

**Lakeside Park Section 4
GASB 34 Calculation**

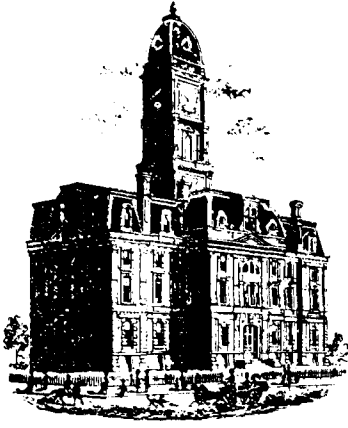
JW Brendle Drain-Lakeside Park Section 4: 895 feet
Elliott Creek Drain –Lakeside Park Section 4: 7409 feet

Total Footage = 8304
Bond Amount = \$174,714.27

JW Brendle Drain-Lakeside Park Section 4: $.11(\$174,714.27) = \$19,218.57$

Elliott Creek Drain –Lakeside Park Sec. 1 Relocation: $.89(\$174,714.27) = \$155,495.70$

Note: Bonds were posted at 120% of the engineers estimate. This dollar amount is based upon the engineer's estimate. Also, on Engineer's Estimate – 4"ssd was listed. This was subtracted from the above listed dollar amount.



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 23, 2005

TO: Hamilton County Drainage Board

RE: Elliott Creek Drain, Lakeside Park Section 4 Arm

Attached is a petition filed by Roehling Enterprises along with a non-enforcement request, plans, calculations, quantity summary and assessment roll for the Lakeside Park Section 4 Arm, Elliott Creek 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	4,903 feet	21" RCP	470 feet
12" RCP	923 feet	24" RCP	150 feet
15" RCP	270 feet	27" RCP	359 feet
18" RCP	334 feet		

The total length of the drain will be 7,409 feet.

The retention pond (Lake #6) located in Common Area #25 is to be considered part of the regulated drain. Pond maintenance shall include inlet, outlet, sediment removal and erosion control along the banks as part of the regulated drain. The Maintenance of the pond (lake) 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 pond (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 easement (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 \$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 \$2,562.10

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

Agent: Huntington National Bank
Date: March 4, 2005
Number: OSB-003272
For: Storm Sewers
Amount: \$143,310.00

Agent: Huntington National Bank
Date: March 22, 2005
Number: OSB-003299
For: Erosion Control
Amount: \$31,498.00

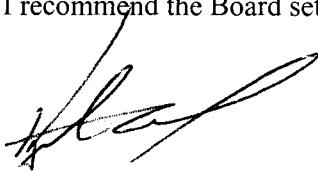
Agent: Huntington National Bank
Date: March 22, 2005
Number: OSB-033297
For: Sub-surface Drains
Amount: \$28,731.00

Parcels assessed for this drain may be assessed for the Osborn & Collins or Williams Creek 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 Lakeside Park Section 4 as recorded in the office of the Hamilton County Recorder.

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



Kenton C. Ward
Hamilton County Surveyor

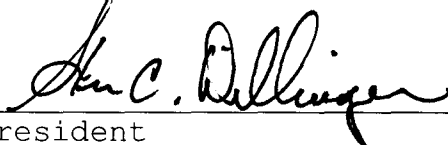
KCW/pll

FINDINGS AND ORDER
CONCERNING THE MAINTENANCE OF THE
Elliott Creek Drain, Lakeside Park Section 4 Arm

On this **23rd day of January 2006**, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the **Elliott Creek Drain, Lakeside Park Section 4 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: 

Secretary

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD
IN THE MATTER OF
Elliott Creek Drain, Lakeside Park Section 4 Arm

NOTICE

To Whom It May Concern and: _____

Notice is hereby given of the hearing of the Hamilton County Drainage Board on the **Elliott Creek Drain, Lakeside Park Section 4 Arm** on **January 23, 2006** at **10:20 A.M.** in Commissioners Court, Hamilton County Judicial Center, One Hamilton County Square, Noblesville, Indiana, and which construction 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: Lynette Mosbaugh

ONE TIME ONLY

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD
IN THE MATTER OF THE

Elliott Creek Drain, Lakeside Park Section 4 Arm

NOTICE

Notice is hereby given pursuant to Section 405 of the 1965 Indiana Drainage Code that this Board, prior to final adjournment on **January 23, 2006** has issued an order adopting the Schedule of Assessments, filed the same and made public announcement thereof at the hearing and ordered publication. If judicial review of the findings and order of the Board is not requested pursuant to Article Eight of this code within twenty (20) days from the date of this publication, the order shall be conclusive.

Hamilton County Drainage Board

Attest: Lynette Mosbaugh

ONE TIME ONLY

CERTIFICATE OF COMPLETION AND COMPLIANCE

To: Hamilton County Surveyor

Re: Lakeside Park Subdivision, Section 4

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: Jeffery W. Darling Date: August 9, 2005

Type or Print Name: Jeffery W. Darling

Business Address: Stoepelwerth & Associates, Inc.

9940 Allisonville Road, Fishers, Indiana 46038

Telephone Number: (317) 849-5935

SEAL

INDIANA REGISTRATION NUMBER

900017





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

February 8, 2007

Re: Elliott Creek Drain, Lakeside Park Section 4

Attached are as-builts, certificate of completion & compliance, and other information for Lakeside Park Section 4. 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 23, 2005. The report was approved by the Board at the hearing held January 23, 2006. (See Drainage Board Minutes Book 9, Pages 54-55)
 The changes are as follows:

Structure:	Length:	Size	Material:	Up Invert:	Dn Invert	Grade:	Changes(ft):
197-196	38	12	RCP	911.79	910.88	0.24	
196-195	301	12	RCP	910.88	909.98	0.57	2
195-194	151	18	RCP	909.98	908.95	0.68	1
194-193	30	21	RCP	908.95	908.7	0.83	
193-157	150	24	RCP	908.7	908.07	0.42	
183-182	142	12	RCP	909.56	908.4	0.82	-1
182-181	30	15	RCP	908.4	908.02	1.27	
181-180	45	15	RCP	908.02	906.06	4.36	-5
172-171	30	12	RCP	908.36	906.05	2.06	
171-170	126	12	RCP	908.36	906.05	2.06	-4
173-174	31	12	RCP	906	905.9	0.32	-10
174-175	30	12	RCP	905.9	905.8	0.33	
175-160	181	12	RCP	905.8	903.75	1.13	-1
190-189	148	15	RCP	909.74	909.1	0.43	
189-188	36	18	RCP	909.1	908.9	0.56	
188-187	441	21	RCP	908.9	907.11	0.41	1
187-186	281	27	RCP	907.11	906.53	0.21	2
186-185	30	27	RCP	906.53	906.39	0.47	
185-184	53	27	RCP	906.39	905.86	1	3
192-191	30	12	RCP	908.55	908.18	1.23	
191-187	193	15	RCP	908.18	907.11	0.55	3

6" SSD Streets:

RCP Pipe Totals:

Heathermore	586.5
4 Seasons	582.5
Shallow Brook	147
Twin Lakes	1010.5
x2	
Total:	<u>4653</u>

12	909
15	416
18	187
21	471
24	150
27	364
Total:	<u>2497</u>

The length of the drain due to the changes described above is now **7,150 feet**.

