01-00-03-004.000 owned by the City of Fishers.

Regarding easement, the phase 3 project is proposed to be constructed within a combination of existing easement, existing right-of-way and proposed easement. Prior to Phase 3 construction, the City of Fishers will provide an easement dedication document made out in recordable form to be approved and accepted by the Board (otherwise, the 75' per half easement dimensions per Indiana Code will apply).

General Notes –

All other storm pipes outletting into the RJ Craig Drain at this location are not Hamilton County regulated drain and are the responsibility of either the City of Fishers or the property owners to maintain unless otherwise described as regulated drain in a different report.

The original RJ Craig Drain was established per Commissioner's Court records dated November 1, 1899 (CR12, page 195). The George White drain was installed in 1919 and was later made an arm to the RJ Craig Drain. In 1991, the RJ Craig Drain was reconstructed per my reports dated June 14, 1990 and August 17, 1990. See Drainage Board Minutes Book 2, pages 453. The Nickel Plate – South Street Reconstruction was approved on July 8, 2019 per my report dated July 8, 2019. See Drainage Board Minutes Book 18, pages 502-504.

The cost of the project is to be paid by the City of Fishers. Therefore, the requirement for posting surety has been waived.

The design and construction of this Hamilton County Regulated Drain is required to be based on the ordinances, policies and standards of the Hamilton County Drainage Board and County Surveyor. The contractor is required to reconstruct the drain per the Hamilton County Drainage Manual and Standard Detail Drawings for Drain Design manual. As a condition of the Board's approval, I recommend that all design revisions and/or field changes be submitted by the contractor or design engineer in writing as a request and approved or denied in writing by the Hamilton County Surveyor's Office prior to installation by the contractor.

I recommend the Board set a hearing for July 27, 2020.

Sincerely,

Kenton C. Ward
Hamilton County Surveyor

KCW/pll

Revised June 1997

HAMILTON COUNTY DRAINAGE BOARD
NOBLESVILLE, INDIANA

IN RE: _____)
Hamilton County, Indiana)

PETITION FOR RELOCATION AND RECONSTRUCTION

City of Fishers, Indiana (hereinafter Petitioner"), hereby petitions the Hamilton County Drainage Board for authority to relocate and improve a section of the RJ Craig Drain, and in support of said petition advises the Board that:

1. Petitioner owns real estate through which a portion of the RJ Craig Drain runs.
2. Petitioner plans to develop its real estate with roads, buildings, utilities, storm drains, sanitary sewers and other structures.
3. Petitioner's proposed development of its real estate will require relocation and reconstruction of a portion of the RJ Craig Drain, as specifically shown on engineering plans and specifications filed with the Hamilton County Surveyor.
4. The work necessary for the proposed relocation and reconstruction will be undertaken at the sole expense of the Petitioner and such work will result in substantial improvement to the RJ Craig Drain, without cost to other property owners on the watershed of the RJ Craig Drain.
5. Proposed relocation and reconstruction will not adversely affect other land owners within the drainage shed.
6. Petitioner requests approval of the proposed relocation and reconstruction under IC 36-9-27-52.5.

WHEREFORE, Petitioner requests that an Order issued from the Hamilton County Drainage Board authorizing relocation and reconstruction of the RJ Craig Drain, in conformance with applicable law and plans and specifications on file with the Hamilton County Surveyor.

Signed

Jason M. Taylor, PE, Director of Engineering
Printed

Adobe PDF Fillable Form

March 17, 2020

FISHERS
EST. 1872

Mr. Kenton C. Ward
County Surveyor
Hamilton County Indiana
1 N 8th Street #188
Noblesville, IN 46060

RE: Request for Drainage Board Approval of RJ Craig Reconstruction

Mr. Ward:

The City of Fishers requests approval of the reconstruction of the RJ Craig Regulated Drain utilizing a three-phase process. The City will construct these phases in intervals as the land within the watershed redevelops.

The first phase of this reconstruction is a hyper-interim phase and would begin construction immediately. The purpose of this phase is to allow for the permit approval of the multifamily development at the south tip of the watershed.

