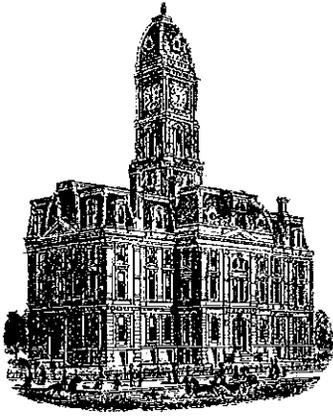


156



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

October 6, 2014

To: Hamilton County Drainage Board

Re: Vermillion Drain, The Woods at Vermillion, Sec. 1 Arm

Attached is a petition filed by North Connecticut Development Corp., along with a non-enforcement request, plans, calculations, quantity summary and assessment roll for the Vermillion Drain, The Woods at Vermillion, Sec. 1 Arm to be located in Fall Creek 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:

12" RCP	714 ft.	27" RCP	178 ft.
15" RCP	929 ft.	30" RCP	196 ft.
18" RCP	727 ft.	6" SSD	6,028 ft.
21" RCP	577 ft.	Open (ponds)	685 ft.

The total length of the drain will be 10,034 feet.

The subsurface drains (SSD) to be part of the regulated drain are those located under the curbs and those main lines in rear yards. Only the main SSD lines which are located within the easement or 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:

- Swale along Connecticut Avenue to Str. 413
- Swale between Strs. 408 and 409 in Common Area A
- Rear yard lots 244 – 247.

The detention ponds (Wet Ponds #10 and 16 located in Common Area A) are to be considered part of the regulated drain. This is consistent with the ponds in other Vermillion sections. The maintenance of the ponds shall include the inlet and outlet as part of the regulated drain. The maintenance of the ponds such as sediment removal, and erosion control along the banks, 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.

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 \$65.00 per platted lot, \$10.00 per acre for common areas, with a \$65.00 minimum, and \$10.00 per acre for roadways. With this assessment the total annual assessment for this drain for Section 1 will be \$2,498.00.

The petitioner has submitted surety for the proposed drain at this time. The sureties which are in the form of Letters of Credit from the developer are as follows:

Agent: Standard Financial Corporation
Date: October 24, 2014
Number: 1148WVRM1
For: Storm Sewers
Amount: \$261,728.00

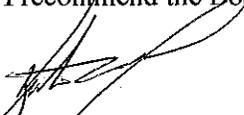
Agent: Standard Financial Corporation
Date: October 24, 2014
Number: 1147WVRM1
For: Erosion Control
Amount: \$42,121.00

Agent: Standard Financial Corporation
Date: October 23, 2014
Number: 1146WVRM1
For: Monumentation
Amount: \$4,590.00

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 will be for the reduction of the regulated drain easement to those easement widths as shown on the secondary plats for The Woods at Vermillion, Sec. 1 as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for November 23, 2015.


Kenton C. Ward, CFM
Hamilton County Surveyor
KCW/stc

October 24, 2014

HCDB-2014-00065
Irrevocable Letter of Credit No.: 1148WVRM1

TO: Hamilton County Commissioners
1 Hamilton County Square, Suite 157
Noblesville, IN 46060

To Whom It May Concern:

We hereby authorize you to value on us for the account of:

Developer Name: North Connecticut Development Corporation
Developer Address: 3150 Republic Blvd., N., #3
Toledo, OH 43615

For a sum or sums in United States of America Dollars not to exceed the aggregate total of **Two Hundred Sixty-One Thousand Seven Hundred Twenty-Eight and no/100 Dollars (\$261,728.00)** by your draft(s) at sight.

The purpose of this Letter of Credit is for the performance of the installation of storm sewers in Woods at Vermillion, Section 1.

The condition for payment of any drafts drawn against the Letter of Credit requires that the draft be accompanied by beneficiary's signed statement on Hamilton County letterhead stating that North Connecticut Development Corporation has not performed or complied with the terms of the construction plan requirements of said project. The statement must also outline the specific deficiencies in construction.

All drafts must be marked, "Drawn under Standard Financial Corporation Letter of Credit No. 1148WVRM1".

This credit is subject, so far as applicable, to "The Uniform Customs and Practice for Documentary Credits (2007 Revision), International Chamber of Commerce Publication No. 600.

This Letter of Credit is effective as of October 24, 2014, and shall expire on October 24, 2015 but such expiration date shall be automatically extended for a period of one year on October 24, 2015, and on each successive expiration date, unless a release is received from the Hamilton County Commissioners, or we notify both the Hamilton County Commissioners and North Connecticut Development Corporation by certified mail, at least ninety (90) days before the current expiration date, that we have decided not to extend this Letter of Credit beyond the

FILED

OCT 24 2014

 **Standard Financial**
C O R P O R A T I O N

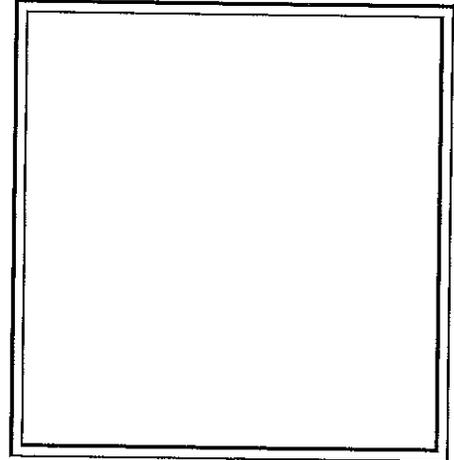
current expiration date. In the event of such notification by us, the credit established by this Letter shall be available to the Hamilton County Commissioners upon its sight draft or demand for payment for ninety (90) days after receipt of such notice by the Hamilton County Commissioners as shown on the signed return receipt.

We hereby agree with you that all drafts drawn under and in compliance with the terms of this credit shall be duly honored on due presentation to the main office of Standard Financial Corporation, 13578 E. 131st Street, Suite 200, Fishers, IN 46037.

Corporate Seal



Eric Roof
Authorized Signer



This Letter of Credit is not valid unless the seal of Standard Financial Corporation is affixed hereto.

13578 E. 131st Street, Suite 200 • Fishers, Indiana 46037
Phone: 317-773-8353 • www.standardfincorp.com



October 24, 2014

HCDP-2014-00064
Irrevocable Letter of Credit No.: 1147WVRM1

TO: Hamilton County Commissioners
1 Hamilton County Square, Suite 157
Noblesville, IN 46060

To Whom It May Concern:

We hereby authorize you to value on us for the account of:

Developer Name: North Connecticut Development Corporation
Developer Address: 3150 Republic Blvd., N., #3
Toledo, OH 43615

For a sum or sums in United States of America Dollars not to exceed the aggregate total of **Forty-Two Thousand One Hundred Twenty-One and no/100 Dollars (\$42,121.00)** by your draft(s) at sight.

The purpose of this Letter of Credit is for the performance of the installation of erosion control in Woods at Vermillion, Section 1.

The condition for payment of any drafts drawn against the Letter of Credit requires that the draft be accompanied by beneficiary's signed statement on Hamilton County letterhead stating that North Connecticut Development Corporation has not performed or complied with the terms of the construction plan requirements of said project. The statement must also outline the specific deficiencies in construction.

All drafts must be marked, "Drawn under Standard Financial Corporation Letter of Credit No. 1147WVRM1".

This credit is subject, so far as applicable, to "The Uniform Customs and Practice for Documentary Credits (2007 Revision), International Chamber of Commerce Publication No. 600.

This Letter of Credit is effective as of October 24, 2014, and shall expire on October 24, 2015 but such expiration date shall be automatically extended for a period of one year on October 24, 2015, and on each successive expiration date, unless a release is received from the Hamilton County Commissioners, or we notify both the Hamilton County Commissioners and North Connecticut Development Corporation by certified mail, at least ninety (90) days before the current expiration date, that we have decided not to extend this Letter of Credit beyond the

FILED

OCT 24 2014



Standard Financial CORPORATION

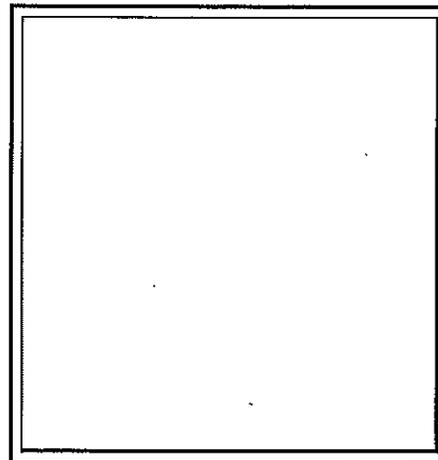
current expiration date. In the event of such notification by us, the credit established by this Letter shall be available to the Hamilton County Commissioners upon its sight draft or demand for payment for ninety (90) days after receipt of such notice by the Hamilton County Commissioners as shown on the signed return receipt.

We hereby agree with you that all drafts drawn under and in compliance with the terms of this credit shall be duly honored on due presentation to the main office of Standard Financial Corporation, 13578 E. 131st Street, Suite 200, Fishers, IN 46037.

Corporate Seal



Eric Roof
Authorized Signer



This Letter of Credit is not valid unless the seal of Standard Financial Corporation is affixed hereto.

13578 E. 131st Street, Suite 200 • Fishers, Indiana 46037
Phone: 317-773-8363 • www.standardfincorp.com

October 24, 2014

HCDB-2014-00063
Irrevocable Letter of Credit No.: 1146WVRM1

TO: Hamilton County Commissioners
1 Hamilton County Square, Suite 157
Noblesville, IN 46060

To Whom It May Concern:

We hereby authorize you to value on us for the account of:

Developer Name: North Connecticut Development Corporation
Developer Address: 3150 Republic Blvd., N., #3
Toledo, OH 43615

For a sum or sums in United States of America Dollars not to exceed the aggregate total of **Four Thousand Five Hundred Ninety and no/100 Dollars (\$4,590.00)** by your draft(s) at sight.

The purpose of this Letter of Credit is for the performance of the installation of monumentation in Woods at Vermillion, Section 1.

The condition for payment of any drafts drawn against the Letter of Credit requires that the draft be accompanied by beneficiary's signed statement on Hamilton County letterhead stating that North Connecticut Development Corporation has not performed or complied with the terms of the construction plan requirements of said project. The statement must also outline the specific deficiencies in construction.

All drafts must be marked, "Drawn under Standard Financial Corporation Letter of Credit No. 1146WVRM1".

This credit is subject, so far as applicable, to "The Uniform Customs and Practice for Documentary Credits (2007 Revision), International Chamber of Commerce Publication No. 600.