The non-enforcement was approved by the Board at its meeting on January 23, 2006 and recorded under instrument #20060004907.

The following sureties were guaranteed by Huntington National Bank and released by the Board on its January 9, 2006 meeting.

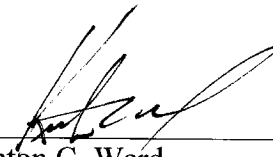
Bond-LC No: OSB-003272
Insured For: Storm Sewers
Amount: \$143,310.00
Issue Date: March 4, 2005

Bond-LC No: OSB-003299
Insured For: Erosion Control
Amount: \$31,498.00
Issue Date: March 22, 2005

Bond-LC No: OSB-003297
Insured For: Sub-surface Drains
Amount: \$28,731.00
Issue Date: March 22, 2005

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

Sincerely,

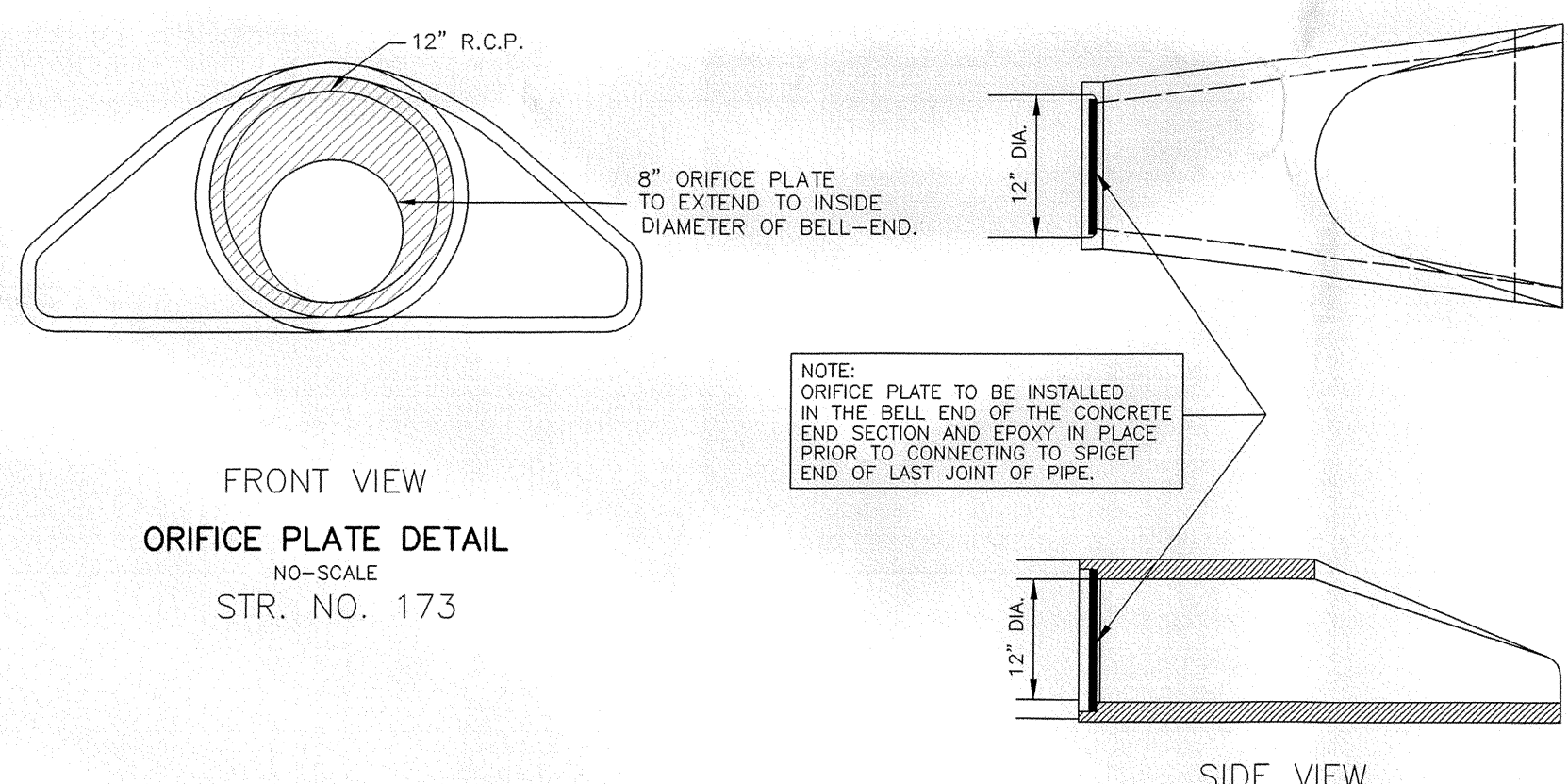


Kenton C. Ward,
Hamilton County Surveyor

KCW/slm



TOP VIEW

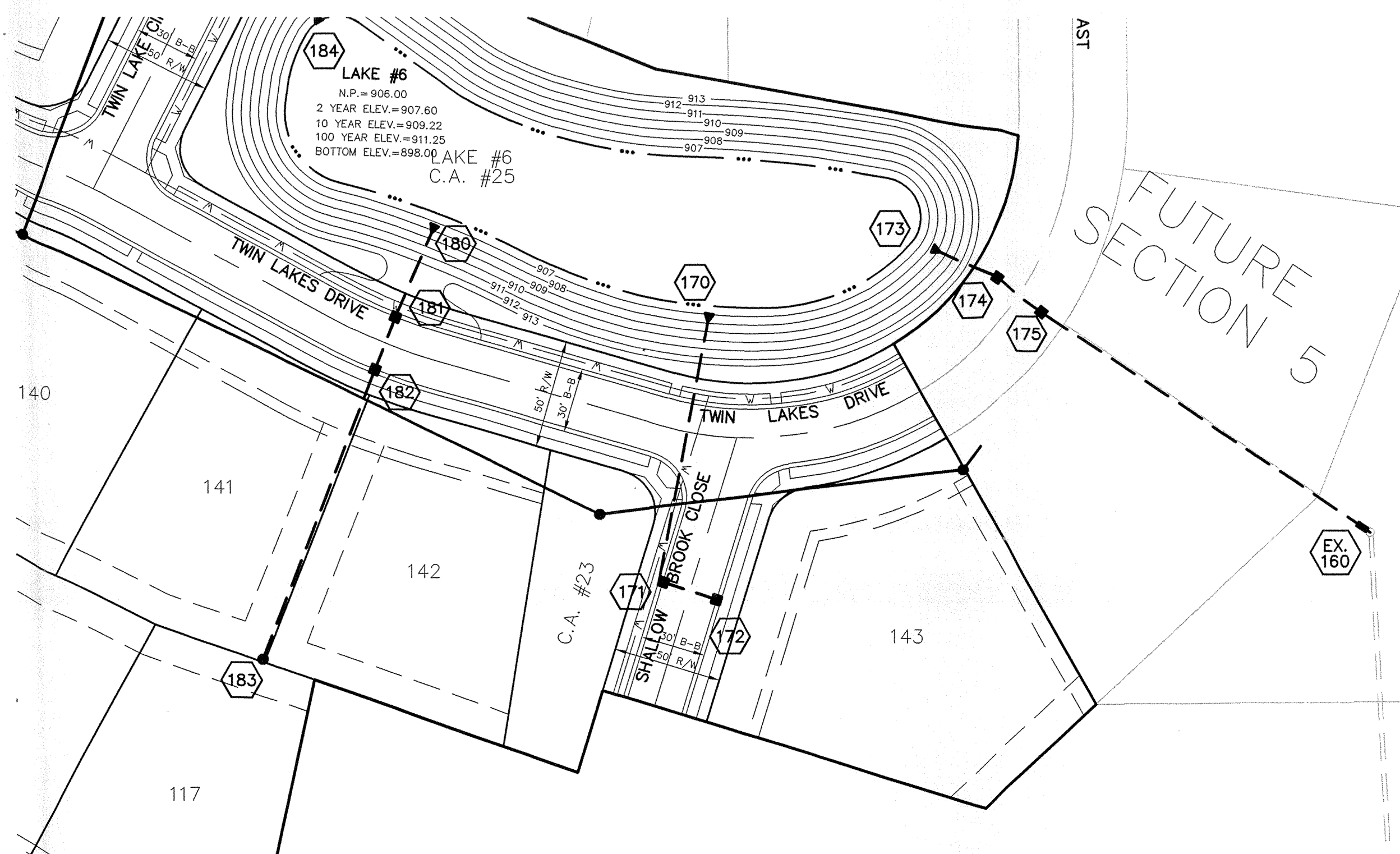
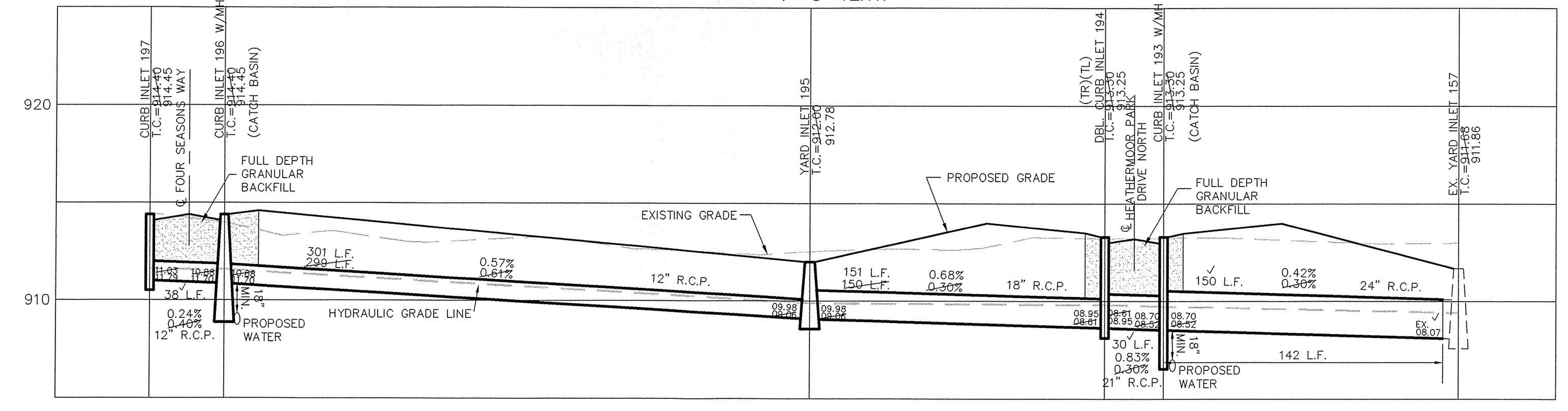


FRONT VIEW
ORIFICE PLATE DETAIL
NO-SCALE
STR. NO. 173

NOTE: ORIFICE PLATE TO BE INSTALLED IN THE BELL END OF THE CONCRETE END SECTION AND EPOXY IN PLACE PRIOR TO CONNECTING TO SPIGOT END OF LAST JOINT OF PIPE.

NOTE: THERE SHALL BE A 12" MIN. COVER FROM TOP OF PIPE TO BOTTOM OF AGGREGATE COURSE OF PAVEMENT SECTION ON ALL STREET PIPE CROSSINGS.

SCALE: 1"=50' HOR.
1"=5' VERT.



ALL STORM SEWER CASTINGS SHALL BE LABELED "DUMP NO WASTE-DRAINS TO WATERWAY"

