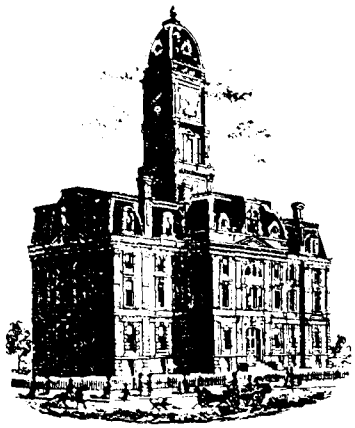

SURVEYOR'S OFFICE

Hamilton County

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

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

August 30, 2006

To: Hamilton County Drainage Board

Re: J.W. Brendel Drain, Lakes at Towne Road Section 2 Arm

Attached is a petition filed by Skjodt Thomas & Associates along with a non-enforcement request, plans, calculations, quantity summary and assessment roll for the Lakes at Towne Road Section 2 Arm, J.W. Brendle Drain to be located in Clay Township. 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	3,826 ft.	15" RCP	315 ft.	21" RCP	622 ft.
12" RCP	411 ft.	18" RCP	990 ft	24" RCP	55 ft.

The total length of the drain will be 6,219 feet.

This report replaces the temporary open ditch mentioned in my report for Lakes at Towne Road Section 1 dated September 30, 2005 and approved by the Board on January 23, 2006. (Hamilton County Drainage Board Minutes Book 9, Pages 19-20)

The retention ponds (Lake #2 & #3) located in Common Area #9 and # 11 are to be considered part of the regulated drain. Pond maintenance shall include the inlet, outlet, sediment removal and erosion control along the banks as part of the regulated drain. The maintenance of the ponds, such as mowing and aquatic vegetation control, will be the responsibility of the Homeowners Association. The Board will also retain jurisdiction for ensuring the storage volume for which the ponds were designed will be retained, thereby, allowing no fill or easement encroachments.

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The subsurface drains (SSD) to be part of the regulated drain are those located under the curbs and those main lines between lots or in rear yards. 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 $10.00 per acre for common areas and platted lots, $10.00 per acre for roadways, with a $65.00 minimum. With this assessment the total annual assessment for this drain/this section will be $2,246.90.

The petitioner has submitted surety for the proposed drain at this time. The sureties which are in the form of a Performance Bond are as follows:

Agent: Bond Safeguard Insurance Company
Date: November 22, 2005
Number: 5020171
For: Storm Sewers and SSD
Amount: $175,324.00

Agent: Bond Safeguard Insurance Company
Date: November 22, 2005
Number: 5020170
For: Erosion Control
Amount: $68,494.00

Parcels assessed for this drain may be assessed for the Long Branch Drain at sometime in the future.

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. The request is for the reduction of the regulated drain easement to those easement widths as shown on the secondary plat for Lakes at Towne Road Section 2 as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for October 23, 2006.

Kenton C. Ward
Hamilton County Surveyor

KCW/pll

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(Revised 06/08/04)

STATE OF INDIANA)
)
COUNTY OF HAMILTON)

TO: HAMILTON COUNTY DRAINAGE BOARD
% Hamilton County Surveyor
One Hamilton County Square, Suite 188
Noblesville, IN. 46060-2230

In the matter of **The Lakes at Towne Road** Subdivision, Section **2** Drain Petition.

Petitioner is the owner of all lots in the land affected by the proposed new regulated drain. The drainage will affect various lots in **The Lakes at Towne Road, Sec. 2**, a 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 believes 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 benefited 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 or Non-Revocable Letter of Credit for the portion of the drainage system which will be made a regulated drain. The bond will be in the amount of 120% of the Engineer's 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 reproducible 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 Petitioners cost as per IC 36-9-27-46.

FILED
JUL 18 2005
OFFICE OF HAMILTON COUNTY SURVEYOR

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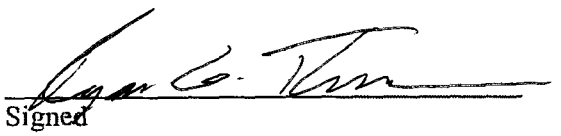
The Petitioner further requests that the Drain be classified as an Urban Drain as per IC 36-9-27-69(d).

