



SURVEYOR'S OFFICE

# Hamilton County

August 1, 2008

*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

RE: Stultz & Almond Drain, Heather Knoll Section 3

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 3 Arm, Stultz and 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	6,866 ft.	21" RCP	562 ft.
12" RCP	968 ft.	24" RCP	198 ft.
15" RCP	816 ft.	Open Ditch	80 ft.
18" RCP	1,017 ft.		

The total length of the drain will be 10,507 feet.

The open ditch listed above is 70 feet between Str. 219 and the 12" RCP under the path along 146<sup>th</sup> Street. The other 10 feet is between Pond #2 and the 12" RCP under the path in the northeast corner of Pond #2.

The retention pond (Pond #2) located in Common Areas #13 and 14 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 (Pond #2) 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 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 and those main lines between lots or in rear yards. 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. The portion of the SSD which will be regulated other than those under curbs are as follows:

Rear yard lots 141-143 from Str. 212A  
Rear yard lots 116-117 from Str. 189  
Rear yard lots 118-119 from Str. 189  
Rear yard lot 120 from Str. 195

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 lots, \$10.00 per acre for common areas and roadways, with a \$30.00 minimum. With this assessment the total annual assessment for this drain/this section will be \$813.30 for Section 3A and \$1,133.70 for Section 3B.

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: Lexon Insurance Company  
Date: June 5, 2008  
Number: 1020881  
For: Storm Sewers  
Amount: \$180,720.00

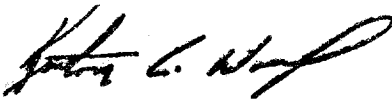
Agent: Lexon Insurance Company  
Date: June 5, 2008  
Number: 1020880  
For Sub-surface Drains  
Amount: \$57,960.00

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 two attached non-enforcement requests. The requests are for the reduction of the regulated drain easement to those easement widths as shown on the secondary plats for Heather Knoll Section 3A and 3B as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for September 22, 2008.



Kenton C. Ward, CFM  
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  
3 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 3, 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 Petitioner's 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**

  
Signed

**Steve Broermann**  
Printed Name

**October 4, 2005**  
Date

Signed

Printed Name

Date

Signed

Printed Name

Date

Signed

Printed Name

Date

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD  
IN THE MATTER OF

***Stultz & Almond Drain, Heather Knoll Section 3 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 3 Arm** on **September 22, 2008** 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 3*

NOTICE

Notice is hereby given pursuant to Section 405 of the 1965 Indiana Drainage Code that this Board, prior to final adjournment on **September 22, 2008** 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

FINDINGS AND ORDER

CONCERNING THE MAINTENANCE OF THE

Stultz & Almond Drain, Heather Knoll Section 3

On this **22nd day of September 2008**, 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 3**.

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.

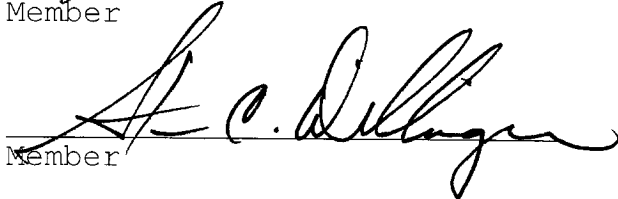
HAMILTON COUNTY DRAINAGE BOARD



\_\_\_\_\_  
President



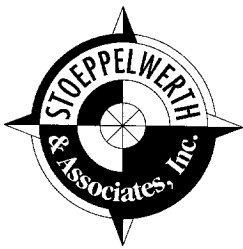
\_\_\_\_\_  
Member



\_\_\_\_\_  
Member

Attest:





# STOEPPELWERTH & ASSOCIATES, INC.

CONSULTING ENGINEERS • LAND SURVEYORS

David J. Stoepfelwerth  
President, CEO  
Professional Engineer  
Professional Land Surveyor

Curtis C. Huff  
Vice President, COO  
Professional Land Surveyor

R.M. Stoepfelwerth  
Founder  
Professional Engineer  
Professional Land Surveyor

June 3, 2008

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

Attention: Kent Ward

Re: Heather Knoll, Section 3

Dear Mr. Ward:

On behalf of the developer, Platinum Properties, LLC, I wish to submit the following Engineer's Estimates for Heather Knoll, Sections 3A and 3B. The estimates are as follows:

### Heather Knoll, Section 3

Storm Sewers	\$ 150,600.00
Sub Surface Drains	\$ 48,300.00
Monumentation	\$ 9,100.00

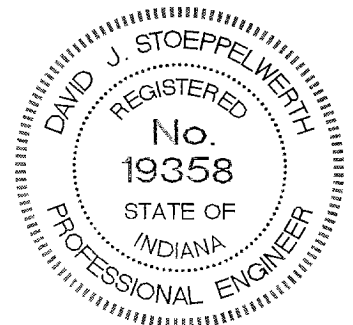
If you have any questions regarding these estimates, please contact Brett A. Huff at (317) 577-4841.

Respectively submitted,

STOEPPELWERTH & ASSOCIATES, INC.

David J. Stoepfelwerth  
Professional Engineer  
No. 19358

Cc: Steve Broermann



7965 East 106th Street  
Fishers, Indiana  
46038-2505

317.849.5935  
Fax: 317.849.5942  
www.Stoepfelwerth.com

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# STOEPPELWERTH & ASSOCIATES, INC.

CONSULTING ENGINEERS • LAND SURVEYORS

David J. Stoepfelwerth  
President, CEO  
Professional Engineer  
Professional Land Surveyor

Curtis C. Huff  
Vice President, COO  
Professional Land Surveyor

R.M. Stoepfelwerth  
Founder  
Professional Engineer  
Professional Land Surveyor

June 3, 2008

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

Attention: Kent Ward

Re: Heather Knoll, Section 3A & 3B

Dear Mr. Ward:

On behalf of the developer, Platinum Properties, LLC, I wish to submit the following Engineer's Estimates for Heather Knoll, Sections 3A and 3B. The estimates are as follows:

### Heather Knoll, Section 3A

Storm Sewers	\$ 67,900.00
Sub Surface Drains	\$ 20,200.00
Monumentation	\$ 3,500.00

### Heather Knoll, Section 3B

Storm Sewers	\$ 82,700.00
Sub Surface Drains	\$ 28,100.00
Monumentation	\$ 5,600.00

If you have any questions regarding these estimates, please contact Brett A. Huff at (317) 577-4841.

Respectively submitted,

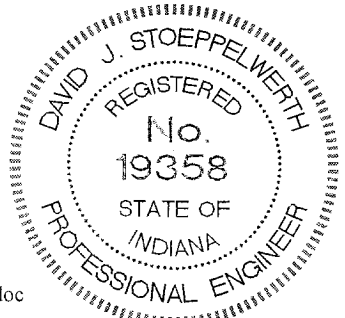
STOEPPELWERTH & ASSOCIATES, INC.

