Drain: JW BRENGE ORAIN	Drain #: 77
Improvement/Arm: HAYOEN RUN -	
Operator: <u>Ј<i>в</i>н</u>	Date: /0-2/-03
Drain Classification: Urban/Rur	

# **GIS Drain Input Checklist**

•	Digitize & Attribute Tile Drains	*
•	Digitize & Attribute Storm Drains	
•	Digitize & Attribute SSD	
•	Digitize & Attribute Open Ditch	***
•	Sum drain lengths & Validate	-
•	Enter Improvements into Posse	999. 10-21
•	Enter Drain Age into Posse	
•	Sum drain length for Watershed in Posse	
•	Stamp Plans	
•	Pull Source Documents for Scanning	OF 10-21

# Hayden Run Sec. 1 Additional pipes between Ponds

NO.	PAY ITEMS	UNIT	UNIT PRICE	QUANTITY	ITE	M COST
			Programme Co. T. S.			
1	Mobilization and Demobilization	LS	\$ 1,704.50	1	\$	1,700
2	Sidewalk remove	SY	\$ 4.00	67	\$	260
3	Rip Rap remove	SY	\$ 12.00	120	\$	1,440
4	Erosion Control Measures	LS	\$ 4,000.00	1	\$	4,000
5	Excavation, fill	CY	\$ 10.00	125	\$	1,250
6	Geotextile, Riprap at outlet	SY	\$ 2.50	108	\$	270
7	Revetment Riprap for overflow spillways	SY	\$ 30.00	73	\$	2,190
8	Reiforced concrete pipe, 21"	LF	\$ 45.20	120	\$	5,420
9	Reiforced concrete pipe, 36"	LF	\$ 81.30	144	\$	11,700
10	Precast concrete end section, 21"	LS	\$ 380.00	2	\$	760
11	Precast concrete end section, 36"	LS	\$ 750.00	2	\$	1,500
12	Grading	LS	\$ 3,000.00	1	\$	3,000
13	Sidewalk replace	SY	\$ 27.00	67	\$	1,800
14	Seeding	LS	\$ 500.00	1	\$	500
21	Construction Engineering	LS	\$ 681.80	1	\$	680
	SUBTOTAL		TOWN THE STREET		\$	36,470
22	CONTINGENCY	%		20%	\$	7,290
	TOTAL				\$	43,760

#### NOTES:

<sup>1 -</sup> Opinion of Probable Cost is conceptual and does not reflect final design. All quantities and unit costs are subject to change.



Kenton C. Ward, Surveyor Phone (317) 776-8495 Fax (317) 776-9628

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

November 20, 2002

To: Hamilton County Drainage Board

Re: J. W. Brendle Drain, Hayden Run Section 1 Arm

Attached is a petition, non-enforcement request, plans, calculations, quantity summary and assessment roll for the Hayden Run Section 1 Arm, J. W. Brendle Drain. I have reviewed the submittals and petition and have found each to be in proper form.

I have made a personal inspection of the land described in the petition. Upon doing so, I believe that the drain is practicable; will improve the 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. The drain will consist of the following:

6" SSD 3,560 ft 15" RCP 449 ft 21" RCP 248 ft 12" RCP 485 ft 18" RCP 242 ft 48" RCP 112 ft

The total length of the drain will be 5,096 feet.

The retention ponds (lakes) located in Common Area number 2 will be considered part of the regulated drain. Only the inlet and outlet will be maintained as part of the regulated drain. The maintenance, such as mowing, of the ponds (lakes) will be the responsibility of the Homeowners Association. The Board will however, retain jurisdiction for ensuring the storage volume for which the lake was designed will be retained. Thereby, allowing no fill or easement encroachments.

The subsurface drains (SSD) to be part of the regulated drain are those located under the curbs. Only the main SSD lines, which are located within the right of way, are to be maintained as regulated drain. Laterals for individual lots will not be considered part of the regulated drain.

I have reviewed the plans and believe the drain will benefit each lot equally. Therefore, I recommend each lot be assessed equally. I also believe that no damages will result to landowners by the construction of this drain. I recommend a maintenance assessment of \$65.00 per lot, \$10.00 per acre for roadways and common areas with a \$65.00 minimum. With this assessment the total annual assessment for this drain/this section will be \$1,753.90.

Parcels assessed for this drain may be assessed for the Long Branch Drain at sometime in the future. Parcels assessed for this drain will also be assessed for the J. W. Brendle Drain.

I believe this proposed drain meets the requirements for Urban Drain Classification as set out in IC 36-9-27-67 to 69. Therefore, this drain shall be designated as an Urban Drain.

I recommend that upon approval of the above-proposed drain that the Board also approve the attached non-enforcement request. This request is for the reduction of the regulated drain easement to those easement widths as shown on the secondary plat for Hayden Run Section 1 as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for Manuary  $27_{22}$  2003.

