

Kenton C. Ward, CEM
Surveyor of Hamilton County
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Fax (317) 776-9628

Suite 188
One Hamilton County Square
Noblesville, Indiana 46060-2230

March 20, 2015

To: Hamilton County Drainage Board

Re: Reconstruction of the Jesse DeVaney Arm of Taylor Creek
2-Stage Ditch between 256th Street and Cal Carson Road

Attached are the construction plans and petition for reconstruction of the Jesse DeVaney Arm of Taylor Creek between 256th Street and Cal Carson Road in Jackson Township. The construction plans were prepared by DLZ (DLZ Project No. 1363-0915-90) for the Hamilton County Highway Department as project Hamilton County Highway Department PB-13-0003.

The Board of Commissioners of Hamilton County petitioned the Hamilton County Drainage Board for reconstruction of the drain on January 26, 2015 (see Hamilton County Drainage Board Minutes Book 16, page 83).

Reconstruction Project

The Hamilton County Highway Department plans to install new bridges at 256th Street, SS #32028 (Bridge 303) and Cal Carson Road SS #32059 (Bridge 304). The Highway Department has asked to widen the existing Jesse DeVaney Arm of the Taylor Creek Open Drain and construct a 2-stage channel between the new bridge structures in order to provide adequate drainage at these intersections. The proposed drain reconstruction will allow the proposed bridges at 256th and Cal Carson to be smaller and will not overtop the roadway during a 100-year storm event (see Hamilton County Drainage Board Minutes Book 15, pages 369-37, pages 409-410 and pages 422-423).

The proposed drain reconstruction includes constructing a 2-stage channel along the alignment of the existing channel from Station 0+00 per the above referenced plan on the south side of 256th Street to Station 13+08 per the above referenced plan on the east side of Cal Carson Road. These stations correspond to the original 1903 description of DeVaney Drain as Station 67+00 and Station 00+08.

The 2-stage channel will have a 20 foot wide base (flow line) and will match the existing flow line of the open channel. To meet IDEM requirements there will be a low flow notch in the base of channel that is one foot (1') deep and two feet (2') wide. The 2-stage channel will have a 2:1 slope to the top of bank on the north side. The south side of the 2-stage channel will slope 2:1 from the bottom of the channel up a height of one foot (1') to a 8.5' wide shelf at the 2-stage channel. From the shelf the side will slope at 2:1 to top of bank. The total length of the 2-stage channel is 1,308 linear feet to be constructed within the existing regulated drain easement. There will not be additional regulated drain length added with this reconstruction, only width.

Included with this project will be two (2) rock chutes, approximately 150 LF of 9" to 12" rip rap slope stabilization, 5 silt basins and 1 inlet and pipe structure.

The cost estimate prepared by DLZ for this work is as follows:

<u>Item Description</u>	<u>Units</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Bid Amount</u>
Construction Survey	LS	1	\$ 601.35	\$ 3,899.89
Mobilization & Demobilization	LS	1	\$1,202.69	\$ 7,799.78
Clearing Right of Way	LS	1	\$ 721.61	\$ 4,679.87
Excavation, Channel	CYS	7,768	\$ 12.32	\$ 95,701.76
Temporary Construction Entrance, #2 Stone	TON	128	\$ 19.42	\$ 2,485.76
Temporary Sediment Basin	Each	5	\$1,000.00	\$ 5,000.00
Temporary Silt Fence	LFT	205	\$ 1.52	\$ 311.60
Erosion Control Blanket	SYS	8,683	\$ 3.50	\$ 30,390.50
Rock Chute, Riprap, Revetment	TON	84	\$ 34.22	\$ 2,874.48
Rock Chute, Geotextiles	SYS	79	\$ 2.70	\$ 213.30
Outlet Pipe Riprap, Revetment	TON	145	\$ 34.22	\$ 4,961.90
Outlet Pipe, Geotextiles	SYS	168	\$ 2.70	\$ 453.60
Bank Armourment, Riprap, Revetment	TON	93	\$ 34.22	\$ 3,182.46
Bank Armourment, Geotextiles	SYS	131	\$ 2.70	\$ 353.70

Fertilizer	TON	1	\$1,000.00	\$ 1,000.00
CMP Drop Structure	EACH	1	\$1,362.00	\$ 1,362.00
Gabions, Metallic Coating	CYS	68	\$ 57.00	\$ 3,876.00
Mulching Material	TON	3	\$ 300.00	\$ 900.00
Pipe, Type 3, Circular, 12 IN., CMP	LFT	60	\$ 35.00	\$ 2,100.00
Taylor Creek Seed Mixture, Temporary	LBS	78	\$ 1.80	\$ 140.40
Taylor Creek Seed Mixture, Permanent	LBS	187	\$ 3.68	\$ <u>688.16</u>
		Subtotal		\$172,375.16
		15% Contingency		\$ <u>25,856.27</u>
		Total Cost		\$198,231.43

All of the construction cost will be paid for by the Hamilton County Highway Department as part of the bridge projects.