David J. Stoepfelwerth  
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Cc: Steve Broermann

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**CERTIFICATE OF COMPLETION AND COMPLIANCE**

To: Hamilton County Surveyor

Re: Heather Knoll, Section 3

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:  Date: January 26, 2009

Type or Print Name: James O. Rinehart IV

Business Address: Stoepelwerth & Associates, Inc.

7965 East 106<sup>th</sup> Street, Fishers, Indiana 46038

Telephone Number: (317) 849-5935

SEAL

INDIANA REGISTRATION NUMBER

10200495





Kew

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 3, 2009**

**Re: Stultz & Almond Drain – Heather Knoll Sec. 3A**

Attached are as-builts, certificate of completion & compliance, and other information for Heather Knoll Sec. 3A. 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 1, 2008. The report was approved by the Board at the hearing held September 22, 2008. (See Drainage Board Minutes Book 11, Pages 326-327) It should be noted that this report only reflects a portion of the drain outlined in the original report to the board. This project out of necessity is now being developed in two phases instead of one. The rest of the changes are as follows:

Structure:	Length:	Size	Material:	Up Invert:	Dn_Invert	Grade:
22-21	113	12	RCP	916.78	916.17	0.54
221-220	36	12	RCP	916.17	915.93	0.67
220-219	40	15	RCP	915.93	915.69	0.6
219-218	251	15	RCP	915.69	914.09	0.64
218-217	175	15	RCP	914.09	913.02	0.61
212A-212	180	12	RCP	914.96	914.49	0.26
212-216	160	18	RCP	914.49	914.09	0.25
216-215	132	18	RCP	914.09	913.85	0.18
215-214	45	21	RCP	913.85	913.64	0.47
214-213	191	21	RCP	913.64	913.02	0.32
211-210	36	15	RCP	913.89	913.65	0.67
210-210A	62	21	RCP	913.65	913.45	0.32
210A-209	176	21	RCP	913.45	912.96	0.28

**RCP Pipe Totals:**

12	329
15	502
18	292
21	474

**Total:** 1597

**SSD Streets Totals:**

Heather Knoll Pky	2260
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**Total:** 2260

The length of the drain due to the changes described above is now **3857 feet**.

The non-enforcement was approved by the Board at its meeting on September 22, 2008 and recorded under instrument #2008061208.

The following sureties were guaranteed by Lexon Insurance Company. The bonds were amended May 18, 2009 to reflect lower bond amounts of \$99,420 and \$33,720 respectively. This was because the project is being done in two phases. Therefore, the residual bond amounts will be released upon on the completion of phase 2.

**Bond-LC No:** 1020881

**Insured For:** Storm Sewers

**Amount:** \$180,720.00

**Issue Date:** June 5, 2008

**Bond-LC No:** 1020880

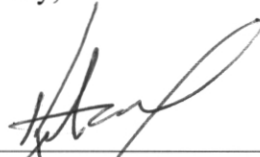
**Insured For:** Erosion Control

**Amount:** \$57,960.00

**Issue Date:** June 5, 2008

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

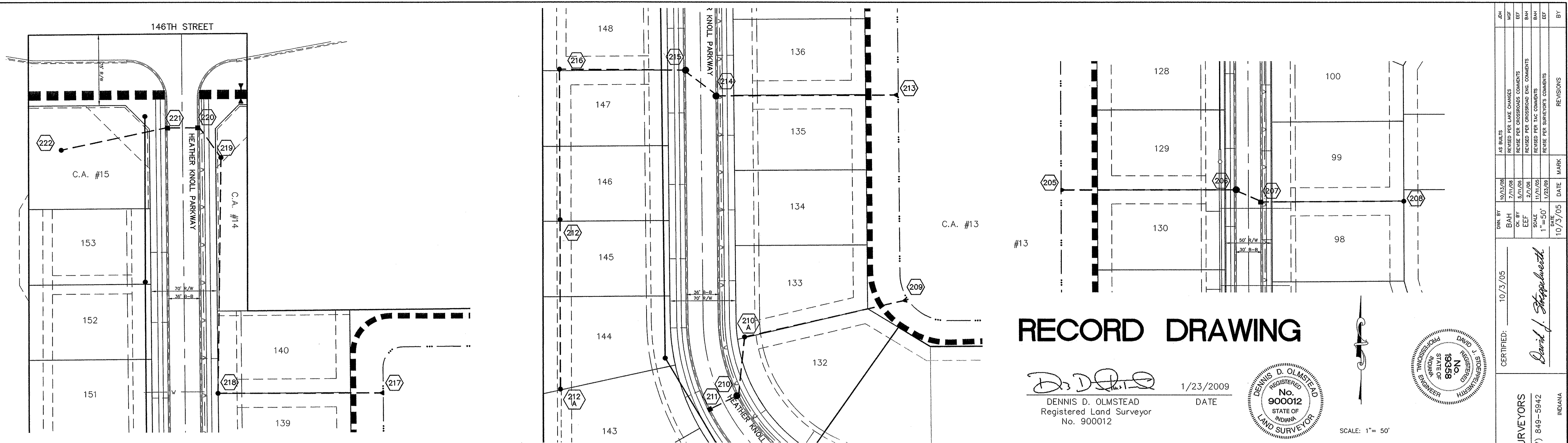
Sincerely,



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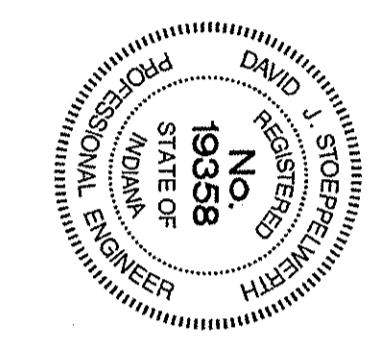
Kenton C. Ward, CFM  
Hamilton County Surveyor

