

Drain: CHARLES OSBORN ; JR COLLINS#2 **Drain #:** 8495
Improvement/Arm: MERRIMAC SECTION 3 RELOCATION
Operator: J. LIVINGSTON **Date:** 5-12-04
Drain Classification: Urban **Rural** **Year Installed:** 1990

GIS Drain Input Checklist

- Pull Source Documents for Scanning
- Digitize & Attribute Tile Drains
- Digitize & Attribute Storm Drains
- Digitize & Attribute SSD
- Digitize & Attribute Open Ditch
- Stamp Plans
- Sum drain lengths & Validate
- Enter Improvements into Posse
- Enter Drain Age into Posse
- Sum drain length for Watershed in Posse
- Check Database entries for errors

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SURVEYOR'S OFFICE
Hamilton County

Kenton C. Ward, Surveyor

Phone (317) 776-8495

Fax (317) 776-9628

Suite 146

One Hamilton County Square

Noblesville, Indiana 46060-2230

TO: Hamilton County Drainage Board

October 1, 1996

RE: Osborn & Collins #2 Drain

Attached are plans and calculations for a proposed regional detention facility on the above referenced drain.

The facility is proposed as a two (2) lake facility with the first lake constructed as part of Merrimac Section 3, at the Developers expense. The second facility would be located on tracts 09-15-00-00-009.000, owned by Jay W. & Eleanor G. Lang and 08-09-15-00-00-014.000 owned by Henry Joe & Raymond M Walker.

A similar proposal was made some time ago for the Glick project involving tracts 09-15-00-00-003.000 and 09-15-00-00-004.000. The proposal at that time involved one twenty-eight (28) acre facility.

The current drainage pattern is in the regulated drain/ditch is to an approximate 6'x9' CMP culvert under 146th Street with a capacity of approximately 360 cfs. The total watershed upstream of Merrimac is approximately 496 acres. This watershed

estimated underdeveloped runoff rate for the 100, 10 and 3 year 6 hour storm events are respectively, 414 cfs, 214 cfs and 83 cfs. The pre-developed drainage basin from the Merrimac Section 3 to this regulated drain as an area of 75.5 acres and an estimate runoff rates for the 10 and 2 year 6 hour storm event of 47.2 cfs and 17.4 cfs. The proposed lake facility which will release to the 146th Street CMP road culvert is designed to accommodate the 100 year underdeveloped runoff rate from the upstream watershed and retain the peak discharge to within the capacity of the existing culvert under 146th Street (360 cfs)

Merrimac Section 3 will provide for a detention facility along the Charles Osborn and J. R. Collins #2 regulated Drain that will prevent the current road over-topping at 146th Street and clean and clear the existing channel, through the Merrimac sites. The proposed release rates for 100, 10 and 2 year storm events are 340 cfs, 164 cfs and 50 cfs and 10-2 requirements. The allowable release for the proposed 100 year event is determined from the 10 year redeveloped basin and the 100 year upstream basin totaling 461 cfs. The allowable release for the proposed 10 year event is determined from the 2 year pre-developed basin and the 10 year offsite basin totaling 232 cfs. The proposed 100, 10 and 2 year peak discharge rates from the lake facility within Section 3 of Merrimac are respectively, 340 cfs, 164 cfs and 50 cfs. These

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discharges are considerably below the allowable rates and reduce the flow within the 100 year event to a level within the capacity of the existing culvert.

The runoff being accepted by the proposed lake facility from the 496 acres upstream watershed is the peak discharge from a 100 year storm event producing 414 cfs. This is approximately 0.93 cfs/acre.

A future conditions model has also been analyzed for the development of the 496 acre upstream watershed for the completion of a regional detention facility. A second lake facility upstream of the proposed lake within section 3 of Merrimac is estimated a a minimum of seven (7) acres in surface area with the ability of four (4') feet of storage. This will reduce the peak discharge from the offsite watershed area to 270 cfs during a 100 year storm event and in turn reduce the discharge within the lake in Merrimac to 274 cfs.