Menton C. Ward

Hamilton County Surveyor

KCW/11m

Petition	1.				
	In the matter of	Hayden Run	Subdivision, Section	One	Drain
TO:		NTY DRAINAGE By Surveyor, Courthor	SOARD use, Noblesville, IN 46060		
COUN	TY OF HAMILTON	1 )			
STATE	E OF INDIANA	)			

Petitioner is the owner of all lots in the land affected by the proposed new regulated drain. The drainage will affect various lots in <u>Hayden Run</u>, <u>Sec.</u>,1a subdivision in Hamilton County, Indiana. The general route of such drainage shall be in existing easements and along public roads as shown in the plans on file in the Surveyor's Office.

Petitioner believers that the cost, damages and expenses of the proposed improvement will be less than the benefits which will result to the owners of the land likely to be benefitted thereby. Petitioner believes the proposed improvements will:

- (a) improve public health
- (b) benefit a public street
- (c) be of public utility

Petitioner agrees to pay the cost of construction of the drainage system and requests periodic maintenance assessments by the Board thereafter.

The Petitioner also agrees to the following:

- 1. To provide the Drainage Board a Performance Bond for the portion of the drainage system which will be made a regulated drain. The bond will be in the amount of 100% of the Engineers estimate. The bond will be in effect until construction of 100% of the system is completed and so certified by the Engineer.
- 2. The Petitioner shall retain an Engineer throughout the construction phase. At completion of the project the Petitioner's Engineer shall certify that the drainage system which is to be maintained as a regulated drain has been constructed as per construction plans.

- 3. The Petitioner agrees to request in writing to the County Surveyor any changes from the approved plan and must receive written authorization from the County Surveyor prior to implementation of the change. All changes shall be documented and given to the Surveyor to be placed in the Drain File.
- 4. The Petitioner shall instruct his Engineer to provide a reproducable print on a 24" x 36" mylar of the final design of the Drainage System. This shall be submitted to the County Surveyor prior to the release of the Performance Bond.
- 5. The Petitioner shall comply with the Erosion Control Plan as specified on the construction plans. Failure to comply with the Erosion Control Plan shall be determined by the Board as being an obstruction to the drainage system. The County Surveyor shall immediately install or repair the needed measures at Petitioner cost as per IC 36-9-27-46.

The Petitioner further requests that the Drain be classified as an Urban Drain.

THOMAS L. KUTZ	
LAND DEVELOPMENT MANAGER	
Printed Name /	
The / 5/2/02	
Signed Homes A Nevada General Partnership By: Centex Real Estate Corporation, A Nevada Its: Managing General Partner	Corporation
Printed Name	

RECORDED OWNER(S) OF LAND INVOLVED

OATE 5/2/2

#### FINDINGS AND ORDER

### CONCERNING THE MAINTENANCE OF THE

### J. W. Brendle Drain, Hayden Run Section 1

On this 27th day of January 2003, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the J. W. Brendle Drain, Hayden Run Section 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

Attest: Tipette Mostrage



### CERTIFICATE OF COMPLETION AND COMPLIANCE

To: Hamilton County Surveyor

Re: Hayden Run, Section One

I hereby certify that:

- 1. I am a Registered Land Surveyor or Engineer in the State of Indiana.
- 2. I am familiar with the plans and specifications for the above referenced subdivision.
- 3. I have personally observed and supervised the completion of the drainage facilities for the above referenced subdivision.
- 4. The drainage facilities within the above referenced subdivision to the best of my knowledge, information and belief have been installed and completed in conformity with all plans and specifications.

Signature:	y W Darling Date: January 9, 2003
Type or Print Name:	Jeffory W. Darling
Business Address:	Stoeppelwerth & Associates, Inc.
· · · · · · · · · · · · · · · · · · ·	9940 Allisonville Road, Fishers, Indiana 46038
Telephone Number:	(317) 849-5935
SEAL	INDIANA REGISTRATION NUMBER
	900017
NO. 900017 STATE OF	







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

### To: Hamilton County Drainage Board

March 16, 2006

Re: JW Brendle Drain: Hayden Run Section 1 Arm

Attached are as-builts, certificate of completion & compliance, and other information for Hayden Run Section 1. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable.

During construction, changes were made to the drain, which will alter the plans submitted with my report for this drain-dated November 20, 2002. The report was approved by the Board at the hearing held January 27, 2003. (See Drainage Board Minutes Book 6, Pages 523-524) The changes are as follows:

				Up			
Structure:	Length:	Size	Material:	Invert:	Dn_Invert	Grade:	Changes(ft):
101-100	99	48	RCP	895.58	895.12	0.46	-3
121-120	36	15	RCP	898.07	897.86	0.58	
120-119	209	15	RCP	897.86	895.67	1.05	-7
103-102	139	12	RCP	899	895.5	2.52	
118-117	36	18	RCP	902.82	899.62	0.25	
117-116	205	18	RCP	899.53	898.98	0.27	-1
105-104	115	12	RCP	903.09	899.06	3.5	-5
115-114	141	21	RCP	904.19	903.45	0.52	-3
114-113	36	21	RCP	903.45	903.31	0.39	
113-112	66	21	RCP	903.31	903.09	0.33	-2
111-110	165	12	RCP	908.67	907.1	0.95	
110-109	61	12	RCP	907.1	906.89	0.34	
109-108	30	15	RCP	906.89	906.31	1.93	
108-107	58	15	RCP	906.31	905.98	0.57	-1
107-106	108	15	RCP	905.98	903	2.76	

6" SSD Streets:

Tuscany Blvd	1470
Tantara Bend	248
Totaly2:	3436

KUP PIP	e rotais:
12	480
15	441
18	241
21	243
48	99

Total:	1504

The length of the drain due to the changes described above is now 4,940 feet.