RECORDED OWNER(S) OF LAND INVOLVED



Signed

Ryan G. Thomas

Printed Name

July 6, 2005

Date

Signed

Printed Name

Date

Signed

Printed Name

Date

Signed

Printed Name

Date

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

FINDINGS AND ORDER

CONCERNING THE MAINTENANCE OF THE

J. W. Brendel Drain, Lakes at Towne Road Section 2 Arm

On this **23rd *day of October 2006***, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the ***J. W. Brendel Drain, Lakes at Towne Road Section 2 Arm.***

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:

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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

To: Hamilton County Drainage Board **September 17, 2009**

Re: JW Brendle: Lakes at Towne Road Section 2

Attached are as-builts, certificate of completion & compliance, and other information for Lakes at Towne Road Section 2. 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 August 30, 2006. The report was approved by the Board at the hearing held October 23, 2006. (See Drainage Board Minutes Book 9, Pages 512-513) The changes are as follows:

Structure:	Length:	Size	Material:	Up Invert:	Dn_Invert:	Grade:	Changes:
419-418	127	18	RCP	904.08	903.97	0.09	
419A-419	236	18	RCP	903.97	903.74	0.1	-1
407-419A	193	18	RCP	903.49	903.74	0.12	
406-407	125	18	RCP	903.49	903.4	0.07	
405-406	30	18	RCP	903.4	903.36	0.13	
404-405	72	18	RCP	903.36	903.3	0.08	
403-402	62	12	RCP	905.25	903.29	3.16	-2
409-408	30	15	RCP	904.51	904.42	0.3	
408-407	119	15	RCP	904.42	903.49	0.78	-1
422-421	30	18	RCP	905.19	905.1	0.3	
424-423	217	12	RCP	906.31	905.6	0.33	
423-422	155	15	RCP	905.6	905.19	0.26	
421-420	187	21	RCP	905.1	904.13	0.51	1
417-416	125	12	RCP	905.8	905.38	0.34	
416-415	30	18	RCP	905.38	905.26	0.4	
415-414	142	18	RCP	905.26	904.82	0.3	
414-413	259	21	RCP	904.82	904.14	0.26	-2
413-412	145	21	RCP	904.14	903.48	0.46	
412-411	30	21	RCP	903.48	903.39	0.3	
411-410	55	24	RCP	903.39	903.18	0.38	

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RCP Pipe Totals:

12	404
15	304
18	985
21	621
24	55
Total:	2369

SSD Streets Totals:

Lost Creek	1630
Diamond Lake	850
Rock Creek	1215
Total:	3695

The length of the drain due to the changes described above is now **6064 feet**.

The non-enforcement was approved by the Board at its meeting on October 23, 2006 and recorded under instrument #200600063997.

The following sureties were guaranteed by Bond Safeguard Insurance Company and released by the Board on its October 23, 2006 meeting.

Bond-LC No: 5020171
Insured For: Storm Sewers
Amount: $173,524
Issue Date: November 22, 2005

Bond-LC No: 5020170
Insured For: Erosion Control
Amount: $68,494
Issue Date: November 22, 2005

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

Sincerely,

Kenton C. Ward, CFM
Hamilton County Surveyor

KCW/slm

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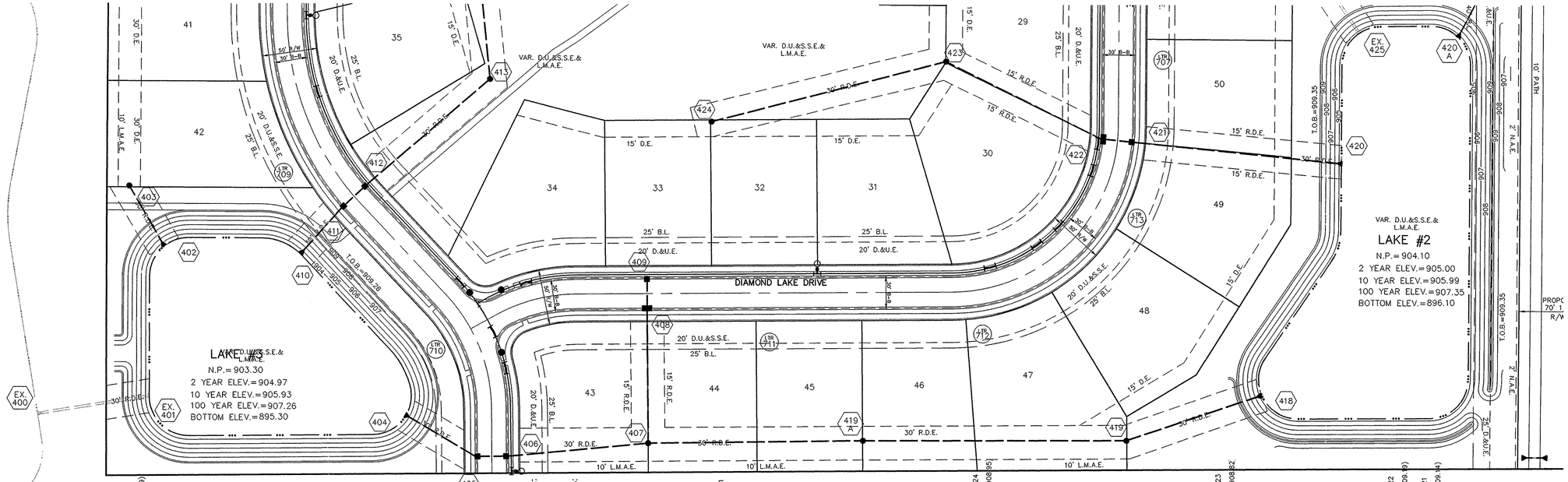