This Letter of Credit is effective as of October 24, 2014, and shall expire on October 24, 2015 but such expiration date shall be automatically extended for a period of one year on October 24, 2015, and on each successive expiration date, unless a release is received from the Hamilton County Commissioners, or we notify both the Hamilton County Commissioners and North Connecticut Development Corporation by certified mail, at least ninety (90) days before the current expiration date, that we have decided not to extend this Letter of Credit beyond the

FILED

OCT 24 2014

Standard Financial CORPORATION

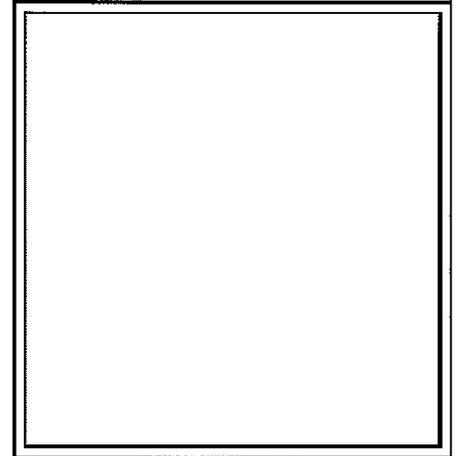
current expiration date. In the event of such notification by us, the credit established by this Letter shall be available to the Hamilton County Commissioners upon its sight draft or demand for payment for ninety (90) days after receipt of such notice by the Hamilton County Commissioners as shown on the signed return receipt.

We hereby agree with you that all drafts drawn under and in compliance with the terms of this credit shall be duly honored on due presentation to the main office of Standard Financial Corporation, 13578 E. 131st Street, Suite 200, Fishers, IN 46037.

Corporate Seal



Eric Roof
Authorized Signer



This Letter of Credit is not valid unless the seal of Standard Financial Corporation is affixed hereto.

13578 E. 131st Street, Suite 200 • Fishers, Indiana 46037
Phone: 317-773-8353 • www.standardfincorp.com

FINDINGS AND ORDER

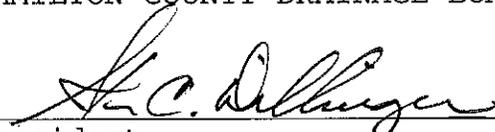
CONCERNING THE MAINTENANCE OF THE

Vermillion Drain, The Woods at Vermillion Section 1 Arm

On this 23rd day of November, 2015, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the *Vermillion Drain, The Woods at Vermillion Section 1 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.

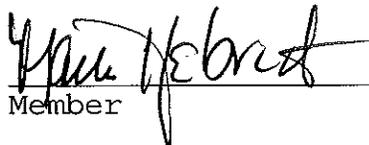
HAMILTON COUNTY DRAINAGE BOARD



President



Member



Member

Attest: 
Executive Secretary

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD
IN THE MATTER OF

Vermillion Drain, The Woods at Vermillion Section 1 Arm

NOTICE

To Whom It May Concern and: _____

Notice is hereby given of the hearing of the Hamilton County Drainage Board on the **Vermillion Drain, The Woods at Vermillion Section 1 Arm** on **November 23, 2015 at 9:00 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

**Vermillion Drain,
The Woods at Vermillion Section 1 Arm**

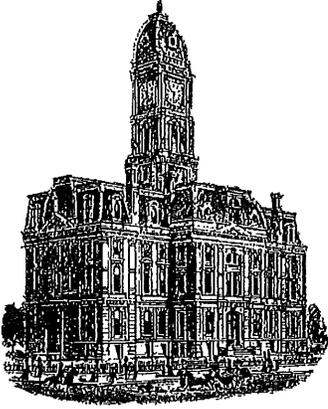
NOTICE

Notice is hereby given pursuant to Section 405 of the 1965 Indiana Drainage Code that this Board, prior to final adjournment on **November 23, 2015** 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



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 22, 2016

Re: Vermillion Drain: Woods at Vermillion Section 1

Attached are as-built, certificate of completion & compliance, and other information for Woods at Vermillion Section 1. 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 October 6, 2014. The report was approved by the Board at the hearing held November 23, 2015. (See Drainage Board Minutes Book 16, Pages 371-373)

The changes are as follows:

The 12" RCP was lengthened from 714 feet to 762 feet. The 15" RCP was lengthened from 929 feet to 940 feet. The 18" RCP was lengthened from 727 feet to 733 feet. The 21" RCP was lengthened from 577 feet to 594 feet. The 30" RCP was lengthened from 196 feet to 199 feet. The 6" SSD was lengthened from 6028 feet to 6152 feet. The open ditch, through the ponds, was shortened from 685 feet to 610 feet. The length of the drain due to the changes described above is now **10,168 feet**.

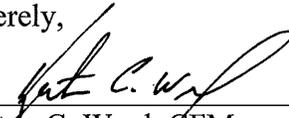
The non-enforcement was approved by the Board at its meeting on November 23, 2015 and recorded under instrument #2016013329.

The following sureties were guaranteed by Standard Financial Corporation and released by the Board on its February 22, 2016 meeting.

Bond-LC No: 1148WVRM1
Amount: \$261,728
For: Storm Sewers
Issue Date: October 24, 2014

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

CERTIFICATE OF COMPLETION AND COMPLIANCE

To: Hamilton County Surveyor

Re: The Woods at Vermillion - Section 1

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.
5. The drainage facilities within the above referenced subdivision to the best of my knowledge, information and belief have been correctly represented on the Record Drawings, Digital Record Drawings and the Structure Data Spreadsheet.

Signature: Al E. Skoog, Jr. Date: October 10, 2015

Type or Print Name: Alvin E. Skoog, Jr.

Business Address: Weihe Engineers, Inc. 10505 N. College Ave.

Indianapolis, Indiana 46280

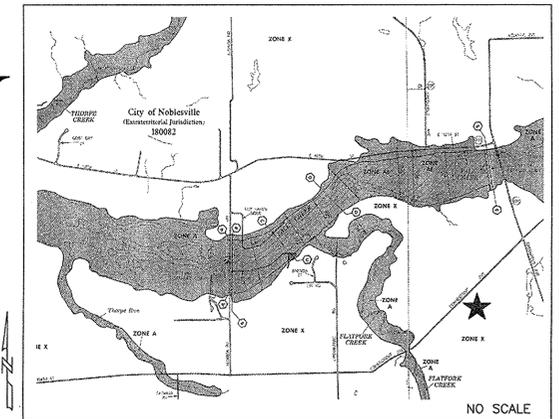
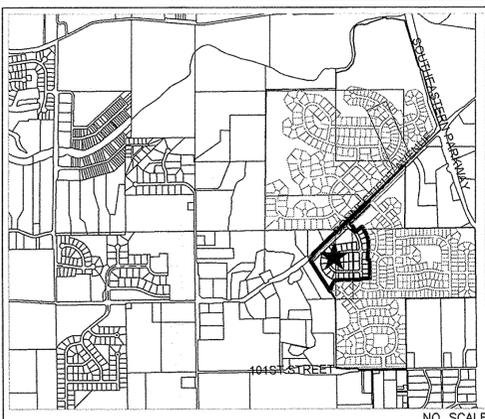
Telephone Number: 317-710-1416



INDIANA REGISTRATION NUMBER

880573

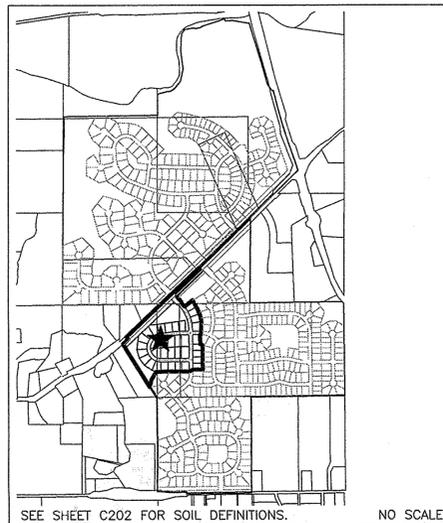
RECORD DRAWING - CONSTRUCTION DRAWINGS FOR
THE WOODS AT VERMILLION
SECTION ONE
 FORTVILLE, IN 46040



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: Feb 2016
 Entered By: SLM

AREA LOCATION MAP
GENERAL NOTES

- 1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY, AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
- 2) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES IN THE VICINITY OF THE CONSTRUCTION AREA PRIOR TO STARTING CONSTRUCTION
- 3) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY AND COORDINATE CONSTRUCTION WITH ALL RESPECTIVE UTILITIES.
- 4) ALL QUANTITIES GIVEN ON THESE PRINTS, VERBALLY OR IN THE SCOPE OF WORK SECTION ARE ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTORS.
- 5) OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS: FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
- 6) IN ADDITION, EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
- 7) IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THIS PROJECT.
- 8) TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL STANDARDS.
- 9) THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- 10) ANY FIELD TILES ENCOUNTERED DURING EXCAVATION SHALL BE REPAIRED AND CONNECTED TO NEW STORM SEWERS AND POSITIVE DRAINAGE PRESERVED.
- 11) IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER THAT ALL LANDSCAPE REQUIREMENTS ARE MET AND CONFORM TO APPLICABLE LOCAL STANDARDS.
- 12) THE SITE DOES NOT LIE IN A SPECIAL FLOOD HAZARD AREA AS ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY - NATIONAL FLOOD INSURANCE PROGRAM, WHEN PLOTTED BY SCALE ON FLOOD INSURANCE RATE MAP #18057C0260F AND 18057C0280F, FEBRUARY 19, 2003.
- 13) BEARINGS, DIMENSIONS AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS & PLAT FOR EXACT INFORMATION.
- 14) THIS SITE DOES NOT CONTAIN WETLANDS AS SHOWN ON THE U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE; FORTVILLE, INDIANA, NATIONAL WETLANDS INVENTORY MAP. NO WETLANDS ARE IMPACTED BY THIS DEVELOPMENT.
- 15) DESIGN PROFESSIONAL CERTIFYING PLANS FOR THE PROJECT ACKNOWLEDGES THEIR PROFESSIONAL RESPONSIBILITY FOR ENSURING THAT ALL WORK IS CORRECT, ACCURATE AND COMPLIES WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES. IF SUCH AN ERROR/OMISSION IS FOUND, THE DESIGN PROFESSIONAL ACCEPTS FULL RESPONSIBILITY AND SHALL DETERMINE A SOLUTION THAT COMPLIES WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES. IF SUCH AN ERROR OR OMISSION IS FOUND, THE DEVELOPER IS NOT RELIEVED TO COMPLY WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES.
- 16) ALL WATER MAIN, HYDRANTS, AND WATER VALVES SHALL BE INSPECTED AND SHALL COMPLY WITH BACKFILL, BEDDING, AND THRUST BLOCK REQUIREMENTS PER FORTVILLE WATER DETAIL SHEETS.
- 17) THE DESIGN AND CONSTRUCTION SHALL COMPLY WITH ALL ADA REQUIREMENTS, SHALL BE PROWAG COMPLIANT AND MEET ALL CURRENT INDOT STANDARD SPECIFICATIONS.