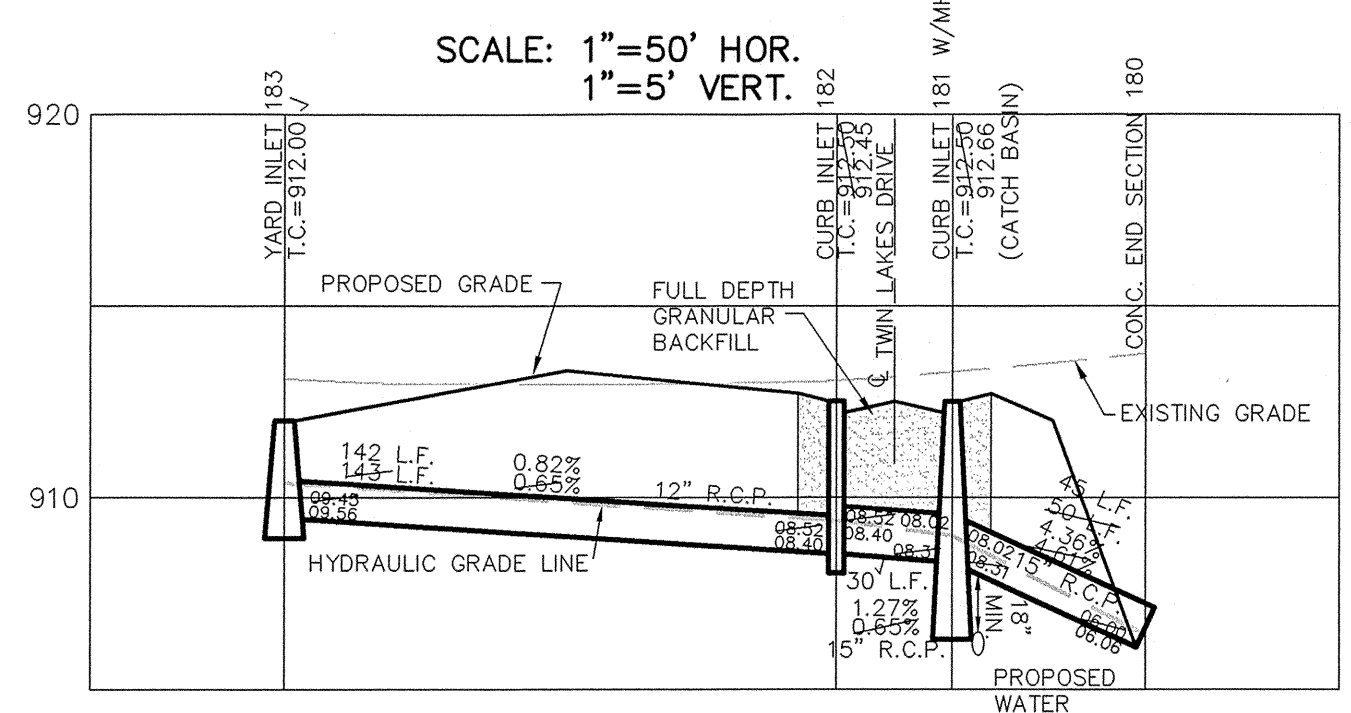
NOTE: CONSTRUCTION TOLERANCE FOR YARD INLETS WILL BE +0.0' TO -0.2'

NOTE: "EXCEPT FOR FORCE MAINS, CONTRACTOR TO INSTALL CONCRETE CRADLES WHEN THE VERTICAL SEPARATION (AS MEASURED FROM THE EXTERIOR OF THE PIPES) BETWEEN SANITARY SEWER FACILITIES AND STORM SEWERS IS 18" OR LESS."

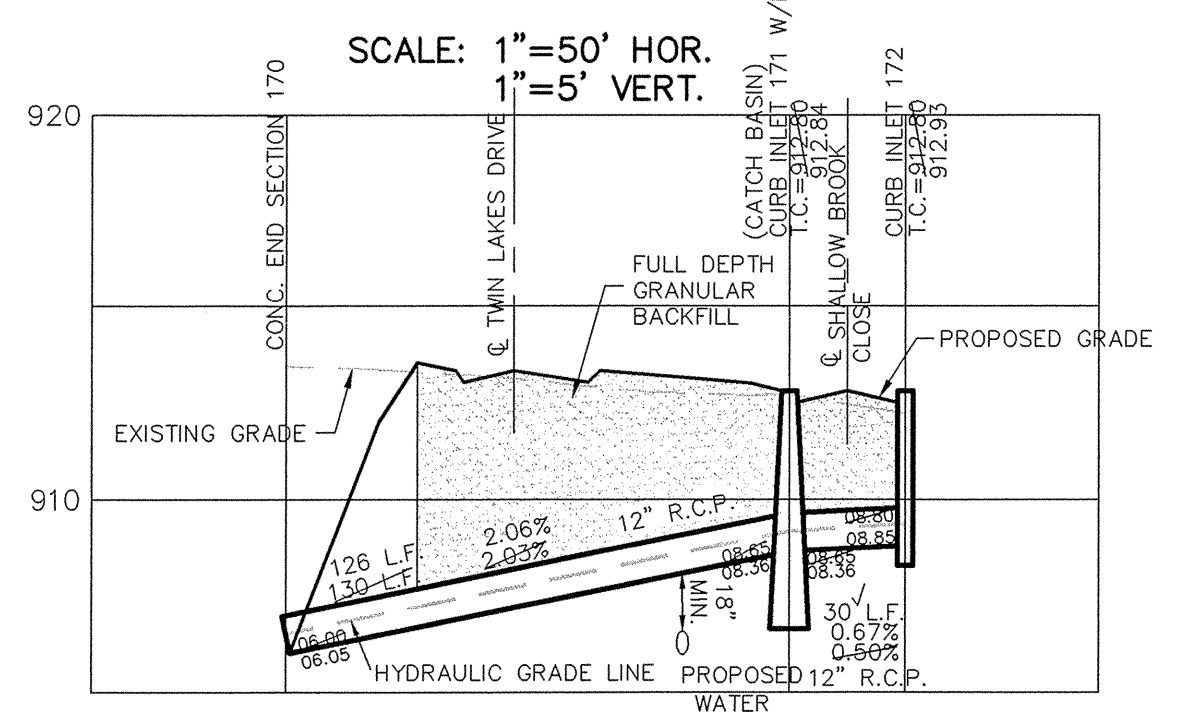
ALL MANHOLES TO BE CONSTRUCTED WITH ONE 4" RISER RING TO ESTABLISH PLAN CASTING GRADE.

ALL CURB INLET CASTINGS TO BE NEENAH R-3501-L2 UNLESS A DOUBLE INLET CASTING IS SPECIFIED. IN THIS CASE A NEENAH R-3501-TR&TL ARE TO BE USED.

ALL EXISTING OFF-SITE DRAIN TILES THAT ARE ENCOUNTERED SHALL BE TIED INTO THE PROPOSED STORM SEWER SYSTEM WITH A POSITIVE OUTFLOW



SCALE: 1"=50' HOR.
1"=5' VERT.



SCALE: 1"=50' HOR.
1"=5' VERT.

