

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

December 30, 2005

TO: Hamilton County Drainage Board

RE: Stultz & Almond Drain, Heather Knoll Section 2

Attached is a petition filed by Platinum Properties, LLC along with a non-enforcement request, plans, calculations, quantity summary and assessment roll for the Heather Knoll Section 2 Arm, Stultz & Almond 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	6,392 ft.	21" RCP	473 ft.
12" RCP	938 ft.	24" RCP	396 ft.
15" RCP	1,196 ft.	27" RCP	363 ft.
18" RCP	516 ft.	30" RCP	375 ft.

The total length of the drain will be 10,649 feet.

With the development of this section of Heather Knoll, Arm 1 of the Stultz & Almond Drain will be vacated from Sta. 0+00 to Sta. 9+55 per the original 1884 legal description. This will remove 955 feet from the total length of the Stultz & Almond Drain.

The retention ponds (Lakes #4 & #3) located in Common Area # 7 are to be considered part of the regulated drain. Pond maintenance shall include the inlet and outlet, sediment removal and erosion control along the banks as part of the regulated drain. The maintenance of the ponds (lakes), 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.

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 easement and right of way are to be maintained as regulated drain. Laterals for individual lots will not be considered part of the regulated drain. The portion of the SSD which will be regulated other than those under curbs are as follows: The 6" SSD in the swale behind Lots 62 to 64.

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 \$30.00 per platted lot, \$10.00 per acre for roadways and common areas, with a \$30.00 minimum. With this assessment the total annual assessment for this drain/this section will be \$1,788.90.

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	Agent: Bond Safeguard Insurance Company.
Date: June 30, 2005	Date: June 30, 2005
Number: 5017923	Number: 5017922
For: Storm Sewers	For: Erosion Control
Amount: \$212,544.00	Amount: \$6,495.00

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.

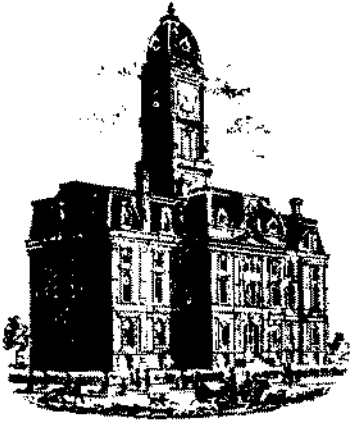
I recommend that upon approval of the above proposed drain that the Board also approve the attached non-enforcement request. The request is for the reduction of the regulated drain easement to those easement widths as shown on the secondary plat for Heather Knoll Section 2 as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for September 25, 2006.



Kenton C. Ward
Hamilton County Surveyor

KCW/pll



SURVEYOR'S OFFICE

Hamilton County

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 Phone (317) 776-8495
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December 30, 2005

TO: Hamilton County Drainage Board

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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:

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15" RCP	1,196 ft.	1256	27" RCP	363 ft.	361
18" RCP	516 ft.	516	30" RCP	375 ft.	372

The total length of the drain will be 10,649 feet.

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For: Erosion Control
Amount: \$6,495.00

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I recommend the Board set a hearing for this proposed drain for September 25, 2006.



Kenton C. Ward
Hamilton County Surveyor
KCW/pll

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 Heather Knoll 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 Heather Knoll, Section 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.

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

Ken Brasseur
Signed

Ken Brasseur
Printed Name

November 30, 2004
Date

Signed

Printed Name

Date

Signed

Printed Name

Date

Signed

Printed Name

Date



CONSULTING ENGINEERS • LAND SURVEYORS

David J. Stoeppelwerth, P.E., P.L.S.
President, C.E.O.

Curtis C. Huff, P.L.S.
Vice-President, C.O.O.

R.M. Stoeppelwerth, P.E., P.L.S.
President Emeritus

July 7, 2005

Hamilton County Surveyor's Office
One Hamilton County Square
Suite 188
Noblesville, Indiana 46060

Attention: Kent Ward

Re: Heather Knoll, Section 2

Dear Mr. Ward:

On behalf of the developer Platinum Properties, L.L.C., I wish to submit the following Engineer's Estimate for Heather Knoll, Section 2. The estimate is as follows:

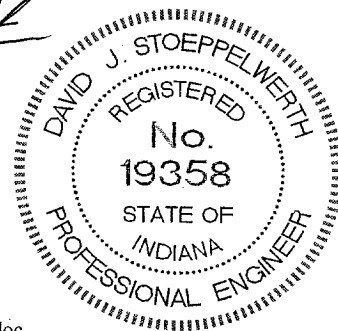
Storm Sewer	\$177,120.00
Erosion Control	\$5,412.00
Monumentation	\$7,910.00

If you have any questions regarding these estimates, please contact Edward E. Fleming at (317) 577-3400, ext. 22.

Very truly yours,

STOEPPELWERTH & ASSOCIATES, INC.

David J. Stoeppelwerth
Professional Engineer
No. 19358



S:\47175S2\Blue_Book\Agency Correspondence\HamiltonCountySurveyorWardEE07-07-05.doc

FINDINGS AND ORDER

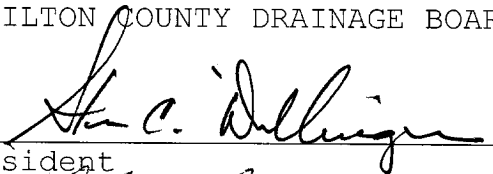
CONCERNING THE MAINTENANCE OF THE

Stultz & Almond Drain, Heather Knoll Section 2 Arm

On this **25th day of September 2006**, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the **Stultz & Almond Drain, Heather Knoll 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

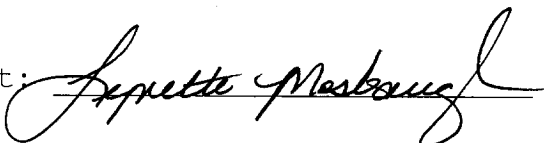


President



Member

Member

Attest: 

Lynette Mosbaugh

FINDINGS AND ORDER

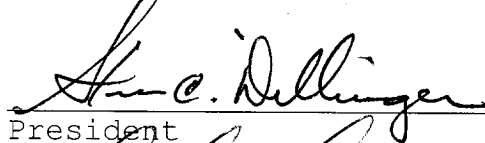
CONCERNING THE PARTIAL VACATION OF THE

Stultz & Almond Drain, Sta. 0+00 to Sta. 9+55

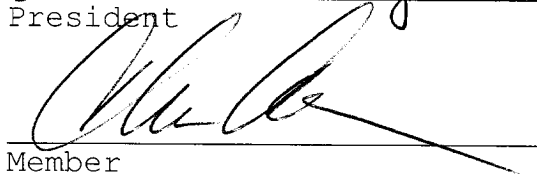
On this *25th day of September 2006*, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the **Stultz & Almond Drain, Sta. 0+00 to Sta. 9+55**.

Evidence has been heard. Objections were presented and considered. The Board then adopted an order of action. The Board now finds that the costs of continued maintenance to the portion of the above drain exceed the benefits to the real estate benefited by the portion of the drain to be abandoned and issues this order vacating the above section of the **Stultz & Almond Drain**.

HAMILTON COUNTY DRAINAGE BOARD



President



Member

Member

Attest: 

Secretary

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD
IN THE MATTER OF

Stultz & Almond Drain, Heather Knoll Section 2 Arm

NOTICE

To Whom It May Concern and: _____

Notice is hereby given of the hearing of the Hamilton County Drainage Board on the **Stultz & Almond Drain, Heather Knoll Section 2 Arm** on **September 25, 2006** at **9:05 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

Stultz & Almond Drain, Heather Knoll Section 2 Arm

NOTICE

Notice is hereby given pursuant to Section 405 of the 1965 Indiana Drainage Code that this Board, prior to final adjournment on **September 25, 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: Heather Knoll, Section Two

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
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: January 4, 2006

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



Carmel.in.gov

~~#77 SW Bndle~~
~~HEATHER KNOLL~~

DRAIN: HEATHER KNOLL Sec 2
IMPROVEMENT-ARM: HEATHER KNOLL Sec 2
HEARING DATE: #4551112
DRAIN BOOK & PAGE: Sept 25, 2006
INSTALL: 2005 BK 9 pg. 424-426

FINAL REPORT CHECKLIST

Heather Knoll Pkwy

- RELEASE BONDS Oct 23, 2006
- NON-ENFORCEMENT #200600065690
- ENG CERT OF CC Done
- ASBUILTS Done
- FIGURE PIPE LENGTHS slw
- ENTER INTO GIS Dr
- WRITE FINAL REPORT 9.26.07
- ENTER INTO POSSE Done
- ENTER INTO GASB 34 SPREADSHEET Done
- SCAN SURVEYOR'S REPORTS
- EMAIL WORD FILES TO LYNNETTE
- COPIES OF REPORTS TO LYNNETTE

220 ✓
 205 ✓
 152 ✓
 155 ✓
 275 ✓
 292 ✓
 64 ✓
 65 ✓
 200 ✓
 188 ✓
 204 ✓
 185 ✓
 271 ✓
 277 ✓
 267 ✓
 27 ✓
 28 ✓
 216 ✓
 97 ✓
 $\frac{3306}{2} = 1694$

Paramount Cie

148 ✓
 148 ✓
 144 ✓
 142 ✓
 189 ✓
 230 ✓

 1001

NEWINGTON LN

25 ✓
 150 ✓
 150 ✓
 295 ✓
 332 ✓
~~38~~ 40 ✓
~~30~~ 36 ✓
 50 ✓
~~40~~
 42 ✓
 44 ✓

 1100 / 2 = 583

LIVINGSTON LN

177 ✓
 30 ✓
 177 ✓

 384 / 2 = 192
 Lot 62-64
 6" - 182'

5939
 HANA



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 26, 2007

Re: Stultz & Almond Drain: Heather Knoll Sec. 2

Attached are as-builts, certificate of completion & compliance, and other information for Heather Knoll 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 December 30, 2005. The report was approved by the Board at the hearing held September 25, 2006. (See Drainage Board Minutes Book 9, Pages 424-426) The changes are as follows:

Structure:	Length:	Size	Material:	Up Invert:	Dn Invert	Grade:	Changes:
147-147A	128	12	RCP	910.48	909.95	0.41	-2
147A-146	161	15	RCP	909.95	909.5	0.28	2
146-145	198	15	RCP	909.5	909.12	0.19	
145-144	67	18	RCP	909.12	908.99	0.19	2
151-150	89	12	RCP	910.53	910.35	0.2	-2
150-147A	117	15	RCP	910.35	909.95	0.34	1
155-154	36	12	RCP	911.78	911.56	0.61	
156-153	151	12	RCP	911.67	910.92	0.5	1
153-152	62	18	RCP	910.92	910.61	0.5	
154-153	97	15	RCP	911.56	910.92	0.66	
167-164	65	21	RCP	911.65	911.37	0.43	2
164-163	191	21	RCP	911.37	910.93	0.23	1
163-162	30	21	RCP	910.93	910.87	0.2	
162-161A	139	21	RCP	910.87	910.45	0.3	-1
161A-161	50	21	RCP	910.45	910.2	0.5	
161-160	152	24	RCP	910.2	909.74	0.3	
160-159	36	24	RCP	909.74	909.49	0.69	
159-158	157	24	RCP	909.49	909.17	0.2	2
158-157	49	24	RCP	909.17	909	0.35	-4
166-165	37	15	RCP	912.11	911.75	0.97	
165-164	151	18	RCP	911.75	911.37	0.25	-1
171-170	20	12	RCP	912.36	912.3	0.3	
170-169	190	15	RCP	912.3	911.65	0.34	

169-168	58	15	RCP	911.65	911.5	0.26	-1
185-184	215	27	RCP	913.3	912.8	0.23	1
184-183	146	27	RCP	912.8	912.39	0.28	-3
183-180	372	30	RCP	912.39	911.47	0.25	-3
177-176	75	12	RCP	912.82	912.6	0.29	
176-175	82	12	RCP	912.6	912.44	0.2	-2
175-174	32	18	RCP	912.44	912.2	0.75	
174-173	204	18	RCP	912.2	911.52	0.33	
179-178	30	15	RCP	912.83	912.69	0.47	
178-175	56	15	RCP	912.69	912.44	0.45	1
204-203	36	12	RCP	913.62	913.34	0.78	
203-202	201	15	RCP	913.34	911.55	0.89	-8
182-181	30	12	RCP	913.83	913.68	0.5	
181-203	111	15	RCP	913.68	913.34	0.31	-1
172-161A	175	12	RCP	910.81	910.45	0.21	
149-150	44	12	RCP	910.88	910.35	1.16	

6" SSD Streets:

Heather Knoll Pkwy	1694
Livingston Ln	192
Newington Ln	583
Paramount Cir	500.5
x2	

Total: 5939

6" SSD Lots:

lots 62-64	182
Total:	<u>182</u>

RCP Pipe Totals:

12	866
15	1256
18	516
21	475
24	394
27	361
30	372

Total: 4240

The length of the drain due to the changes described above is now **10,317 feet**.

The non-enforcement was approved by the Board at its meeting on September 25, 2006 and recorded under instrument #200600065690.

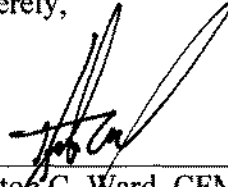
The following sureties were guaranteed by Bond Safeguard Insurance Company and released by the Board on its October 23, 2006 meeting.

Bond-LC No: 5017923
Insured For: Storm Sewers
Amount: \$212,544.00
Issue Date: June 30, 2005

Bond-LC No: 5017922
Insured For: Erosion Control
Amount: \$6,495
Issue Date: June 30, 2005

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Kenton C. Ward', written over a horizontal line.