SOILS MAP
PLANS PREPARED FOR
REPUBLIC DEVELOPMENT
 NORTH CONNECTICUT DEVELOPMENT CORP.
 13578 EAST 131st STREET, SUITE 200
 FISHERS, IN 46037
 TELEPHONE: 317-770-1818
 CONTACT PERSON: DOUG WAGNER

PLANS PREPARED BY
WEIHE ENGINEERS, INC.
 10505 N. COLLEGE AVE.
 INDIANAPOLIS, IN 46280
 (317) 846-6611
 CONTACT PERSON: KEVIN SUMNER

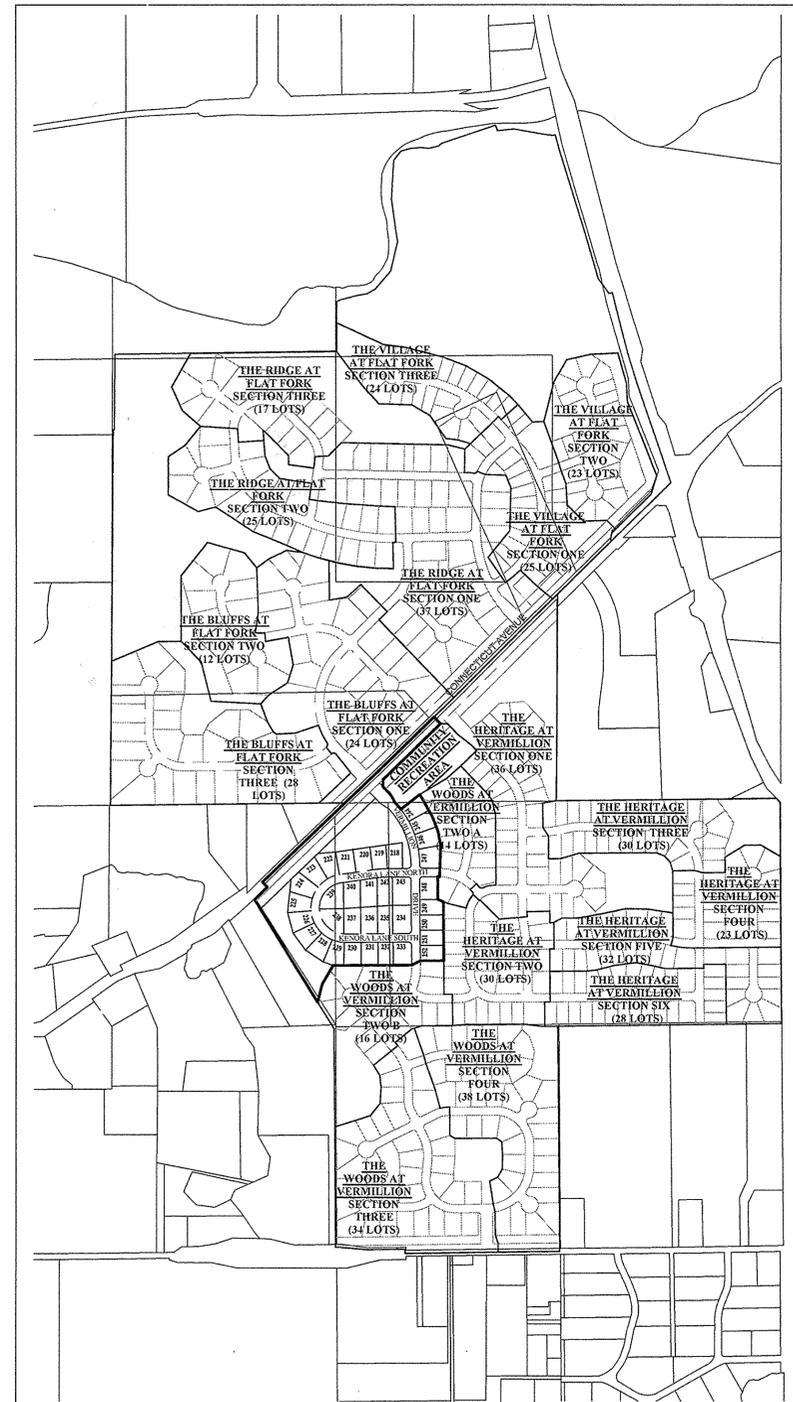
BENCHMARK INFORMATION
 SOURCE BENCHMARK
 HSE 29
 HSE DISC IN CONCRETE SET 5' SOUTH OF THE SOUTH BACK OF CURB ALONG 101ST ST., 1800'+/- EAST OF CYNTHIANNE RD., 33' WEST OF THE FIRST DRIVE WEST OF THE BRIDGE OVER FLATFORK CREEK.
 N=1707462.37
 E=269743.89
 EL=855.00 (NAVD 88)

TBM 1
 RAILROAD SPIKE SET IN THE SOUTHWEST SIDE OF A 20" TREE LOCATED ON THE SOUTHEAST SIDE OF CONNECTICUT AVENUE, APPROXIMATELY 1,104'+/- SOUTHWEST OF THE INTERSECTION OF CONNECTICUT AVENUE WITH STATE ROAD 238.
 N=1711251
 E=271743
 EL=858.88 (NAVD 88)

TBM 2
 RAILROAD SPIKE SET IN THE WEST SIDE OF A UTILITY POLE LOCATED APPROXIMATELY 784' SOUTH OF THE NORTHEAST CORNER OF THE NORTHEAST QUARTER OF SECTION 8-117N-R6E.
 N=1709400
 E=273165
 EL=864.60 (NAVD 88)

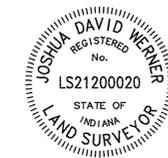
TBM 3
 MAG NAIL SET IN THE NORTH SIDE OF A UTILITY POLE LOCATED ON THE SOUTH SIDE OF 101ST STREET, APPROXIMATELY 1,097'+/- EAST OF THE SOUTHWEST CORNER OF THE NORTHEAST QUARTER OF SECTION 8-117N-R6E.
 N=1707470
 E=271220
 EL=863.33 (NAVD 88)

LATITUDE: 39°56'41" N, LONGITUDE: 85°52'08" W



SHEET NO.	DESCRIPTION
C001	TITLE SHEET
C100 C101	EXISTING CONDITIONS / DEMOLITION PLAN
C200 C201	STORMWATER POLLUTION PREVENTION PLAN PHASE 1
C202 C203	STORMWATER POLLUTION PREVENTION PLAN PHASE 2
C204 C205	STORMWATER POLLUTION PREVENTION DETAILS & SPECS.
C300-C301	DEVELOPMENT PLAN
C302	PIPE & STRUCTURE DATA TABLES
C400 C402	STREET PLAN & PROFILE/INTERSECTION DETAILS
C403 C404	MAINTENANCE OF TRAFFIC/TRAFFIC CONTROL/SIGNAGE/SUMP PLAN
C405	INTERSECTION DETAILS
C406 C408	STREET DETAILS
C500-C503	SANITARY SEWER PLAN & PROFILE
C504	SANITARY SEWER DETAILS
C605	SANITARY SEWER SPECIFICATIONS
C600-C604	STORM SEWER PLAN & PROFILE
C605-C607	STORM SEWER DETAILS & SPECIFICATIONS
C700-C701	WATER MAIN PLAN
C702	WATER MAIN DETAILS
C703 C704	WATER MAIN SPECIFICATIONS
L1 L2	LANDSCAPE PLANS

RECORD DRAWING
 10/12/2015
 JOSHUA DAVID WERNER, LS21200020



DESIGN PROFESSIONAL CERTIFYING PLANS FOR THE PROJECT ACKNOWLEDGES THEIR PROFESSIONAL RESPONSIBILITY FOR ENSURING THAT ALL WORK IS CORRECT, ACCURATE AND COMPLIES WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES. IF SUCH AN ERROR/OMISSION IS FOUND, THE DESIGN PROFESSIONAL ACCEPTS FULL RESPONSIBILITY AND SHALL DETERMINE A SOLUTION THAT COMPLIES WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES. IF SUCH AN ERROR OR OMISSION IS FOUND, THE DEVELOPER IS NOT RELIEVED OF COMPLYING WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES.

NOTE: THE HAMILTON COUNTY SURVEYOR OFFICE, HAMILTON COUNTY HIGHWAY DEPARTMENT, HSE UTILITIES, AND FORTVILLE WATER STANDARDS SHALL BE INCORPORATED BY REFERENCE INTO THESE PLANS.

SITE DATA

STREET	LENGTHS
VERMILLION DRIVE	1,178.73 L.F.±
KENORA LANE NORTH	843.90 L.F.±
KENORA LANE SOUTH	689.49 L.F.±
TOTAL	2,712.12 L.F.±

NOTE: DESIGN SPEED FOR ALL INTERIOR ROADS SHALL BE 25 MPH.



Within Indiana Call
811 or 800-382-5544
 24 Hours a Day, 7 Days a Week.
 PER INDIANA STATE LAW IC 8-1-26, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.

SITE MAP RECORD DRAWING FINAL CONSTRUCTION PLANS - 12/11/2014

10505 N. College Avenue
 Indianapolis, Indiana 46280
 weihe.net
 317 | 846 - 6611
 800 | 452 - 6408
 317 | 843 - 0546 fax
 ALLAN H. WEIHE, P.E., L.S. - FOUNDER

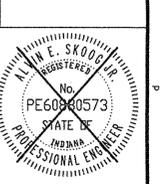
WEIHE ENGINEERS
 Land Surveying | Civil Engineering
 Landscape Architecture

PROJECT NO. W13.0129
 DATE: 09/12/2014

DESIGNED BY: [Signature]
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]

DATE: [Blank]

REVISIONS AND ISSUES



ALVIN E. SKOOG JR., PE 6000573

THE WOODS AT VERMILLION SECTION ONE
 NORTH CONNECTICUT DEVELOPMENT CORP.
 TITLE SHEET
 Part of the S828 1/4 of Section 15, Township 17 North, Range 6 East, Red Oak Township, Hamilton County, Indiana