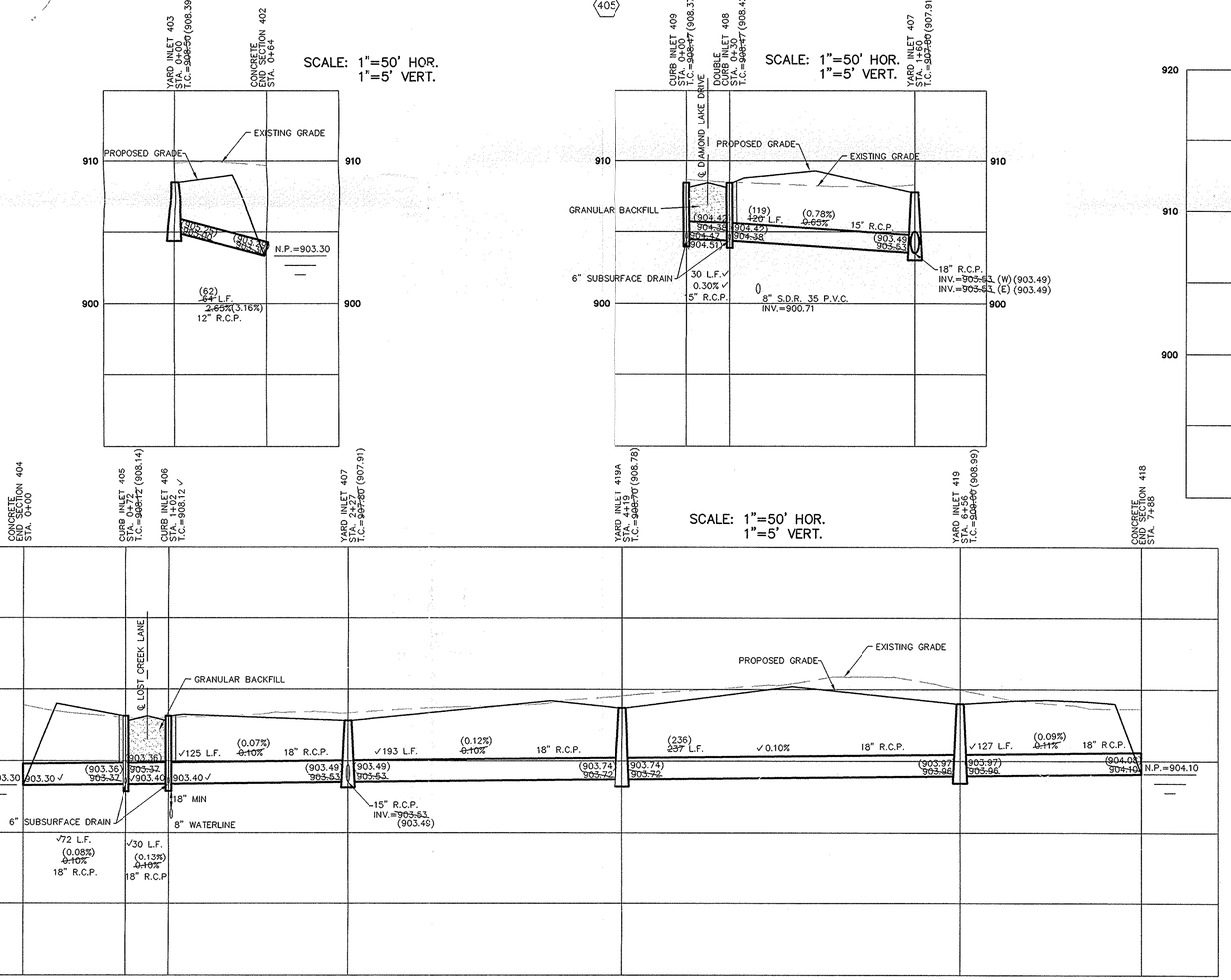

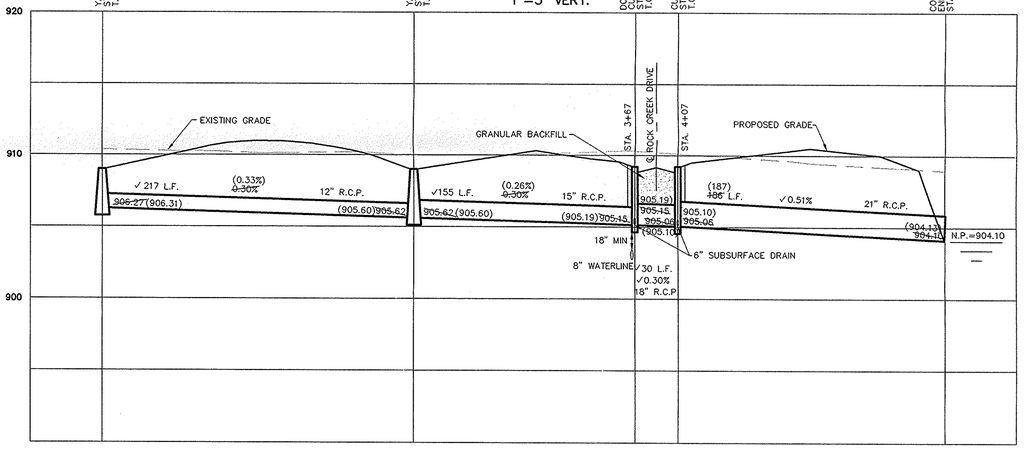

Storm Sewers

Bedding, Haunching, Initial Backfill

Bedding, haunching, and initial backfill for all RCP installations shall be B-Borrow for Structure Backfill meeting the material requirements of the INDOT. Bedding shall be placed in the trench bottom such that after the pipe is installed to grade and line, there remains a 4-inch minimum depth of material below the pipe barrel and a minimum of 3-inches below the bell. For pipe sizes 66-inches and larger, the minimum depth of material below the pipe barrel shall be 6-inches. Bedding, haunching and initial backfill shall be compacted in 6-inch maximum lifts to not less than 95% Standard Proctor Density for the entire depth of the material placed. The backfill shall be brought up evenly on both sides of the pipe for the full length of the pipe. Haunching shall extend to the springline of the pipe. The limit of initial backfill shall be 6-inches above the springline. Minimum trench width shall be the outside diameter of the pipe plus 18-inches.

Final Backfill

Final backfill for all RCP installations under and within 5-feet of pavement shall be B-Borrow for Structure Backfill meeting the material requirements of the INDOT and shall be compacted in 6-inch maximum lifts to not less than 95% Standard Proctor Density for the entire depth of the material placed. The backfill for the top 6-inches of the excavation below the start of the aggregate subbase of the pavement shall be No. 53 Stone meeting the material requirements of the INDOT and shall be compacted to not less than 95% Standard Proctor Density.