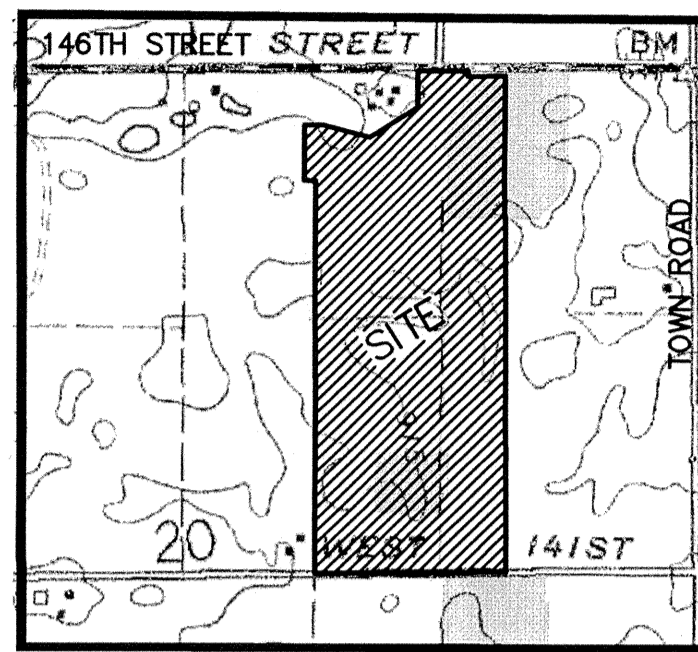
Kenton C. Ward, CFM
Hamilton County Surveyor

KCW/slm

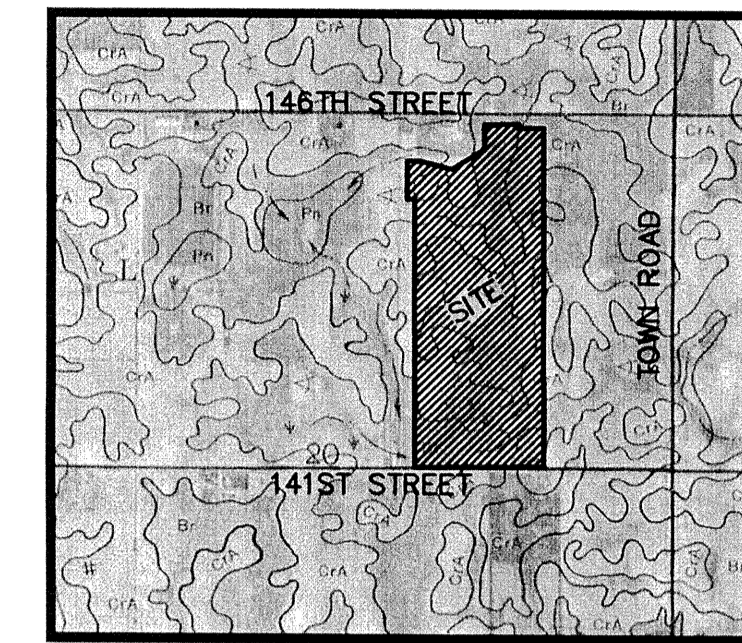
HEATHER KNOLL

SECTION 2

Developed by:
 PLATINUM PROPERTIES L.L.C.
 9551 DELEGATES ROW
 INDIANAPOLIS, INDIANA 46240
 Phone: (317)-818-2900
 Fax: (317)-818-2910
 CONTACT: KEN BRASSEUR



VICINITY MAP
NOT TO SCALE



SOILS MAP
NOT TO SCALE

RECORD DRAWING

INDEX	
SHT.	DESCRIPTION
C001	COVER SHEET
C100	TOPOGRAPHICAL SURVEY
C200&C201	SITE DEVELOPMENT PLAN
C300&C301	STORMWATER POLLUTION & PREVENTION PLAN & SPECS
C400-C406	STREET PLAN & PROFILES / ENTRANCE PLAN & INTERSECTION DETAILS / TRAFFIC CONTROL / TRAFFIC MAINTENANCE / TRAFFIC DETAILS
C500-C502	SANITARY SEWER PLAN & PROFILES
C600-C602	STORM SEWER PLAN & PROFILES
C700&C701	WATER PLANS
C800-C803	CONSTRUCTION DETAILS
	SANITARY
	STORM
	STREET
	LANDSCAPE PLANS



SOILS MAP

MmA Miami silt loam, 0-2 % slopes- This nearly level, deep, well drained soil is on slight rises on uplands. Permeability is moderate in the subsoil and the substratum. Available water capacity is high. The main soil features that adversely affect engineering uses of this soil are moderate potential for frost action, moderate permeability, and moderate shrink-swell potential. This soil has severe limitations for local roads and streets. The base material needs to be strengthened with suitable material.

Cra Crosby silt loam, 0-3 percent slopes- This soil is light colored, silty in texture and on sloping uplands. It is deep and somewhat poorly drained with slow permeability. It has high available water for plant growth and medium organic matter content. The soil has compact till starting at a depth of 20-40 inches. The main soil features that affect urban development uses are seasonal high water table, moderate shrink-swell potential, high potential frost action and slow permeability.

Br Brookston silty clay loam- This soil is dark colored, silty in texture and on depressional uplands. It is deep and very poorly drained with moderate permeability. It has high available water for plant growth and high organic matter content. It has compact till starting at a depth of 40 to 60 inches. The main soil features that affect urban development uses are seasonal high water table, high potential frost action, moderate shrink-swell potential, moderate permeability and ponded surface water.

MmB2 Miami silt loam, 2-6 percent slopes- This soil is light colored, silty in texture and on sloping uplands. It is deep and well drained with moderate permeability. It has moderate available water for plant growth and a medium organic matter content. It has compact till starting at a depth between 20-40 inches. The main soil features that adversely affect urban development uses are moderate potential frost action, moderate shrink-swell potential, moderately slow permeability, low strength and erosion during construction.

MmC2 Miami clay loam, 6-12 % sloped severely eroded- This moderately sloping, deep, well draining soil is on knobs and breaks along streams and drainage ways on uplands. Permeability is moderate in the subsoil and moderately slow in the substratum. This soil is suitable for urban development. The main soil features that adversely affect the engineering uses of this soil are moderate potential frost action, moderate shrink-swell potential, and moderately slow permeability. The hazard of erosion is high during construction.

FxC3 Fox loam, 8 to 18 % slopes, severely eroded- This moderate sloping, well-drained soil is on side slopes adjacent to drainage ways on terraces and in domestic areas on uplands. It is moderately deep over sand and gravelly sand. Permeability is moderate in the subsoil and rapid in the underlying material. Available water capacity is low. This soil has moderate limitations for urban development (Slopes). Features that adversely affect engineering uses of this soil are moderate frost action, moderate shrink-swell potential, moderate permeability in the subsoil and very rapid permeability in the under lying material. Topsoil should be stockpiled for use in exposed areas.

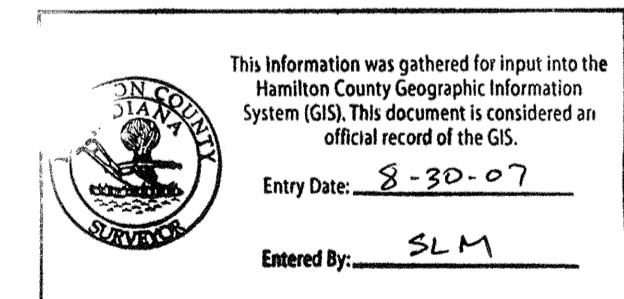
Wc Westland silty clay loam - This nearly level, deep, very poorly drained soil is in depressions, swales, and narrow drainage ways on outwash plains. Runoff from higher adjacent soils is ponded on this soil. Permeability is slow. The water table is commonly at the surface or is at a depth of less than one foot in winter and early spring. Available water capacity is high. Surface runoff is ponded or is very slow. The main soil features that adversely affect engineering uses of this soil are a seasonal high water table, high potential frost action, moderate shrink-swell potential, and slow permeability. The base material for roads needs to be replaced or strengthened with suitable material.

OcA Oakley silt loam, 0-2 % slopes- This nearly level, deep well drained soil is mainly on broad terraces. Permeability and available water capacity is moderate. This soil is suitable for urban development. Features that adversely affect engineering uses of this soil are moderate frost action, moderate shrink-swell potential, moderate permeability in the subsoil and very rapid permeability in the under lying material.

OcB2 Oakley silt loam, 2-6 % slope, eroded- This gently sloping, deep well drained soil is mainly on broad terraces. Permeability and available water capacity is moderate. This soil is suitable for urban development. Features that adversely affect engineering uses of this soil are moderate frost action, moderate shrink-swell potential, moderate permeability in the subsoil and very rapid permeability in the under lying material. This soil has severe limitations for local roads because of low strength. The base material of roads needs to be strengthened with suitable material.

REVISIONS	
SHT.	DESCRIPTION
ALL	REVISIONS PER TAC COMMENTS 2/21/05 JDH
ALL	REVISIONS PER DEVELOPER 4/22/05 BMK
ALL	REVISIONS PER CITY COMMENTS 6/6/05 BAH
ALL	REVISIONS PER SURVEYORS COMMENTS 6/08/05 JDH
C200, C201, C300, C301, C400, C401, C402, C403, C404, C405, C406	AS BUILT 1/4/06 RKG

SECTION 2 DESIGN DATA	
49 LOTS	= 1.73 LOTS/ACRE
28,246 AC.	
HEATHER KNOLL PARKWAY	1,649.31 L.F.
NEWINGTON LANE	623.78 L.F.
LIVINGSTON LANE	225.89 L.F.
STREET A	307.63 L.F.
STREET B	518.49 L.F.

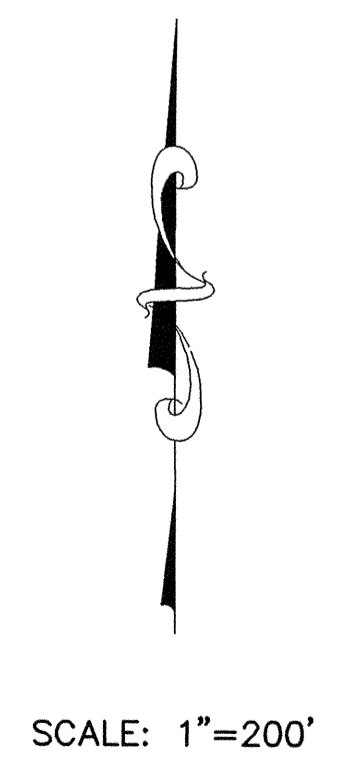


PLANS PREPARED BY:
STOEPPELWERTH & ASSOCIATES, INC.
 CONSULTING ENGINEERS & LAND SURVEYORS
 9940 ALLISONVILLE ROAD FISHERS, INDIANA 46038
 PHONE: (317)-849-5935
 FAX: (317)-849-5942
 CONTACT PERSON: EDWARD E. FLEMING



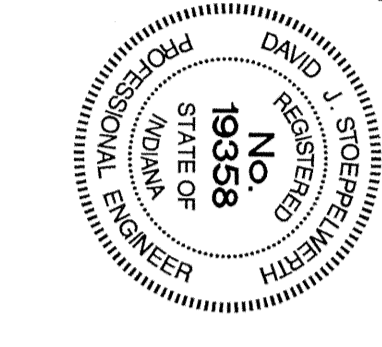
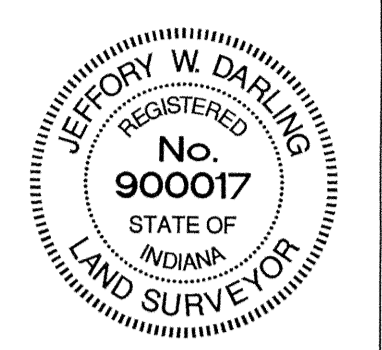
PRINTED
 (JAN 04 2006)

PLANS CERTIFIED BY:
David J. Stoepfelwerth
 DAVID J. STOEPPELWERTH DATE 11/30/04
 PROFESSIONAL ENGINEER
 NO. 19358



RECORD DRAWING

JEFFERY W. DARLING
 Registered Land Surveyor
 No. 900017
 DATE 12/29/05



SCALE: 1" = 50'
 This information was gathered for input into the Hamilton County Geographic Information System (GIS). This document is considered an official record of the City.
 Entry Date: 8-30-07
 Entered by: SLM

- ### LEGEND
- EXISTING EDGE OF WOODS
 - EXISTING CONTOUR
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - PROPOSED GRADE
 - MATCH EXISTING
 - PROPOSED CONTOUR
 - PROPOSED SANITARY SEWER
 - PROPOSED STORM SEWER
 - PROPOSED SWALE
 - PROPOSED 5' SIDEWALK (BY HOME BUILDER)
(DEVELOPER SHALL INSTALL SIDEWALKS ALONG ALL COMMON AREAS)
 - 100 LOT NUMBER
 - 874.1 PAD ELEVATION
(PAD SIZE: 60'x60'
(UNLESS OTHERWISE NOTED))
 - M.F.P.G. = XXXXX MIN. FLOOD PROTECTION GRADE
 - DENOTES 4" SUBSURFACE DRAIN TO LOT
 - DENOTES 6" SUBSURFACE DRAIN
 - ROLL CURB

NOTE: MIN. FLOOD PROTECTION GRADES OF ALL STRUCTURES FRONTING POND #3 & 4 SHALL BE NO LESS THAN 2 FEET ABOVE ANY ADJACENT 100-YR. LOCAL OR REGIONAL FLOOD ELEVATION (WHICHEVER IS GREATER FOR ALL WINDOWS, DOORS, PIPE ENTRANCES, WINDOW WELLS, ETC.)