SHEET NO. **C001**
 PROJECT NO. W13.0129

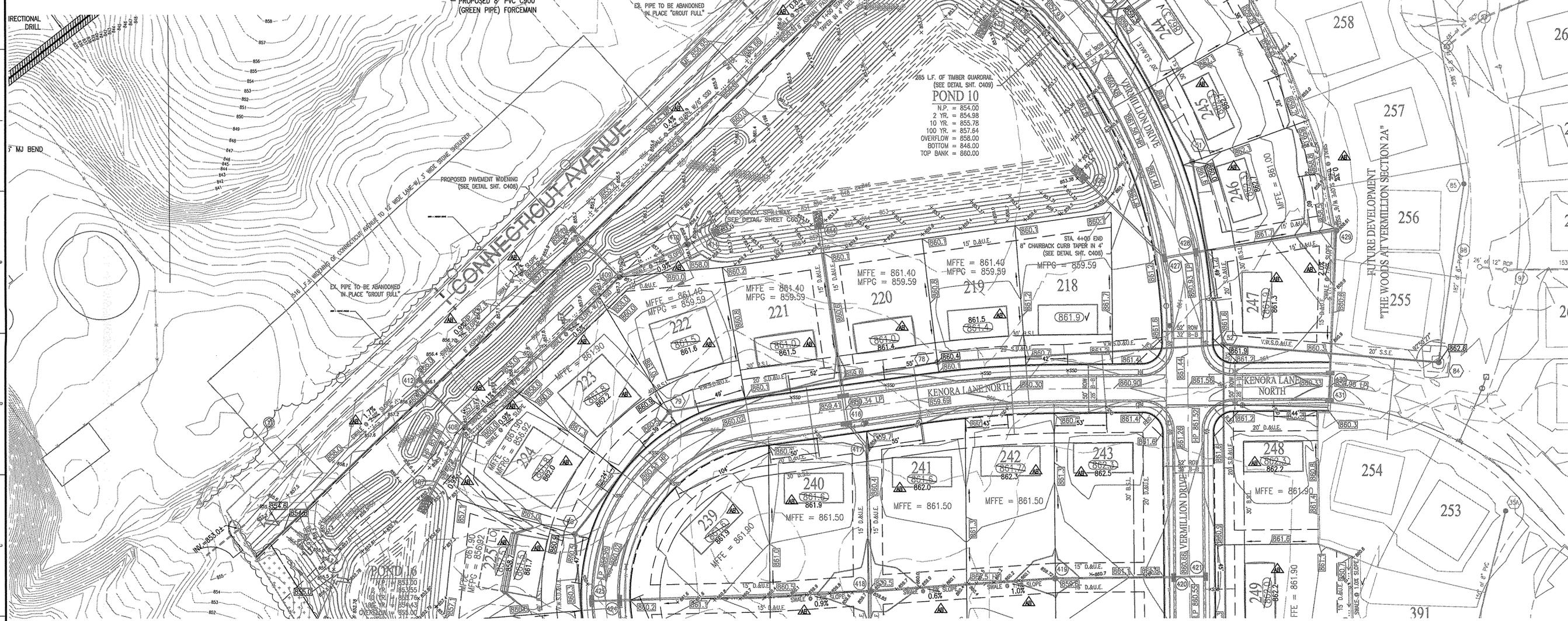
RECORD DRAWING

DEVELOPMENT PLAN ASBUILTS
PADS & SWALES ONLY
11/11/2015

JOSHUA DAVI WERNER, LS21200020



- ASBUILT INFORMATION
BUILT AS PLANNED
ASBUILT SPOT ELEVATION
ASBUILT RISER
ASBUILT SUBSURFACE DRAIN



GENERAL GRADING NOTES:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY, AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY AND COORDINATE CONSTRUCTION WITH ALL RESPECTIVE UTILITIES.
3. ALL QUANTITIES GIVEN ON THESE PRINTS ORALY OR IN THE SCOPE OF WORK SECTION ARE ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTORS.
4. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THIS PROJECT.
5. TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL STANDARDS.
6. BEARINGS, DIMENSIONS, AND ELEVATIONS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS AND PLATS FOR EXACT INFORMATION.
7. ALL SIDEWALKS TO BE 5'-0" WIDE AND INSTALLED AS SHOWN ON THIS PLAN.
8. 2" ROLLED CURB & GUTTER SHALL BE INSTALLED THROUGHOUT ENTIRE PROJECT AS SHOWN UNLESS NOTED OTHERWISE.
9. A HANDICAPPED RAMP IS TO BE INSTALLED AT ALL LOCATIONS WHERE A SIDEWALK INTERSECTS A CURB - SEE DETAIL ON C408.
10. ANY DRAINAGE TILE SYSTEM COMING ONTO PROPERTY SHALL BE CONNECTED INTO THE PROPOSED DRAINAGE SYSTEM IN ORDER TO MAINTAIN POSITIVE DRAINAGE FOR THE OFFSITE SYSTEM.
11. REFER TO THE INDIANA DEPARTMENT OF TRANSPORTATION (INDOT) STANDARD SPECIFICATIONS, LATEST EDITION WITH SUPPLEMENTS, FOR BASIC MATERIALS AND CONSTRUCTION METHODS. THE SECTIONS BELOW FOR VARIOUS ITEMS ARE TO CLARIFY THE INTENT OF THE REQUIREMENTS FOR THIS PROJECT. PLEASE NOTE THAT OTHER SECTIONS OF THE INDOT STANDARD SPECIFICATIONS MAY ALSO BE APPLICABLE.
12. FILL MATERIAL SHALL CONSIST OF EXCAVATION FROM CUT AREAS, BORROW PITS OR OTHER APPROVED SOURCES. EARTH SHALL BE FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES AND LARGE ROCKS. THE FILL MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED SIX INCHES FOLLOWING COMPACTION. PROPER MOISTURE CONTENT OF FILL MATERIAL WILL BE SUCH TO ACHIEVE SPECIFIED COMPACTION DENSITY. ALL FILL BENEATH PAVED AREAS, FLOOR SLABS AND FUTURE BUILDINGS SHALL BE COMPACTIONED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY PER ASTM D-1557. FIELD COMPACTION TEST SHALL BE RUN ON EACH LIFT, IN FULL SECTIONS, AND THE REQUIRED COMPACTION ON EACH LIFT SHALL BE IN ACCORDANCE WITH INDOT SECTION 211.
13. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO LOCATE MARKS, CONDUITS, SERVICE LINES, ETC. IN THE AFFECTED CONSTRUCTION AREA. EXISTING UTILITY STRUCTURES ARE SHOWN HERE IN ACCORDANCE WITH AVAILABLE INFORMATION. THE LOCATION AND PROTECTION OF UTILITY STRUCTURES, THEIR SUPPORT AND MAINTENANCE DURING CONSTRUCTION (IN COOPERATION WITH APPLICABLE UTILITY COMPANY) IS THE EXPRESSED RESPONSIBILITY OF THE CONTRACTOR.
14. ALL SPOT ELEVATIONS ARE TO FINISHED GRADE.
15. ALL CORNERS AT BOUNDARY SHALL MEET EXISTING.
16. ANY PART OF SANITARY OR STORM SEWER TRENCHES RUNNING UNDER OR WITHIN 5' OF PAVEMENT TO BE BACKFILLED WITH GRANULAR MATERIAL.
17. ALL CONSTRUCTION ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH O.S.H.A. STANDARDS FOR WORKER SAFETY.
18. THE CONTRACTOR SHALL CONFIRM ALL EARTHWORK QUANTITIES PRIOR TO THE START OF CONSTRUCTION. IF AN EXCESS OR SHORTAGE OF EARTH IS ENCOUNTERED, THE CONTRACTOR SHALL CONFIRM WITH THE OWNER AND ENGINEER THE REQUIREMENTS FOR STOCKPILING, REMOVAL OR IMPORTING OF EARTH.
19. PROVIDE POSITIVE DRAINAGE WITHOUT PONDING IN ALL AREAS AFTER INSTALLATION. CONTRACTOR TO TEST FOR AND CORRECT ANY PONDING CONDITIONS.
20. ALL 6" S.D. SHALL BE DOUBLE WALL SMOOTH BORE PIPE. (SEE HAMILTON COUNTY STANDARD DETAILS)
21. FINISH FLOOR TO BE 12" ABOVE PAD, CENTER OF LOT.
22. SEE SHT. C202 & C206 FOR POND CROSS SECTION.
23. SEE SHEET C202 AND C203 FOR POND PLANTING.
24. UNLESS APPROVED OTHERWISE BY HSE, THE FINISHED FLOOR ELEVATIONS ON A PLOT PLAN FOR A LOT IN THIS DEVELOPMENT CANNOT EXCEED THE CORRESPONDING MINIMUM FINISHED FLOOR (MFF) SHOWN HEREON BY MORE THAN FIVE TENTHS (0.50) OF A FOOT.

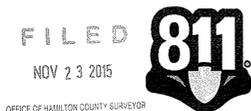
BENCHMARK INFORMATION

- SOURCE BENCHMARK
ISE 28
ISE DISC IN CONCRETE SET 5' SOUTH OF THE SOUTH BACK OF CURB ALONG 101ST ST., 1800'+/- EAST OF CYNTHIANE RD., 33' WEST OF THE FIRST DRIVE WEST OF THE BRIDGE OVER PLATOKR CREEK.
N=1707462.37
E=269743.89
EL=855.00 (NAVD 88)
BM 1
RAILROAD SPIKE SET IN THE SOUTHWEST SIDE OF A 20" TREE LOCATED ON THE SOUTHWEST SIDE OF CONNECTICUT AVENUE, APPROXIMATELY 1,104'+/- SOUTHWEST OF THE INTERSECTION OF CONNECTICUT AVENUE WITH STATE ROAD 238.
N=1711251
E=271743
EL=858.88 (NAVD 88)
BM 2
RAILROAD SPIKE SET IN THE WEST SIDE OF A UTILITY POLE LOCATED APPROXIMATELY 784' SOUTH OF THE NORTHEAST CORNER OF THE NORTHEAST QUARTER OF SECTION 8-117N-86E.
N=1709400
E=273185
EL=856.60 (NAVD 88)
BM 3
MAG NAIL SET IN THE NORTH SIDE OF A UTILITY POLE LOCATED ON THE SOUTH SIDE OF 101ST STREET, APPROXIMATELY 1,097'+/- EAST OF THE SOUTHWEST CORNER OF THE NORTHEAST QUARTER OF SECTION 8-117N-86E.
N=1707470
E=271220
EL=853.33 (NAVD 88)

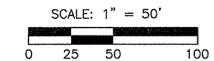
LEGEND

- RIGHT-OF-WAY LINE
STORM SEWER LINE
SWALE
SANITARY SEWER LINE
SANITARY SEWER MANHOLE
EXISTING CONDUITS
PROPOSED ELEVATION
STORM BEHIVE INLET
STORM INLET
TOP OF CASTING
INVERT
REINFORCED CONCRETE PIPE
MANHOLE
STRUCTURE
DRAINAGE AND UTILITY EASEMENT
SANITARY, DRAINAGE, AND UTILITY EASEMENT
SANITARY SEWER EASEMENT
SANITARY SEWER
HANDICAP RAMP
MATCH EXISTING GRADE
SUBSURFACE DRAIN AND SUMP LINE
STORM SEWER
CONCRETE END SECTION
SUBSURFACE DRAIN
SANITARY SEWER PIPE (SDR-35)
TYPICAL (UNLESS OTHERWISE NOTED)
TYPICAL
PROPOSED
EXISTING
RADIUS
PAD ELEV (70'x70'), (UNLESS OTHERWISE NOTED)
MINIMUM FINISHED FLOOR ELEVATION
MINIMUM FLOOD PROTECTION GRADE
VARIABLE WIDTH
LOOK-OUT
WALK-OUT
A.D.A. RAMP
EMERGENCY FLOW ROUTE
PROPOSED PAVEMENT WIDENING (CONNECTICUT AVENUE)

POSITIVE DRAINAGE WILL BE MAINTAINED FOR THIS SITE. NO "BIRDBATHS" OF MORE THAN 1/8" IN DEPTH SHALL BE PERMITTED. ANY AREAS THAT HOLD WATER MORE THAN 1/8" DEEP SHALL BE CUT OUT AND CORRECTED TO POSITIVE DRAINAGE AT NO COST TO THE OWNER/ DEVELOPER/ OR ENGINEER.



Know what's below. Call before you dig. Within Indiana Call 811 or 800-382-5544 24 Hours a Day, 7 Days a Week.



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: Feb 2016 Entered By: SLM

RECORD DRAWING - FINAL CONSTRUCTION PLANS - 12/11/2014

10505 N. College Avenue Indianapolis, Indiana 46280 weihe.net 317 846 - 6611 800 | 452 - 6408 317 | 843 - 0546 fax ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE ENGINEERS Land Surveying | Civil Engineering Landscape Architecture

Table with columns: PRODUCT NO., TYPE NAME, DESIGNED BY, DRAWN BY, CHECKED BY, DATE.