Final Backfill for all RCP installations greater than 5-feet of pavement shall be clean fill material free of rocks larger than 6-inches in diameter, frozen lumps of soil, wood or other extraneous material, compacted in 12-inch maximum lifts to not less than 90% Standard Proctor Density for the entire depth of the excavation.

Minimum Cover for Pipe Crossings of City Streets

For installation of Storm Mains, Water Mains, Sanitary Mains, Water Service Laterals, Sanitary Service Laterals under City streets, regardless of the jurisdiction of the utility, the minimum cover from the top of the installed pavement to the top of the installed pipe shall be the pavement section thickness (all bituminous and aggregate material above the subgrade) plus 1-0". If the standard practice of the utility that has jurisdiction over the installation has a more stringent cover requirement, the more stringent requirement shall govern

NOTE: ALL CASTINGS SHALL BE LABELED "DUMP NO WASTE–DRAINS TO WATERWAY".

RECORD DRAWING

JEFFORY W. DARLING — DATE 6/12/06
Registered Land Surveyor
No. 900017

JEFFORY W. DARLING REGISTERED No. 900017 STATE OF INDIANA LAND SURVEYOR

JAMES O. RINEHART IV REGISTERED No. 10200495 STATE OF INDIANA PROFESSIONAL ENGINEER

This information was gathered for input into the Hamilton County Geographic Information System (GIS). This document is considered an official record of the GIS.
Entry Date: Sept. 2009
Entered By: SLM

"HOLEY MOLEY" SAYS:

1-800-382-5544
CALL TOLL FREE
1-800-428-5200
FOR CALLS OUTSIDE OF INDIANA
1-317-571-2648
CALL CARMEL UTILITIES (FOR WATER MAIN LOCATIONS)

CAUTION

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 EXISTING UNDERGROUND UTILITIES 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.