KCW/slm

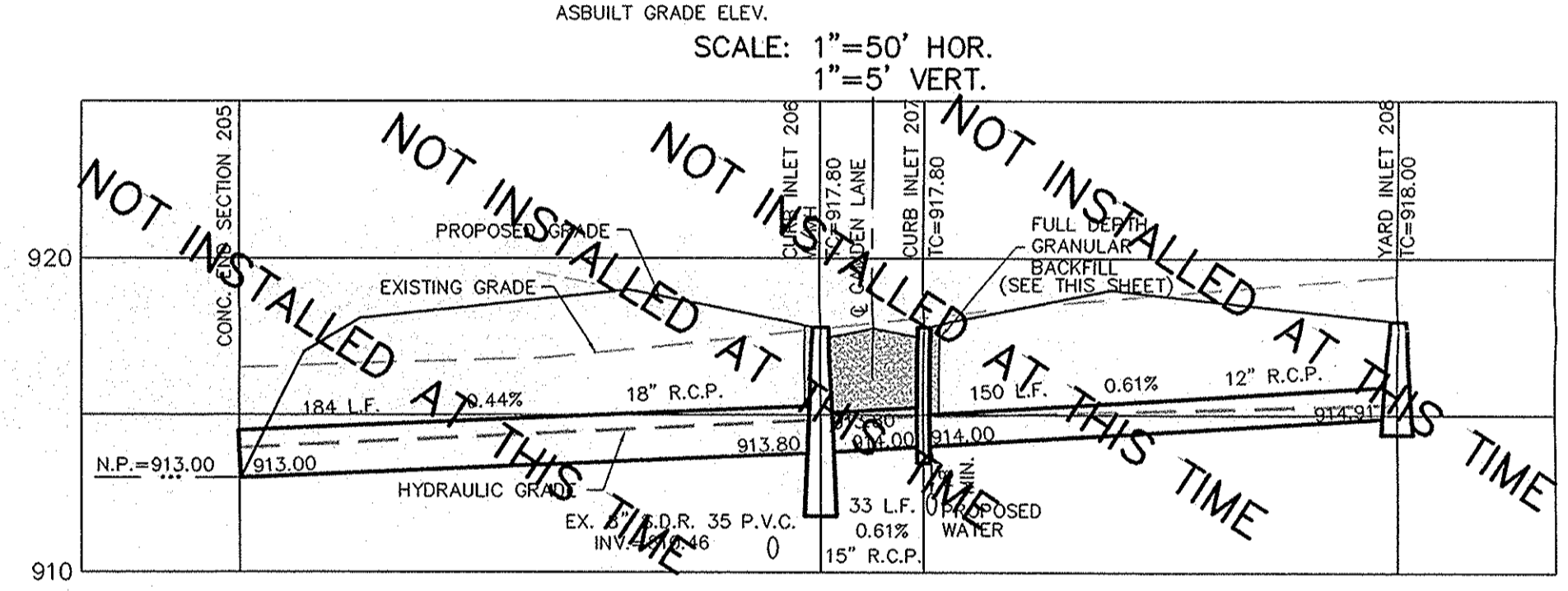
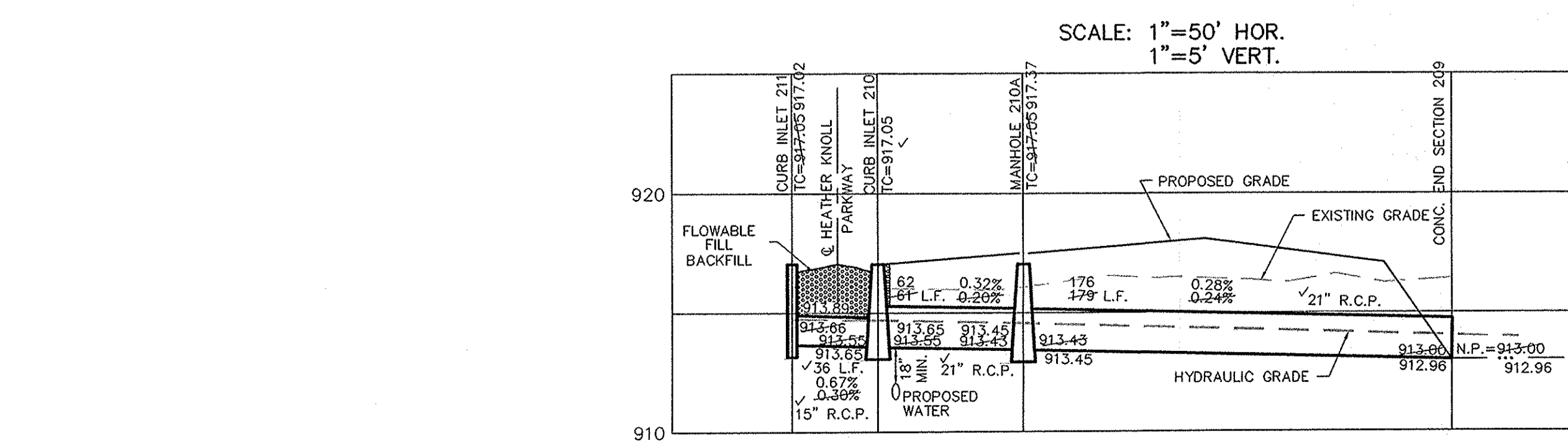
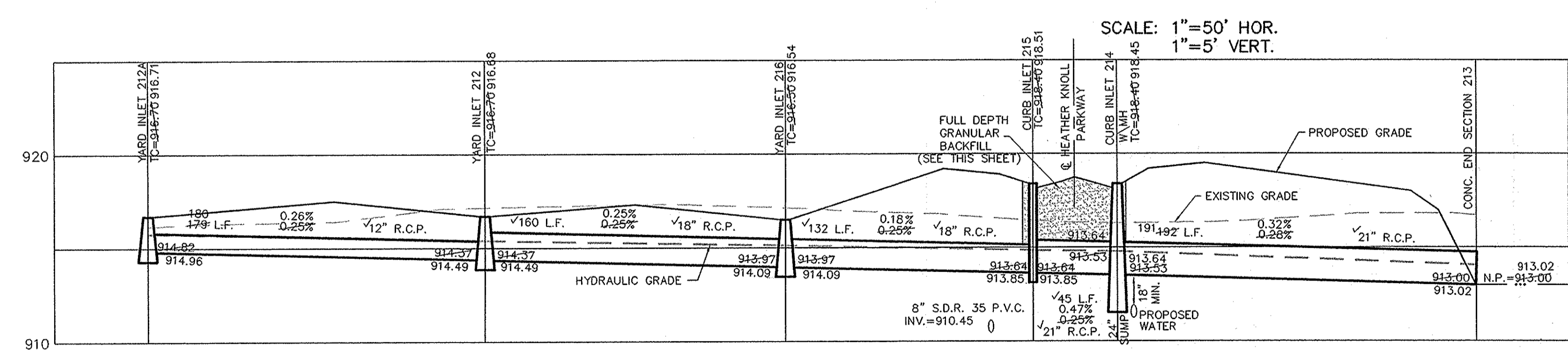
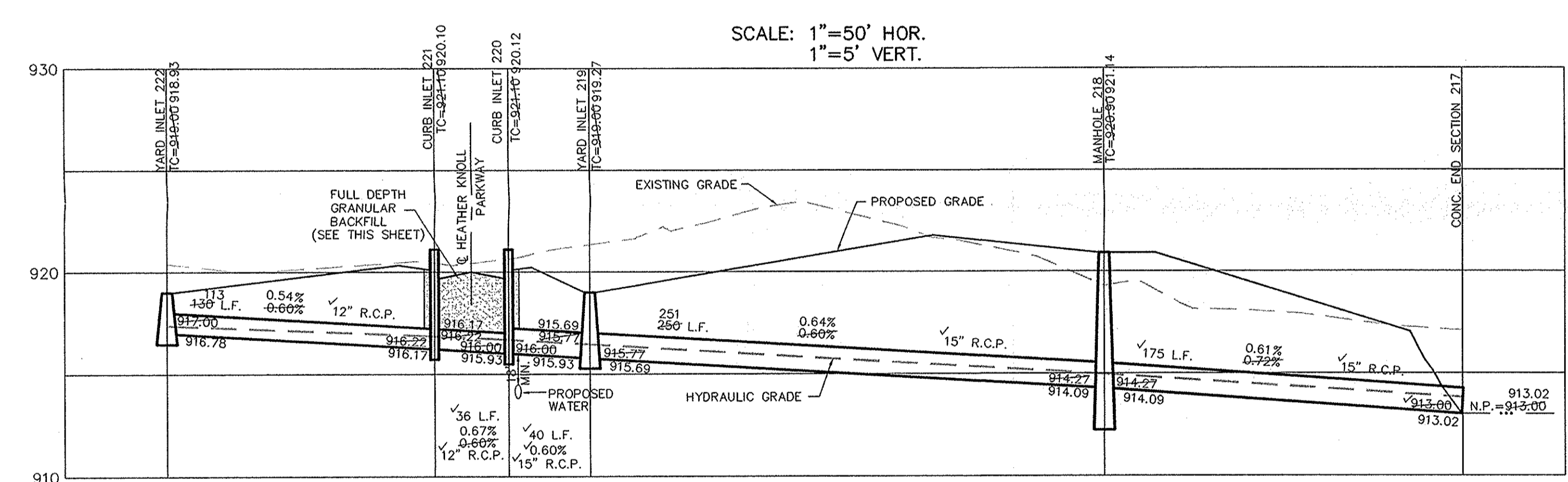