The non-enforcement was approved by the Board at its meeting on January 27, 2003 and recorded under instrument #200300011400.

The following sureties were guaranteed by SAFECO Insurance Company and released by the Board on its November 28, 2005 meeting.

**Bond-LC No:** 6161759

**Insured For:** Storm Sewers

**Amount:** \$67,088.47

Issue Date: April 10, 2002

**Bond-LC No:** 6161760

**Insured For:** Erosion Control

**Amount:** \$43,546.2

Issue Date: April 10, 2002

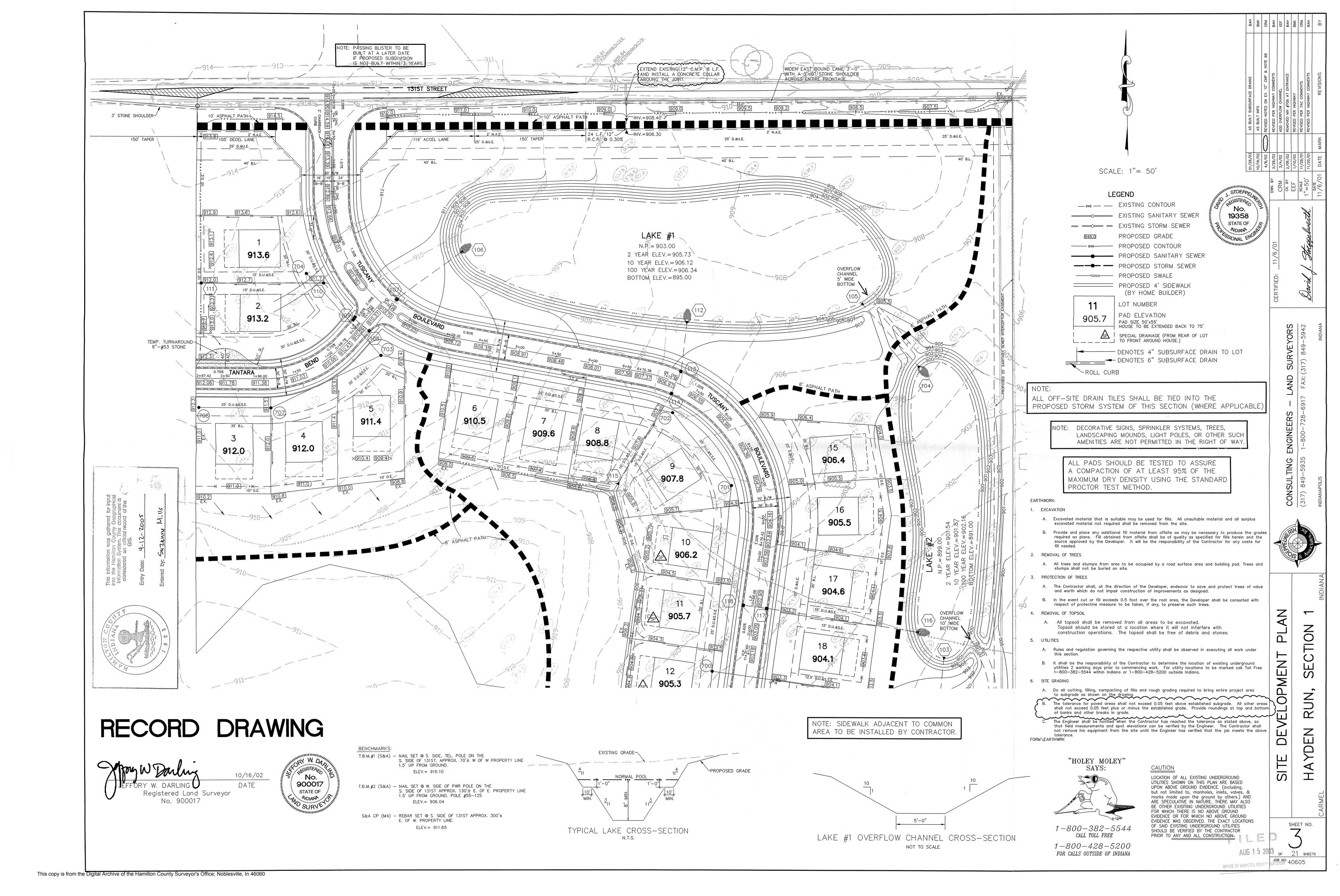
I recommend the Board approve the drain's construction as complete and acceptable.