BY	REVISIONS	MARK	DATE
AAA	ASBUILTS		
KMC	REVISED W. & S. SIDE PER URBAN FORESTER	6/12/06	
KMC	REVISED PMT AND 3' SHOULDER ON TOWNE RD	12/08/05	
KMC	REVISED PER AGENCY COMMENTS	9/6/05	
KMC		9/6/05	

DWN. BY KMC
CK. BY BKR
SCALE 1"= 50'
DATE 5/27/05

CERTIFIED: 5/27/05

CONSULTING ENGINEERS – LAND SURVEYORS
(317) 849-5935 1-800-728-6917 FAX:(317) 849-5942
FISHERS INDIANA

STORM SEWER PLAN & PROFILES
THE LAKES AT TOWNE ROAD
SECTION TWO
CARMEL INDIANA

FILED SEP 01 2006
OFFICE OF HAMILTON COUNTY SURVEYOR

SHEET NO. C600

JOB NO. 48700S2

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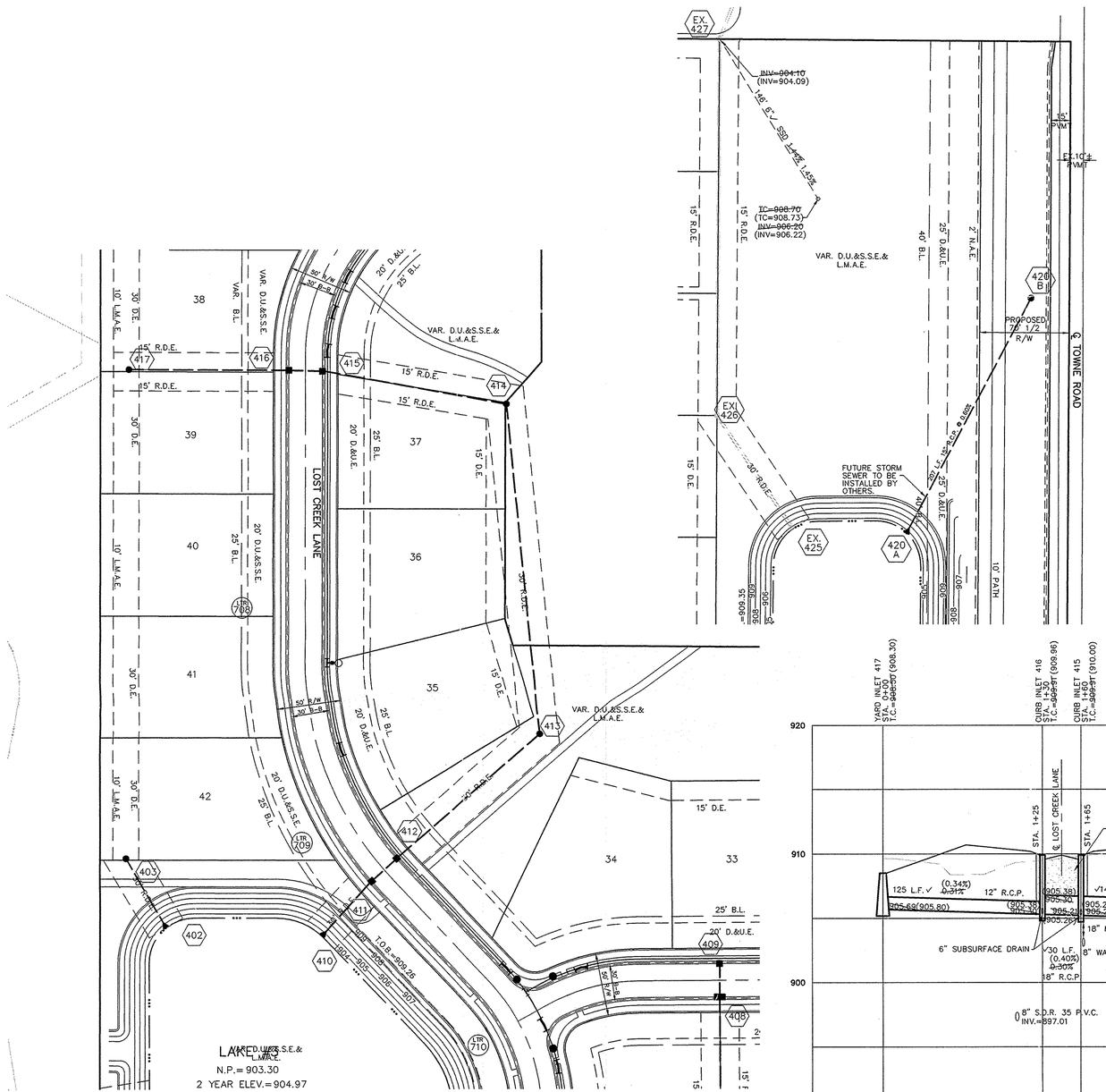