# RECORD DRAWING

Dennis D. Olmstead  
 Registered Land Surveyor  
 No. 900012  
 DATE 1/23/2009



DATE	BY	REVISIONS
10/3/05	BAH	REVISED PER LAKE CHANGES
2/7/06	EEF	REVISED PER CROSSROADS COMMENTS
4/1/06	BAH	REVISED PER TAC COMMENTS
11/7/06	BAH	REVISED PER TAC COMMENTS
1/23/09	EEF	REVISED PER SURVEYOR'S COMMENTS



**NOTE:**  
 Storm Sewer 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 shall be placed to be uniform as possible, but shall be loosely placed unconsolidated material under the middle third of the pipe prior to placement of the pipe. Haunching and initial backfill shall be compacted in 8-inch maximum lifts to not less than 90% 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. 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 8-inch maximum lifts to not less than 90% Standard Proctor Density for the entire depth of the material placed. The backfill for the top 8-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 90% 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.  
 S:\Legal\Cornell RCP Installation Review02-01-05\Storm Sewers.doc

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

**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.

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

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 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 3

SHEET NO.  
**C600**  
 JOB NO. 4717553

**CERTIFICATE OF COMPLETION AND COMPLIANCE**

To: Hamilton County Surveyor

Re: Heather Knoll, Section 3B

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 (or a person under my direct supervision) 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:  Date: September 6, 2011

Type or Print Name: James O. Rinehart IV

Business Address: Stoepelwerth & Associates, Inc.

7965 East 106<sup>th</sup> Street, Fishers, Indiana 46038

Telephone Number: (317) 849-5935

SEAL

INDIANA REGISTRATION NUMBER

10200495





1220

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**

**October 10, 2011**

**Re: Stultz & Almond: Heather Knoll Section 3B**

Attached are as-builts, certificate of completion & compliance, and other information for Heather Knoll Section 3B. 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 1, 2011. The report was approved by the Board at the hearing held September 22, 2008. (See Drainage Board Minutes Book 11, Pages 326-327)

The changes are as follows:

This report is the second phase of Heather Knoll Section 3 and contains only a portion of the drain footage outlined in the original report. The final report for phase 1 was completed in 2009. It should be noted that the 12" drain between Structures 201A to 201B was not installed. Also, the open ditch leading up to it was not installed. However, the overflow spillway was installed. The drain lengths for this portion are as follows: 6" SSD – 4055 feet\*, 12" RCP – 584 feet, 15" RCP – 299 feet, 18" RCP - 587 feet, 21" RCP – 30 feet, 24" RCP – 196 feet.

The length of the drain due to the changes described above is now **5,751 feet**.

\*Per the inspector the 6"SSD was installed across the rear of lots 116-117 and 118-120 even this not reflected on the as-builts.

The non-enforcement was approved by the Board at its meeting on September 22, 2008. The following sureties were guaranteed by International Fidelity Insurance Company and released by the Board on its October 24, 2011 meeting.