REVISIONS AND ISSUES: 11/11/2015 BR. REVISIONS PER HAMILTON COUNTY COMMENTS

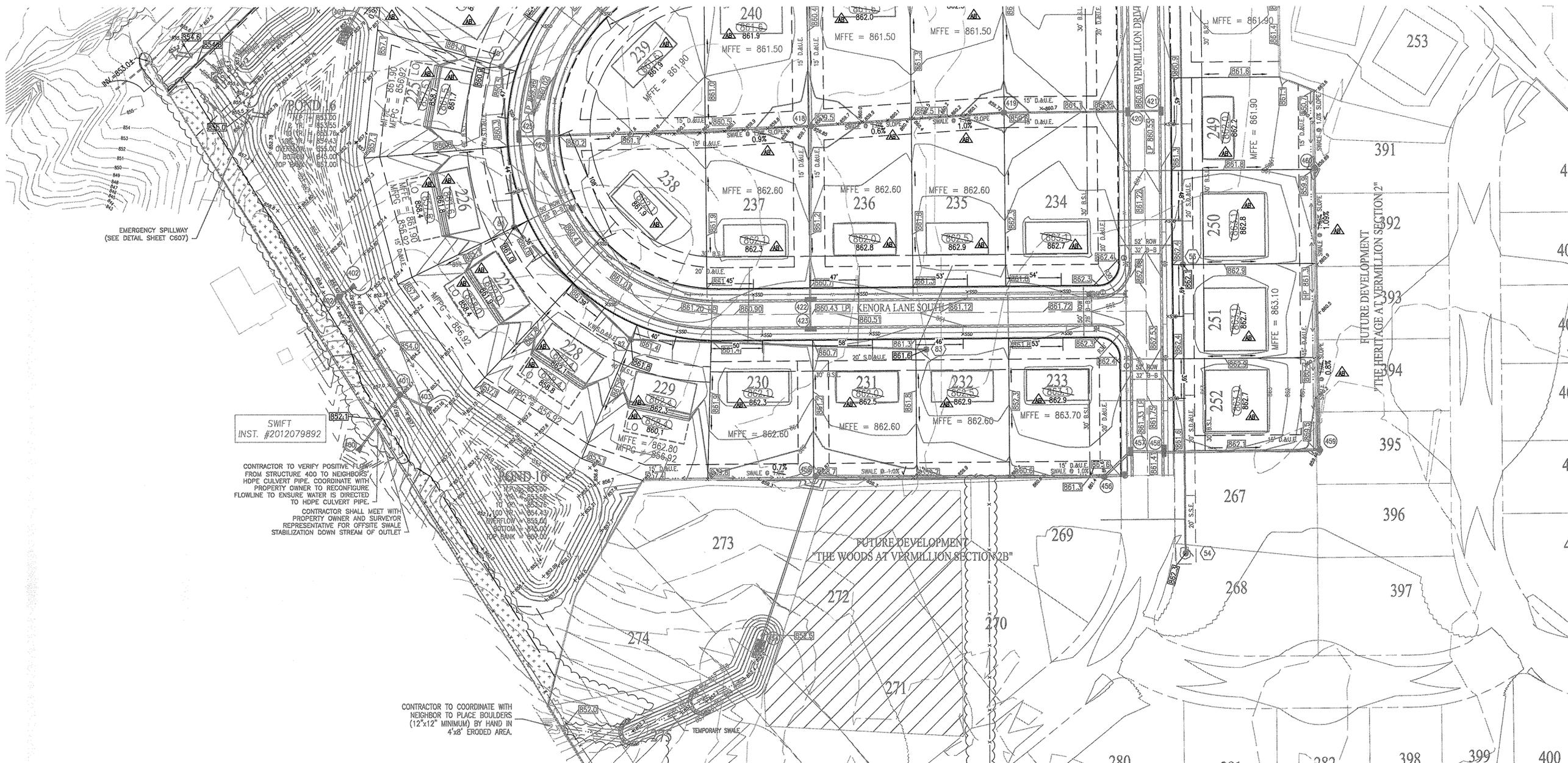


ALVIN E. SKOOG JR., PE 680578

THE WOODS AT VERMILLION SECTION ONE NORTH CONNECTICUT DEVELOPMENT CORP. DEVELOPMENT PLAN Part of the 57.82 1/4 of Section 15, Township 17 North, Range 4 East, Full Creek Township, Hamilton County, Indiana.

PROJECT NO. W13.0129 SHEET NO. C300

LOCATION: I:\2013\WV\10129\Section 01\Engineering\Design\Vermilli\W13_C300_Development_Plan.dwg DATE/TIME: November 11, 2015 10:30am PLOTTED BY: henners



SWIFT
INST. #2012079892

CONTRACTOR TO VERIFY POSITIVE FLOW FROM STRUCTURE 400 TO NEIGHBORS' HDPE CULVERT PIPE. COORDINATE WITH PROPERTY OWNER TO RECONFIGURE FLOWLINE TO ENSURE WATER IS DIRECTED TO HDPE CULVERT PIPE.

CONTRACTOR SHALL MEET WITH PROPERTY OWNER AND SURVEYOR REPRESENTATIVE FOR OFFSITE SWALE STABILIZATION DOWN STREAM OF OUTLET

CONTRACTOR TO COORDINATE WITH NEIGHBOR TO PLACE BOULDERS (12'x12" MINIMUM) BY HAND IN 4'x8' ERODED AREA.

GENERAL GRADING NOTES:

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3. ALL QUANTITIES GIVEN ON THESE PRINTS, VERBALLY OR IN THE SCOPE OF WORK SECTION ARE ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTORS.
4. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THIS PROJECT.
5. TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL STANDARDS.
6. BEARINGS, DIMENSIONS, AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS AND PLATS FOR EXACT INFORMATION.
7. ALL SIDEWALKS TO BE 5'-0" WIDE AND INSTALLED AS SHOWN ON THIS PLAN.
8. 2" ROLLED CURB & GUTTER SHALL BE INSTALLED THROUGHOUT ENTIRE PROJECT AS SHOWN UNLESS NOTED OTHERWISE.
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10. ANY DRAINAGE TILE SYSTEM COMING ONTO PROPERTY SHALL BE CONNECTED INTO THE PROPOSED DRAINAGE SYSTEM IN ORDER TO MAINTAIN POSITIVE DRAINAGE FOR THE OFFSITE SYSTEM.
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14. ALL SPOT ELEVATIONS ARE TO FINISHED GRADE.
15. ALL GRADES AT BOUNDARY SHALL MEET EXISTING.
16. ANY PART OF SANITARY OR STORM SEWER TRENCHES RUNNING UNDER OR WITHIN 5' OF PAVEMENT TO BE BACKFILLED WITH GRANULAR MATERIAL.
17. ALL CONSTRUCTION ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH O.S.H.A. STANDARDS FOR WORKER SAFETY.
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20. ALL 6" SSD SHALL BE DOUBLE WALL SMOOTH BORE PIPE. (SEE HAMILTON COUNTY STANDARD DETAILS)
21. FINISH FLOOR TO BE 12" ABOVE PAD CENTER OF LOT.
22. SEE SHEET C605 & C606 FOR POND CROSS SECTION.
23. SEE SHEET C202 AND C203 FOR POND PLANTING.
24. UNLESS APPROVED OTHERWISE BY HSE, THE FINISHED FLOOR ELEVATIONS ON A PLOT PLAN FOR A LOT IN THIS DEVELOPMENT CANNOT EXCEED THE CORRESPONDING MINIMUM FINISHED FLOOR (MFFE) SHOWN HEREIN BY MORE THAN FIVE TENTHS (0.50) OF A FOOT.

POSITIVE DRAINAGE WILL BE MAINTAINED FOR THIS SITE. NO "BROOKBATHS" OF MORE THAN 1/8" IN DEPTH SHALL BE PERMITTED. ANY AREAS THAT HOLD WATER MORE THAN 1/8" DEEP SHALL BE CUT OUT AND CORRECTED TO POSITIVE DRAINAGE AT NO COST TO THE OWNER/ DEVELOPER/ OR ENGINEER.

BENCHMARK INFORMATION

- SOURCE BENCHMARK
HSE 29
HSE DISC IN CONCRETE SET 5' SOUTH OF THE SOUTH BACK OF CURB ALONG 101ST ST., 1800'+/- EAST OF CYNTHIANNE RD., 33' WEST OF THE FIRST DRIVE WEST OF THE BRIDGE OVER FLATFORK CREEK.
N=1707462.37
E=269743.89
EL=855.00 (NAVD 88)
- TM 1
RAILROAD SPIKE SET IN THE SOUTHWEST SIDE OF A 20" TREE LOCATED ON THE SOUTHWEST SIDE OF CONNECTICUT AVENUE, APPROXIMATELY 1,104'+/- SOUTHWEST OF THE INTERSECTION OF CONNECTICUT AVENUE WITH STATE ROAD 238.
N=1711251
E=271743
EL=859.88 (NAVD 88)
- TM 2
RAILROAD SPIKE SET IN THE WEST SIDE OF A UTILITY POLE LOCATED APPROXIMATELY 784' SOUTH OF THE NORTHEAST CORNER OF THE NORTHEAST QUARTER OF SECTION 8-117N-R6E.
N=1709400
E=273165
EL=864.60 (NAVD 88)
- TM 3
MAG NAIL SET IN THE NORTH SIDE OF A UTILITY POLE LOCATED ON THE SOUTH SIDE OF 101ST STREET, APPROXIMATELY 1,097'+/- EAST OF THE SOUTHWEST CORNER OF THE NORTHEAST QUARTER OF SECTION 8-117N-R6E.
N=1707470
E=271220
EL=863.33 (NAVD 88)

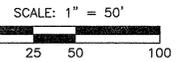
LEGEND

- RIGHT-OF-WAY LINE
- STORM SEWER LINE
- SWALE
- SANITARY SEWER LINE
- SANITARY SEWER MANHOLE
- SANITARY SEWER LATERAL
- FLOW DIRECTION
- EXISTING SPOT ELEVATION
- EXISTING CONTOURS
- PROPOSED ELEVATION
- STORM BEHIVE INLET
- STORM INLET
- TOP OF CASTING
- INVERT
- REINFORCED CONCRETE PIPE
- MANHOLE
- STRUCTURE
- DRAINAGE AND UTILITY EASEMENT
- SANITARY, DRAINAGE, AND UTILITY EASEMENT
- SANITARY SEWER EASEMENT
- SANITARY SEWER
- HANDICAP RAMP
- WATCH EXISTING GRADE
- SUBSURFACE DRAIN AND SUMP LINE
- STORM SEWER
- CONCRETE END SECTION
- SUBSURFACE DRAIN
- SANITARY SEWER PIPE (SDR-35)
- (UNLESS OTHERWISE NOTED)
- TYP. PROP. EX. R. = RADIUS
- 860.4 = PAD ELEV (70'x70'), (UNLESS OTHERWISE NOTED)
- MFFE = MINIMUM FINISHED FLOOR ELEVATION
- MFPG = MINIMUM FLOOD PROTECTION GRADE
- V.W. = VARIABLE WIDTH
- L.O. = LOOK-OUT
- W.O. = WALK-OUT
- + = A.D.A. RAMP
- ← = EMERGENCY FLOW ROUTE

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: Feb 2016
Entered By: SLN

FILED
NOV 23 2015
OFFICE OF HAMILTON COUNTY SURVEYOR

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WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.