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

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

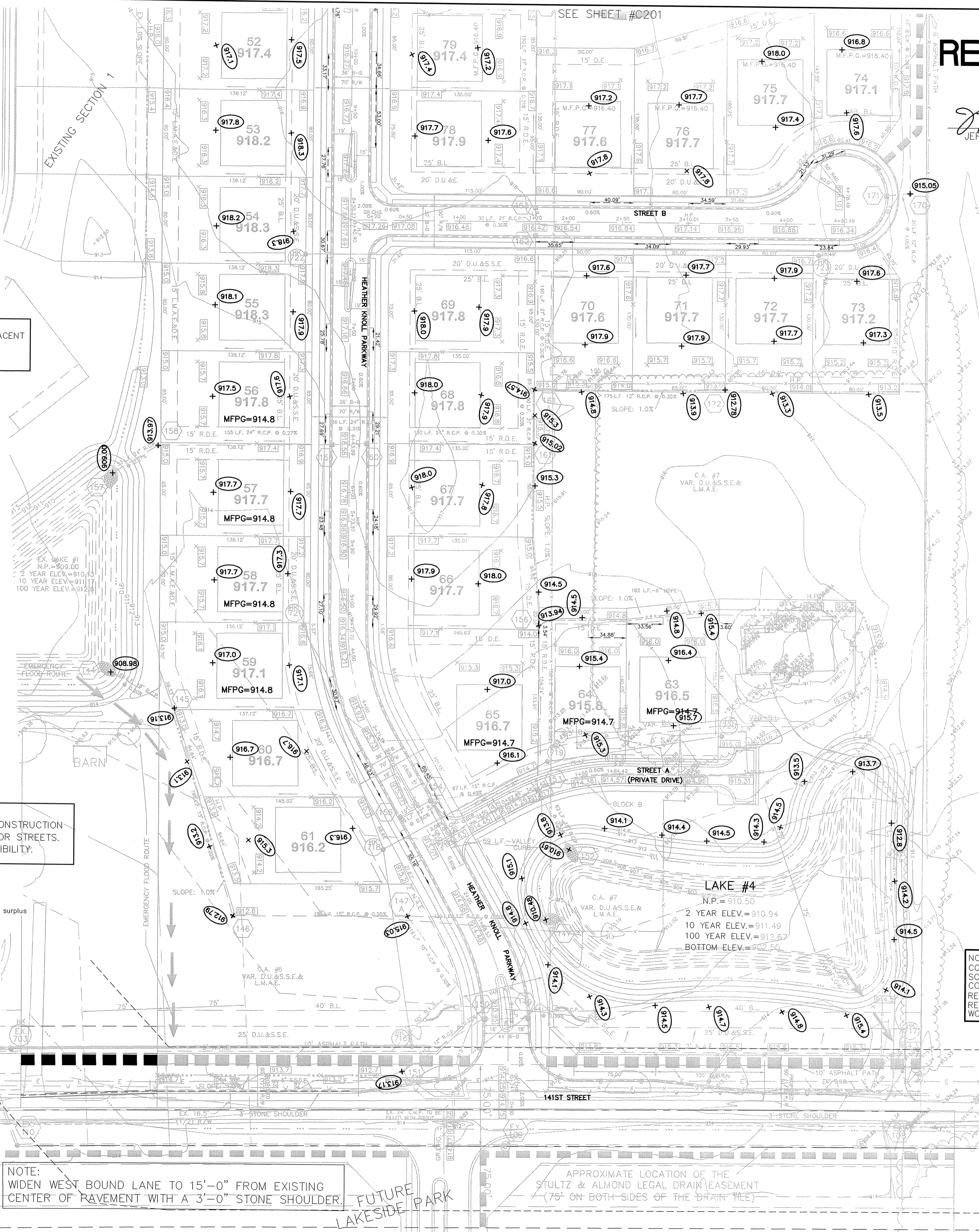
NOTE: A 6" S.S.D IS TO BE INSTALLED UNDER TO THE STONE SHOULDER ALONG SHELBORNE RD.

- D.U.&S.E. DRAINAGE, UTILITY & SANITARY SEWER EASEMENT
- D.U.&S.E. DRAINAGE UTILITY & SEWER EASEMENT
- D.&U.E. DRAINAGE & UTILITY EASEMENT
- L.M.A.E. LANDSCAPE, MAINTENANCE ACCESS EASEMENT
- S.L.E. SIGN LANDSCAPE EASEMENT
- D.E. DRAINAGE EASEMENT
- B.S.L. BUILDING SETBACK LINE
- N.R. NON RADIAL
- N.A.E. NON ACCESS EASEMENT
- P.A.E. PUBLIC ACCESS EASEMENT
- T.P.E. TREE PRESERVATION EASEMENT
- R/W RIGHT OF WAY
- C.A. COMMON AREA

BENCHMARKS
 S&A TBM #1
 1.0'± UP FROM GROUND ON EAST SIDE ELECTRIC POLE, PWP #74-693
 10TH POLE FROM TOWNE ROAD ON S. SIDE OF 146TH STREET.
 ELEV.=919.28

NOTE TO CONTRACTOR:
 CONTRACTOR SHALL VERIFY DEPTHS OF ALL EXISTING ONSITE UTILITIES PRIOR TO CONSTRUCTION TO CONFIRM THERE IS NOT ANY CONFLICTS WITH OTHER UTILITIES, STORM SEWERS OR STREETS. CONFLICTS AFTER CONSTRUCTION BEGINS ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY.

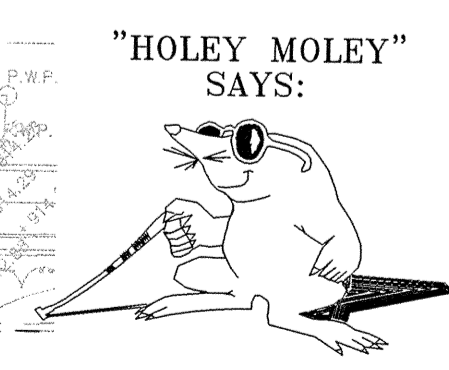
- ### EARTHWORK:
1. EXCAVATION
 - A. Excavated material that is suitable (topsoil and/or clay) may be used for fills. All unsuitable material and all surplus excavated material not required shall be removed from the site.
 - B. Provide and place any additional fill material from offsite as may be necessary 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 shall be removed from areas to be occupied by a road surface or structure area. 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 to protective measure to be taken, if any, to preserve such trees.
 4. REMOVAL OF TOPSOIL
 - A. All topsoil shall be removed from all areas beneath future pavements or building. Topsoil removal shall be to a minimum depth of 6 inches or to the depth indicated in the geotechnical report provided by the Developer to be excavated or filled. 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 as shown on the drawing.
 - 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.
 - C. Contact Carmel Utilities at 571-2648 for location of all water mains.
 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.



STORM CHART

STR. NO.	TYPE	T.C.	RIM	INVERT	DIRECTION
144	CONCRETE END SECTION		909.00		SE
145	YARD INLET	913.00	909.13		NW&SE
146	YARD INLET	912.80	909.53		NW&E
147	CONCRETE END SECTION		910.50		W
147A	MANHOLE	915.00	909.84		E,W,SE
149	CURB INLET	913.95	910.32		W
150	CURB INLET W/MANHOLE	913.95	910.19		E,S,W,NW
151	YARD INLET	913.00	910.48		NE
152	CONCRETE END SECTION		910.50		NW
153	STORM INLET	914.50	910.29		N,W,SE
154	CURB INLET	915.25	911.29		SW,E
155	CURB INLET	915.25	911.29		NE
156	YARD INLET	914.00	911.56		S
157	CONCRETE END SECTION		909.00		NE
158	MANHOLE	915.00	909.14		SW&E
159	CURB INLET W/MANHOLE	915.50	909.56		W&E
160	CURB INLET W/MANHOLE	915.50	909.67		W&E
161	YARD INLET	915.00	910.13		N&W
161A	YARD INLET	915.00	910.28		N,S,E
162	CURB INLET W/MANHOLE	916.40	910.70		N&S
163	CURB INLET W/MANHOLE	916.40	910.70		N&S
164	YARD INLET W/MANHOLE	915.50	912.34		SW&NE
165	DBL CURB INLET	915.87	911.85		W&E
166	CURB INLET	915.87	911.94		E
167	CONCRETE END SECTION		911.50		SW
168	CONCRETE END SECTION		911.50		SE
169	YARD INLET	914.00	911.65		NW&S
170	MANHOLE	915.00	912.14		N,W
171	CURB INLET	915.00	912.34		E
172	YARD INLET	913.00	910.81		W
173	CONCRETE END SECTION		911.50		N
174	CURB INLET W/MANHOLE	916.20	912.41		NW,S
175	CURB INLET W/MANHOLE	916.20	912.41		NW,NE,SE
176	MANHOLE	915.00	912.34		S
177	YARD INLET	916.40	912.41		N&SW
178	CURB INLET	916.45	912.40		W&SE
179	CURB INLET	916.45	912.49		E
180	CONCRETE END SECTION		911.50		NW
181	CURB INLET	917.00	913.80		NW&S
182	CURB INLET	916.00	913.71		SE
183	YARD INLET	916.00	913.71		SE
184	YARD INLET	916.60	913.74		NE&SE
185	YARD INLET	917.00	911.50		N&SW
202	CONCRETE END SECTION		911.50		W
203	CURB INLET W/MANHOLE	917.48	913.37		E,W,N
204	CURB INLET	917.48	913.55		E

NOTE: CONTRACTOR SHALL CONTACT THE DEPARTMENT OF ENGINEERING TO SCHEDULE A PRE-CONSTRUCTION MEETING TO REVIEW THE DEPARTMENT'S CONSTRUCTION REQUIREMENTS, STAFF NOTIFICATION REQUIREMENTS, REQUIRED INSPECTIONS FOR CERTAIN STAGES OF THE WORK AND TO REVIEW THE AUTHORITY OF THE DEPARTMENT AS IT RELATES TO WORK WITHIN THE EXISTING AND PROPOSED CITY RIGHT-OF-WAY.



"HOLEY MOLEY" SAYS:
 1-800-382-5544
 CALL TOLL FREE
 1-800-428-5200
 FOR CALLS OUTSIDE OF INDIANA

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.

NOTE: WIDEN WEST BOUND LANE TO 15'-0" FROM EXISTING CENTER OF PAVEMENT WITH A 3'-0" STONE SHOULDER. FUTURE LAKESIDE PARK

APPROXIMATE LOCATION OF THE STULTZ & ALMOND LEGAL DRAIN EASEMENT (75' ON BOTH SIDES OF THE DRAIN TIE)

AS BUILT 12/29/05
 REV. STR. TABLE, EMERGENCY OVERLAYS 6/29/05
 REVISED PER SURVEYOR COMMENTS 6/29/05
 REVISED PER CITY COMMENTS 6/29/05
 REVISED PER DEVELOPER 6/29/05
 REVISED PER CITY COMMENTS 6/29/05
 REVISED PER FAC COMMENTS 6/29/05

DATE 11/30/04

CERTIFIED: David J. Stappewitz

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

INDIANA

SITE DEVELOPMENT PLAN
 HEATHER KNOLL
 SECTION 2

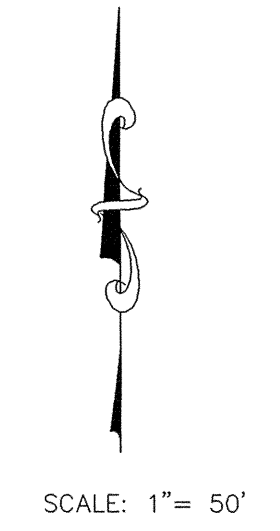
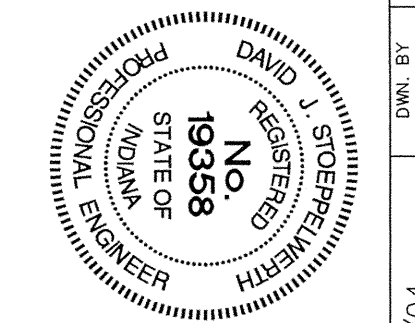
INDIANA