**Bond-LC No:** 0555830  
**Insured For:** Storm Sewers  
**Amount:** \$72,189  
**Issue Date:** June 10, 2011

**Bond-LC No:** 0555831  
**Insured For:** SSD  
**Amount:** \$24,215  
**Issue Date:** June 10, 2011

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

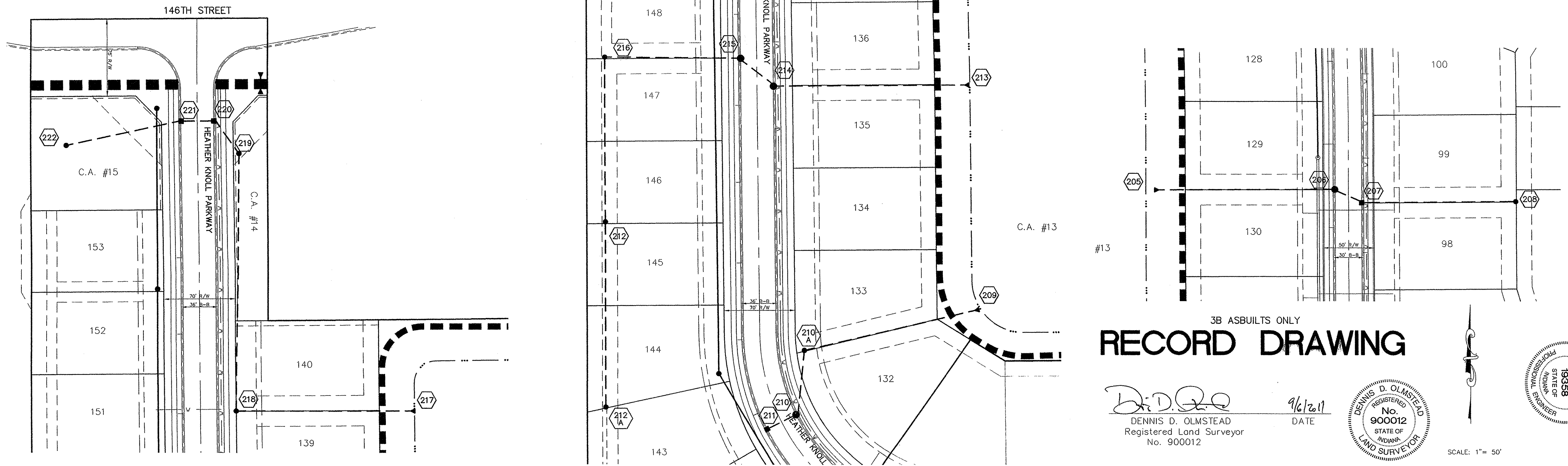
Sincerely,

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





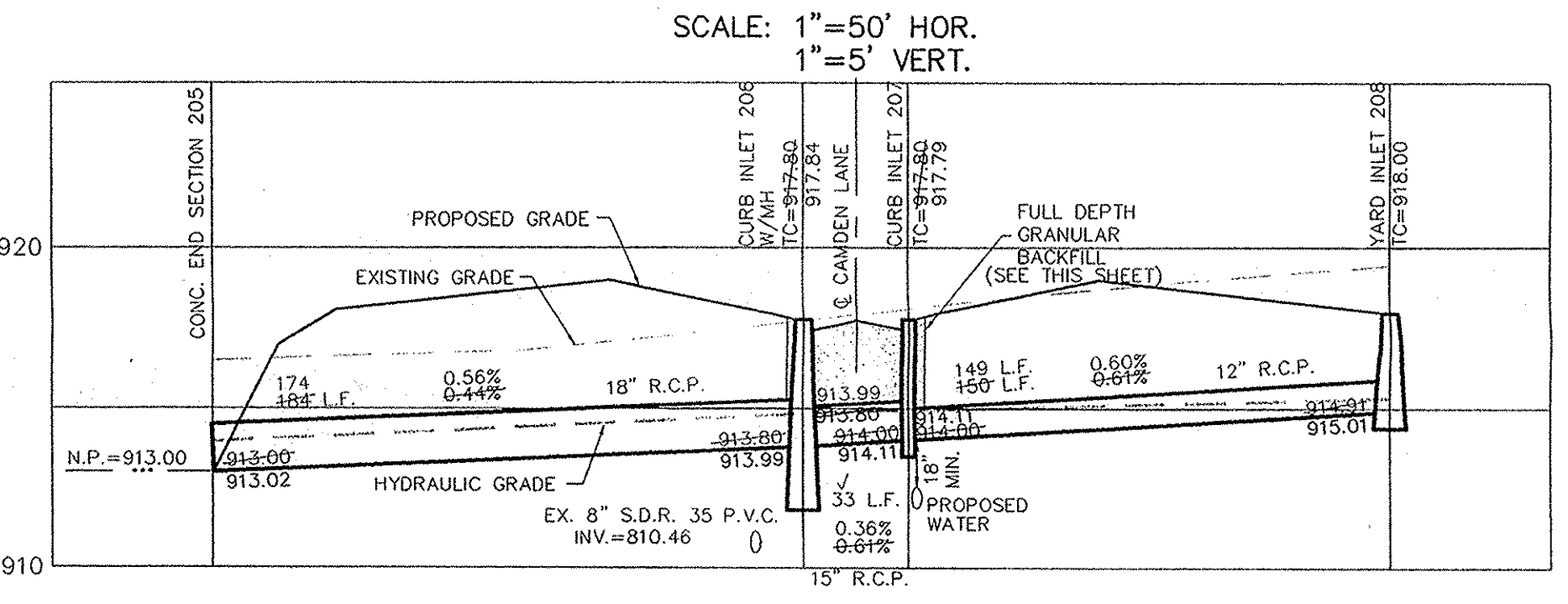
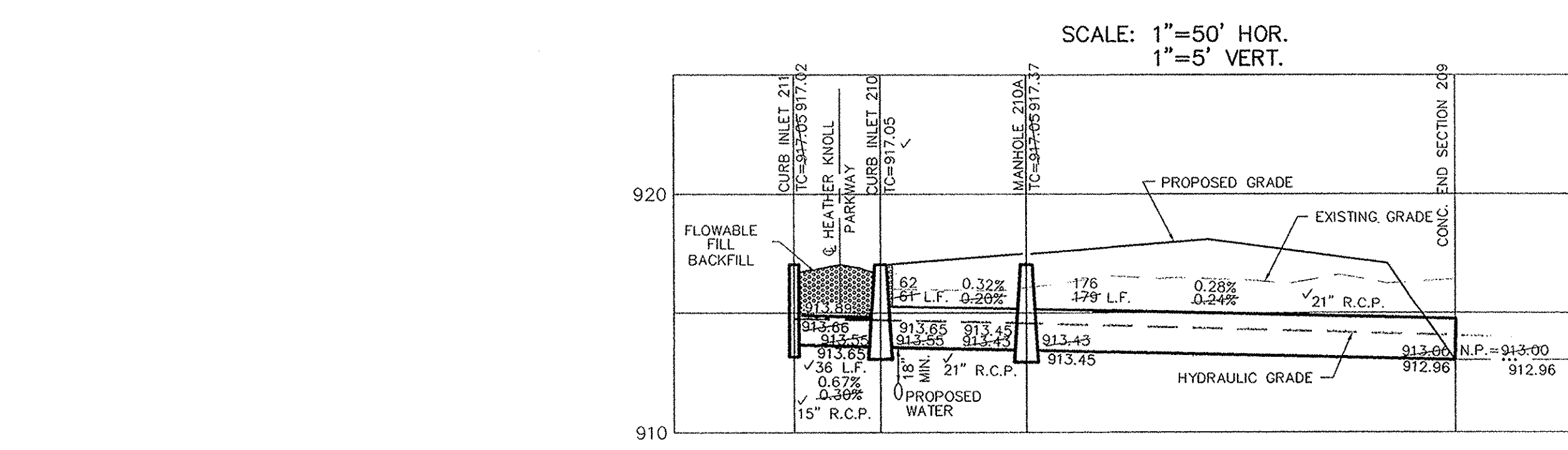
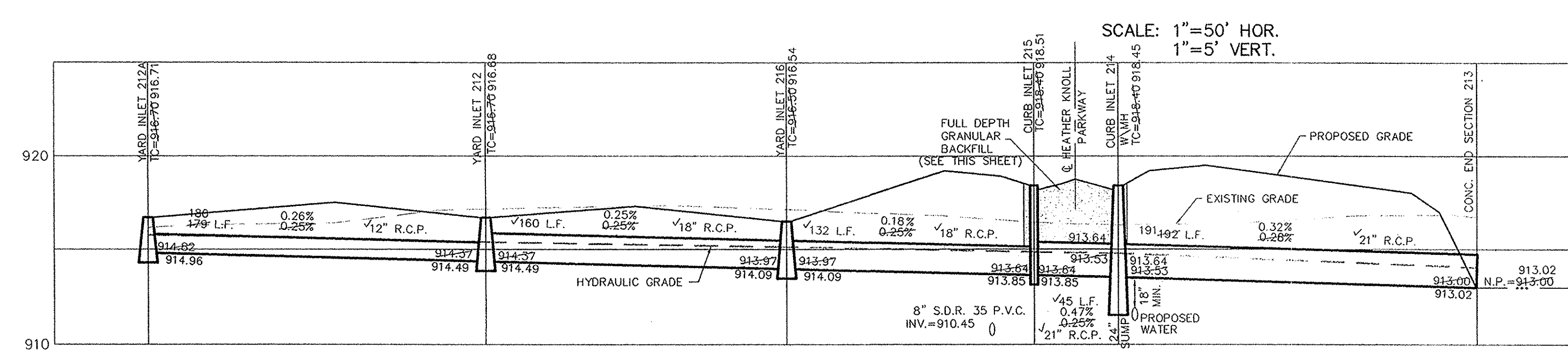
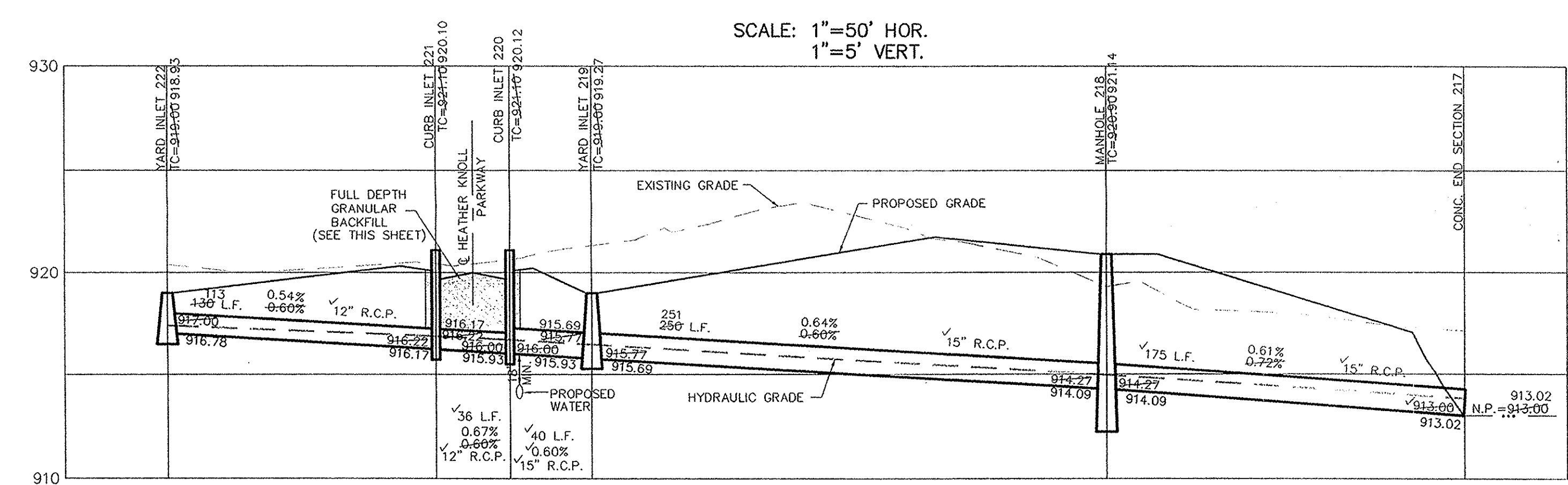
# RECORD DRAWING