In this phase, a 60-inch pipe segment will be installed on the north side of the 66-inch culvert beneath Fishers Point Boulevard. The elevation in the open ditch is higher than existing conditions, which minimally impacts Pond 2 in Heritage Meadows. Pond 2 will stage approximately 3-inches higher than existing. Though the HWL in the ditch does increase, this HWL is still approximately 2.5-feet below the lowest adjacent foundation opening. Thus, this temporary increase in HWL will not adversely affect adjacent properties during a major storm event. A comparison of the Phase 1 condition is as follows:

	Existing Condition (From Phase 1B-2 Report)				**Hyper-Interim Condition**			
	Peak Flow CFS	Peak Time	HWL	Storage AC-FT	Peak Flow CFS	Peak Time	HWL	Storage AC-FT
10-YEAR DITCH	179.96	12:19	801.76	1.12	222.81		802.79	2.12
100-YEAR DITCH	271.03	12:24	803.98	3.07	391.60	12:26	805.32	5.50
Outfall 10-YEAR TOTALS	**184.76**	12:19			**181.69**	12:21		
Outfall 100-YEAR TOTALS	**278.53**	12:24			**259.77**	12:23		
(Heritage Meadows) Pond 2 10-YR	**48.96**	**12:33**	802.97		49.73	12:40	803.13	
(Heritage Meadows) Pond 2 100-YR	**94.23**	**12:46**	805.34		94.23	12:55	805.62	

A more detailed summary of the hyper-interim model including calculations can be found in the Supplemental Model for Hyper-Interim Phase Report dated December 2019.

The second phase of the RJ Craig reconstruction is identified as the interim phase of the RJ Craig Regulated Drain Phase 3 - South Village report revised December 2019. This phase includes widening of the RJ Craig Open Ditch to provide detention storage. The 60-inch orifice remains during this part of the RJ Craig reconstruction. The City would begin construction of this phase as soon as it becomes possible, as this phase does involve some coordination and relocation with utilities to fully implement.

The existing South Village Basin with a CN of 80, time of concentration of 37 minutes and an area of 29.5 acres can be partially developed prior to exceeding the existing outflow rate. The allowable increase in 10-year outflow is 4.14 cfs. Improvements to South Village have been simplified to determine the criteria when the outfall flow rate will exceed the existing release rate.

The allowable areas of development that correlates to the allowable increase outflow are identified in the table below.

South Village Basin

Allowable Additional Development Area Before Wet Basin Required

	Area	CN	Tc	CFS/Acre
Commercial	6	96	10	0.69
Dense Residential MF	7.5	92	10	0.552

Phase 3 of the RJ Craig reconstruction will be implemented in a future date, which would be dependent upon the redevelopment of the area being greater than the improvement limits in the above table.

Phase 3 includes constructing a wet pond in the forested area south of Fishers Pointe Boulevard to store additional flows caused by future development within the South Village watershed. The RJ Craig Open Ditch will be routed to the new wet detention pond. The parameters of the wet basin are shown in the RJ Craig Regulated Drain Phase 3 - South Village report revised December 2019

Should you have any questions regarding this request or the underlying calculations, you may reach me at 317-595-3160.