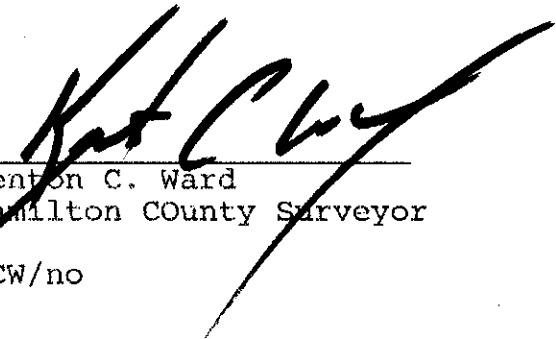
The future developed runoff conditions from the 496 acre offsite watershed to Merrimac is 270 cfs. This is approximately 0.54 cfs/acre.

The cost for the construction of the second basin will be borne by the upstream developer.

Since the construction of the basin is a change from the

Page #4

original specifications of the drain, a reconstruction hearing is required.



Kenton C. Ward
Hamilton County Surveyor

KCW/no

STATE OF INDIANA)
) SS:
COUNTY OF HAMILTON)

BEFORE THE HAMILTON COUNTY
DRAINAGE BOARD

NOBLESVILLE, INDIANA

IN THE MATTER OF THE)
RECONSTRUCTION OF THE)
Osborn & Collins #2 DRAIN)

FINDINGS AND ORDER

The matter of the proposed Reconstruction of the _____
Osborn & Collins #2 Drain came before the Hamilton County Drainage
Board for hearing on October 28 1996, on the
Reconstruction report and on the Schedule of Damages and Assesse-
ments. The Board also found that this reconstruction conforms to
the statutory procedure set out in INDIANA CODE 36-9-27-52.5.

Evidence was heard on the Reconstruction report. There were
no objections.

The Board having considered the evidence has upon motion
made, seconded and unanimously carried, found and determined that
the costs, damages and expenses of the proposed Reconstruction
will be less than the benefits to the landowners and issued this
order declaring that this Reconstruction fund be established.

DATED THIS 28th DAY OF October 1996.

HAMILTON COUNTY DRAINAGE BOARD



President



Member



Member

ATTEST: 
Administrative Secretary

Revised 12/95

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD

IN THE MATTER OF THE

Osborn & Collins #2 DRAIN

To whom it may concern
and _____

Notice is hereby given of the hearing of the Hamilton County
Drainage Board on the Osborn and Collins #2 Drain on
October 28, 1996 at 9:50 A.M. in the Commissioners Court
Hamilton County Judicial Center, One Hamilton County Square
Noblesville, Indiana, and which reconstruction and maintenance
reports of the 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 Hamilton County Surveyor.

Hamilton County Drainage Board

ATTEST: *Annellen Oldham*
Administrative Secretary

STATE OF INDIANA)
)
)
COUNTY OF HAMILTON)

SS

BEFORE THE HAMILTON
DRAINAGE BOARD

IN THE MATTER OF Osborn and Collins #2 DRAIN #88

NOTICE

Notice is hereby given that the Hamilton County Drainage Board at its regular meeting October 28~~23~~, 1996 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 
PRESIDENT


ADMINISTRATIVE SECRETARY

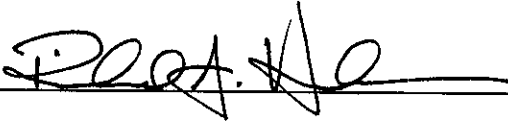
CERTIFICATE OF COMPLETION AND COMPLIANCE

TO: HAMILTON COUNTY SURVEYOR

RE: MERRIMAC SECTION 3

I hereby certify that:

- 1). I am a Registered Professional 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, and
- 4.) To the best of my knowledge, information and belief, the Drainage Facilities within the subdivision has been installed and completed in conformity with all plans and specifications.

Signature:  Date: 9/24/96

Typed or Printed Name: Richard A. Henderson

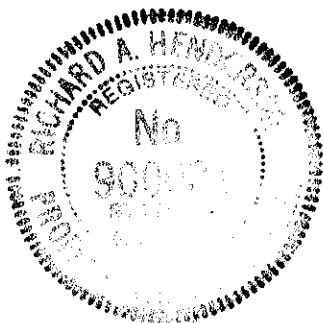
Business Address: Schneider Engineering Corp.
3020 North Post Road, Indianapolis, IN 46226