All of the reconstruction of the drain will occur on property owned by John & Barbara Chamness, Parcel No. 03-02-20-00-00-017.000.

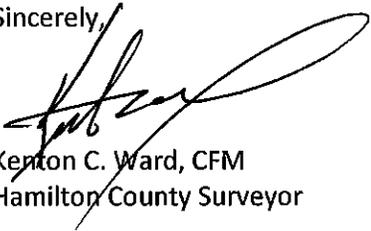
The drain reconstruction project will be constructed by the Hamilton County Highway Department and will be inspected by the engineer of record, DLZ. The landowner on the affected parcel, John Chamness wants the export materials from the 2-stage channel reconstruction. The Hamilton County Highway Department will stock pile this soil on the Chamness property outside the regulated drain easement. Hamilton County Highway Department will obtain the right of entry from John Chamness for this work. Mr. Chamness will obtain all regulatory permits for the disposition of the spoil piles from the Army Corps of Engineers, IDEM, IDNR or other required permits at no expense to Hamilton County.

I have made a personal inspection of the land described above. Upon doing so I believe that the drain is practical, will improve public health, benefit a public highway and be of public utility and that the costs, damages and expenses of the proposed drain will probably be less than the benefits accruing to the owners of land likely to be benefited.

On May 12, 2014 the Drainage Board decided to do all the work proposed for the project within the existing drainage easement of 75 feet from top of bank on each side of the drain (see Hamilton County Drainage Board Minutes Book 15, pages 409-410). The existing easement is described in the attached easement description, Exhibit "A", and plat, Exhibit "B", as prepared by DLZ. No additional easements are required for the project. I believe no damages will result to the landowner. Damages are set at zero (0).

I recommend that the Board set a hearing for this proposal for April 27, 2015.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kenton C. Ward', written over the printed name below.

Kenton C. Ward, CFM
Hamilton County Surveyor

KCW/llm

Taylor Creek, Jesse DeVaney Arm

2-Stage Ditch between 256th St & CalCarson Rd

From Sta 0 on south side of 256th to Sta 13+08 on east side of CalCarson

Cost Estimate: \$198,231.43.

*Proposal to be paid by County Highway Department..

*No change in current maintenance assessment.

Hearing: 04/27/15

Parcel	Owner	Desc1	Desc2	Benefit	MntAsmt	RecAsmt
03-02-20-00-00-017.000	Chamness, John C & Barbara E	S20 T20 R4 76.52 Ac	Residential/Ag	*	*	*
99-99-99-99-99-999.001	Hamilton Co. Highway Dept.	S20 T20 R4 256th & CalCarson	Road	*	*	*

EXHIBIT "A"

Easement Description

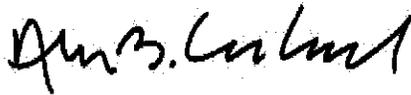
A part of the Southeast Quarter of Section 20, a part of the Southwest of Section 21 and a part of the Northeast Quarter of Section 29 all in Township 20 North, Range 4 East, of the Second Principal Meridian, in Jackson Township, Hamilton County, Indiana marked EXHIBIT "B, attached herewith and made a part of this description by reference, described as follows:

Commencing at the Northeast corner of said Northeast Quarter of Section 29; thence along the North line thereof South 89 degrees 10 minutes 53 seconds West (basis of bearings is said North line of said Northeast Quarter of said Section 29 as shown on a certain Location Control Route Survey Plat recorded in Instrument number 2014000252 in the Office of the Recorder of the County and State aforesaid) 779.43 feet to the POINT OF BEGINNING designated point "818" on said Easement Plat; thence South 02 degrees 33 minutes 24 seconds West 8.27 feet to point "819" as shown on said Easement Plat; thence South 15 degrees 53 minutes 01 seconds East 11.76 feet to point "820" as shown on said Easement Plat; thence South 07 degrees 16 minutes 07 seconds West 20.89 feet to point "821" as shown on said Easement Plat; thence South 86 degrees 08 minutes 49 seconds West 185.14 feet to point "822" as shown on said Easement Plat; thence North 07 degrees 09 minutes 33 seconds West 50.40 feet to said North line designated point "823" on said Easement Plat; thence continuing North 07 degrees 09 minutes 33 seconds West 28.53 feet to point "824" as shown on said Easement Plat; thence North 17 degrees 14 minutes 21 seconds East 32.06 feet to point "825" as shown on said Easement Plat; thence North 02 degrees 50 minutes 51 seconds West 45.45 feet to point "826" as shown on said Easement Plat; thence North 03 degrees 19 minutes 43 seconds East 65.19 feet to point "827" as shown on said Easement Plat; thence North 18 degrees 34 minutes 25 seconds East 104.84 feet to point "828" as shown on said Easement Plat; thence North 68 degrees 27 minutes 06 seconds East 71.61 feet to point "829" as shown on said Easement Plat; thence North 41 degrees 08 minutes 26 seconds East 19.02 feet to point "830" as shown on said Easement Plat; thence North 32 degrees 26 minutes 48 seconds East 37.46 feet to point "831" as shown on said Easement Plat; thence North 30 degrees 03 minutes 28 seconds East 42.12 feet to point "832" as shown on said Easement Plat; thence North 23 degrees 24 minutes 10 seconds East 103.96 feet to point "833" as shown on said Easement Plat; thence North 88 degrees 42 minutes 33 seconds East 100.56 feet to point "834" as shown on said Easement Plat; thence North 79 degrees 05 minutes 06 seconds East 42.15 feet to point "835" as shown on said Easement Plat; thence North 84 degrees 48 minutes 06 seconds East 51.52 feet to point "836" as shown on said Easement Plat; thence North 78 degrees 14 minutes 45 seconds East 44.02 feet to point "837" as shown

on said Easement Plat; thence North 78 degrees 36 minutes 27 seconds East 52.39 feet to point "838" as shown on said Easement Plat; thence North 81 degrees 45 minutes 55 seconds East 46.03 feet to point "839" as shown on said Easement Plat; thence North 69 degrees 47 minutes 10 seconds East 41.52 feet to point "840" as shown on said Easement Plat; thence North 87 degrees 27 minutes 55 seconds East 66.70 feet to point "841" as shown on said Easement Plat; thence North 81 degrees 53 minutes 36 seconds East 45.35 feet to point "842" as shown on said Easement Plat; thence North 78 degrees 32 minutes 01 seconds East 55.00 feet to point "843" as shown on said Easement Plat; thence North 87 degrees 11 minutes 10 seconds East 50.69 feet to point "844" as shown on said Easement Plat; thence North 81 degrees 10 minutes 28 seconds East 41.08 feet to point "845" as shown on said Easement Plat; thence North 75 degrees 55 minutes 14 seconds East 42.13 feet to point "846" as shown on said Easement Plat; thence North 68 degrees 18 minutes 46 seconds East 45.24 feet to point "847" as shown on said Easement Plat; thence North 73 degrees 46 minutes 30 seconds East 57.17 feet to point "848" as shown on said Easement Plat; thence North 76 degrees 26 minutes 08 seconds East 9.06 feet to the East line of said Southeast Quarter of Section 20; thence continuing North 76 degrees 26 minutes 08 seconds East 34.45 feet to point "850" as shown on said Easement Plat; thence South 22 degrees 42 minutes 31 seconds East 195.92 feet to point "851" as shown on said Easement Plat; thence South 66 degrees 01 minutes 01 seconds West 67.38 feet to point "852" as shown on said Easement Plat; thence South 73 degrees 32 minutes 15 seconds West 59.19 feet to point "853" as shown on said Easement Plat; thence South 84 degrees 30 minutes 16 seconds West 70.41 feet to point "854" as shown on said Easement Plat; thence North 84 degrees 52 minutes 53 seconds West 44.60 feet to point "855" as shown on said Easement Plat; thence South 81 degrees 08 minutes 43 seconds West 42.84 feet to point "856" as shown on said Easement Plat; thence South 82 degrees 36 minutes 32 seconds West 47.32 feet to point "857" as shown on said Easement Plat; thence South 75 degrees 49 minutes 34 seconds West 42.10 feet to point "858" as shown on said Easement Plat; thence South 72 degrees 31 minutes 39 seconds West 42.34 feet to point "859" as shown on said Easement Plat; thence South 67 degrees 39 minutes 35 seconds West 61.83 feet to point "860" as shown on said Easement Plat; thence North 78 degrees 11 minutes 24 seconds West 71.74 feet to point "861" as shown on said Easement Plat; thence South 78 degrees 17 minutes 17 seconds West 30.90 feet to point "862" as shown on said Easement Plat; thence South 77 degrees 27 minutes 52 seconds West 51.49 feet to point "863" as shown on said Easement Plat; thence South 80 degrees 30 minutes 08 seconds West 53.18 feet to point "864" as shown on said Easement Plat; thence South 79 degrees 19 minutes 21 seconds West 53.81 feet to point "865" as shown on said Easement Plat; thence South 89 degrees 36 minutes 18 seconds West 43.93 feet to point "866" as shown on said Easement Plat; thence South 40 degrees 50 minutes 37 seconds West 11.19 feet to point "867" as shown on said Easement Plat; thence South 29 degrees 14 minutes 00 seconds West 47.49 feet to point "868" as shown on said