DENNIS D. OLMSTEAD  
Registered Land Surveyor  
No. 900012

9/6/2011  
DATE



SCALE: 1" = 50'



**NOTE:**  
Storm Sewers  
Bedding, haunching, initial backfill  
Bedding, haunching, and initial backfill for all RCP installations shall be 8-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 shall be placed to be uniform on all sides, but shall be loosely placed uncompact material under the middle third of the pipe prior to placement of the pipe. Haunching and initial backfill shall be compacted in 6-inch maximum lifts to not less than 90% 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 8-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.  
S:\Legal\Carmel RCP Installation Review02-01-05\Storm Sewers.doc

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: 10-2-11  
Entered By: SLM

**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.

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 -0.2'

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

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

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

INDIANA

INDIANA

CARMEL

SHEET NO. C600

JOB NO. 47175S.3

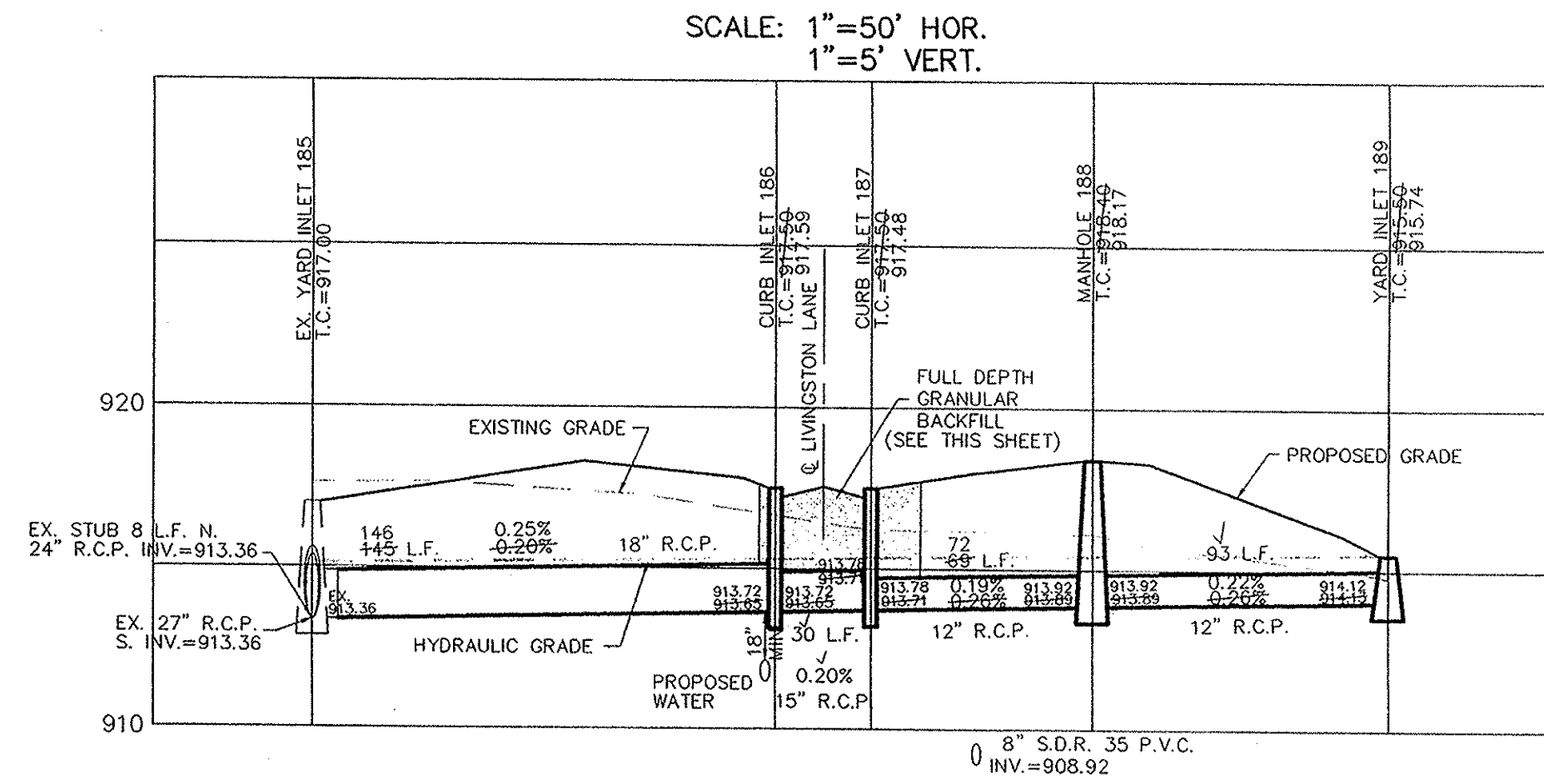
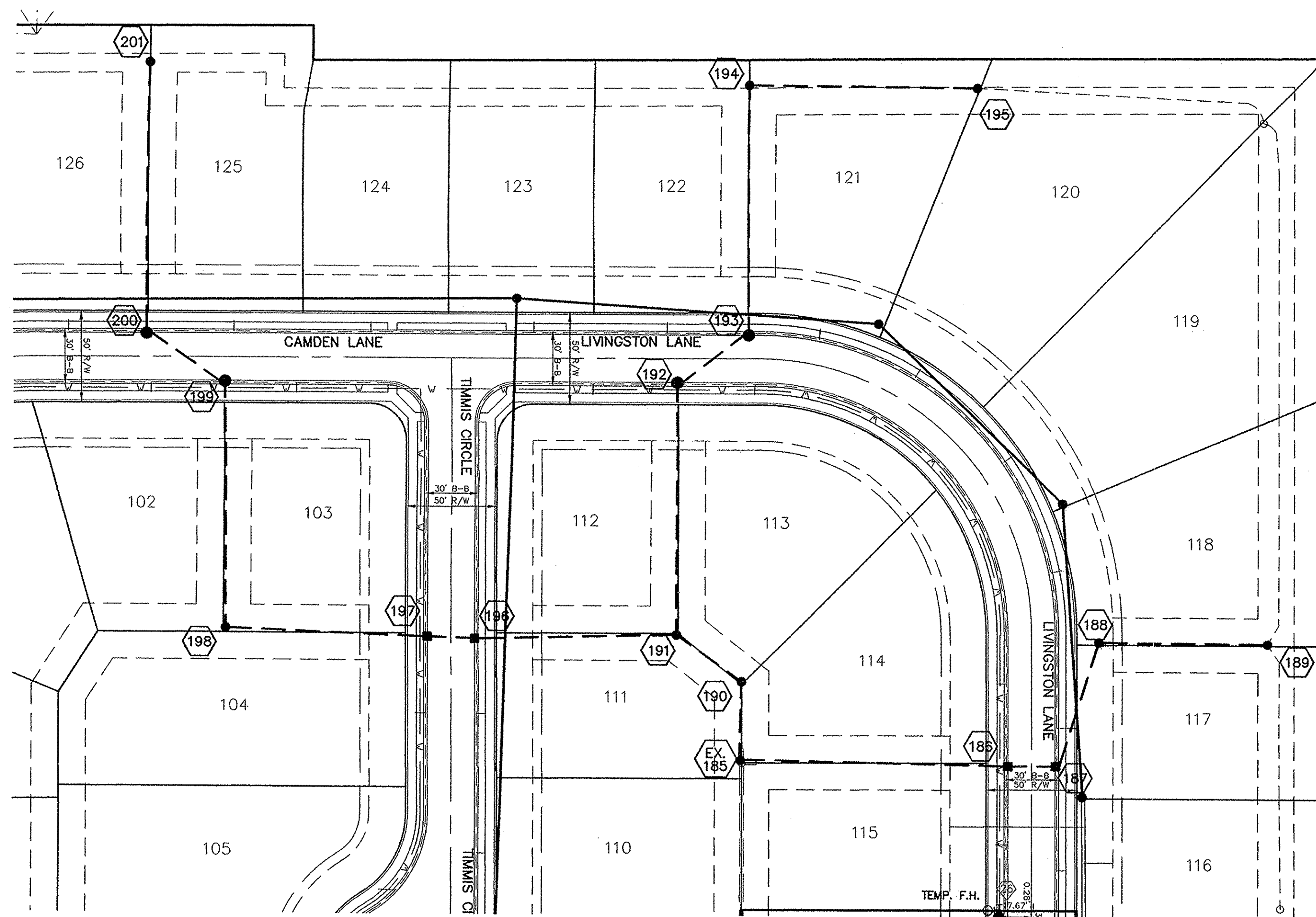
DATE: 10/3/05

CERTIFIED: David J. Steppeworth

REGISTERED PROFESSIONAL ENGINEER  
INDIANA  
NO. 19358  
DENNIS D. OLMSTEAD  
LAND SURVEYOR

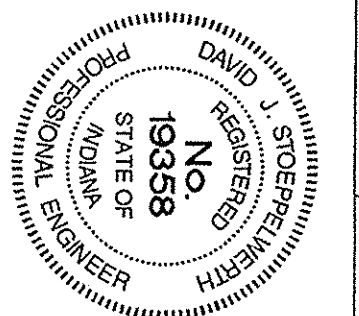
REVISIONS

NO.	DATE	BY	REVISIONS
1	10/3/05	BAH	REVISED PER LAKE CHANGES
2	7/1/08	EEF	REVISED PER CROSSROADS COMMENTS
3	5/1/08	EEF	REVISED PER CROSSROADS COMMENTS
4	2/1/08	EEF	REVISED PER TAC COMMENTS
5	1/11/05	EEF	REVISED PER TAC COMMENTS
6	1/23/05	EEF	REVISED PER SURVEYOR'S COMMENTS