PIPE SIZE	STRUCTURES LESS THAN 48" FROM T/C TO INVERT	STRUCTURES GREATER THAN 48" FROM T/C TO INVERT	ANGLE AND QUALITY OF PIPES WILL REQUIRE SPECIAL DESIGN	STEPS REQUIRED	CURB CASTING *R-3501 N	CASTING *3501 TL & TR
12" to 18"	24"x24"		DESIGN APPROVAL	No	Yes	Yes
12" to 21"	30"x30"		DESIGN APPROVAL	No	Yes	Yes
18" to 21"		MH/BOX	DESIGN APPROVAL	Yes	Yes	Yes
21" to 27"	24"x36"		DESIGN APPROVAL	No	No	Yes
12" to 24"	36"x36"		DESIGN APPROVAL	No	Yes	Yes
24" OR LARGER			DESIGN APPROVAL	No	No	Yes
24" OR LARGER		MH/BOX	DESIGN APPROVAL	Yes**	Yes	Yes

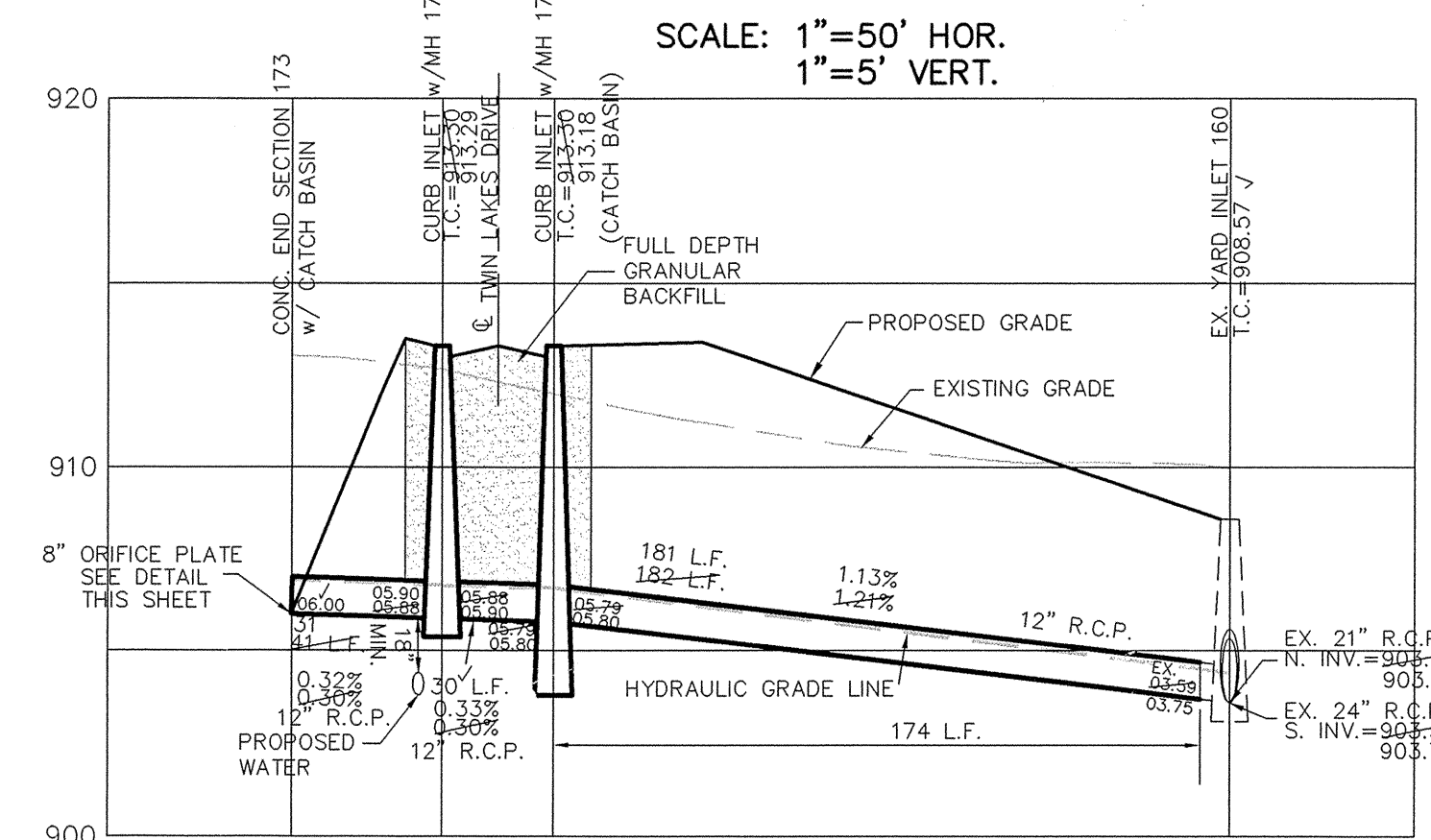
* PIPES NO LARGER THAN 18" CAN BE USED IN THE 2' SIDE OF THIS BOX

** INCOMING AND OUT GOING PIPES EFFECT STEPS IN THIS STRUCTURE

SPECIAL NOTE: STRUCTURES DEEPER THAN 48" FROM T/C TO INVERT WILL BE A MH, OR A BOX WITH STEPS UNLESS SPECIAL DESIGN IS APPROVED.

SPECIAL NOTE: STRUCTURES WILL BE DESIGNED FOR MAXIMUM FLOW IN PIPES

SPECIAL NOTE: COUNTY MAY REQUIRE STEPS TO BE INSTALLED AFTER STRUCTURE IS SET, TO IMPROVE ACCESS.



SCALE: 1"=50' HOR.
1"=5' VERT.

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

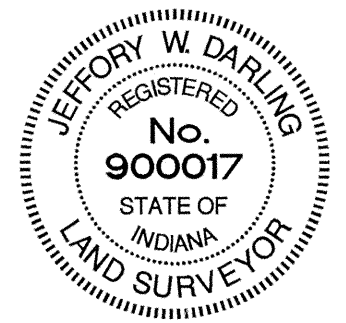
Entry Date: 2-8-07

Entered By: SLH

RECORD DRAWING

Jeffery W. Darling
JEFFERY W. DARLING
Registered Land Surveyor
No. 900017

8/10/05 DATE



SCALE: 1"= 50'