SHEET NO. C200

JOB NO. 4717552

RECORD DRAWING

JEFFERY W. DARLING
 Registered Land Surveyor
 No. 900017



- LEGEND**
- EXISTING EDGE OF WOODS
 - EXISTING CONTOUR
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - PROPOSED GRADE
 - MATCH EXISTING
 - PROPOSED CONTOUR
 - PROPOSED SANITARY SEWER
 - PROPOSED STORM SEWER
 - PROPOSED SWALE
 - PROPOSED 5' SIDEWALK (BY HOME BUILDER)
(DEVELOPER SHALL INSTALL SIDEWALKS ALONG ALL COMMON AREAS)
 - LOT NUMBER
 - PAD ELEVATION
 - PAD SIZE: 60'X60'
(UNLESS OTHERWISE NOTED)
 - MIN. FLOOD PROTECTION GRADE
 - DENOTES 4" SUBSURFACE DRAIN TO LOT
 - DENOTES 6" SUBSURFACE DRAIN
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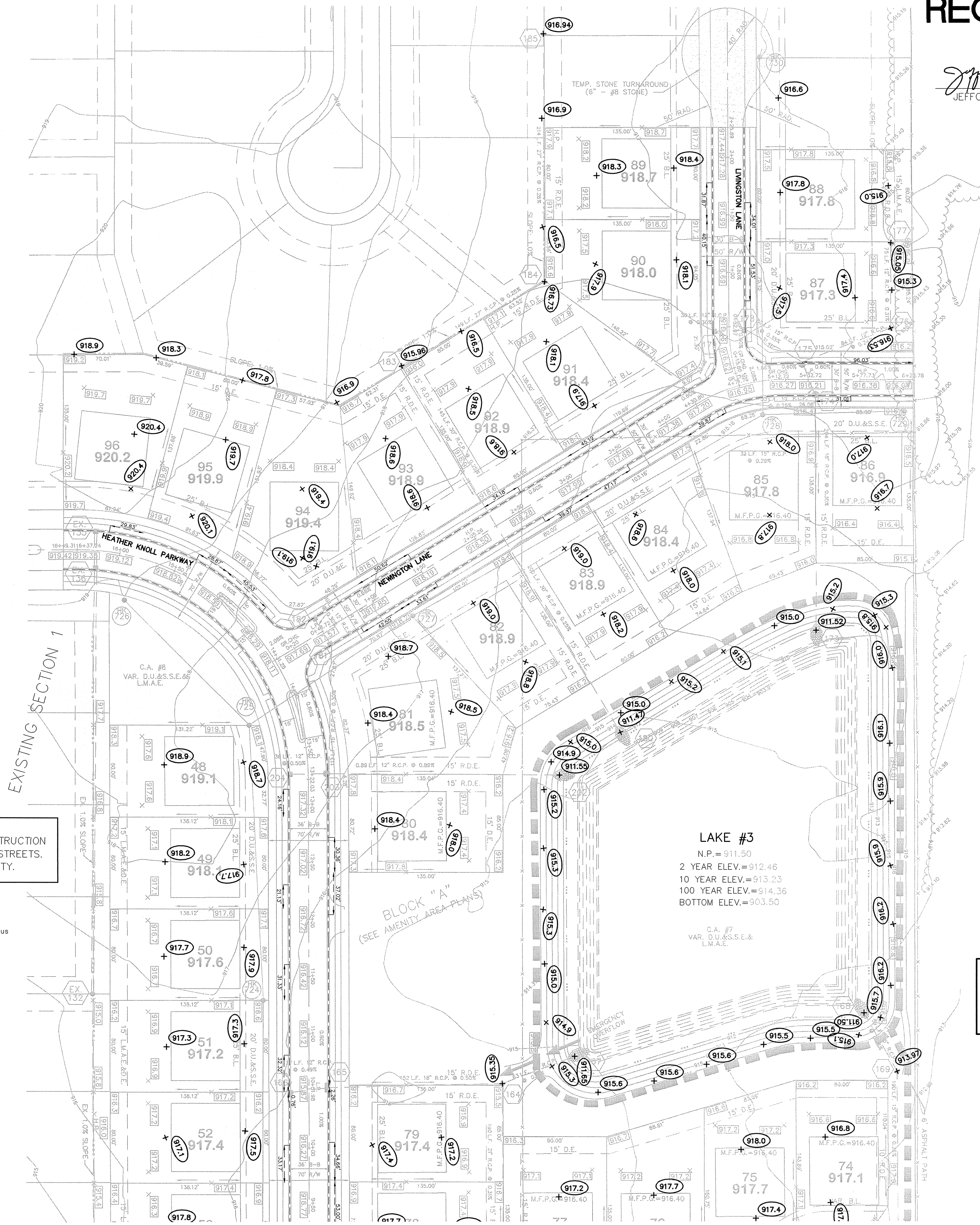
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BENCHMARKS

S&A TBM #1
 1.0'± UP FROM GROUND ON EAST SIDE ELECTRIC POLE. PWP #74-693
 10TH POLE FROM TOWNE ROAD ON S. SIDE OF 146TH STREET.
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 Entry Date: 8-30-07
 Entered By: SLA

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CONTACT: CARMEL UTILITIES
 (317) 571-2648
 FOR WATER LOCATES

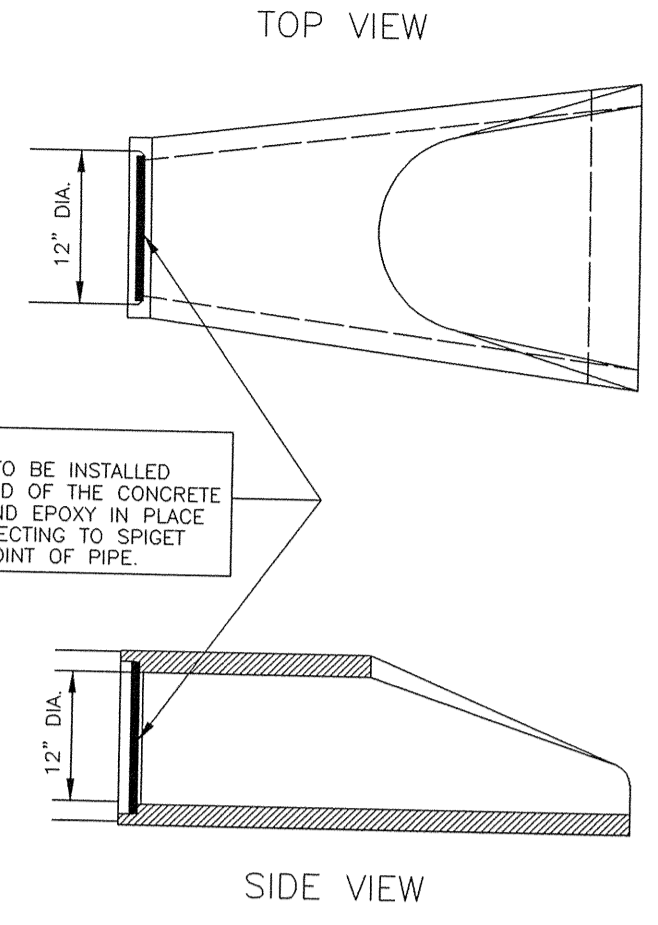
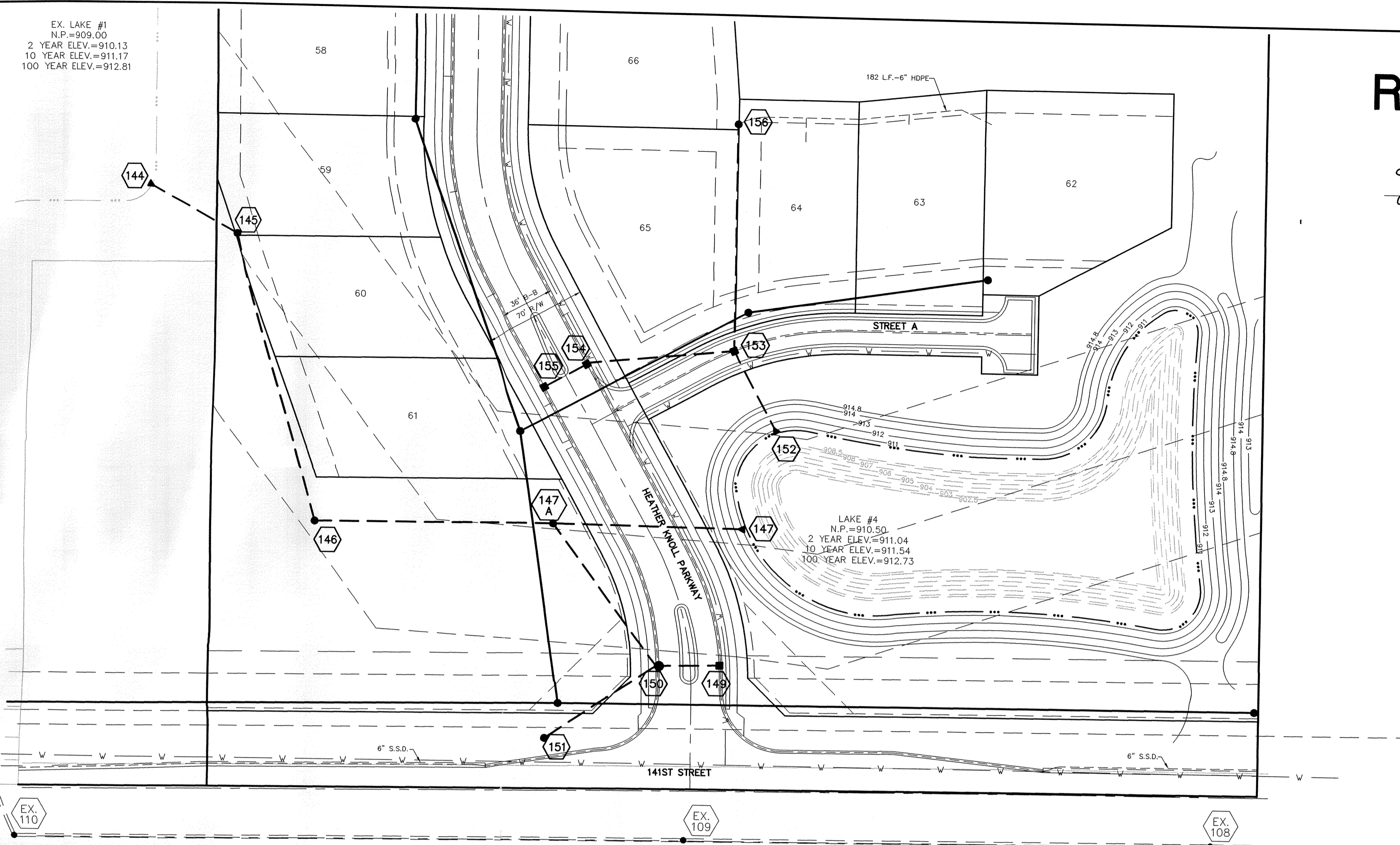
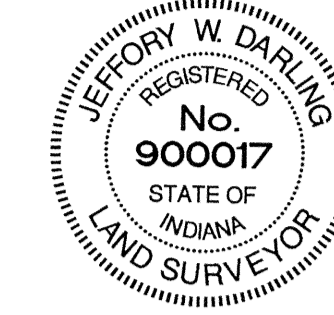
SEE SHEET #C200

REVISED PER SURVEYOR COMMENTS	AS BUILT	DATE	MARK
REVISED PER CITY COMMENTS			
REVISED PER DEVELOPER			
REVISED PER CITY COMMENTS			
REVISED PER TAC COMMENTS			
DATE	DATE	DATE	DATE
11/30/04	11/30/04	11/30/04	11/30/04
CERTIFIED:	BY:	DATE:	DATE:
David J. Stappert	David J. Stappert	11/30/04	11/30/04
CONSULTING ENGINEERS - LAND SURVEYORS			
(317) 849-5935 1-800-728-6917 FAX: (317) 849-5942			
INDIANA FISHERS			
INDIANA			
SITE DEVELOPMENT PLAN			
HEATHER KNOLL			
SECTION 2			
CARMEL			
SHEET NO.			
C201			
JOB NO. 4717552			

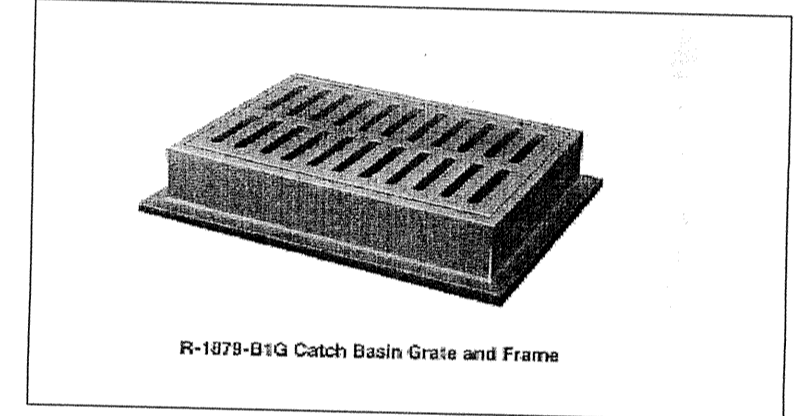
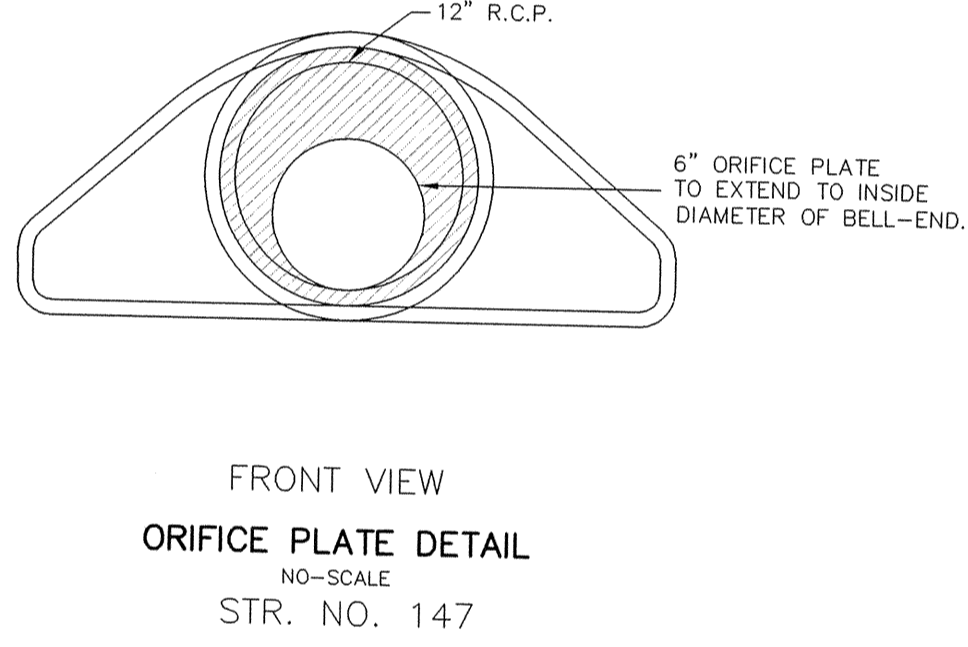
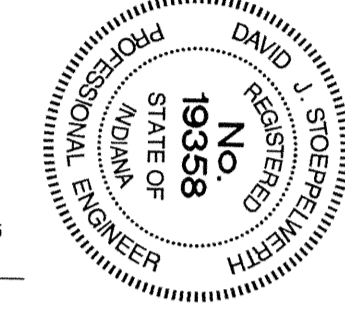
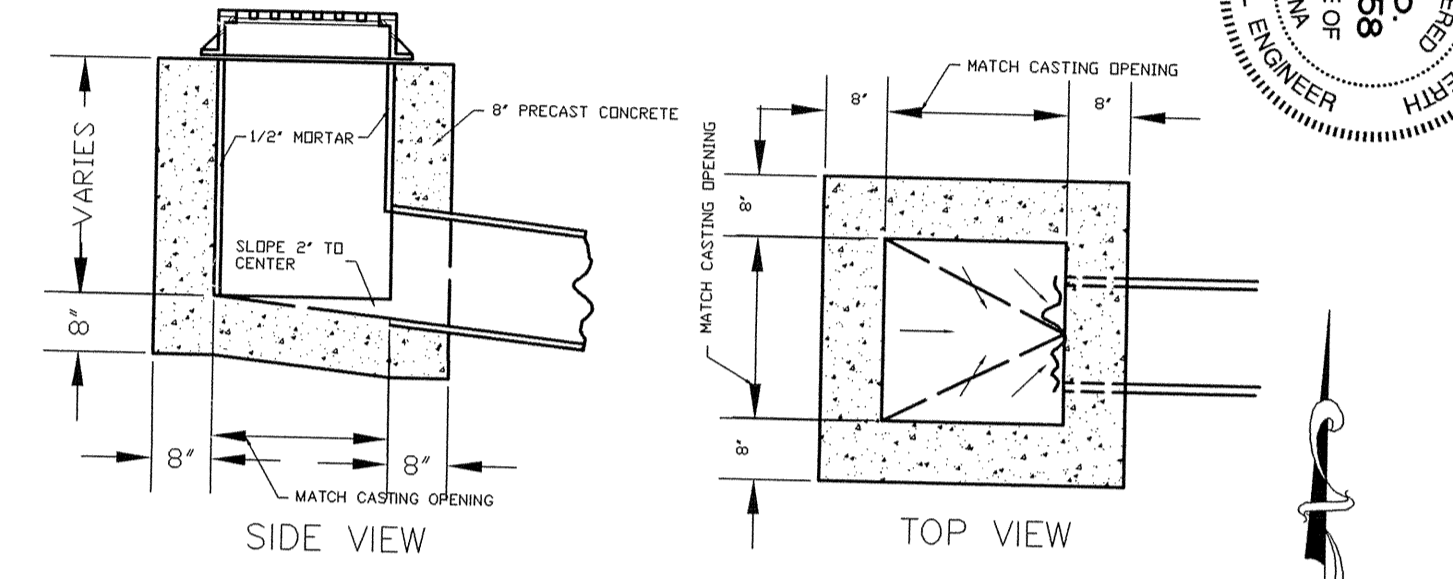
RECORD DRAWING