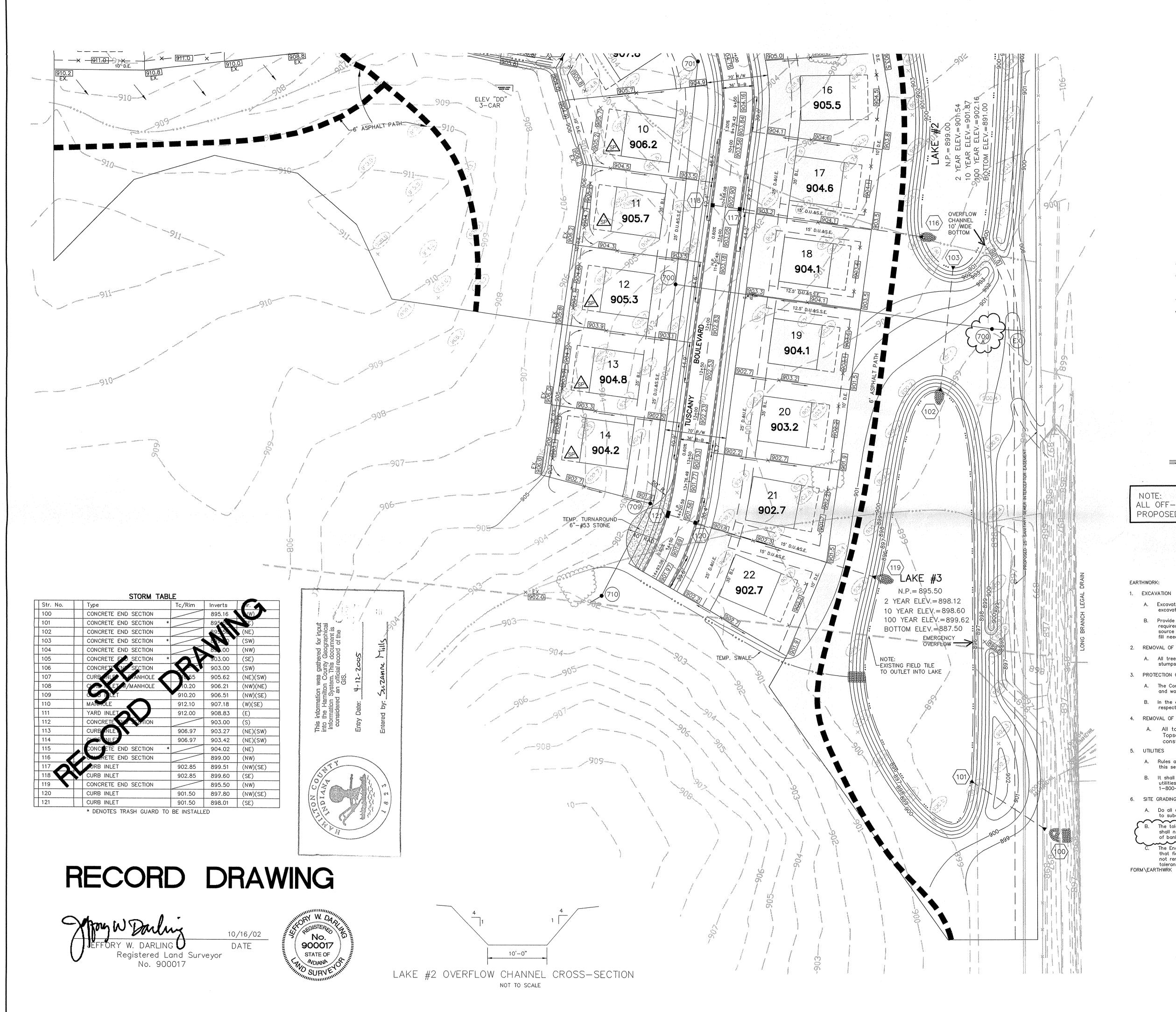
Sincerely,

Kenton C. Ward

Hamilton County Surveyor

KCW/slm





SCALE: 1"= 50' LEGEND 19358 STATE OF \_\_\_ 848 \_\_ \_ EXISTING CONTOUR — EXISTING SANITARY SEWER EXISTING STORM SEWER PROPOSED GRADE - PROPOSED CONTOUR PROPOSED SANITARY SEWER

LOT NUMBER PAD ELEVATION

PAD SIZE 50'x55'

HOUSE TO BE EXTENDED BACK TO 75' SPECIAL DRAINAGE (FROM REAR OF LOT TO FRONT AROUND HOUSE.)

- PROPOSED STORM SEWER

PROPOSED 4' SIDEWALK (BY HOME BUILDER)

--- PROPOSED SWALE

- DENOTES 4" SUBSURFACE DRAIN TO LOT DENOTES 6" SUBSURFACE DRAIN

ALL OFF-SITE DRAIN TILES SHALL BE TIED INTO THE PROPOSED STORM SYSTEM OF THIS SECTION (WHERE APPLICABLE)

ALL PADS SHOULD BE TESTED TO ASSURE A COMPACTION OF AT LEAST 95% OF THE MAXIMUM DRY DENSITY USING THE STANDARD PROCTOR TEST METHOD.

- A. Excavated material that is suitable may be used for fills. All unsuitable material and all surplus excavated material not required shall be removed from the site.
- B. Provide and place any additional fill material from offsite as may be necessary to produce the grades required on plans. Fill obtained from offsite shall be of quality as specified for fills herein and the source approved by the Developer. It will be the responsibility of the Contractor for any costs for fill needed.