CERTIFIED: 7/6/04

OWN BY: BAH
OK BY: EEF
SCALE: 1"=50'
DATE: 7/6/04

AS BUILT: 8/10/05
REVISED PER CITY COMMENTS: 10/29/04
REVISED PER IAC COMMENTS: 8/22/04

REVISIONS: BY: MARK

CONSULTING ENGINEERS - LAND SURVEYORS
(317) 848-5935 1-800-728-6917 FAX: (317) 848-5942
INDIANA

David J. Stapp

INDIANA
FISHERS

STORM SEWER PLAN & PROFILE
LAKESIDE PARK SECTION FOUR
CARVEL

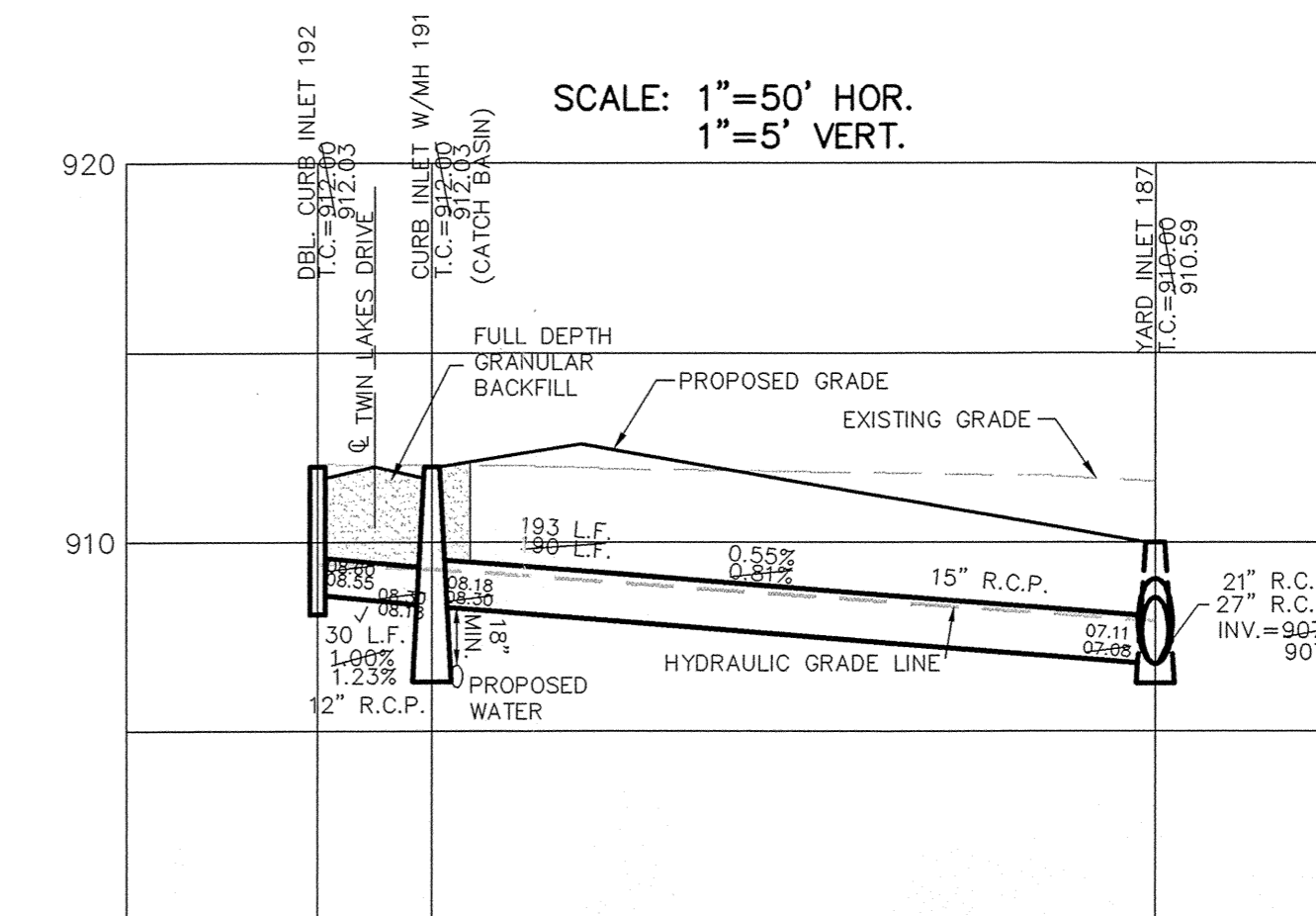
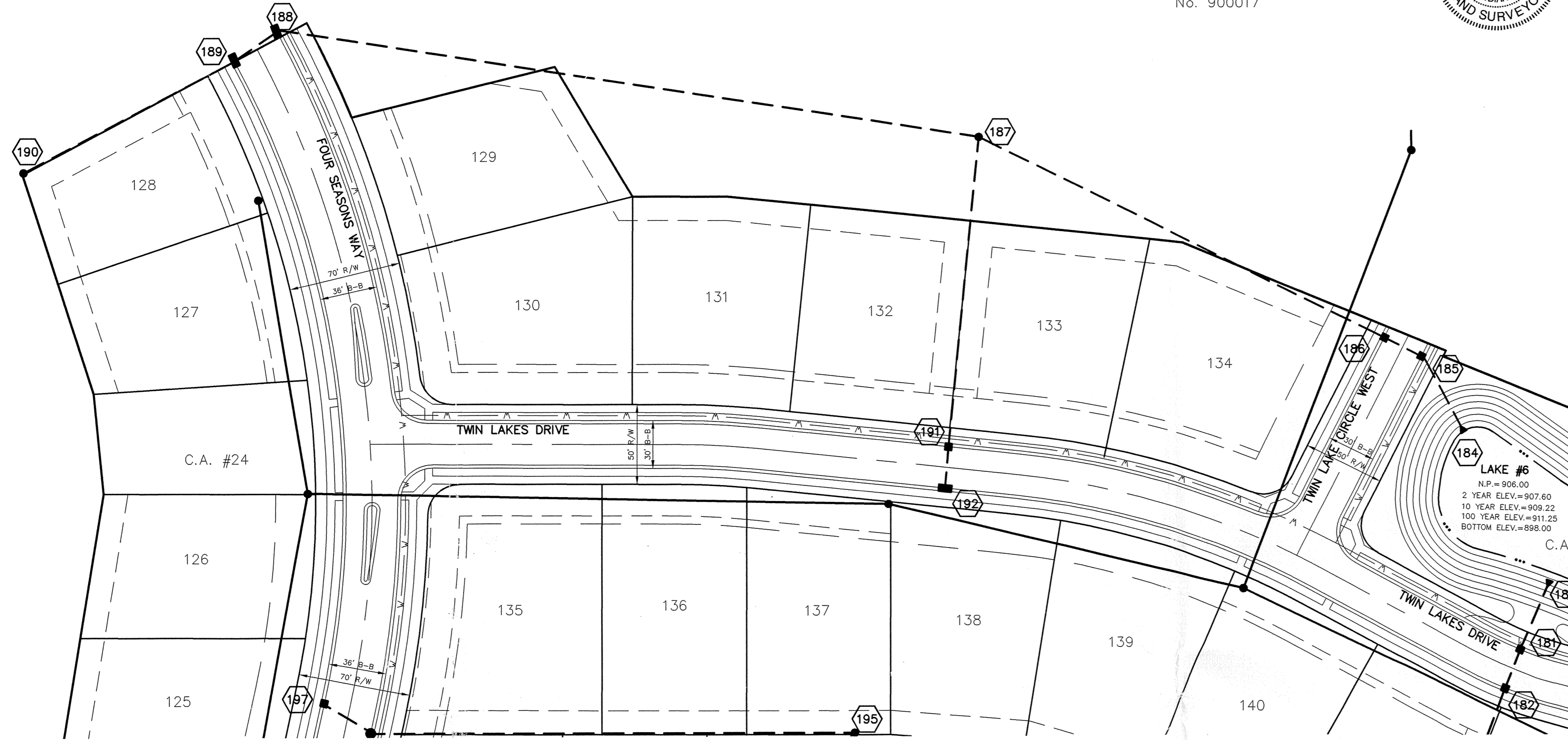
SHEET NO.
C600