Telephone: 898-8282

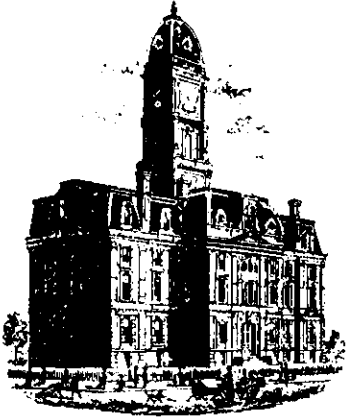
Indiana Registration Number

900081

SEAL



FILED
SEP 25 1996
OFFICE OF HAMILTON COUNTY SURVEYOR



SURVEYOR'S OFFICE
Hamilton County

Kenton C. Ward, Surveyor

Phone (317) 776-8495

Fax (317) 776-9628

Suite 146

One Hamilton County Square

Noblesville, Indiana 46060-2230

To: Hamilton County Drainage Board

December 16, 1997

Re: Osborn & Collins # 2 - Merrimac Sec. 3
Regional Detention

Attached are as-builts, certificate of completion & compliance, and other information for Osborn & Collins #2 - Merrimac Sec. 3 Regional Detention. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable.

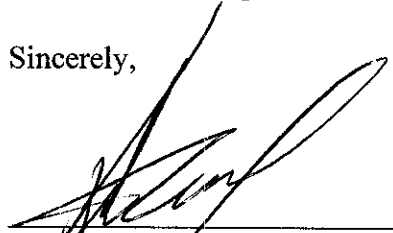
There were no significant changes made to the plans submitted with my report dated October 1, 1996. Therefore the length of the drain remains the same. The net length of the drain was not changed.

The non-enforcement was approved by the Board at its meeting on June 3, 1996 and recorded under instrument #9709720256.

The bond or letter of credit from Bank One, number ST05447 for the Lake, and ST05418 for erosion control; dated November 21, 1996 and December 20, 1996; in the amount of \$70,600.00, and \$41,225.00; was released November 24, 1997. The bond from Fidelity & Deposit Company of Maryland, dated November 22, 1996, in the amount of \$80,270.00 for storm sewers was released November 24, 1997.

I recommend the Board approve the drains construction as complete and acceptable.

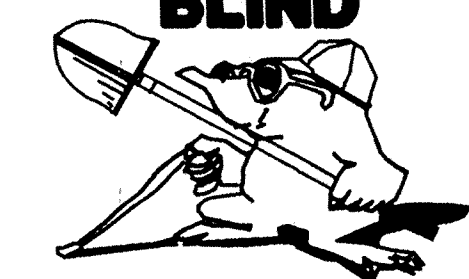
Sincerely,



Kenton C. Ward,
Hamilton County Surveyor

KCW/slm

"DON'T DIG BLIND"