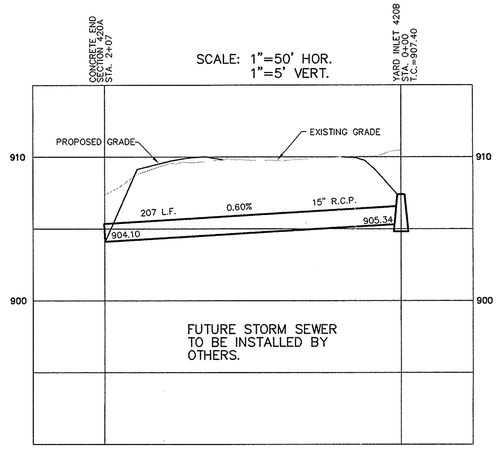
NOTE: ALL CASTINGS SHALL BE LABELED "DUMP NO WASTE–DRAINS TO WATERWAY".

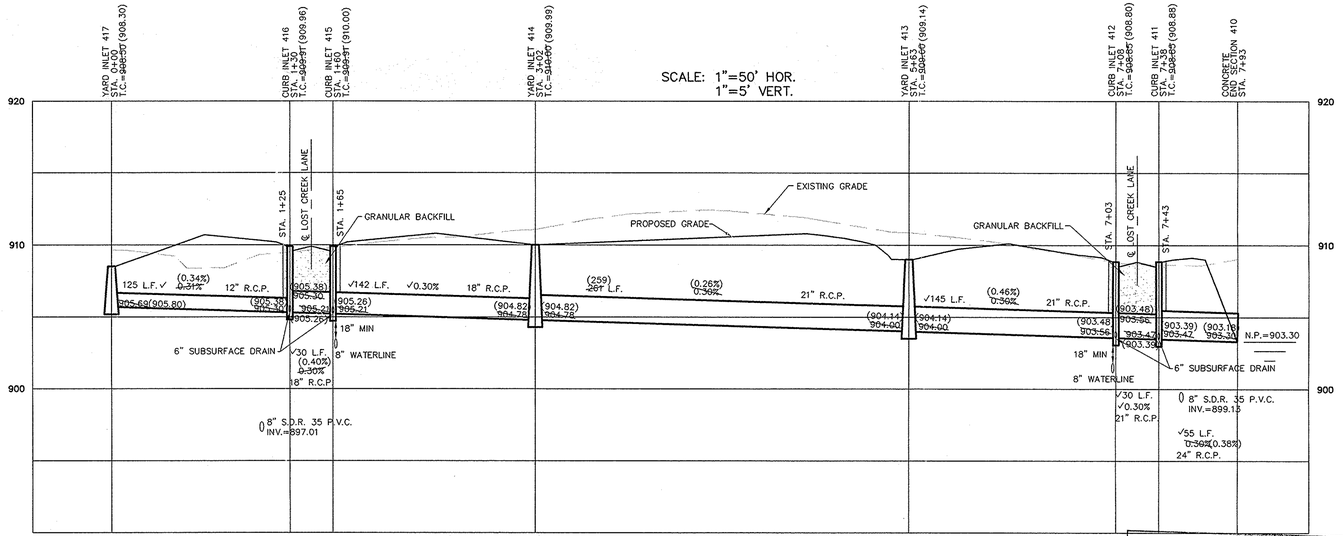
RECORD DRAWING

JEFFORY W. DARLING
Registered Land Surveyor
No. 900017

6/12/06
DATE

JEFFORY W. DARLING REGISTERED No. 900017 STATE OF INDIANA LAND SURVEYOR




SCALE: 1"=50' HOR.
1"=5' VERT.
YARD INLET 417 STA. 0+30 T.C.=908.30
CURB INLET 416 STA. 1+25 T.C.=908.96
CURB INLET 415 STA. 1+65 T.C.=910.00
YARD INLET 414 STA. 3+02 T.C.=909.99
YARD INLET 413 STA. 5+63 T.C.=909.14
CURB INLET 412 STA. 7+03 T.C.=908.80
CURB INLET 411 STA. 7+43 T.C.=908.88
CONCRETE END SECTION 410 STA. 7+93
920
910
900