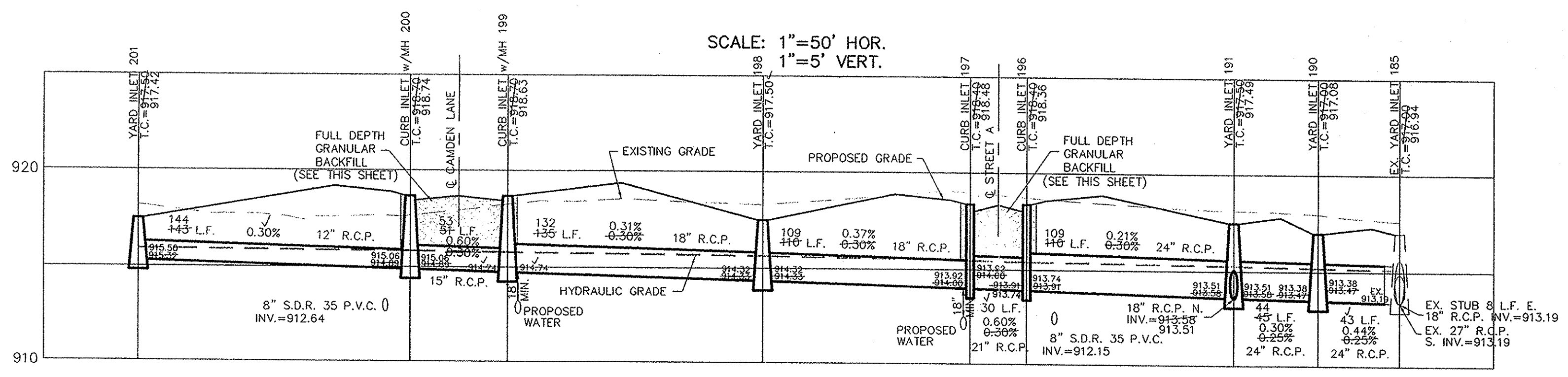
3B ASBUILTS ONLY  
**RECORD DRAWING**

*Dennis D. Olmstead* 9/6/2011 DATE  
DENNIS D. OLMSTEAD  
Registered Land Surveyor  
No. 900012



CERTIFIED: 10/3/05

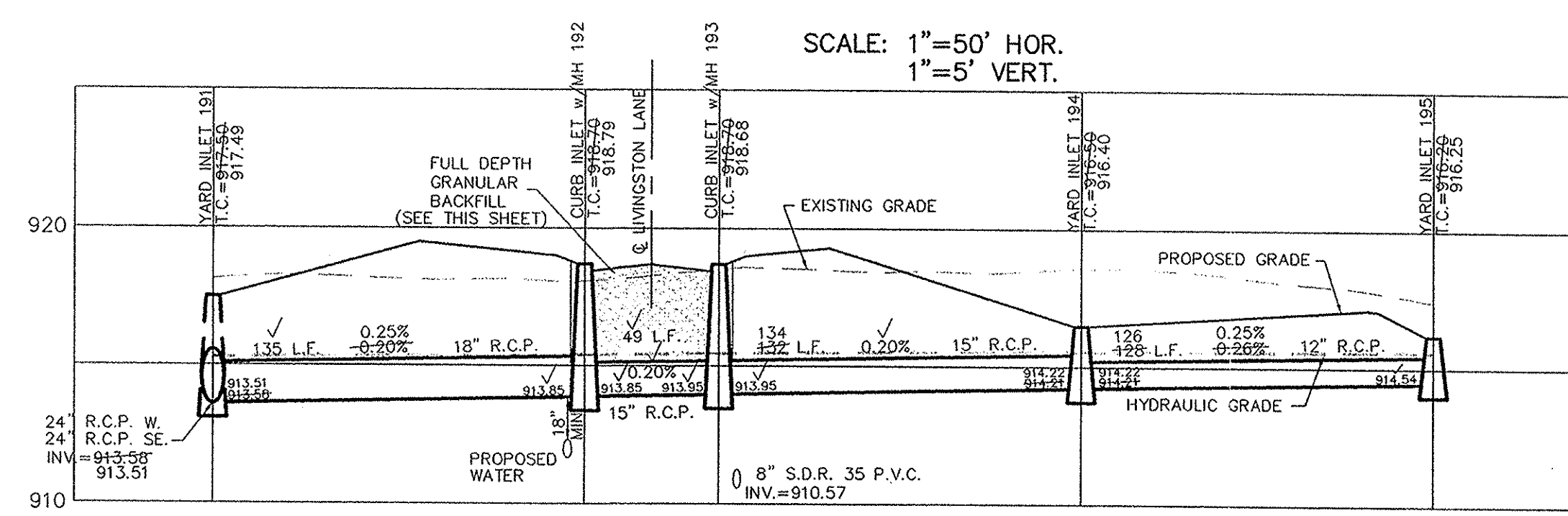
DATE	10/3/05
BY	DAVID J. STAPP
MARK	
REVISIONS	
DATE	
MARK	
REVISIONS	
DATE	
MARK	
REVISIONS	



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Entered By: SLM

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**CURB INLET TABLE**

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24" OR LARGER	DESIGN APPROVAL		DESIGN APPROVAL	No	No	Yes
24" OR LARGER		MH/BOX	DESIGN APPROVAL	Yes**	Yes	Yes

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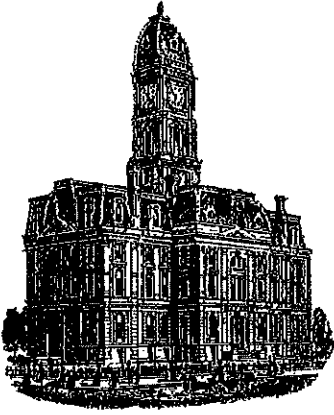
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STORM SEWER PLAN & PROFILE  
HEATHER KNOLL  
SECTION 3  
SHEET NO.  
**C601**  
JOB NO. 4717553



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:** 14,970

**Drain Name:** Stultz & Almond: Westmont Sec. 1

**Change + / - :** 70

**Date:** 12-21-2016

**New Length:** 15,040

**Verified By:** SLM

**Notes & Sketch:** Did not include the 70' of 12" CMP on the Final Report.

**RCP Pipe Totals:**

12	901
15	675
18	1250
21	288
24	685
30	107
36	456
<b>Total:</b>	<b>4362</b>

**SSD Totals:**

Streets	7939
Rear Yards	2353
<b>Total:</b>	<b>10292</b>

**Other Totals:**

Open Ditch	190
12x6 Conspan	126
<b>Total:</b>	<b>316</b>

The length of the drain due to the changes described above is now **14,970 feet**.

**Suzanne L. Mills**  
**GIS Specialist**