Easement Plat; thence South 33 degrees 09 minutes 14 seconds West 61.32 feet to point "869" as shown on said Easement Plat; thence South 43 degrees 24 minutes 59 seconds West 67.39 feet to point "870" as shown on said Easement Plat; thence South 51 degrees 53 minutes 04 seconds West 33.25 feet to point "871" as shown on said Easement Plat; thence South 28 degrees 10 minutes 06 seconds West 5.45 feet to point "872" as shown on said Easement Plat; thence South 09 degrees 06 minutes 44 seconds West 21.60 feet to point "873" as shown on said Easement Plat; thence South 12 degrees 34 minutes 42 seconds East 38.18 feet to point "874" as shown on said Easement Plat; thence South 04 degrees 52 minutes 48 seconds West 17.78 feet to point "875" as shown on said Easement Plat; thence South 06 degrees 09 minutes 32 seconds East 21.30 feet to point "876" as shown on said Easement Plat; thence South 05 degrees 14 minutes 54 seconds West 25.97 feet to the POINT OF BEGINNING, and containing 5.501 acres, more or less.

This description was prepared by DLZ Indiana, LLC for the Hamilton County Highway Department, as part of Project HCHD PB-13-0003 on February 27, 2015.



Alan Brent Cleveland
Registered Land Surveyor, Number LS80880007
Within the State of Indiana