JEFFERY W. DARLING
 Registered Land Surveyor
 No. 900017

1/4/06
 DATE



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

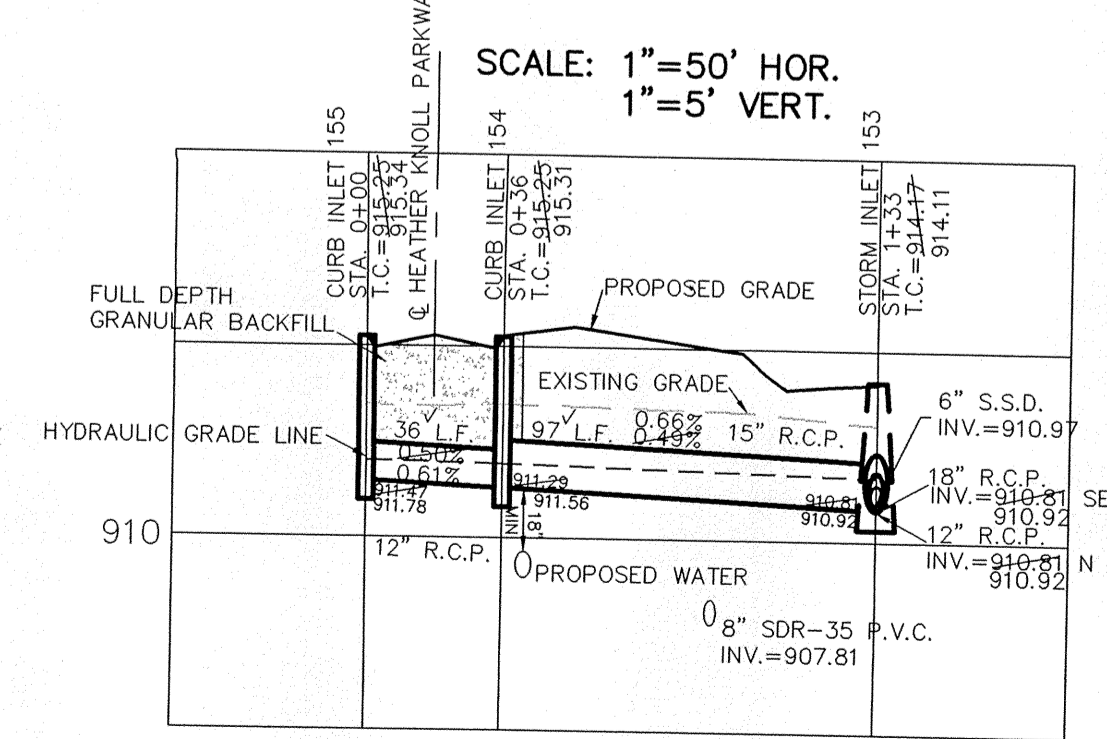
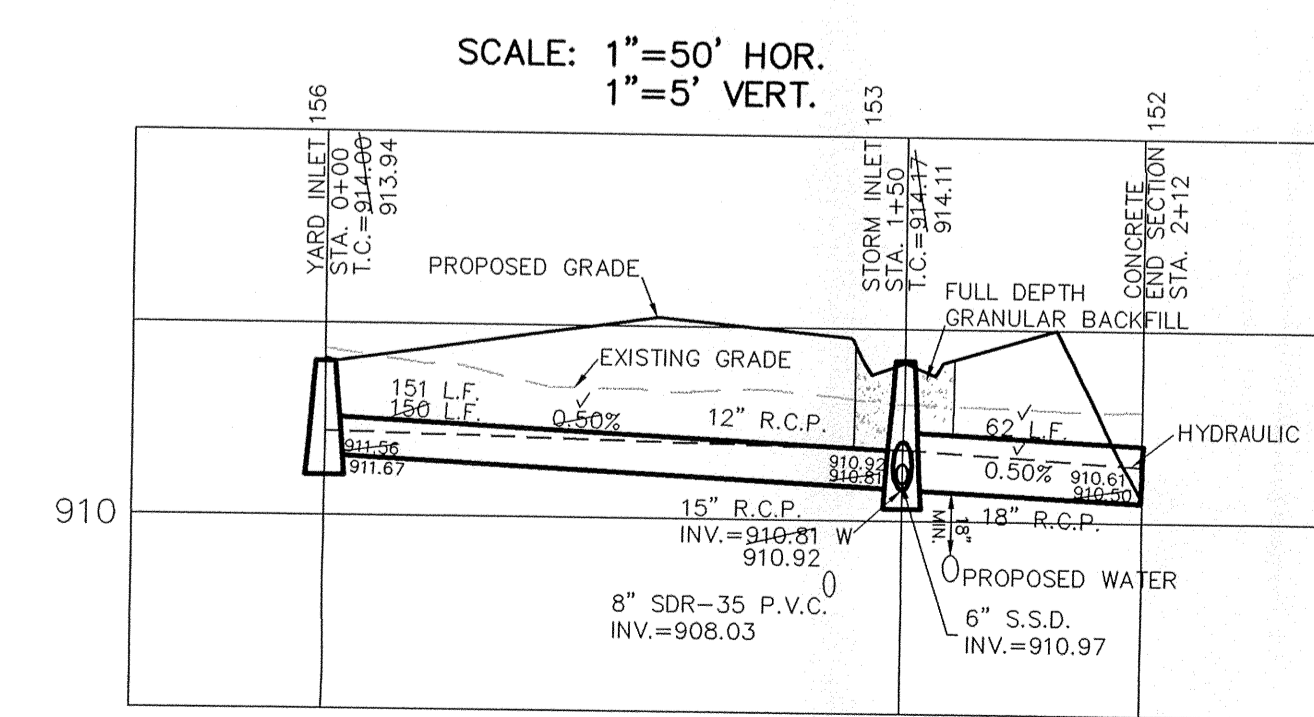
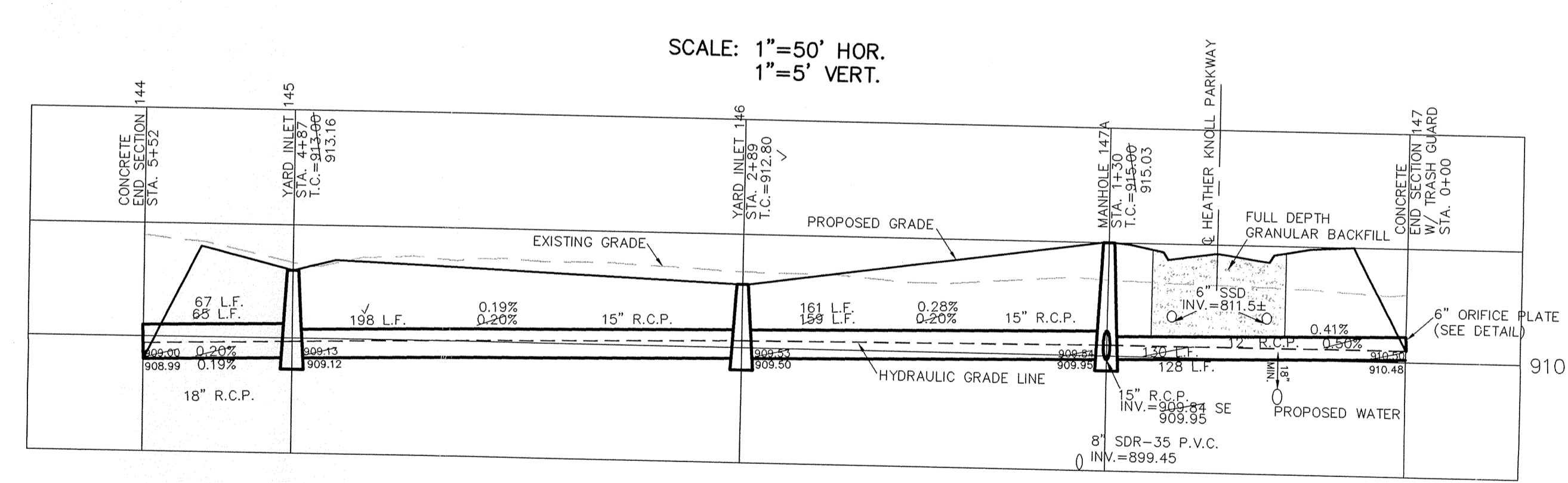
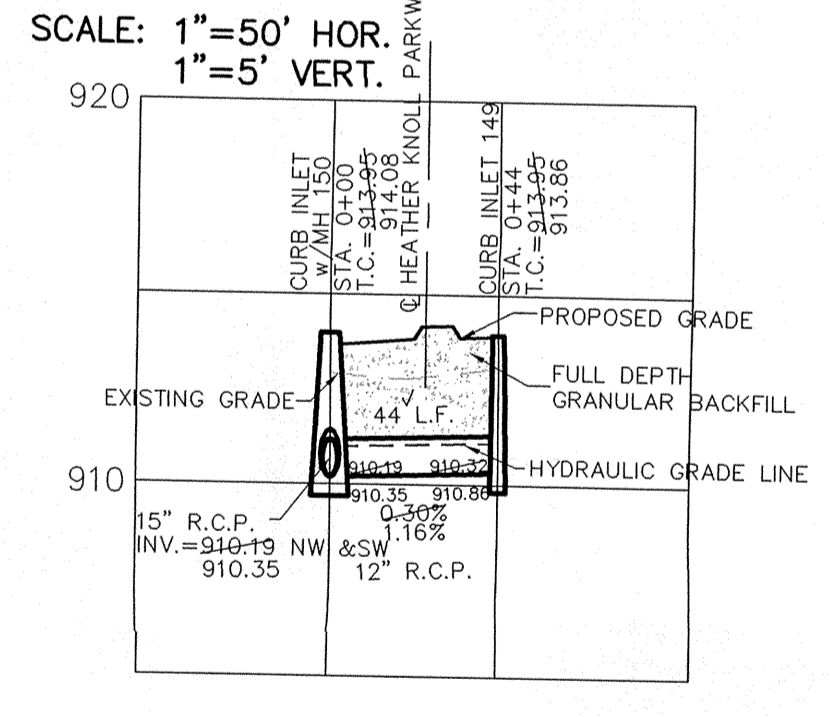
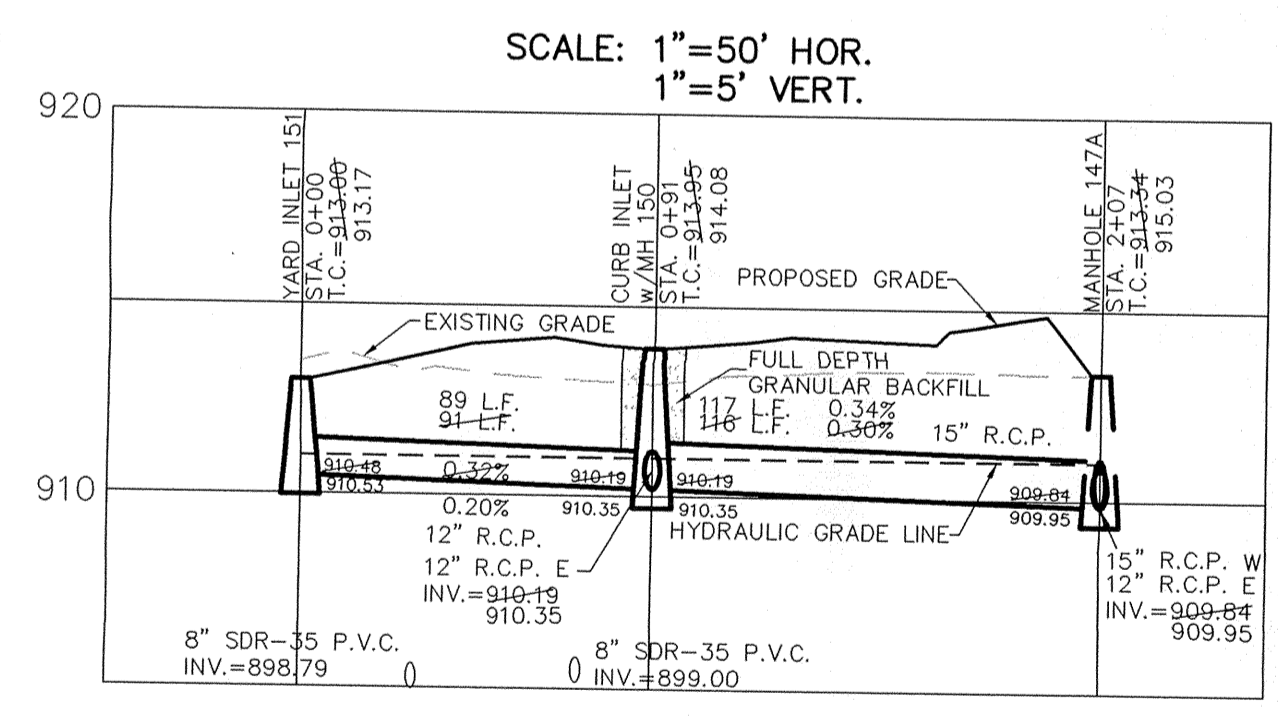