## REMOVAL OF TREES

A. All trees and stumps from area to be occupied by a road surface area and building pad. Trees and stumps shall not be buried on site.

## PROTECTION OF TREES

- A. The Contractor shall, at the direction of the Developer, endeavor to save and protect trees of value and worth which do not impair construction of improvements as designed.
- B. In the event cut or fill exceeds 0.5 foot over the root area, the Developer shall be consulted with respect of protective measure to be taken, if any, to preserve such trees.

## 4. REMOVAL OF TOPSOIL

A. All topsoil shall be removed from all areas to be excavated. Topsoil should be stored at a location where it will not interfere with construction operations. The topsoil shall be free of debris and stones.

- A. Rules and regulation governing the respective utility shall be observed in executing all work under
- B. It shall be the responsibility of the Contractor to determine the location of existing underground utilities 2 working days prior to commencing work. For utility locations to be marked call Toll Free 1-800-382-5544 within Indiana or 1-800-428-5200 outside Indiana.

- A. Do all cutting, filling, compacting of fills and rough grading required to bring entire project area to subgrade as shown on the drawing.

  B. The tolerance for paved areas shall not exceed 0.05 feet above established subgrade. All other areas shall not exceed 0.05 feet plus or minus the established grade. Provide roundings at top and bottom of banks and other breaks in grade.
- of banks and other breaks in grade. C. The Engineer shall be notified when the Contractor has reached the tolerance as stated above, so that field measurements and spot elevations can be verified by the Engineer. The Contractor shall not remove his equipment from the site until the Engineer has verified that the job meets the above



1-800-382-5544 CALL TOLL FREE 1-800-428-5200

FOR CALLS OUTSIDE OF INDIANA

LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE. (including, but not limited to, manholes, inlets, valves, & marks made upon the ground by others.) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISITING UNDERGROUND UTILIITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