RECORD DRAWING
DEVELOPMENT PLAN ASBUILTS
PADS & SWALES ONLY
11/11/2015

JOSHUA DAVID WERNER, LS21200020



- ▲ ASBUILT INFORMATION
- ✓ BUILT AS PLANNED
- ASBUILT SPOT ELEVATION
- ASBUILT RISER
- ⊕ ASBUILT SUBSURFACE DRAIN

WEIHE ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture

10505 N. College Avenue
Indianapolis, Indiana 46280
weihe.net
317 846 - 6611
800 1 452 - 6408
317 843 - 0546 fax
ALLAN H. WEIHE, P.E., L.S. - FOUNDER

PROJECT NO. W13.0129
DATE: 11/11/2015
BY: BK
DESIGNED BY: CRP
DRAWN BY: RPL
CHECKED BY: CRP
DATE: 09.12.2014

REVISIONS AND ISSUES
REVISIONS PER HAMILTON COUNTY COMMENTS

ALVIN E. SKOOG JR., PE 890573

THE WOODS AT VERMILLION SECTION ONE
NORTH CONNECTICUT DEVELOPMENT CORP.
DEVELOPMENT PLAN
Part of the SFR 88 1/4 of Section 16, Township 17 North, Range 6 East, Paul Creek Township, Hamilton County, Indiana

PREPARED FOR:
SHEET NO. **C301**
PROJECT NO. W13.0129

Location: I:\2013\W130129\Section 01\Engineering\Design\Submittal\AS-Consent\AS-CDD-Development_Plan.dwg
 DATE/TIME: October 12, 2015 - 8:53am
 PLOTTED BY: henn

RECORD DRAWING
 STORM SEWER AS-BUILTS
 STORM SEWER STRUCTURES ONLY
 10/12/2015

JOSHUA DAVID WERNER, LS21200020



- AS-BUILT INFORMATION
- BUILT AS PLANNED

STRUCTURE NUMBER	STRUCTURE TYPE	TOP OF CASTING	CASTING TYPE	INVERT
49	MANHOLE	858.60	SOLID	INV IN = 835.01(SW) INV OUT = 834.91(NE)
50	MANHOLE	858.70	SOLID	INV IN = 844.17(SE) INV OUT = 836.40(NE)
50A	MANHOLE	859.50	SOLID	INV IN = 845.16(SE) INV OUT = 845.06(NW)
51	MANHOLE	861.90	SOLID	INV IN = 846.04(S) INV OUT = 845.94(NW)
52	MANHOLE	861.90	SOLID	INV IN = 846.98(S) INV IN = 847.18(W) INV IN = 847.08(E) INV OUT = 846.88(N)
53	MANHOLE	862.70	SOLID	INV IN = 850.52(S) INV OUT = 850.42(N)
54	MANHOLE	862.30	SOLID	INV OUT = 853.30(N)
78	MANHOLE	860.40	SOLID	INV IN = 848.59(W) INV OUT = 848.49(E)
79	MANHOLE	860.90	SOLID	INV IN = 849.94(SW) INV OUT = 849.84(E)
80	MANHOLE	860.90	SOLID	INV IN = 850.74(S) INV OUT = 850.64(NE)
81	MANHOLE	861.00	SOLID	INV IN = 851.54(SE) INV OUT = 851.44(N)
82	MANHOLE	861.80	SOLID	INV IN = 852.34(E) INV OUT = 852.24(NW)
83	MANHOLE	861.70	SOLID	INV OUT = 855.20(W)
84	MANHOLE	862.60	SOLID	INV IN = 848.27(N) INV OUT = 848.07(W)

DOWNSTREAM STRUCTURE	UPSTREAM STRUCTURE	SIZE	MATERIAL	LENGTH	SLOPE
49	50	8"	PVC	308'	0.45%
50	50A	8"	PVC	198'	0.45%
50A	51	8"	PVC	173'	0.45%
51	52	8"	PVC	187'	0.45%
52	84	8"	PVC	219'	0.45%
52	78	8"	PVC	290'	0.45%
52	53	8"	PVC	384'	0.90%
53	54	8"	PVC	278'	1.00%
78	79	8"	PVC	277'	0.45%
79	80	8"	PVC	157'	0.45%
80	81	8"	PVC	156'	0.45%
81	82	8"	PVC	156'	0.45%
82	83	8"	PVC	287'	1.00%
84	83	8"	PVC	10'	0.45%

STRUCTURE NUMBER	STRUCTURE TYPE	TOP OF CASTING	CASTING TYPE	INVERT
401	MANHOLE	856.60	855.67	CUSTOM GRATE INV IN = 852.51(SW) 852.22 INV IN = 852.51(NW) 852.22 INV IN = 852.94(SE) 852.34
402		N/A	R-4215-C	INV OUT = 853.00(SW) 853.04
402A	INLET TYPE A	856.60	855.50	BEEHIVE INV IN = 852.98(NE) 852.87 INV OUT = 852.88(SE) 852.82
403	CONCRETE END SECTION	N/A	N/A	INV OUT = 853.00(NW) 853.14
407	CONCRETE END SECTION	N/A	N/A	INV IN = 853.00(NE) 852.99
408	MANHOLE	857.40	857.44	BEEHIVE INV IN = 853.12(NE) 853.13 INV IN = 853.22(NW) 853.13 INV OUT = 853.12(SW) 853.13
409	MANHOLE	857.30	857.40	BEEHIVE INV IN = 853.72(NE) 853.76 INV IN = 853.82(NW) 853.85 INV OUT = 853.72(SW) 853.83
410	MANHOLE	856.00	858.09	CUSTOM GRATE INV IN = 854.00(NE) 853.98 INV OUT = 853.00(SW) 853.95
411	CONCRETE END SECTION	N/A	N/A	INV OUT = 854.00(SW) 854.02
412	CONCRETE END SECTION	N/A	N/A	INV OUT = 856.00(SE) 855.97
413	CONCRETE END SECTION	N/A	N/A	INV OUT = 855.00(SE) 854.96
414	CONCRETE END SECTION	N/A	N/A	INV IN = 854.00(S) 853.85
415	INLET TYPE J	859.42	859.42	NEENAH R-3501-TR INV IN = 854.36(S) 854.15 INV OUT = 854.26(N) 853.95
416	INLET TYPE J	859.42	859.41	NEENAH R-3501-TR INV IN = 854.40(SE) 854.23 INV OUT = 854.30(N) 854.22
417	MANHOLE	859.90	859.84	SOLID INV IN = 854.64(S) 854.34 INV OUT = 854.54(NW) 854.34
418	MANHOLE	859.50	859.85	BEEHIVE INV IN = 855.00(E) 854.95 INV IN = 855.00(S) 854.66 INV IN = 855.00(W) 854.55 INV OUT = 854.90(N) 854.53
419	MANHOLE	859.60	859.72	BEEHIVE INV IN = 855.45(E) 855.44 INV OUT = 855.35(W) 855.28
420	INLET TYPE J	860.50	860.68	NEENAH R-3501-TR INV IN = 855.85(E) 855.75 INV OUT = 855.75(W) ✓
421	INLET TYPE J	860.50	860.69	NEENAH R-3501-TR INV OUT = 855.95(W) 856.00
422	INLET TYPE J	860.51	860.43	NEENAH R-3501-TR INV OUT = 856.08(S) 856.11 INV OUT = 855.98(N) 855.92

DOWNSTREAM STRUCTURE	UPSTREAM STRUCTURE	SIZE	MATERIAL	LENGTH	SLOPE
400	401	12"	RCP	63' ✓	-0.68% 5.29%
408	412	12"	RCP	59' 62"	-0.66% 4.58%
408	407	18"	RCP	74' 78"	-0.23% 0.18%
409	413	12"	RCP	59' 62"	-2.04% 2.11%
409	408	15"	RCP	218' ✓	-0.25% 0.23%
410	409	15"	RCP	76' ✓	-0.24% 0.25%
411	410	15"	RCP	23' 26"	-0.00% 0.15%
414	415	30"	RCP	790' 171"	-0.15% 0.64%
415	416	30"	RCP	26' 28"	-0.12% 0.25%
416	417	27"	RCP	39' 31"	-0.17% 0.35%
417	418	27"	RCP	746' 147"	-0.16% 0.13%
418	424	18"	RCP	254' 255'	-0.36% 0.38%
418	422	15"	RCP	768' 165'	-0.58% 0.76%
418	419	18"	RCP	790' 188'	0.18% ✓
419	420	15"	RCP	724' 120"	-0.25% 0.26%
420	421	12"	RCP	30' ✓	-0.33% 0.83%
423	422	12"	RCP	26' 28"	-0.38% 0.68%
424	425	12"	RCP	26' ✓	-1.06% 2.58%
426	427	21"	RCP	764' 113'	-0.25% 0.27%
427	428	18"	RCP	36' 29'	-0.27% 1.00%

STRUCTURE NUMBER	STRUCTURE TYPE	TOP OF CASTING	CASTING TYPE	INVERT
423	DOUBLE INLET	860.51	860.48	NEENAH R-3501-TR INV IN = 856.18(N) 856.30
424	DOUBLE INLET	860.04	859.98	NEENAH R-3501-TR INV IN = 855.86(W) 855.59 INV OUT = 855.75(E) 855.53
425	DOUBLE INLET	860.04	860.10	NEENAH R-3501-TR INV OUT = 856.12(E) 856.26
426	CONCRETE END SECTION	N/A	N/A	INV IN = 854.60(SE) 853.88
427	INLET TYPE 1	860.92	860.94	NEENAH R-3501-TR INV IN = 854.35(E) 854.21 INV OUT = 854.25(NW) 854.18
428	INLET TYPE 1	860.92	861.01	NEENAH R-3501-TR INV IN = 854.53(E) 854.50 INV OUT = 854.43(W) 854.50
429	MANHOLE	860.50	858.61	BEEHIVE INV IN = 855.10(S) 855.00 INV OUT = 855.00(W) 854.93
430	INLET TYPE J	860.06	860.09	NEENAH R-3501-TR INV IN = 855.85(S) 855.69 INV OUT = 855.55(N) 855.69
431	INLET TYPE J	860.06	859.94	NEENAH R-3501-TR INV OUT = 855.73(N) 855.92
432	CONCRETE END SECTION	N/A	N/A	INV IN = 854.60(NE) 853.91
433	INLET TYPE 1	857.50	857.45	NEENAH R-3501-TR INV IN = 854.21(NE) 854.07 INV OUT = 854.11(SW) 854.07
434	INLET TYPE 1	857.50	857.52	NEENAH R-3501-TR INV OUT = 854.38(SW) 854.22
454	CONCRETE END SECTION	N/A	N/A	INV IN = 852.50(N) 852.53
455	MANHOLE	856.70	858.87	BEEHIVE INV IN = 853.21(E) 853.37 INV OUT = 853.13(S) 853.28
456	MANHOLE	861.70	861.61	NEENAH R-4342 INV IN = 854.57(NE) 854.45 INV OUT = 854.47(W) 854.45
457	INLET TYPE J	861.32	861.40	NEENAH R-3501-TR INV IN = 854.79(E) 854.58 INV OUT = 854.69(SW) 854.58
458	INLET TYPE J	861.32	861.33	NEENAH R-3501-TR INV IN = 855.00(E) 854.89 INV OUT = 854.90(W) 854.81
459	DOUBLE INLET MANHOLE	859.50	859.46	NEENAH R-3501-TR INV IN = 855.56(N) 855.40 INV IN = 855.56(S) 855.28 INV OUT = 855.46(W) 855.28
460	MANHOLE	859.90	859.89	NEENAH R-4342 INV OUT = 856.40(S) 856.28

DOWNSTREAM STRUCTURE	UPSTREAM STRUCTURE	SIZE	MATERIAL	LENGTH	SLOPE
428	429	15"	RCP	744' 145"	-0.33% 0.30%
429	430	12"	RCP	742' 144"	-0.34% 0.48%
430	431	12"	RCP	26' 28"	-0.34% 0.82%
433	432	15"	RCP	74' 39"	-0.27% 0.41%
434	433	12"	RCP	56' 48"	-0.34% 0.31%
454	455	21"	RCP	158' 167"	-0.40% 0.45%
455	456	21"	RCP	283' 279"	-0.44% 0.39%
456	457	21"	RCP	35' ✓	-0.34% 0.37%
457	458	18"	RCP	36' 32"	-0.37% 0.72%
458	459	18"	RCP	790' 151"	-0.34% 0.26%
459		12"	RCP	10'	1.00%
459	460	12"	RCP	276' 271"	-0.34% 0.33%

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: Feb 2016
 Entered by: SLM

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 Within Indiana Call
 811 or 800-382-5544
 24 Hours a Day, 7 Days a Week.
 PER INDIANA STATE LAW IC 8-1-28,
 IT IS AGAINST THE LAW TO EXCAVATE
 WITHOUT NOTIFYING THE UNDERGROUND
 LOCATION SERVICE TWO (2) WORKING
 DAYS BEFORE COMMENCING WORK.