SCALE: 1" = 50'

Catalog No.	Dimensions in inches					
	A	B	C	E	F	H G
R-1878-B7G	25 1/2	37 1/2	1 1/2	1 1/2	24x36	30x42 4 11 3/8x5

R-1878-B7G STORM INLET FRAME AND GRATE DETAIL
 NOT-TO-SCALE
 STR. NO 153

NOTE: 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 MORE STRINGENT REQUIREMENT, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.



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

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

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

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: 6-30-07
 Entered By: SLM

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" LARGER	36"x36"		DESIGN APPROVAL	No	Yes	Yes
24" or LARGER		MH/BOX	DESIGN APPROVAL	No	No	Yes
			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 M.H. 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.

STORM SEWER PLAN & PROFILE
 HEATHER KNOLL SECTION 2
 CARMEL, INDIANA

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

CERTIFIED: 11/30/04
 David J. Steppewitz
 PROFESSIONAL ENGINEER

REVISIONS
 DATE MARK BY

AS BUILT 1/7/06
 REVISED PER SURVEYORS COMMENTS 6/7/06
 REVISED PER CITY COMMENTS 6/7/06
 SCALE 1"=50'
 REVISED PER IAC COMMENTS 2/21/05
 DATE 11/30/04

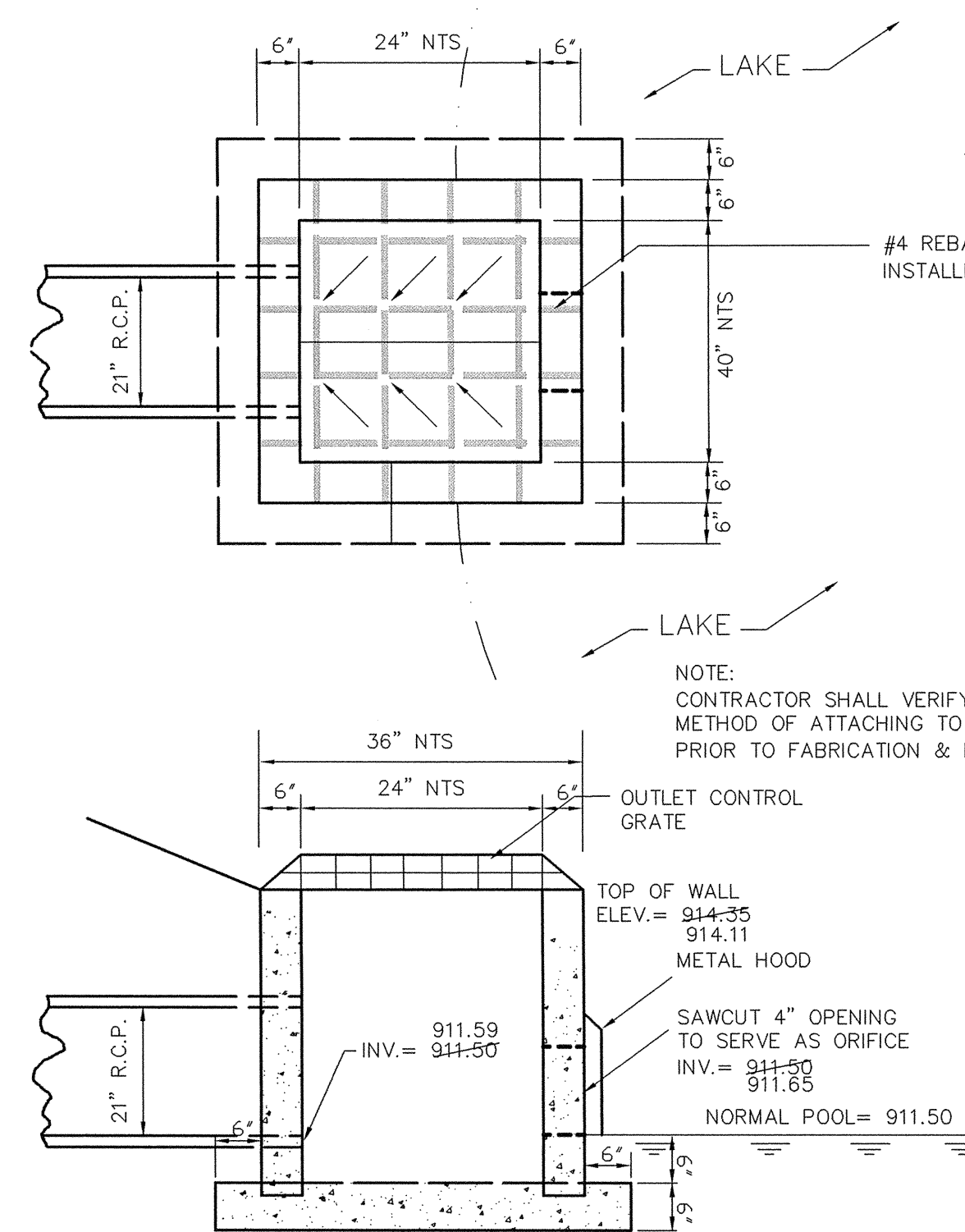
SHEET NO. C600
 JOB NO. 4717552

RECORD DRAWING

Jeffery W. Darling
 JEFFERY W. DARLING
 Registered Land Surveyor
 No. 900017
 DATE 12/28/05



SCALE: 1" = 50'



SPECIAL STRUCTURE NO. 167 DETAIL
 NOT TO SCALE

NOTE:
 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 MORE STRINGENT COVER REQUIREMENT, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

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NOTE:
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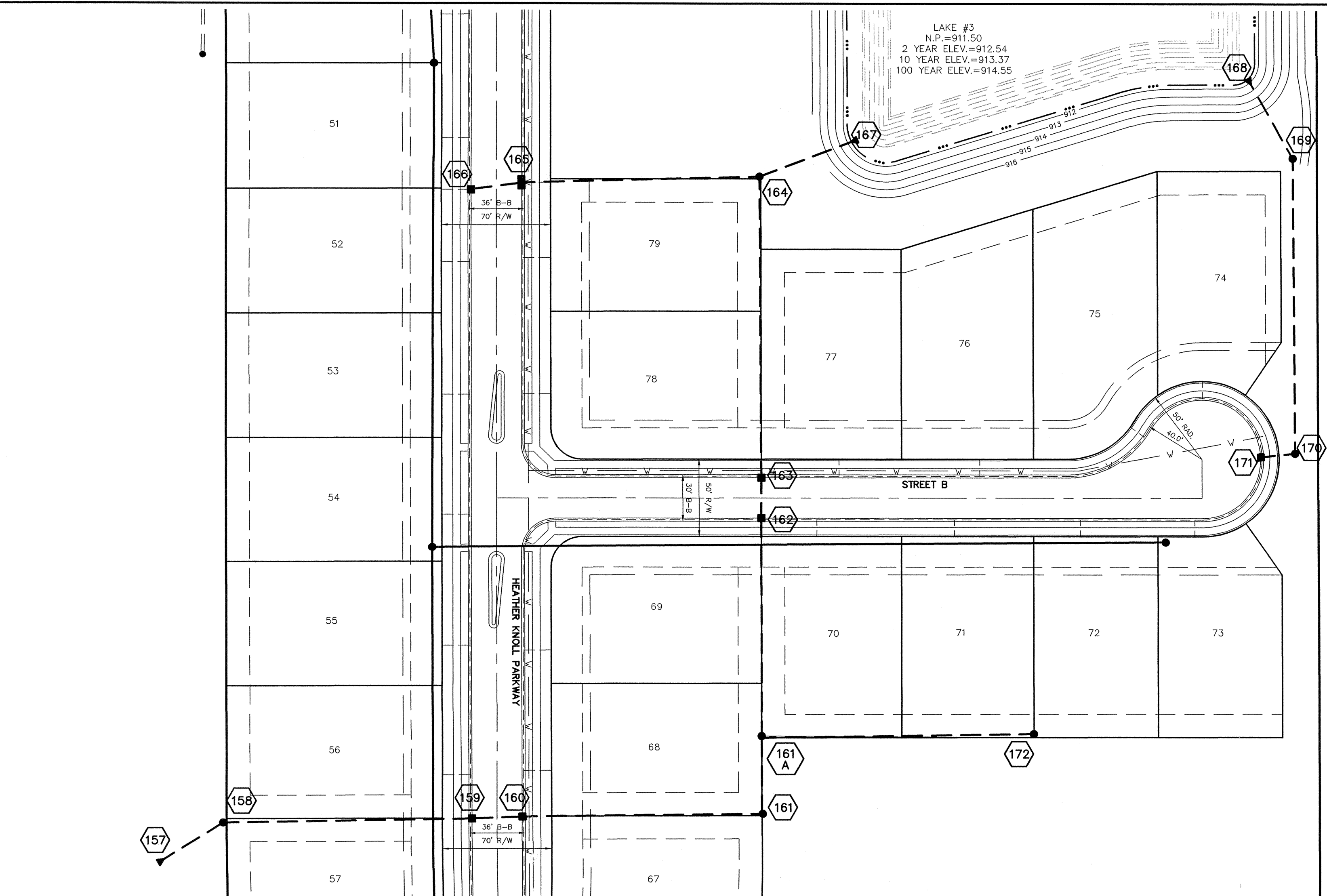
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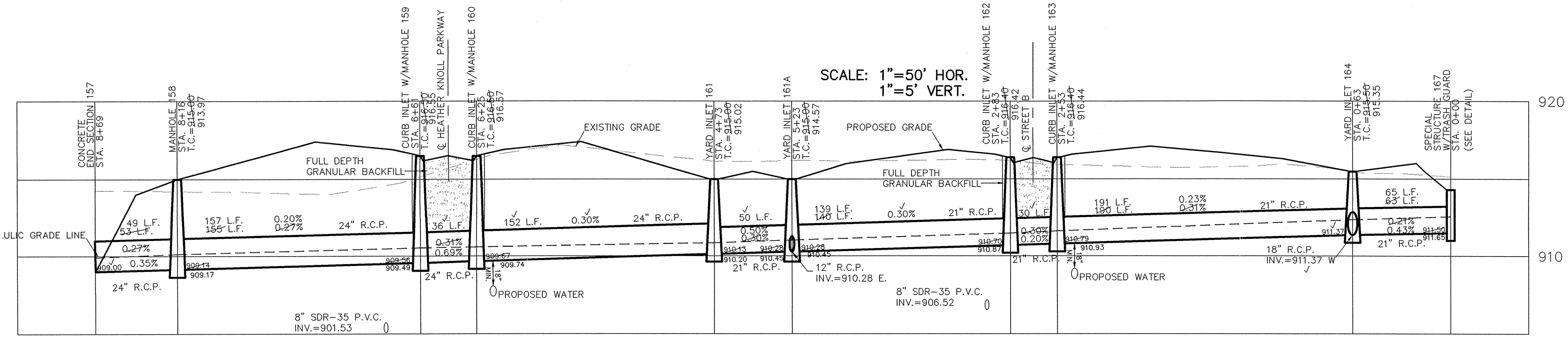
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18" to 21"		MH/BOX	DESIGN APPROVAL	Yes	Yes	Yes
21" to 27"	24"x36"		DESIGN APPROVAL	No	No	Yes
12" to 24"	36"x36"		DESIGN APPROVAL	No	Yes	Yes
24" OR LARGER	DESIGN APPROVAL		DESIGN APPROVAL	No	No	Yes
24" or LARGER		MH/BOX	DESIGN APPROVAL	Yes**	Yes	Yes