JOB NO. 41760S4

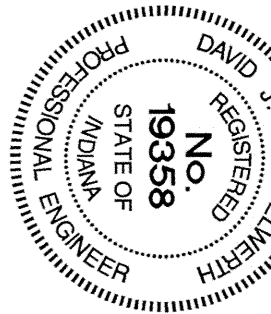
RECORD DRAWING

Jeffrey W. Darling
 JEFFREY W. DARLING
 Registered Land Surveyor
 No. 900017

8/8/05
 DATE



SCALE: 1" = 50'



PIPE SIZE	STRUCTURES LESS THAN 48" FROM T/C TO INVERT	STRUCTURES GREATER THAN 48" FROM T/C TO INVERT	ANGLE AND QUALITY OF PIPES WILL REQUIRE SPECIAL DESIGN	STEPS REQUIRED	CURB CASTING *R-3501 N	CASTING *3501 TL & TR
12" to 18"	24"x24"		DESIGN APPROVAL	No	Yes	Yes
12" to 21"	30"x30"		DESIGN APPROVAL	No	Yes	Yes
18" to 21"		MH/BOX	DESIGN APPROVAL	Yes	Yes	Yes
21" to 27"	24"x36"		DESIGN APPROVAL	No	No	Yes
12" to 24"	36"x36"		DESIGN APPROVAL	No	Yes	Yes
24" OR LARGER	DESIGN APPROVAL		DESIGN APPROVAL	No	No	Yes
24" or LARGER		MH/BOX	DESIGN APPROVAL	Yes**	Yes	Yes

* PIPES NO LARGER THAN 18" CAN BE USED IN THE 2' SIDE OF THIS BOX.
 ** INCOMING AND OUT GOING PIPES EFFECT STEPS IN THIS STRUCTURE.

SPECIAL NOTE:
 STRUCTURES GREATER THAN 48" FROM T/C TO INVERT WILL BE A MH, OR A BOX WITH STEPS UNLESS SPECIAL DESIGN IS APPROVED.

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ALL STORM SEWER CASTINGS SHALL BE LABELED "DUMP NO WASTE-DRAINS TO WATERWAY"

NOTE:
 CONSTRUCTION TOLERANCE FOR YARD INLETS WILL BE +0.0' TO -0.20'

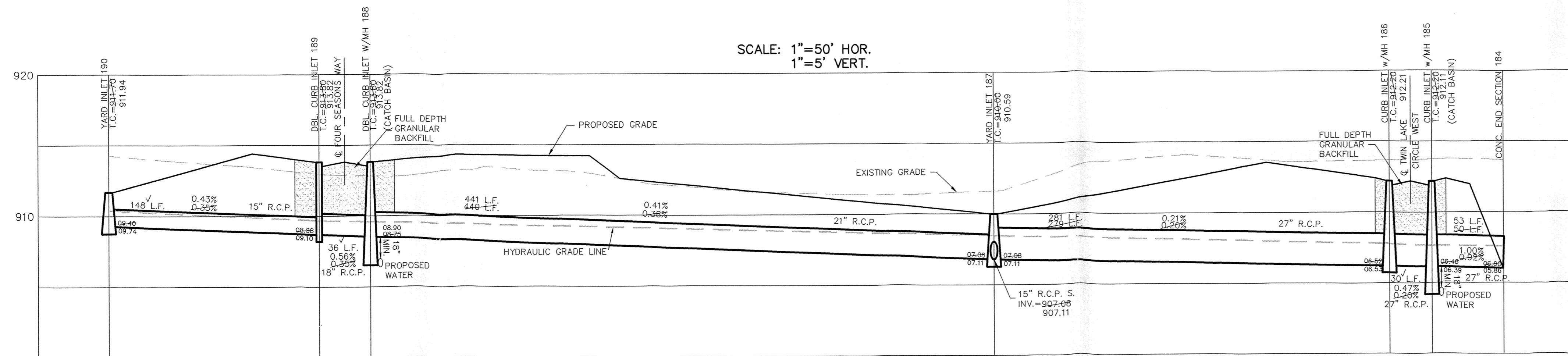
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ALL EXISTING OFF-SITE DRAIN TILES THAT ARE ENCOUNTERED SHALL BE TIED INTO THE PROPOSED STORM SEWER SYSTEM WITH A POSITIVE OUTFLOW

NOTE: THERE SHALL BE A 12" MIN. COVER FROM TOP OF PIPE TO BOTTOM OF AGGREGATE COURSE OF PAVEMENT SECTION ON ALL STREET PIPE CROSSINGS.



SCALE: 1" = 50' HOR.
 1" = 5' VERT.

REG. BY: []
 DATE: []
 REVISIONS: []