RECORD DRAWING - FINAL CONSTRUCTION PLANS - 12/11/2014

10505 N. College Avenue
 Indianapolis, Indiana 46280
 weihe.net
 317 | 846 - 6611
 800 | 452 - 6408
 317 | 843 - 0546 /fax
 ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE ENGINEERS
 Land Surveying | Civil Engineering
 Landscape Architecture

PROJECT NO.: W13.0129
 DATE: 02.12.2014
 BY: [Signature]
 DATE: [Blank]
 REVISIONS AND ISSUES: [Blank]

ALVIN E. SKOOG JR., PE 890573
 STATE OF INDIANA
 PROFESSIONAL ENGINEER

PREPARED FOR:
THE WOODS AT VERMILLION SECTION ONE
 NORTH CONNECTICUT DEVELOPMENT CORP.
PIPE & STRUCTURE DATA TABLES
 Part of the 22.58 1/4 of Section 15, Township 17 North, Range 6 East, Coal Creek Township, Hamilton County, Indiana.

SHEET NO.
C302
 PROJECT NO.
 W13.0129

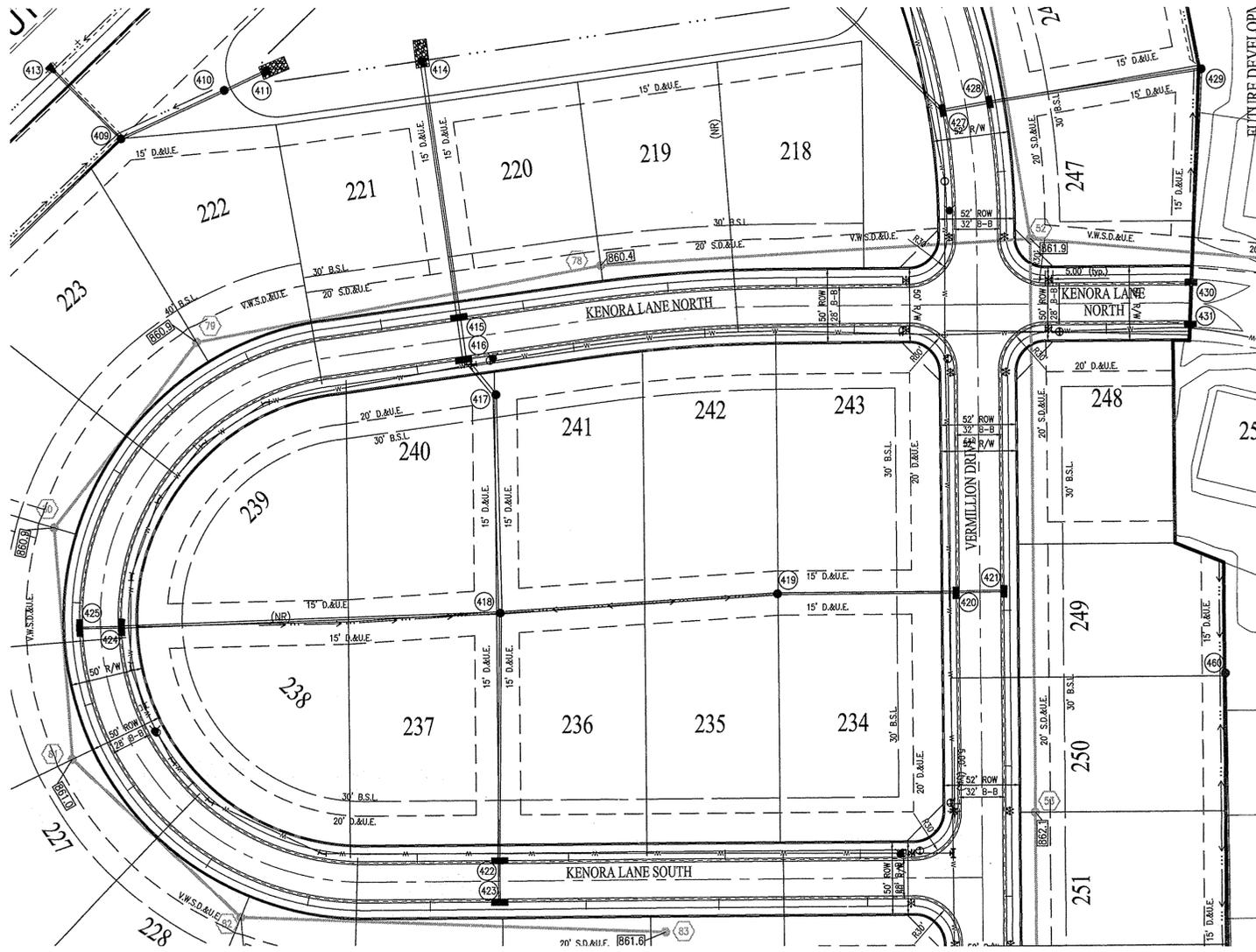
RECORD DRAWING

STORM SEWER AS-BUILTS
STORM SEWER STRUCTURES ONLY
10/12/2015

JOSHUA DAVID WERNER, LS21200020

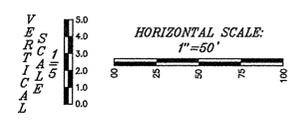


- AS-BUILT INFORMATION
- BUILT AS PLANNED



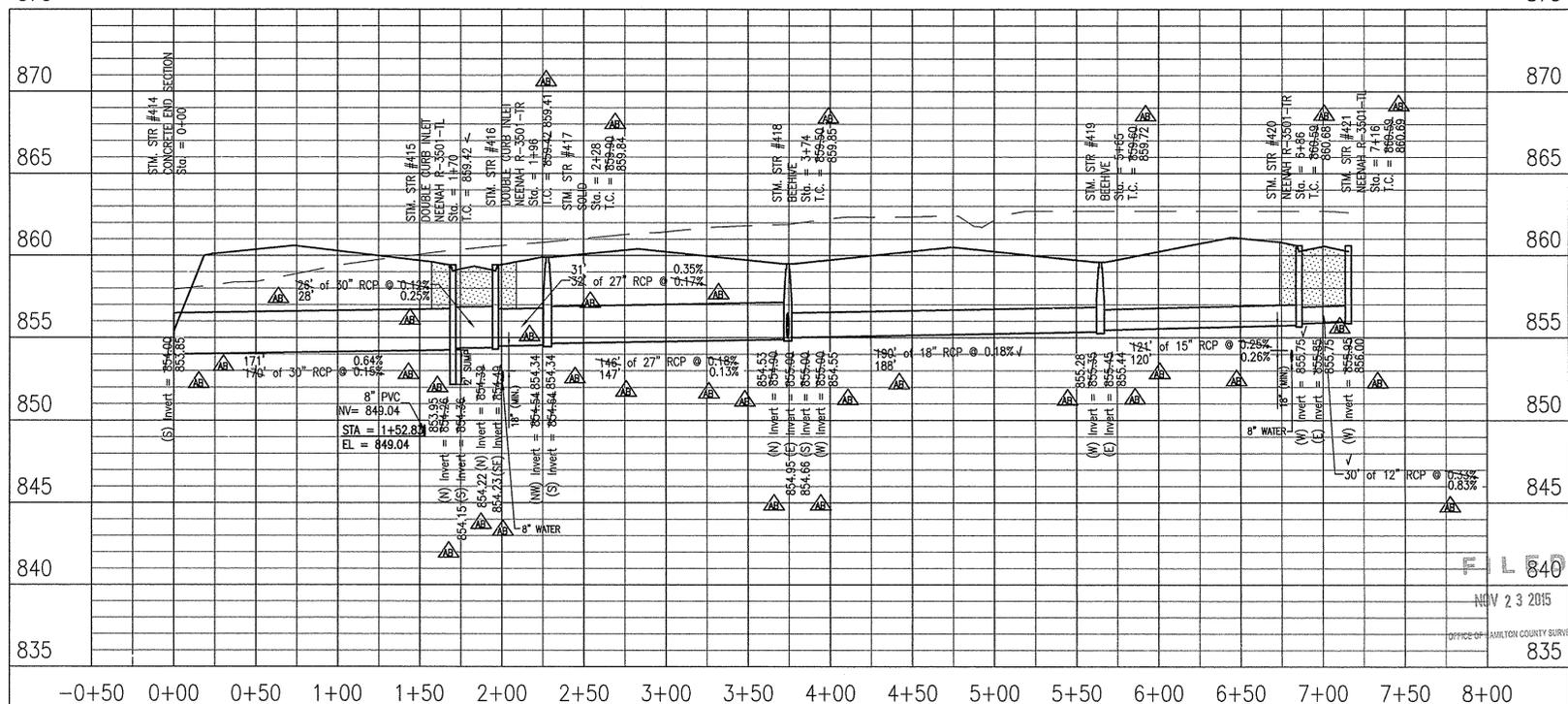
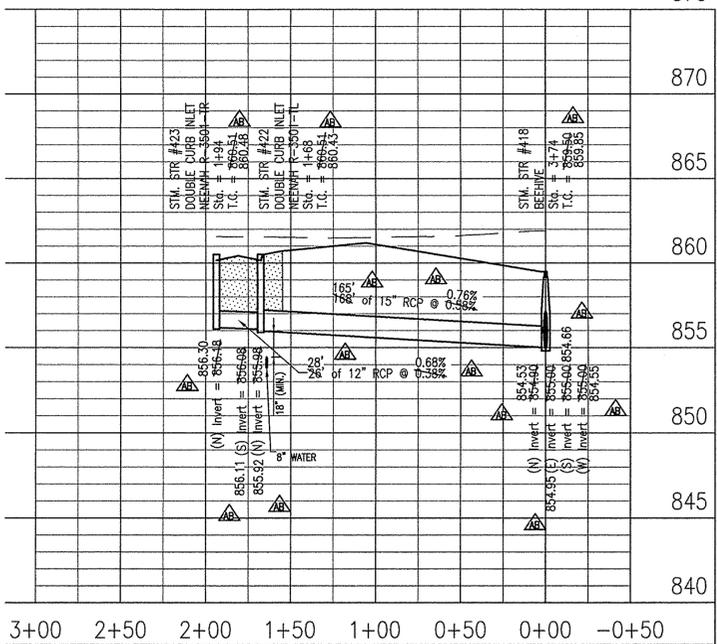
This information was gathered for input into the Hamilton County Geographic Information System (GIS). This document is considered an official record of the GIS.
Entry Date: Feb 2016
Entered by: SLM

- NOTES:**
- GRANULAR BACKFILL REQUIRED WHERE TRENCH OPENING ENROACHES TO WITHIN 5'-0" OF SIDEWALK OR PAVEMENT.
 - 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.