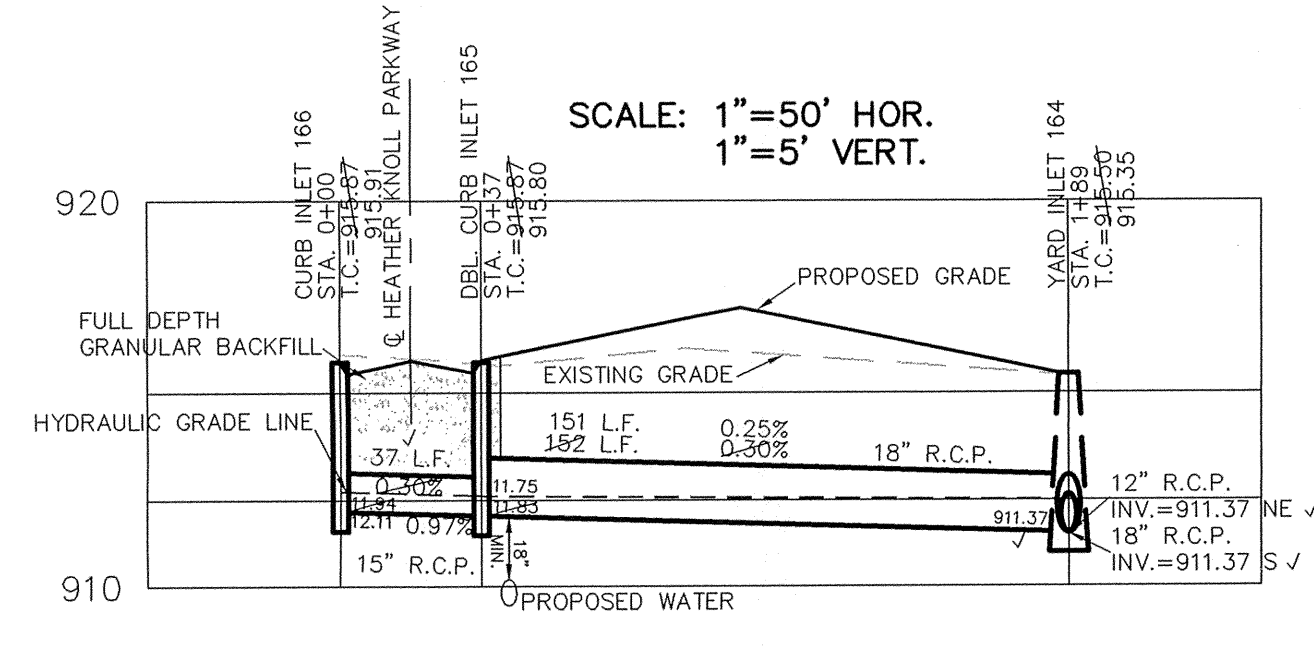
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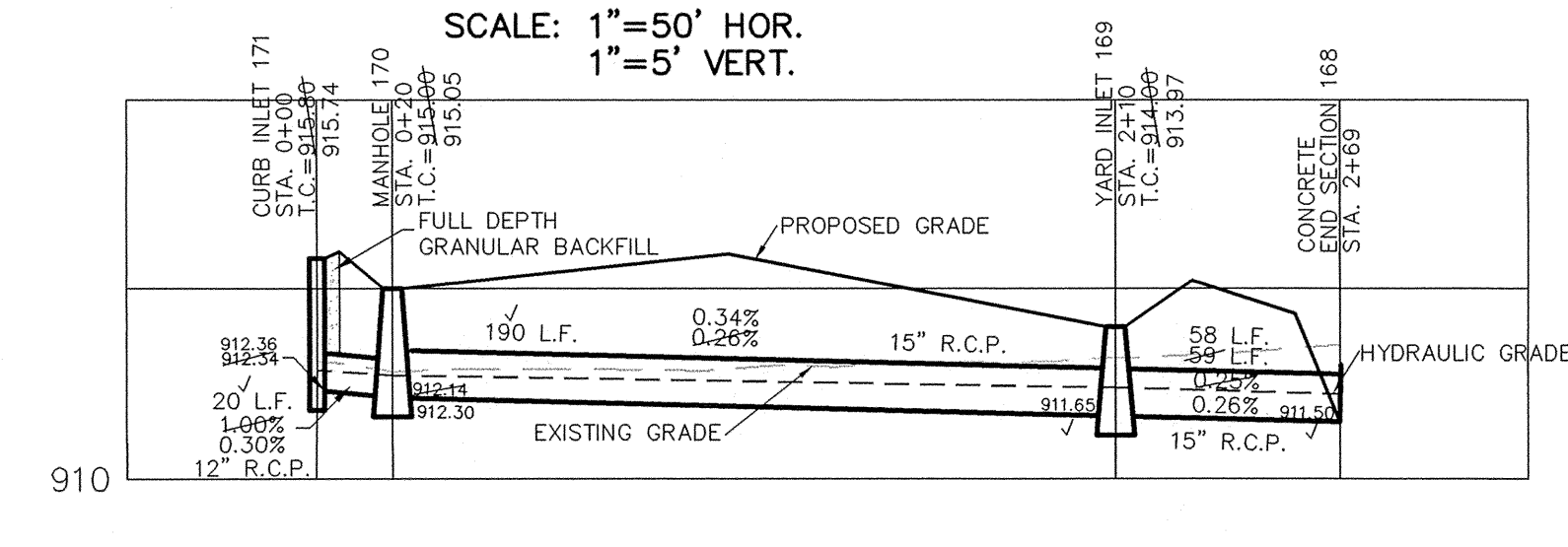
SCALE: 1" = 50' HOR.
 1" = 5' VERT.



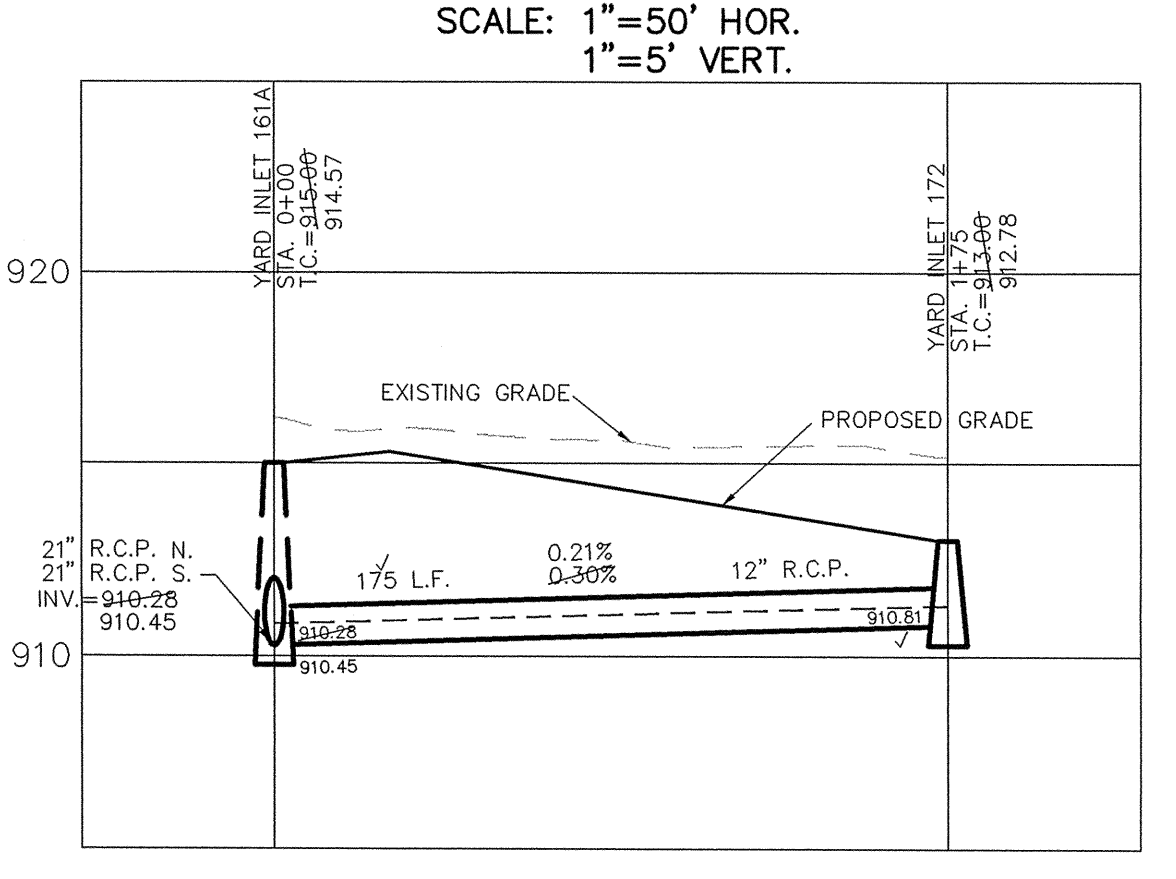
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 Entered By: SLM



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



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 1" = 5' VERT.



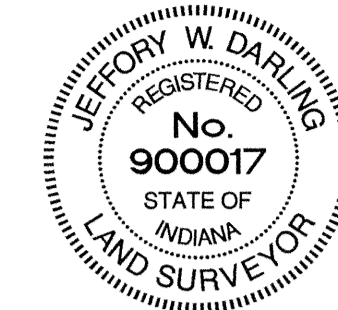
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 1" = 5' VERT.

OWN BY: 11/30/04
 CERTIFIED: David J. Stappeler, Registered Professional Engineer, No. 19356, State of Indiana.
 CONSULTING ENGINEERS - LAND SURVEYORS
 (317) 849-5935 1-800-728-6917 FAX: (317) 849-5942
 FISHERS INDIANA
STORM SEWER PLAN & PROFILE
HEATHER KNOLL SECTION 2
 SHEET NO. C601
 JOB NO. 4717552

RECORD DRAWING

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

12/28/05
 DATE



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SCALE: 1" = 50'