1-800-382-6544

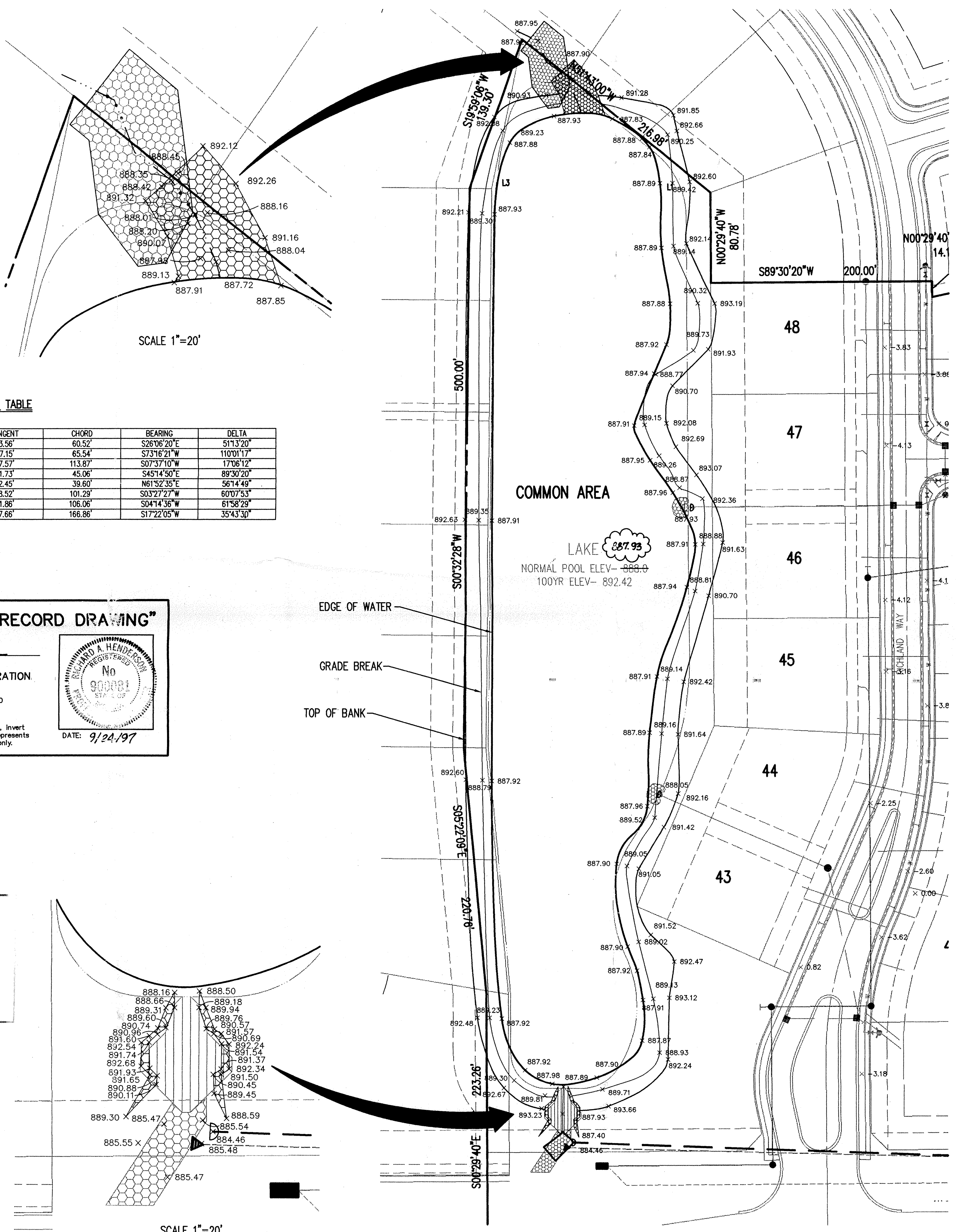
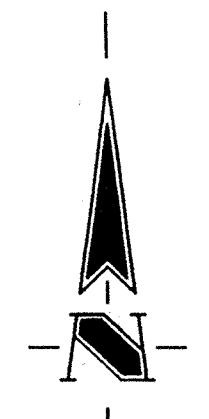
CALL TOLL FREE

1-800-428-5200

FOR CALLS OUTSIDE OF INDIANA

PER INDIANA STATE LAW IS-69-1991. IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.

ASSUMED NORTH SCALE: 1"=50'



LAKE CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
L1	70.00'	62.58'	33.56'	60.52'	S26°06'20"E	51°32'0"
L2	40.00'	76.81'	57.15'	65.54'	S73°16'21"W	110°01'17"
L3	382.87'	114.29'	57.57'	113.87'	S07°37'10"W	17°06'12"
L4	32.00'	49.99'	31.73'	45.06'	S45°14'50"E	89°30'20"
L5	42.00'	41.23'	22.45'	39.60'	N61°52'35"E	56°14'49"
L6	101.09'	106.10'	58.52'	101.29'	S03°27'27"W	60°07'53"
L7	103.00'	111.41'	61.86'	106.06'	S04°14'36"W	61°58'29"
L8	272.00'	169.60'	87.66'	166.86'	S17°22'05"W	35°43'30"

CERTIFICATION FOR "RECORD DRAWING"

CERTIFIED BY: *[Signature]*

SCHNEIDER ENGINEERING CORPORATION
 3020 NORTH POST ROAD
 INDIANAPOLIS, INDIANA 46226
 (317) 898-8282 FAX (317) 899-8010

NOTE:
 Record drawing certification only for top of casting, invert elevations and lengths of pipe. Slope percentage represents a calculated figure and is for general information only.