DATE: 7/6/04

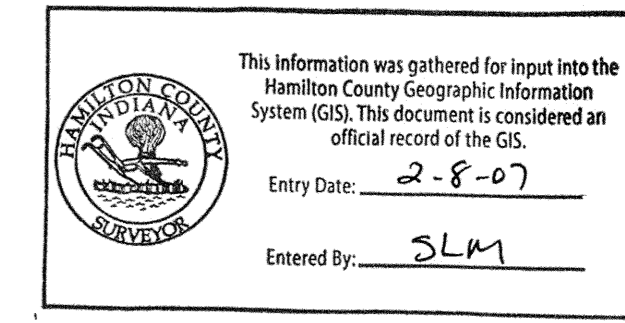
CERTIFIED: 7/5/04

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

STORM SEWER PLAN & PROFILE
 LAKESIDE PARK SECTION FOUR
 CARMEL INDIANA

SHEET NO. C601
 JOB NO. 4176054

Entered By: SLM



RECORD DRAWING

Jeffrey W. Darling
JEFFREY W. DARLING
Registered Land Surveyor
No. 900017

8/8/05
DATE



AS BUILT

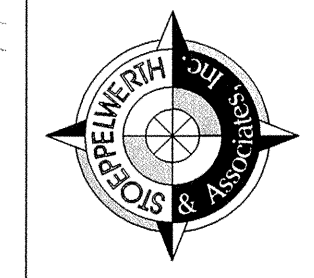
STR. NO.	TYPE	T.C. / RIM	INVERT	DIRECTION
170	CONCRETE END SECTION*		906.05	S
171	CURB INLET w/MH	912.84	908.36	N,E
172	CURB INLET	912.93	908.85	W
173	CONCRETE END SECTION*		906.00	SE
174	CURB INLET w/MH	913.29	905.90	NW,SE
175	YARD INLET	913.18	905.80	NW,SE
180	CONCRETE END SECTION*		906.06	S
181	CURB INLET w/MH	912.66	908.02	NE,SW
182	CURB INLET	912.45	909.40	NE,SW
183	YARD INLET	912.00	909.56	NE
184	CONCRETE END SECTION		905.86	NW
185	CURB INLET w/MH	912.11	906.39	NW
186	CURB INLET w/MH	912.21	906.53	NW,SE
187	YARD INLET	910.59	907.11	SE,W,S
188	DBL CURB INLET	913.82	908.90	SW,E
189	DBL CURB INLET	913.82	909.10	NE
190	YARD INLET	911.84	909.74	NE
191	CURB INLET	912.03	909.18	N,S
192	CURB INLET w/MH	912.03	908.55	N
193	CURB INLET w/MH	913.25	931.25	N,S
194	DBL CURB INLET	913.25	931.25	N,S
195	YARD INLET	912.78	909.06	W,S
196	CURB INLET w/MH	914.45	910.70	NW,E
197	CURB INLET	914.45	911.79	SE

- LEGEND**
- EXISTING CONTOUR
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - PROPOSED GRADE
 - PROPOSED CONTOUR
 - PROPOSED SANITARY SEWER
 - PROPOSED STORM SEWER
 - PROPOSED SWALE
 - PROPOSED 5' SIDEWALK (BY HOME BUILDER)
- 52** LOT NUMBER
911.7 PAD ELEVATION
ALL PADS 66" DEEP WITH WIDTHS AS LABELED
- MFPG DENOTES MIN. FLOOD PROTECTION GRADE (NO OPENING TO BE BELOW THIS ELEVATION)
- ← DENOTES 4" SUBSURFACE DRAIN TO LOT
← DENOTES 6" SUBSURFACE DRAIN
— ROLL CURB



REV	DATE	DESCRIPTION
1	7/6/04	AS BUILT
2	8/8/05	REVISIONS

CERTIFIED: 7/6/04
CONSULTING ENGINEERS — LAND SURVEYORS
DAVID J. STAPPERT
DAVID J. STAPPERT
FISHERS
(317) 849-5935 1-800-728-6917 FAX: (317) 849-5942



SITE DEVELOPMENT PLAN
LAKESIDE PARK SECTION FOUR
CARMEL
SHEET NO. C200
JOB NO. 4176054

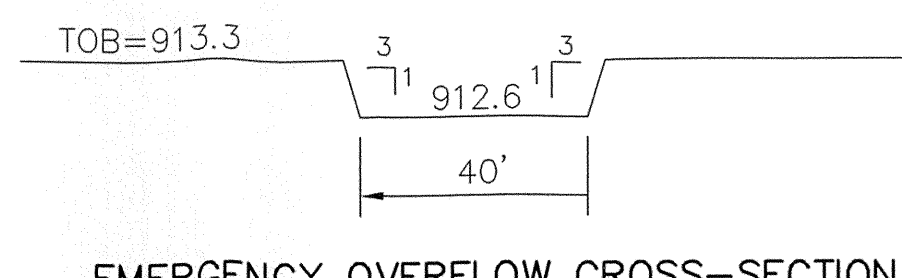
NOTE:
ALL OFF-SITE DRAIN TILES SHALL BE TIED INTO THE PROPOSED STORM SYSTEM OF THIS SECTION (WHERE APPLICABLE)

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

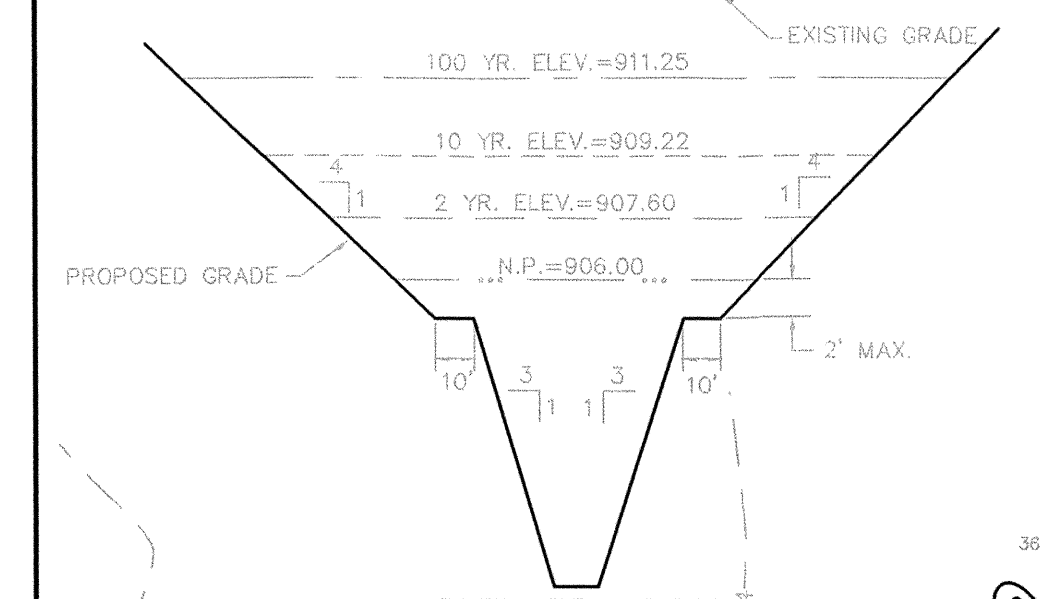
NOTE: SIDEWALK AND/OR ASPHALT PATHS ADJACENT TO COMMON AREA TO BE INSTALLED BY CONTRACTOR.

EMERGENCY OVERFLOW CROSS-SECTION LAKE #6

SCALE: 1" = 50' HOR.
1" = 5' VERT.



LAKE CROSS-SECTION SECTION "A"- "A"



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.

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