Sincerely,

The City of Fishers

Jason M. Taylor, P.E.
Director of Engineering

RJ Craig Drain - South Village Reconstruction

April 27, 2020

1:4,080

0 0.0325 0.065 0.13 mi

0 0.05 0.1 0.2 km

Drainage Structures

- All Other Structures
- MUNICIPAL MANHOLE
- Drain Name

Regulated Drains

- CLOSED DRAIN
- MUNICIPAL DRAIN
- OPEN DRAIN
- SSD

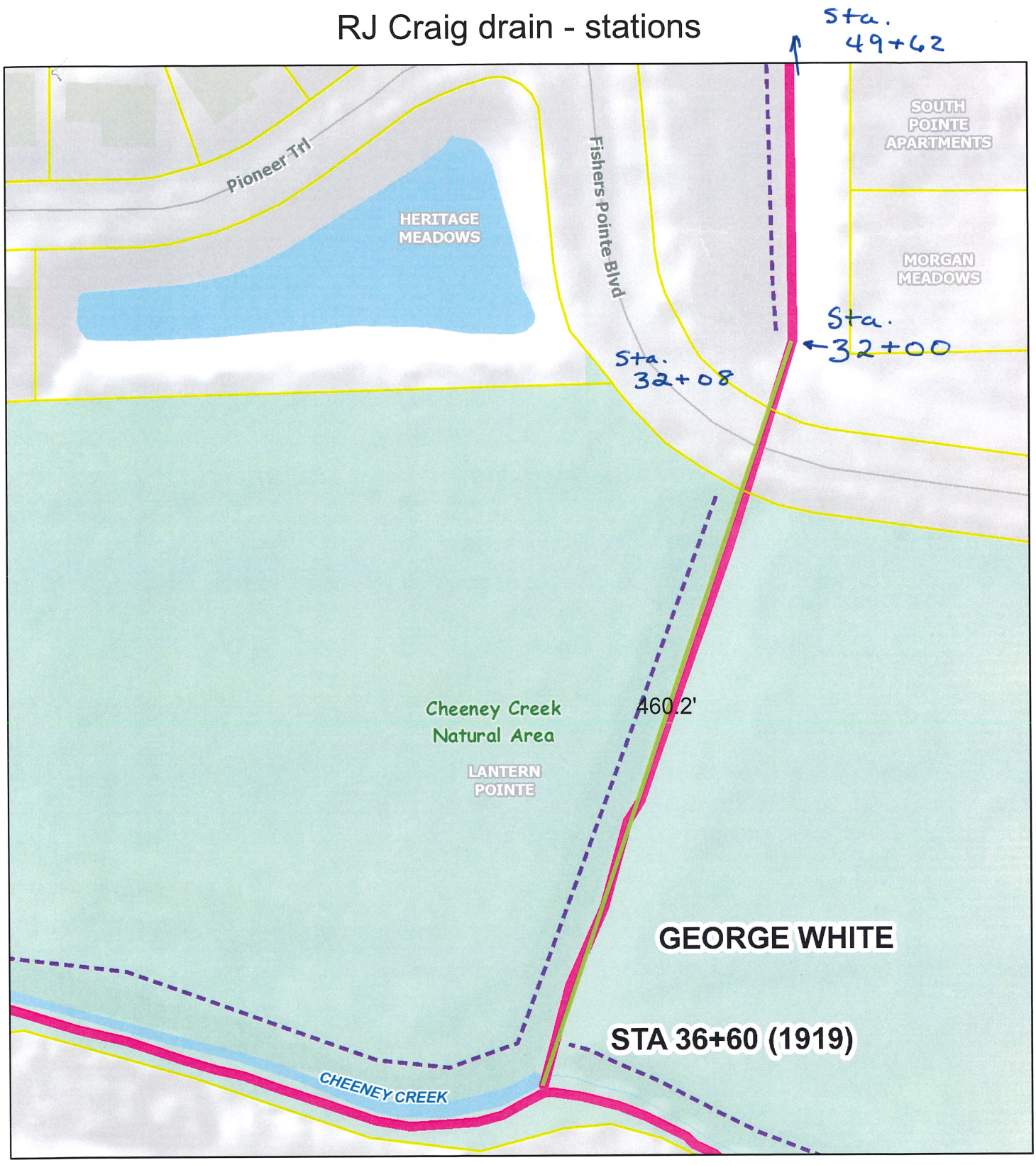
Regulated Drains Waterways

- Filter Strip
- Grass Waterway
- Swale
- Regulated Drains Drainage Pool

Author: Hamilton County

strict accuracy standards have been employed, Hamilton County does not warrant or guarantee the accuracy of the information contained herein and disclaims any and all liability resulting from any error or omission.

RJ Craig drain - stations



May 8, 2020

1:960

0 0.0075 0.015 0.03 mi

0 0.0125 0.025 0.05 km

- Parcel Boundary (public)

Drainage Structures

- All Other Structures
- MUNICIPAL MANHOLE
- Drain Name

Regulated Drains

- CLOSED DRAIN
- MUNICIPAL DRAIN
- OPEN DRAIN
- SSD

Regulated Drains Waterways

- Filter Strip
- Grass Waterway
- Swale

Author: Hamilton County

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R.J. Craig Drain #38
South Village Reconstruciton
Proposal will add 165' to the overall length of R.J. Craig Dain.
Hearing: July 27, 2020

Phs. 1 - Existing 66" RCP replaced with 60" RCP.
Phs. 2 - Widening 1,762' of open ditch.
Phs. 3 - Add 165' os 5'x10' box culvert

*No change in current maintenance assessment. Reconstruction cost to be paid by City of Fishers.

Parcel	Owner	Description	Benefit	RecAsmt	MntAsmt	% of Total
99-99-99-99-99-999.007	City of Fishers	S1 T17 R4 Fishers Pointe Blvd.	*	*	*	*
15-14-01-02-06-040.000	Heritage Meadows Homeowners Assn Inc	S1 T17 R4 Heritage Meadows Sec 1 Pt CA	*	*	*	*
15-14-01-02-07-020.000	Heritage Meadows Homeowners Assn Inc	S1 T17 R4 Heritage Meadows Sec 2 Pt CA	*	*	*	*
15-14-01-02-10-031.000	Heritage Meadows Homeowners Assn Inc	S1 T17 R4 Heritage Meadows Sec 4 Pt CA	*	*	*	*
15-14-01-02-12-031.000	Heritage Meadows Homeowners Assn Inc	S1 T17 R4 Heritage Meadows Sec 5 CA	*	*	*	*
15-14-01-00-03-004.000	Town of Fishers	S1 T17 R4 Lantern Pointe Blk 4, 25.20 Ac	*	*	*	*