JOB NO. 40605

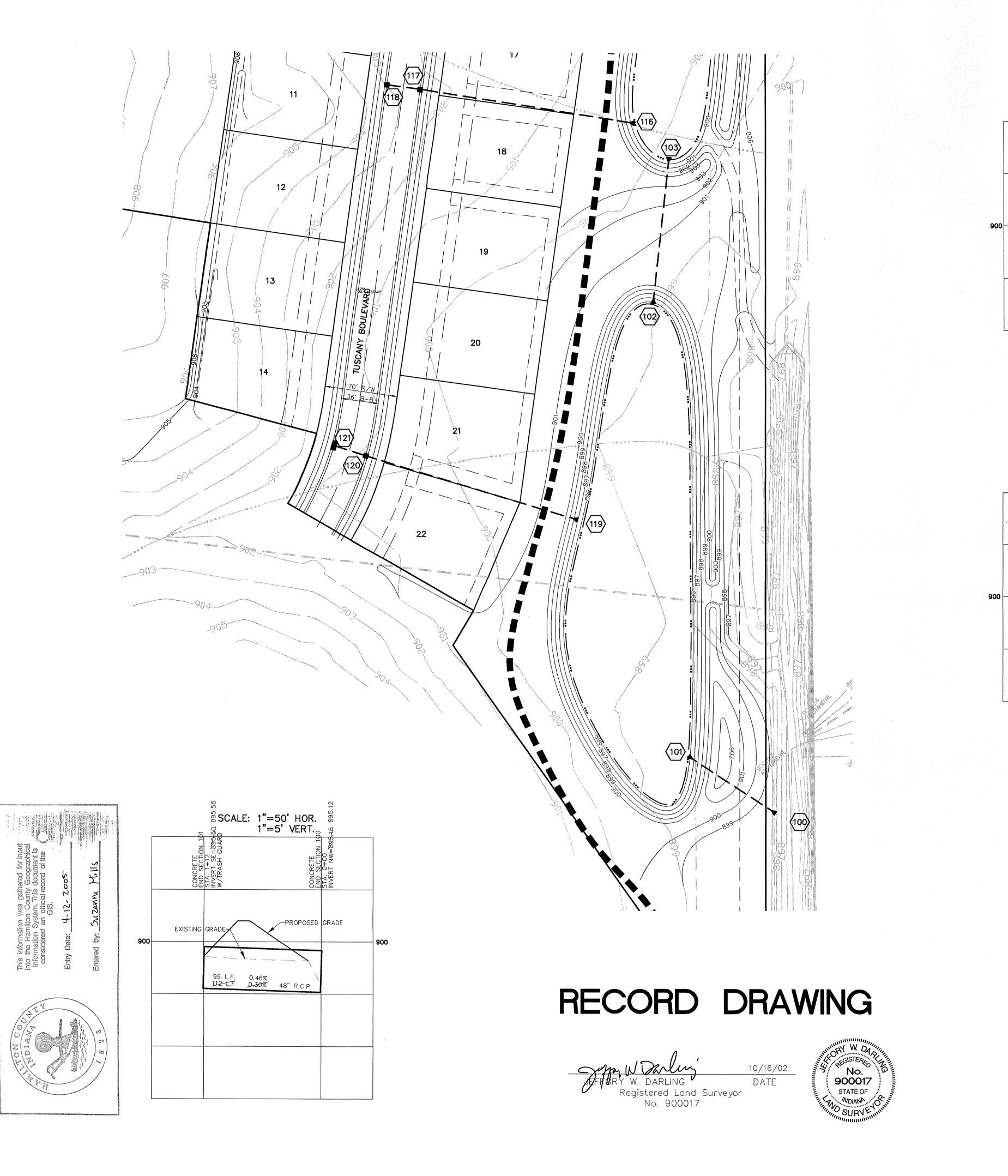
SURVEYORS (317) 849-5942

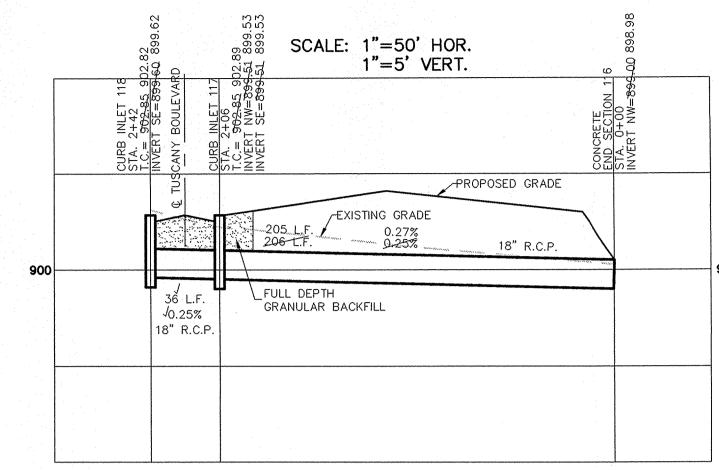
LAND

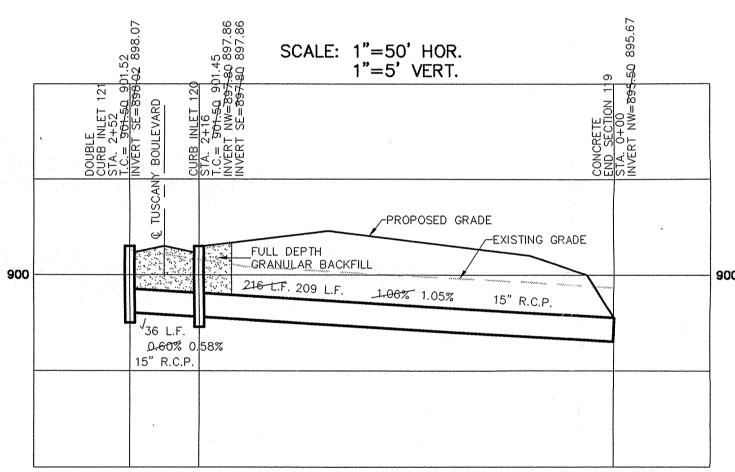
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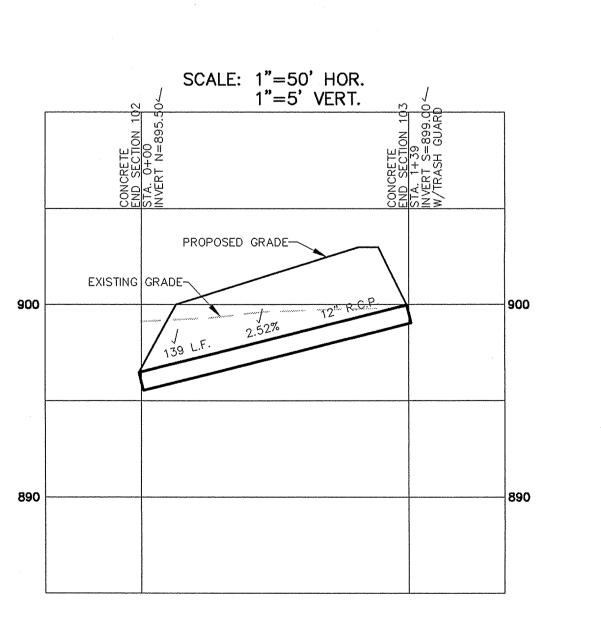
SHEET NO.