CURB INLET TABLE

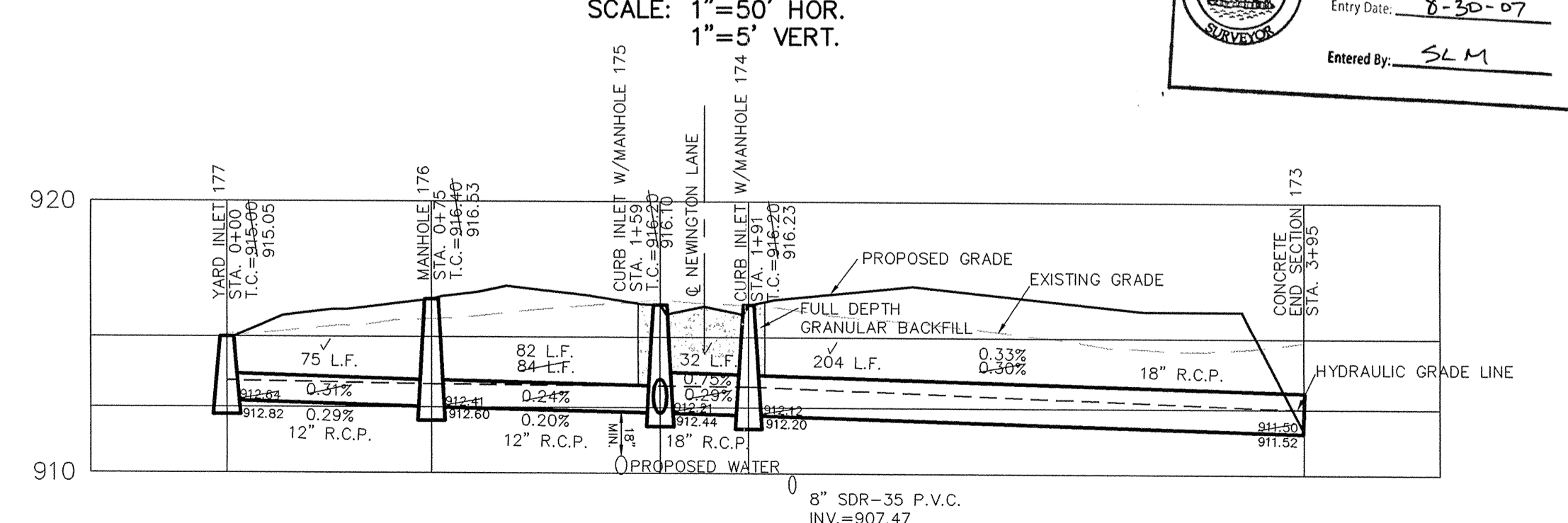
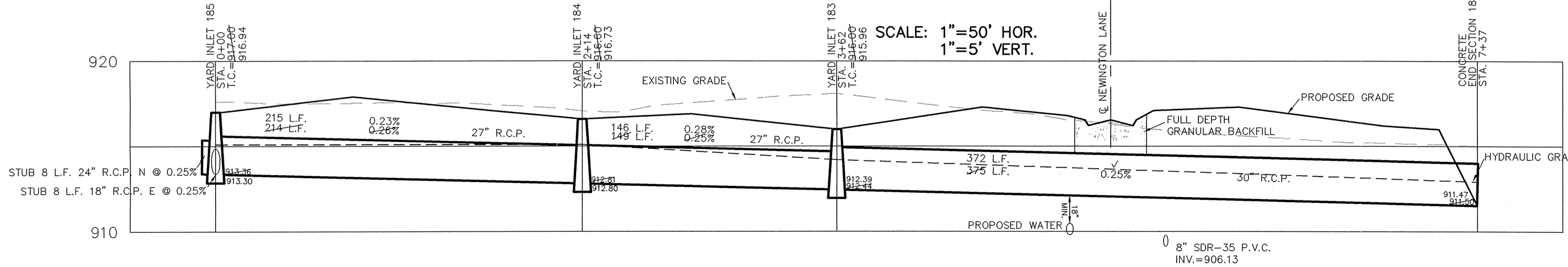
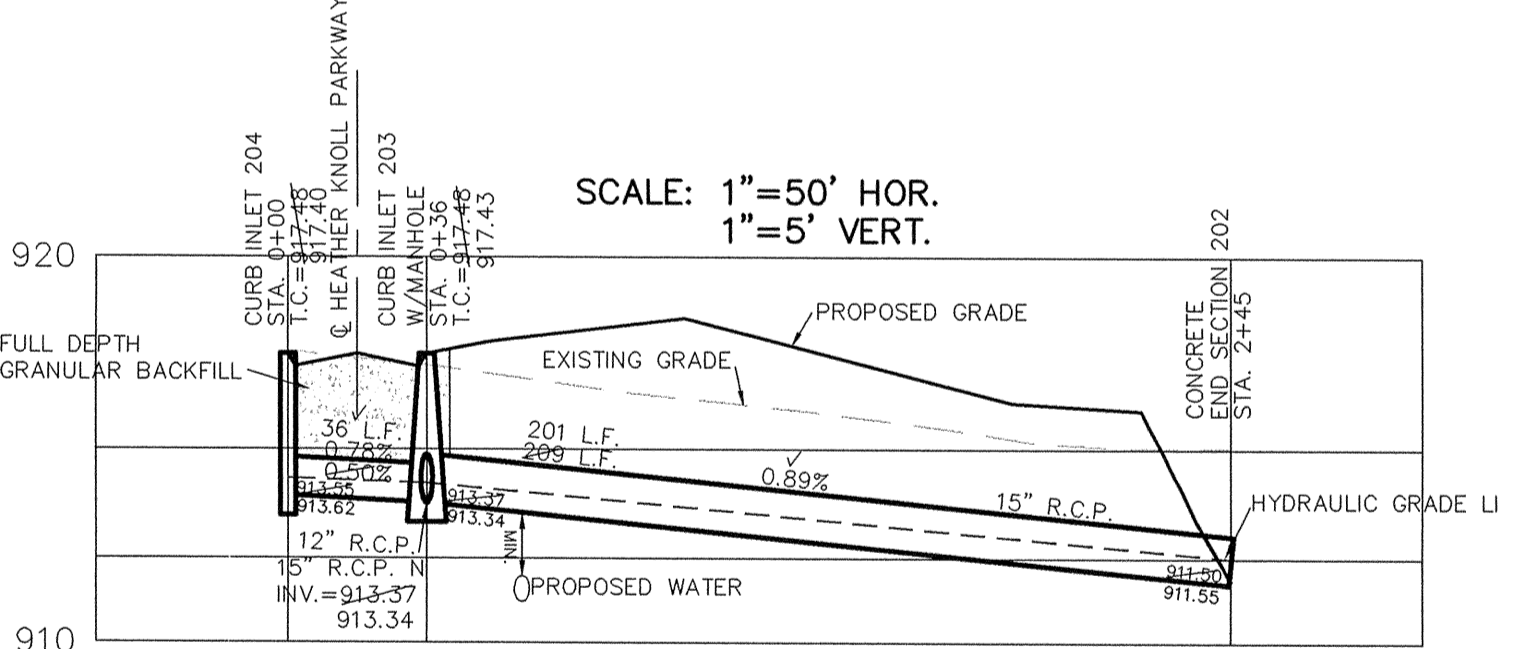
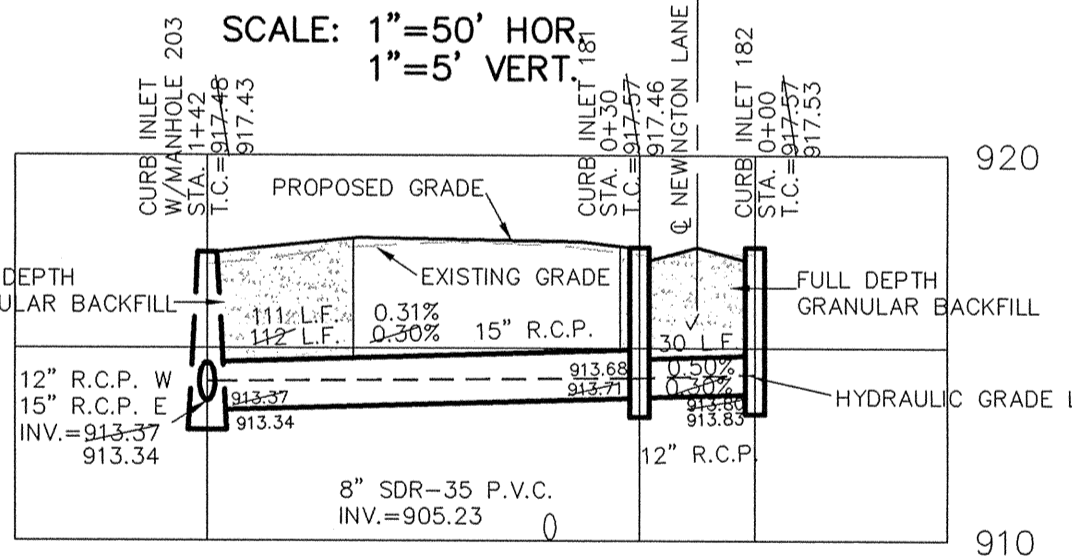
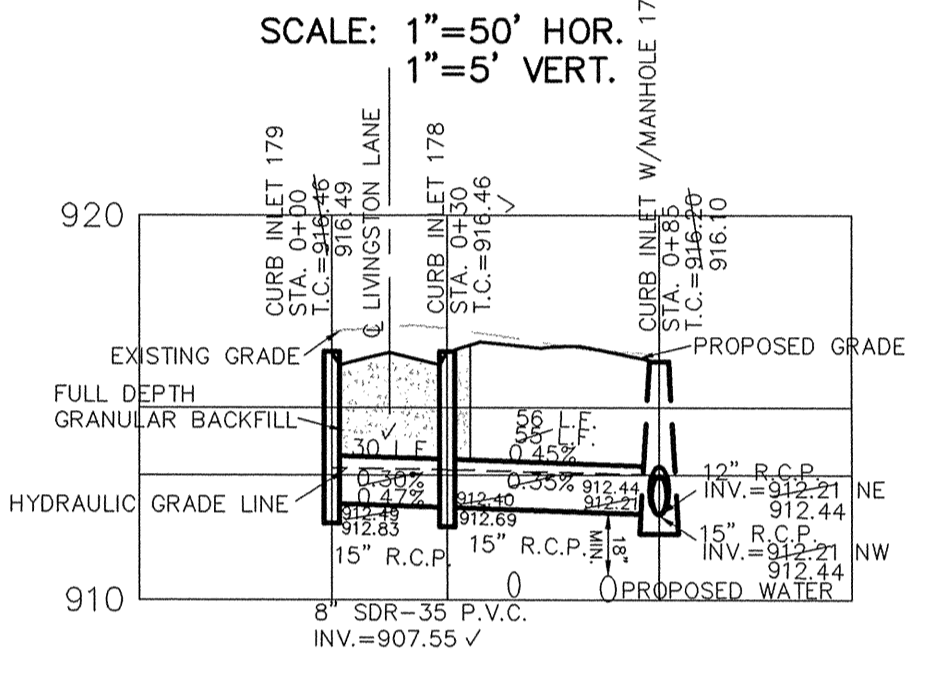
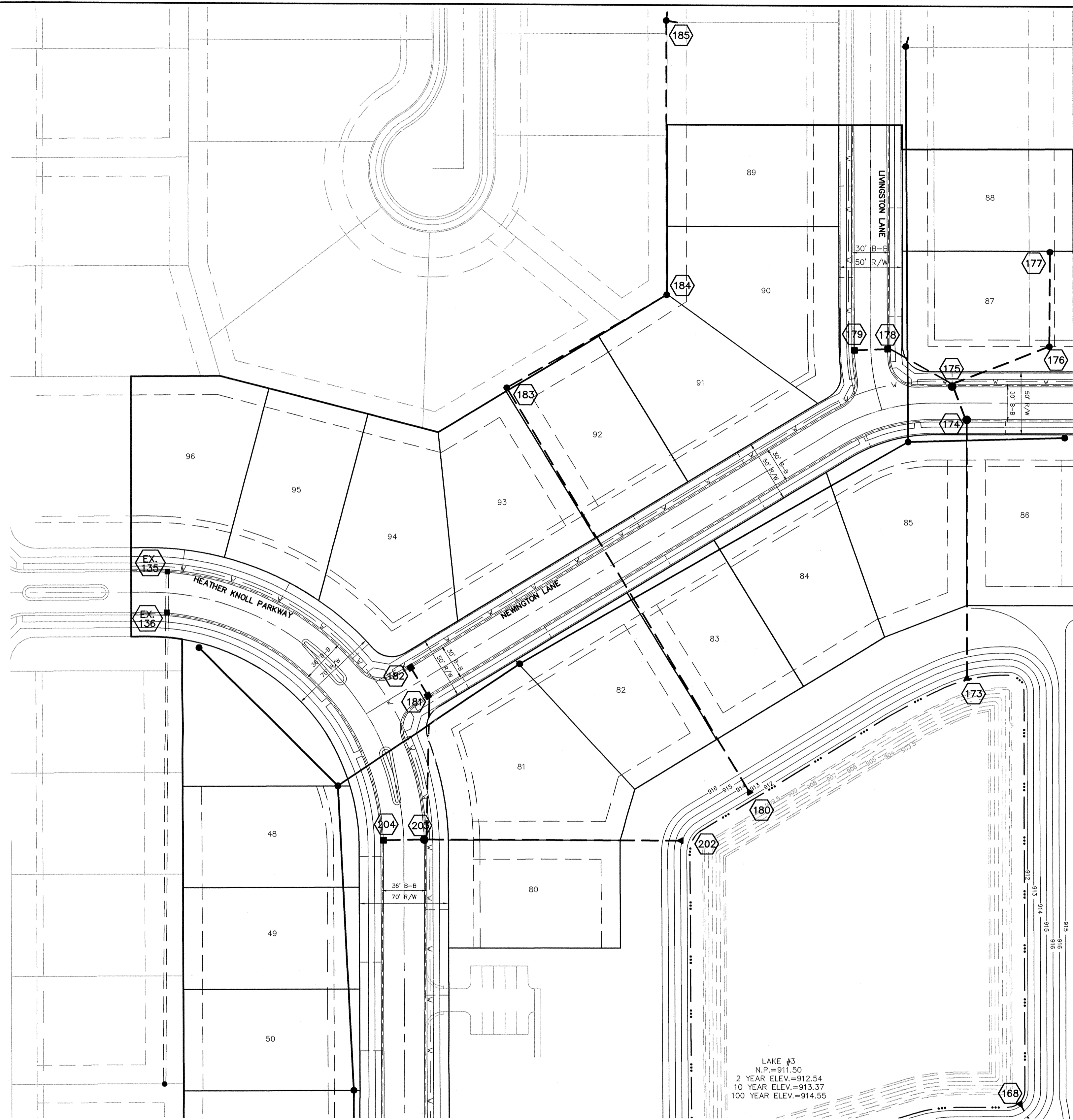
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 (317) 849-5935 1-800-728-6917 FAX: (317) 849-5942
 FISHERS INDIANA

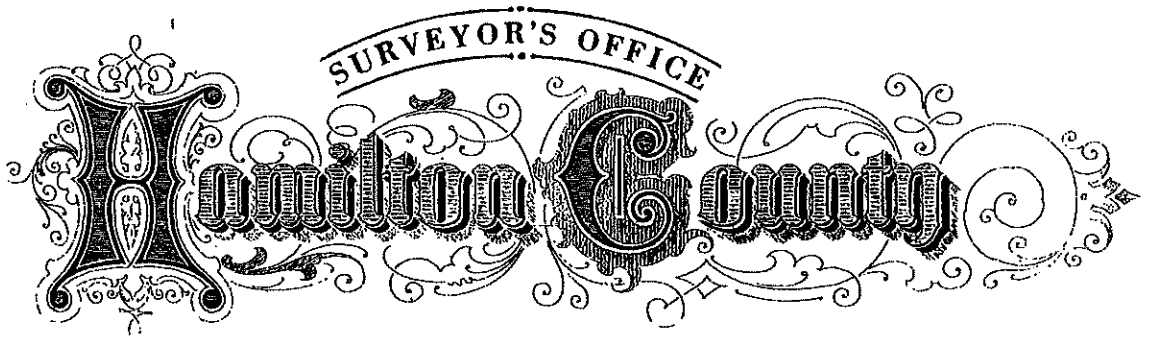
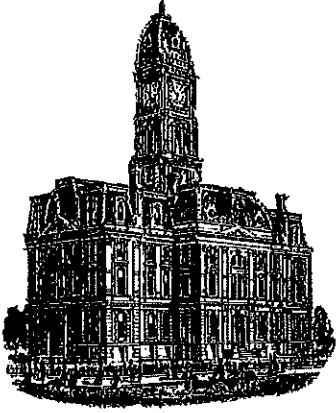
STORM SEWER PLAN & PROFILE
 HEATHER KNOLL
 SECTION 2

CARMEL INDIANA

SHEET NO.
C602

JOB NO. 4717552

DATE	BY
11/30/04	REVISIONS
3/2/05	MARK
6/2/05	DATE
12/28/05	DATE
AS BUILT	REVISIONS
REVISIONS PER CITY COMMENTS	REVISIONS
REVISIONS PER IAC COMMENTS	REVISIONS
REVISIONS PER IAC COMMENTS	REVISIONS



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

Map Correction-Field Verification

Drain Number: 315

Drain Length: 10,317

Drain Name: Stultz & Almond
 – Heather Knoll Sec. 2

Change + / - : 44

Date: 12-19-2016

New Length: 10,361

Verified By: SLM

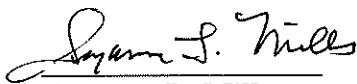
Notes & Sketch: Math error on final report.

6" SSD Streets:	
Heather Knoll Pkwy	1694
Livingston Ln	192
Newington Ln	583
Paramount Cir	500.5
x2	
Total:	5939

6" SSD Lots:	
lots 62-94	182
Total:	182

RCP Pipe Totals:	
12	866
15	1256
18	518
21	475
24	394
27	361
30	372
Total:	4240

The length of the drain due to the changes described above is now 10,317 feet.


 Suzanne L. Mills
 GIS Specialist