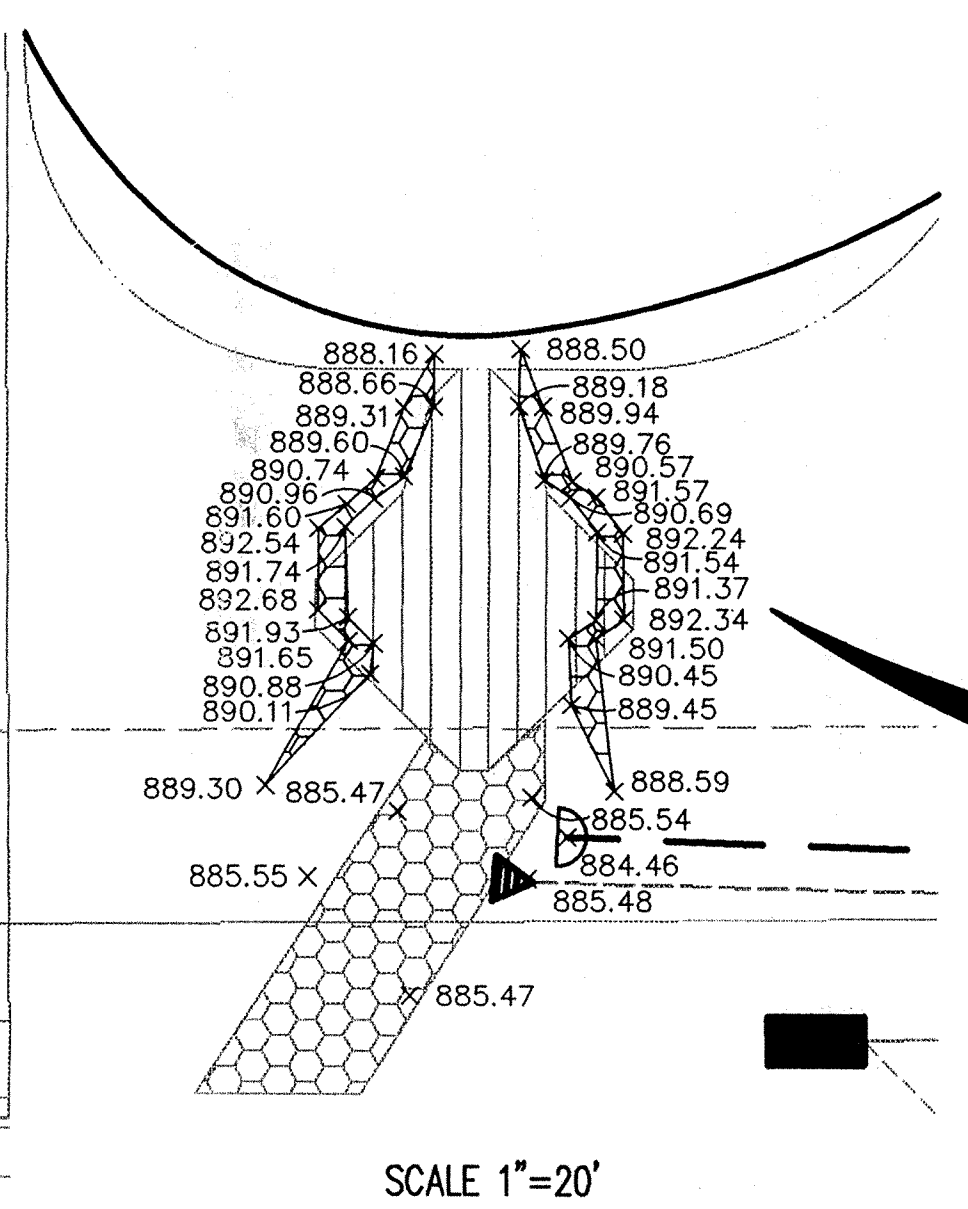
DATE: 9/24/97

HAMILTON COUNTY INDIANA

This information was gathered for input into the Hamilton County Geographical Information System. This document is considered an official record of the GIS.

Entry Date: 5-12-04

Entered by: *[Signature]*



- LEGEND**
- Existing Storm Sewer
 - New Storm Sewer
 - Existing Sanitary Sewer
 - New Sanitary Sewer
 - Existing Contour
 - Existing Elevation
 - Storm Structure Number
 - Sanitary Structure Number
 - Approximate Pad Size
 - Subsurface Drain w/4" Lateral Connection
 - Swale (E)