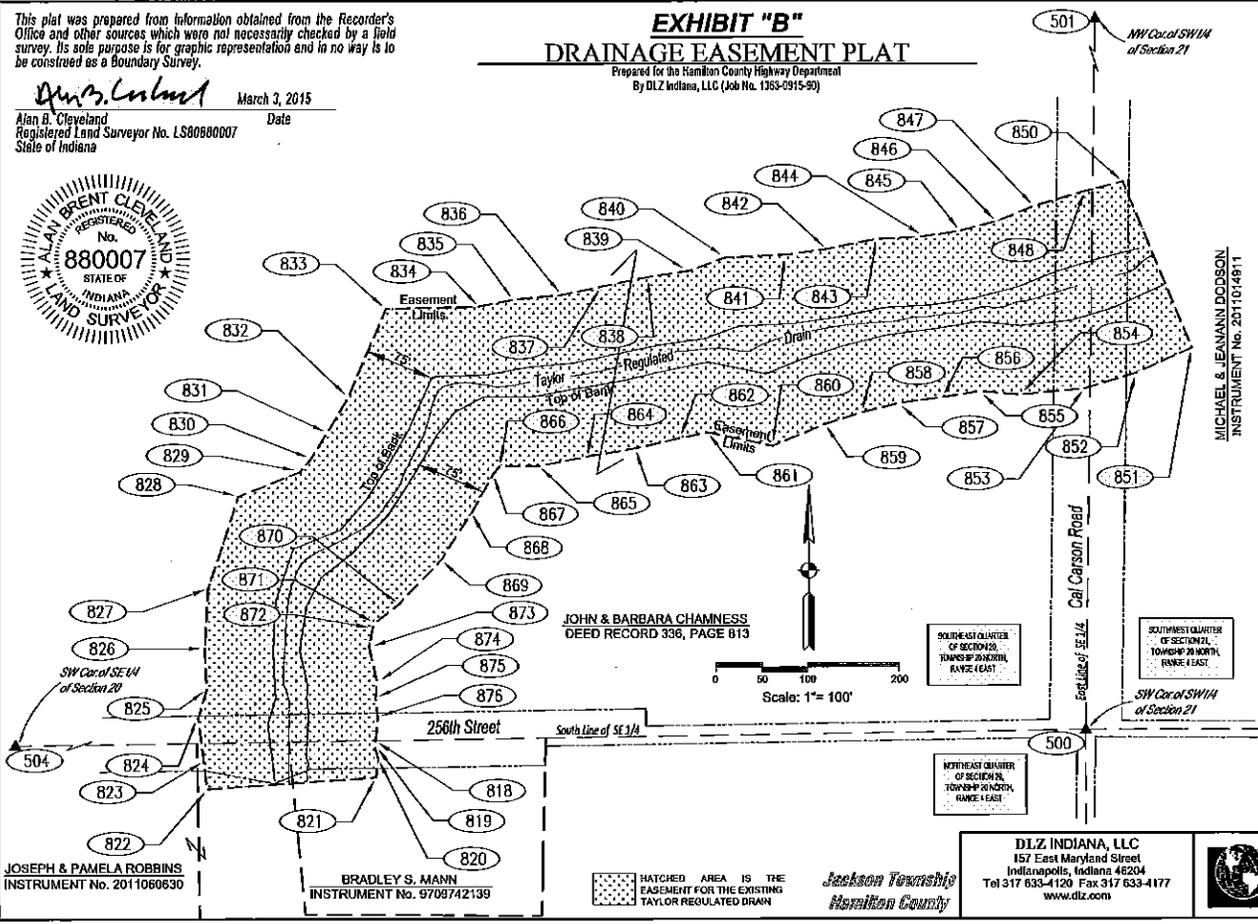


This plat was prepared from information obtained from the Recorder's Office and other sources which were not necessarily checked by a field survey. Its sole purpose is for graphic representation and in no way is to be construed as a boundary Survey.

Alan B. Cleveland March 3, 2015
 Alan B. Cleveland Date
 Registered Land Surveyor No. LS0808007
 State of Indiana



EXHIBIT "B"
DRAINAGE EASEMENT PLAT
 Prepared for the Hamilton County Highway Department
 By DLZ Indiana, LLC (Job No. 1363-0915-90)



Point	Northing	Easting
500	178739.5420	210142.7285
501	178739.4189	210139.6877
504	178739.2304	207344.8783
818	178738.4050	209383.5840
819	178738.1459	209383.0352
820	178737.8829	209382.2977
821	178738.1187	209383.2956
822	178738.6241	209382.5915
823	178738.8790	209382.5915
824	178738.5881	209383.0260
825	178739.4011	209382.5915
826	178738.9911	209384.1783
827	178738.0803	209380.0637
828	178738.0820	209383.4371
829	178738.7578	209380.2677
830	178738.0284	209381.5790
831	178738.6931	209383.6848
832	178738.1825	209382.7932
833	178738.1872	209385.0679
834	178738.0222	209380.5763
835	178738.4896	209384.8418
836	178738.4770	209384.2913
837	178738.2448	209381.7928
838	178738.7881	209382.7911
839	178738.1827	209383.1361
840	178738.7881	209382.2905
841	178738.6781	209383.9094
842	178738.0727	209383.8071
843	178738.0222	209383.7151
844	178738.4758	209383.3188
845	178738.7881	210054.8243
846	178738.1867	210054.8412
847	178738.1867	210054.8412
848	178738.1867	210054.8412
849	178738.1867	210054.8412
850	178738.1867	210054.8412
851	178738.1867	210054.8412
852	178738.1867	210054.8412
853	178738.1867	210054.8412
854	178738.1867	210054.8412
855	178738.1867	210054.8412
856	178738.1867	210054.8412
857	178738.1867	210054.8412
858	178738.1867	210054.8412
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862	178738.1867	210054.8412
863	178738.1867	210054.8412
864	178738.1867	210054.8412
865	178738.1867	210054.8412
866	178738.1867	210054.8412
867	178738.1867	210054.8412
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869	178738.1867	210054.8412
870	178738.1867	210054.8412
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890	178738.1867	210054.8412
891	178738.1867	210054.8412
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896	178738.1867	210054.8412
897	178738.1867	210054.8412
898	178738.1867	210054.8412
899	178738.1867	210054.8412
900	178738.1867	210054.8412

CHECKED BY: A. Cleveland, 02-27-2015

JOSEPH & PAMELA ROBBINS
 INSTRUMENT No. 2011060630

BRADLEY S. MANN
 INSTRUMENT No. 9709742139

HATCHED AREA IS THE EASEMENT FOR THE EXISTING TAYLOR REGULATED DRAIN

Jackson Township
 Hamilton County

DLZ INDIANA, LLC
 157 East Maryland Street
 Indianapolis, Indiana 46204
 Tel 317 633-4120 Fax 317 633-4177
 www.dlz.com