℄ LOST CREEK LANE
GRANULAR BACKFILL
EXISTING GRADE
PROPOSED GRADE
125 L.F.
(0.34%)
0.31%
12" R.C.P.
905.69(905.80)
(905.38)
905.38
905.30
905.26)
905.21
905.26
905.26)
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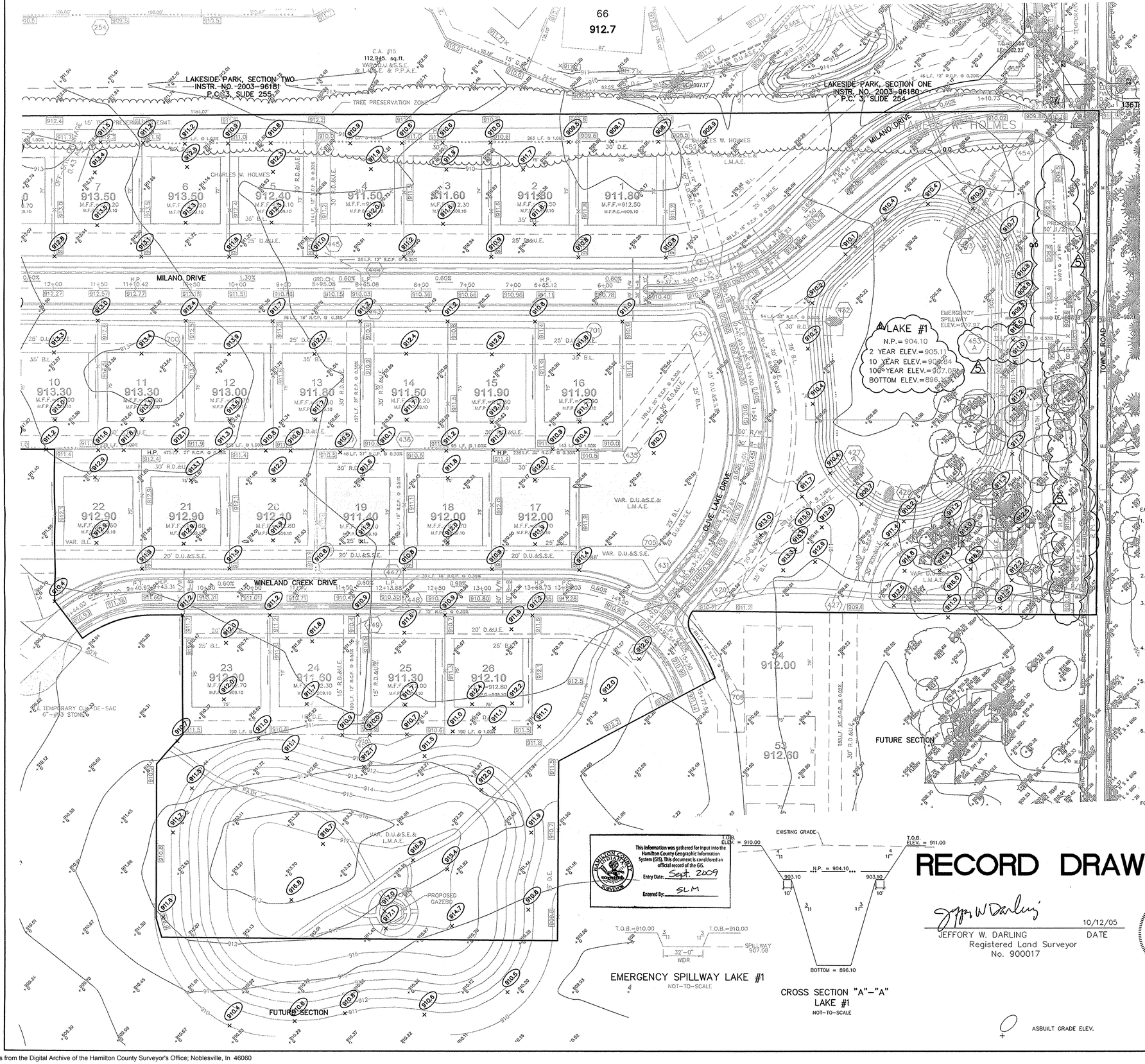

LEGEND

- EMERGENCY FLOOD ROUTE
- 848 EXISTING CONTOUR
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- 848.00 PROPOSED GRADE
- 848 PROPOSED CONTOUR
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED SWALE
- PROPOSED 5' SIDEWALK (BY HOME BUILDER)
- PROPOSED 10' PATH

SCALE: 1"= 50'

14
902.80
M.F.F.=903.50

LOT NUMBER
PAD ELEVATION
PAD SIZE 80'Wx70'D
(UNLESS OTHERWISE NOTED)

M.F.P.G.