LAKE RECORD DRAWING

- GENERAL NOTES:
- ALL GRADES AT BOUNDARY SHALL MEET EXISTING GRADES.
 - IT SHALL BE THE RESPONSIBILITY OF EACH SUBCONTRACTOR TO VERIFY ALL EXISTING UTILITIES AND CONDITIONS PERTAINING TO HIS PHASE OF WORK. IT SHALL ALSO BE THE SUBCONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNERS OF THE VARIOUS UTILITIES FOR PROPER STAKE LOCATION OF EACH UTILITY BEFORE WORK IS STARTED. THE SUBCONTRACTOR SHALL NOTIFY IN WRITING THE OWNER OR THE ENGINEER OF ANY CHANGES, OMISSIONS, OR ERRORS FOUND ON THESE PLANS OR IN FIELD BEFORE WORK IS STARTED OR RESUMED.
 - STANDARD SPECIFICATIONS FOR WESTFIELD INDIANA SHALL APPLY FOR ALL SANITARY SEWERS AND STORM SEWERS.
 - ANY PART OF THE SANITARY OR STORM SEWER TRENCHES RUNNING UNDER PAVED AREAS TO BE BACKFILLED WITH GRANULAR MATERIAL.
 - THE SIZE AND LOCATION OF EXISTING UTILITIES SHOWN ARE PER INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES. ALL UTILITY COMPANIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION FOR FIELD LOCATION OF SERVICES.
 - SERVICE WALKS SHALL BE NON-REINFORCED CONCRETE 4" THICK AND 4' IN WIDTH. CURB RAMP FOR THE DISABLED SHALL BE REQUIRED WITHIN THE PUBLIC RIGHT OF WAY AND SHALL CONFORM WITH CURRENT SPECIFICATIONS ESTABLISHED BY THE AMERICAN DISABILITIES ACT (ADA), SECTION (4.7) "CURB RAMP"
 - EXPANSION JOINTS ARE TO BE PLACED AT ALL WALK INTERSECTIONS AND BETWEEN WALKS AND PLATFORMS. SIDEWALK SPACES ARE TO BE EQUALLY SPACED BETWEEN EXPANSION JOINTS. CONTRACTION JOINTS AND PERPENDICULAR SIDEWALKS AT 5' INTERVALS OR LESS WITH A CONTRACTION JOINT EVERY 20' OR LESS.
 - 4' CONCRETE SERVICE WALK ACROSS FRONTAGE OF EACH LOT TO BE CONSTRUCTED BY OTHERS.
 - TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL AND STATE STANDARDS.
 - ALL CONSTRUCTION ACTIVITY ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH APPLICABLE O.S.H.A. STANDARDS FOR WORKER SAFETY.
 - CONTRACTOR SHALL MINIMIZE DAMAGE TO EXISTING TREES.
 - REMOVE AND BACKFILL ALL AREAS WHERE ANY FIELD TILE CROSSES PROPOSED HOUSE PADS. ALL FIELD TILES INTERCEPTED TO BE PERPETUATED INTO STORM SEWER SYSTEM OR LAKE.
- BENCH MARK**
 U.S.G.S. 83 RPP (1959)
 BRONZE TABLE SET IN CONCRETE POST, LOCATED ON THE SOUTH SIDE OF 146th STREET, APPROX. 20' WEST OF THE CENTERLINE OF DITCH ROAD.
 (ELEVATION = 903.373)

Revisions
 1. BGG 9/16/96 REVISED LAKE

CERTIFIED BY: _____

THIS DRAWING AND THE IDEAS, DESIGNS AND CONCEPTS CONTAINED HEREIN ARE THE EXCLUSIVE INTELLECTUAL PROPERTY OF SCHNEIDER ENGINEERING CORPORATION AND ARE NOT TO BE USED OR REPRODUCED IN WHOLE OR IN PART, WITHOUT THE WRITTEN CONSENT OF SCHNEIDER ENGINEERING CORPORATION.
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Schneider Engineering Corporation

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 Indianapolis, Indiana 46226-0966
 317-898-8282
 317-899-8010 Fax

Engineering Surveying GIS + LIS Geology

A Partnered Entity with Bohlen, Meyer, Gibson & Associates, Incorporated

MERRIMAC CORP.
 MERRIMAC SECTION 3
 WESTFIELD, INDIANA

LAKE PLAN

Date	Project No.	Drawn	Approv.
2/18/96	1045.03	BGG	
Computer Files	Sheet No.		
C:\04REC XREF- 1045.TPO 104502P 104503P FUTURE	FILED C:\04REC		

SEP 25 1997