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













SCALE: 1"= 50'

The state of the s

CONSULTING | (317) 849-5935

ENGINEERS - LAND SURVEYORS
1-800-728-6917 FAX: (317) 849-5942



PROFILE CTION

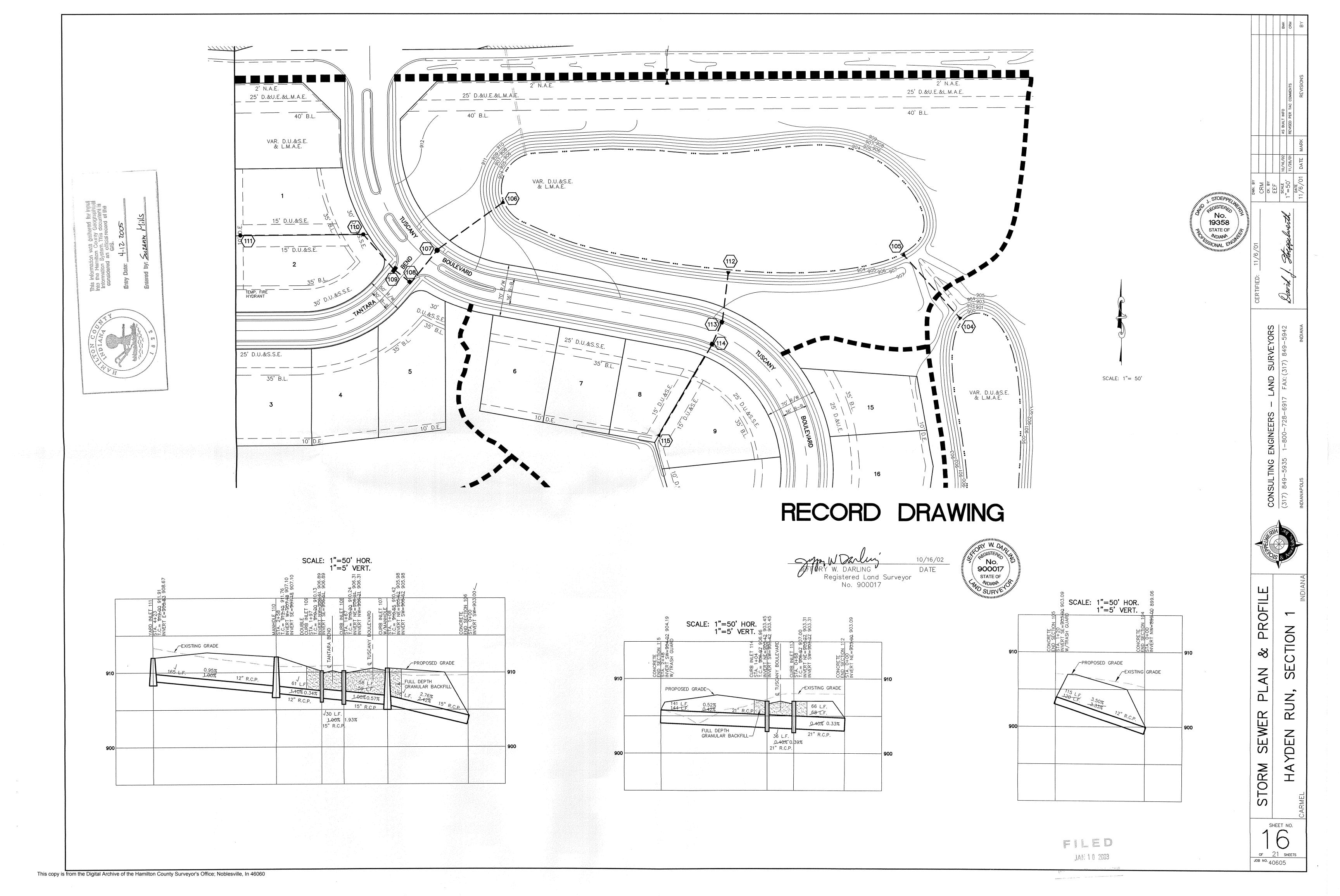
RUN, SEWER HAYDEN STORM

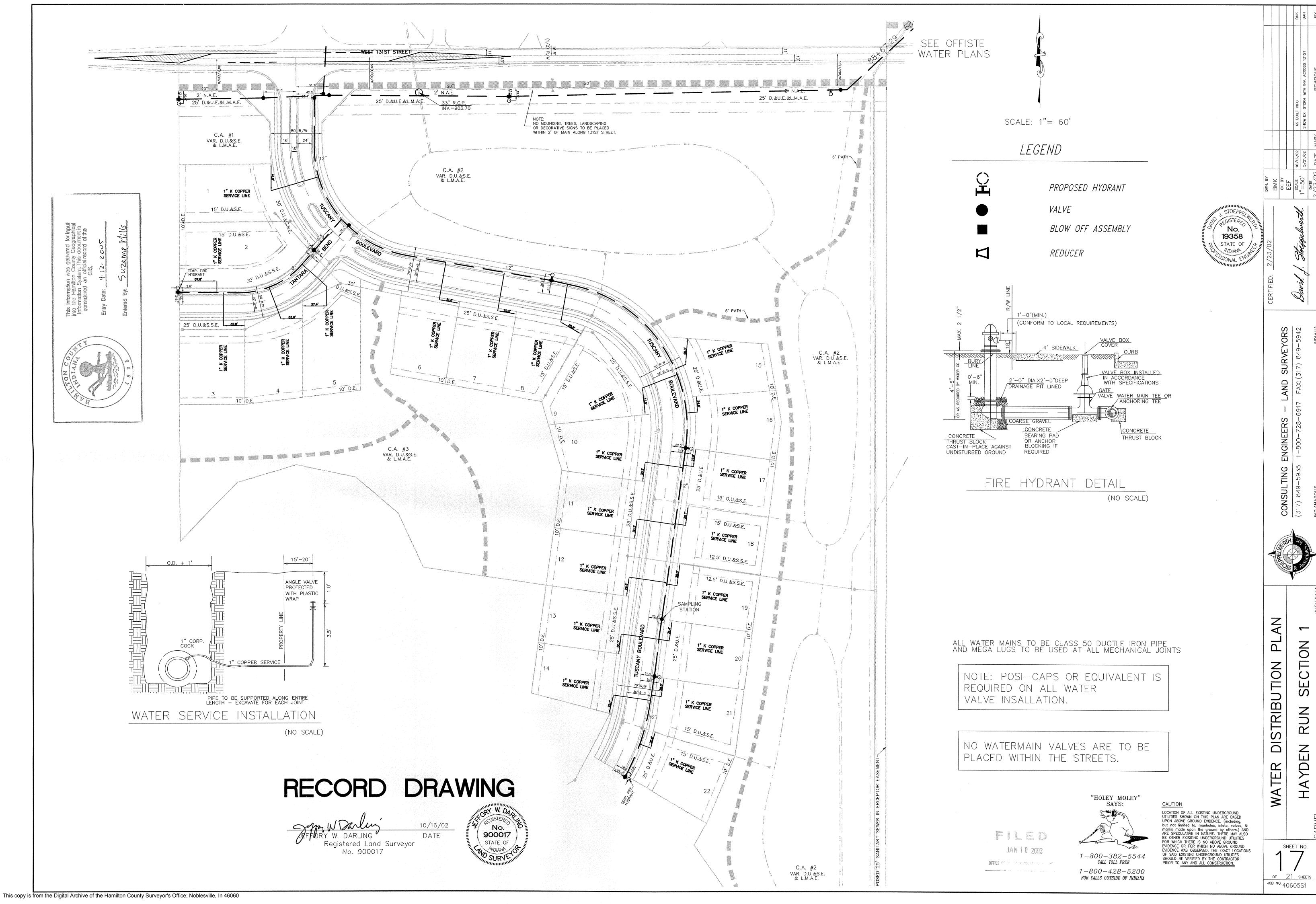
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15

OF 21 SHEETS

JOB NO. 40605







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

To: Hamilton County Drainage Board

March 11, 2008

Re: JW Brendle Drain: Hayden Run Section 1 Arm (Revised Final Report)

Attached are as-builts, certificate of completion & compliance, and other information for Hayden Run Section 1. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable.

During construction, changes were made to the drain, which will alter the plans submitted with my report for this drain-dated November 20, 2002. The report was approved by the Board at the hearing held January 27, 2003. (See Drainage Board Minutes Book 6, Pages 523-524) The changes are as follows:

Structure:	Length:	Size	Material:	Up Invert:	Dn Invert	Grade:	Changes(ft):
101-100	99	48	RCP	895.58	895.12	0.46	-3
121-120	36	15	RCP	898.07	897.86	0.58	
120-119	209	15	RCP	897.86	895.67	1.05	-7
103-102	139	12	RCP	899	895.5	2.52	
118-117	36	18	RCP	902.82	899.62	0.25	
117-116	205	18	RCP	899.53	898.98	0.27	-1
105-104	115	12	RCP	903.09	899.06	3.5	-5
115-114	141	21	RCP	904.19	903.45	0.52	-3
114-113	36	21	RCP	903.45	903.31	0.39	
113-112	66	21	RCP	903.31	903.09	0.33	-2