MINIMUM FLOOD PROTECTION GRADE
NO OPENING (DOOR, WINDOW, BASEMENT ACCESS, ETC.) SHALL BE LOWER THAN M.F.P.G.

JAMES Q. RINEHART IV
REGISTERED
No. 10200495
STATE OF INDIANA
PROFESSIONAL ENGINEER

REAR YARD SWALE. 1.00% SLOPE 3 : 1 35' PROPOSED GRADE EXISTING GRADE

PARTIAL PAD DETAIL
N.T.S.

DENOTES 4" SUBSURFACE DRAIN TO LOT
DENOTES 6" SUBSURFACE DRAIN
ROLL CURB

NOTE: DECORATIVE SIGNS, SPRINKLER SYSTEMS, TREES, LANDSCAPING MOUNDS, LIGHT POLES, OR OTHER SUCH AMENITIES ARE NOT PERMITTED IN THE RIGHT OF WAY.

NOTE: A DEBRIS GUARD SHALL BE INSTALLED ON ALL UPSTREAM OPEN ENDED INLETS AND AT THE POND OUTFALL PIPE.

EARTHWORK:

1. EXCAVATION
   - 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.
2. 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.
3. 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.
5. UTILITIES
   - A. Rules and regulation governing the respective utility shall be observed in executing all work under this section.
   - 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.
6. SITE GRADING
   - 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.
   - 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 tolerance.

FORM\EARTHWRK

TBM # 9

RAILROAD SPIKE, UP 1'± ON THE WEST SIDE OF A POWER POLE # 13423, LOCATED ALONG THE SOUTH SIDE OF STONE DRIVE TO ADDY # 13405 AND TOWNE ROAD EAST SIDE OF TOWNE ROAD.

ELEVATION: 908.59'

S&A #2

RAILROAD SPIKE, UP 1'± ON THE WEST SIDE TELEPHONE POLE, LOCATED 136TH ST., 3RD POLE ON THE NORTH SIDE AND TOWNE ROAD.

ELEVATION: 907.84'

CAUTION

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 EXISTING UNDERGROUND UTILITIES 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.

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Entry Date: Sept. 2009
Entered By: SLM

EMERGENCY SPILLWAY LAKE #1
NOT-TO-SCALE

CROSS SECTION "A"-"A"
LAKE #1
NOT-TO-SCALE

RECORD DRAWING

JEFFORY W. DARLING
Registered Land Surveyor
No. 900017
10/12/05 DATE

JEFFORY W. DARLING REGISTERED No. 900017 STATE OF INDIANA LAND SURVEYOR

"HOLEY MOLEY" SAYS:

1-800-382-5544
CALL TOLL FREE
1-800-428-5200
FOR CALLS OUTSIDE OF INDIANA
1-317-571-2648
CALL CARMEL UTILITIES (FOR WATER MAIN LOCATIONS)

ASBUILT GRADE ELEV.

BY	REVISIONS	MARK	DATE
KMC	A REVISED PER SURVEYOR'S COMMENTS	AAA	10/12/05
KMC	A ADDED A STORM PIPE FOR ADDED DRAINAGE	A	7/20/05
KMC	REVISED PER AGENCY COMMENTS	A	7/05/05
KMC	REVISED PER AGENCY COMMENTS	A	3/16/05
KMC	REVISED PER AGENCY COMMENTS	A	2/2/05
KMC	REVISED PER H.C.S.O. COMMENTS	A	1/14/05
KMC	REVISED PER AGENCY COMMENTS	A	12/16/04
KMC			

DWN. BY KMC
CK. BY BKR
SCALE 1"=50'
DATE 11/1/04

CERTIFIED: 11/1/04

CONSULTING ENGINEERS - LAND SURVEYORS
(317) 849-5935 1-800-728-6917 FAX:(317) 849-5942
FISHERS INDIANA

SITE DEVELOPMENT PLAN
THE LAKES AT TOWNE ROAD
SECTION ONE
CARMEL INDIANA

SHEET NO. C200

JOB NO. 48700S1

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