111-110	165	12	RCP	908.67	907.1	0.95	
110-109	61	12	RCP	907.1	906.89	0.34	
109-108	30	15	RCP	906.89	906.31	1.93	-
108-107	58	15	RCP	906.31	905.98	0.57	-1
107-106	108	15	RCP	905.98	903	2.76	

6" SSD Streets:

Tuscany Blvd 1470
Tantara Bend 248

Totalx2:

3436

RCP Pipe Totals:

1101 11	o rotars.
12	480
15	441
18	241
21	243

Total:	1504
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The length of the drain due to the changes described above is now 4,940 feet. In 2006, Centex Homes agreed to add additional pipes between two of the Lakes in Section 1. These pipes consist of 124 feet of 21" RCP and 145 feet of 36" RCP. The as-builts shot by our office, dated 02-27-2007, show the pipes and their inverts. These pipes were installed to alleviate flooding occurring to the east of the ponds. Therefore length of drain, due to the above listed revision, is now **5209 feet**.

The non-enforcement was approved by the Board at its meeting on January 27, 2003 and recorded under instrument #200300011400.

The following sureties were guaranteed by SAFECO Insurance Company and released by the Board on its November 28, 2005 meeting.

**Bond-LC No:** 6161759

**Insured For:** Storm Sewers

**Amount:** \$67,088.47

Issue Date: April 10, 2002

**Bond-LC No:** 6161760

**Insured For:** Erosion Control

**Amount:** \$43,546.2

Issue Date: April 10, 2002

I recommend the Board approve the drain's construction as complete and acceptable.

Sincerely,

Kenton C. Ward,

Hamilton County Surveyor

KCW/slm