LEGEND

- EXISTING GRADE
- FINISHED GRADE
- GRANULAR BACKFILL



RECORD DRAWING FINAL CONSTRUCTION PLANS - 12/11/2014

10505 N. College Avenue
Indianapolis, Indiana 46280
weihe.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546/ax
ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture

PROJECT NO.: W13.0129
DWG NAME:
DESIGNED BY: JAW
DRAWN BY: RPL
CHECKED BY: JAW
DATE: 03/12/2014

DATE:
BY:
ISSUES AND ISSUES

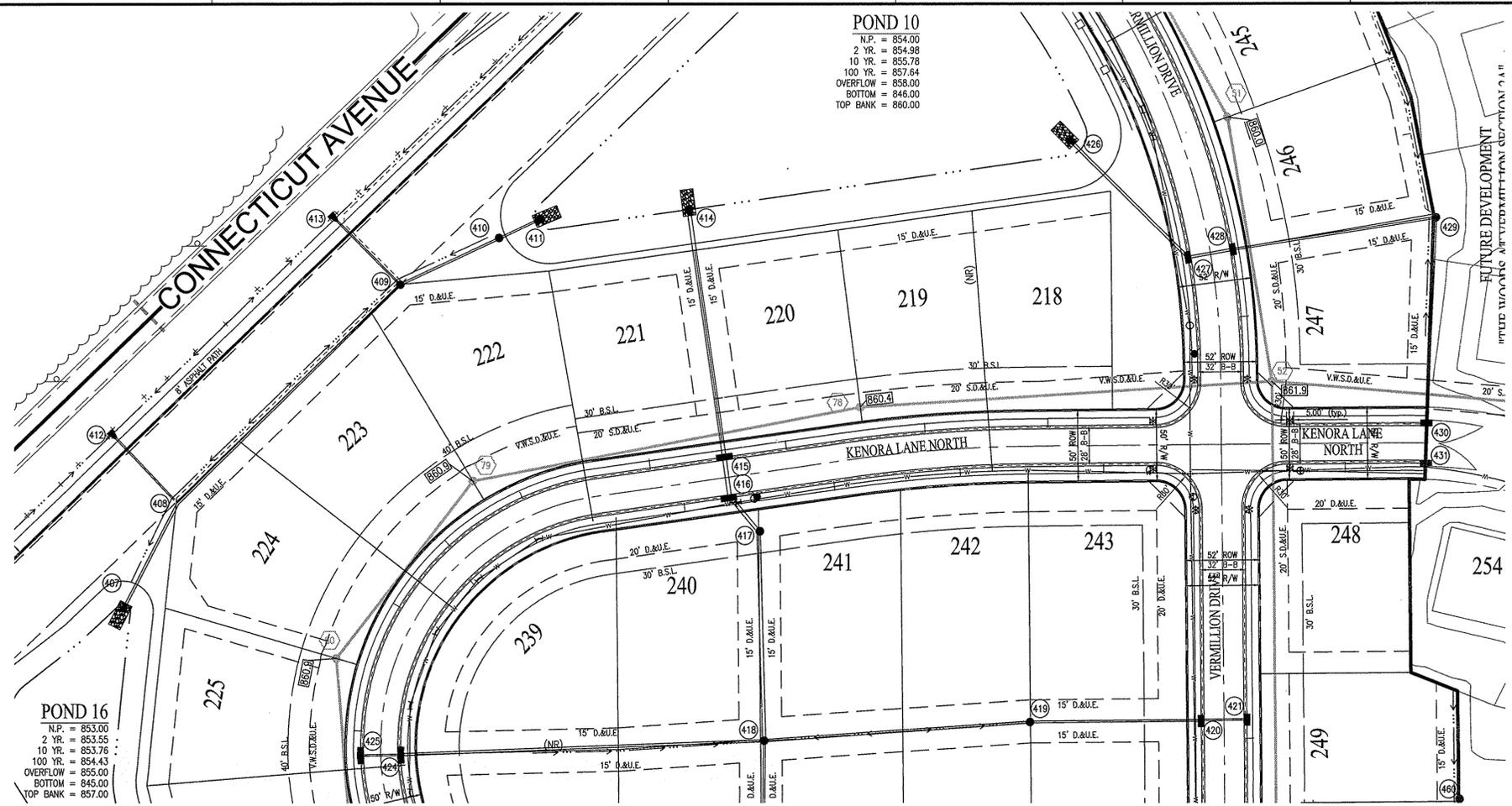


ALVIN E. SKOOG JR., PE 600573

PREPARED FOR:
THE WOODS AT VERMILLION SECTION ONE
NORTH CONNECTICUT DEVELOPMENT CORP.
STORM SEWER PLAN & PROFILE
Part of the SPS 1/4 of Section 15, Township 17 North, Range 6 East, Paul Owsen Township, Hamilton County, Indiana

SHEET NO.
C600
PROJECT NO.
W13.0129

LOCATION: K:\2013\W13.0129\Station 01\Engineering\Drawings\Storm\SPS Storm Plan.dwg
LAYOUT: C600 Storm Plan
DATE: 12/11/2014
PLOT BY: JAW



POND 10
 N.P. = 854.00
 2 YR. = 854.98
 10 YR. = 855.78
 100 YR. = 857.64
 OVERFLOW = 858.00
 BOTTOM = 846.00
 TOP BANK = 860.00

POND 16
 N.P. = 853.00
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 10 YR. = 853.76
 100 YR. = 854.43
 OVERFLOW = 855.00
 BOTTOM = 845.00
 TOP BANK = 857.00

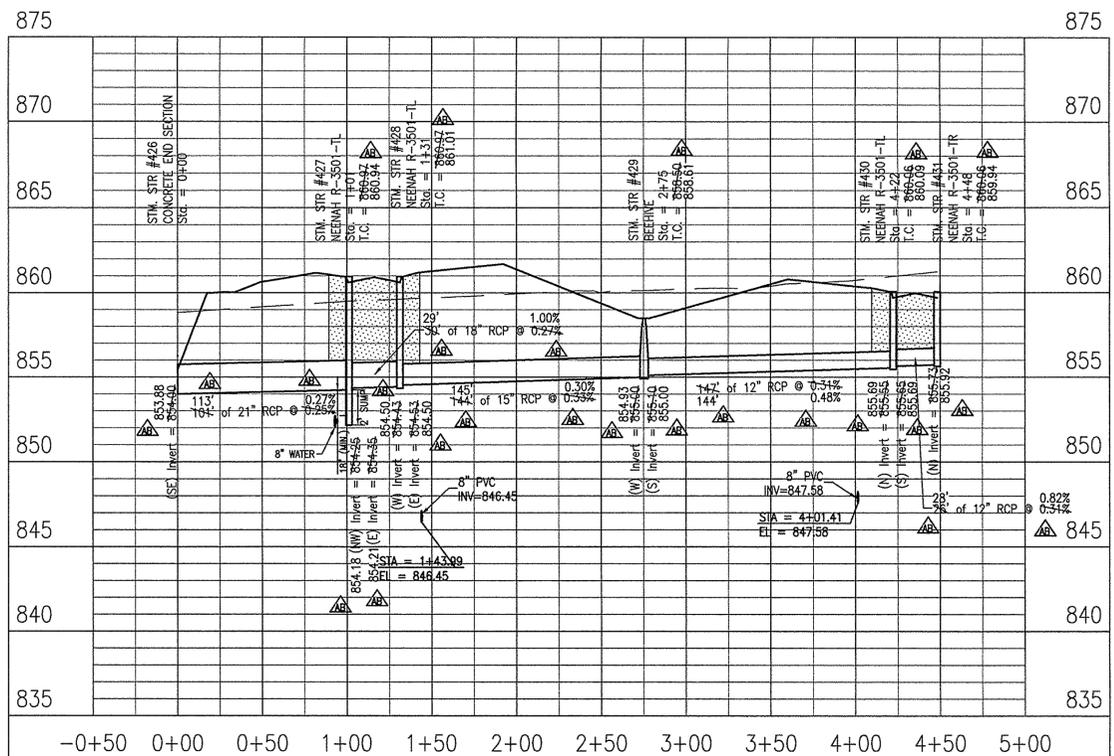
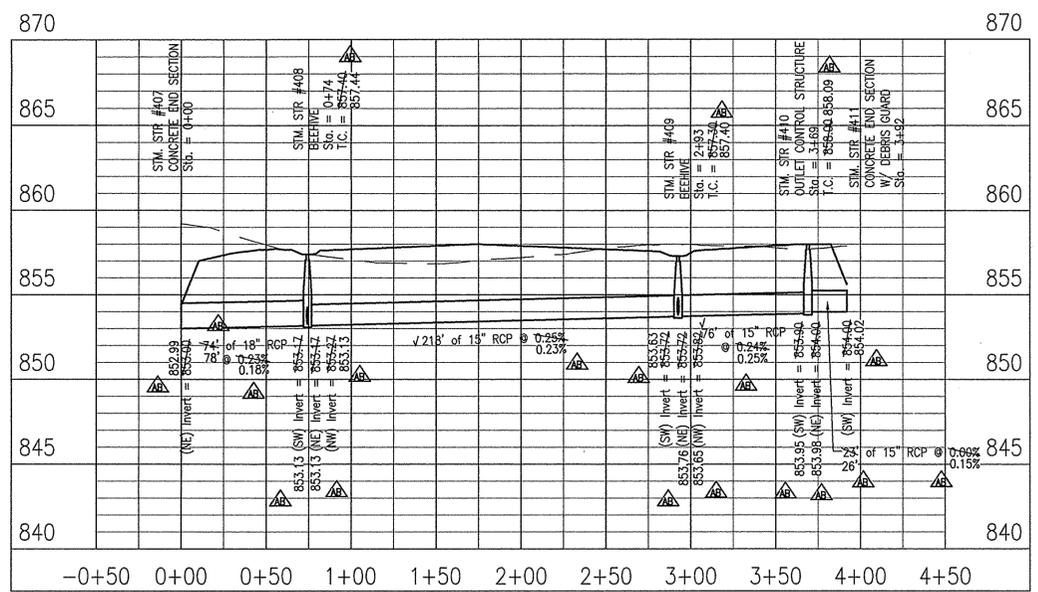
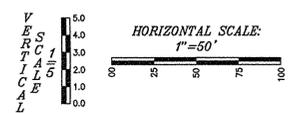
- NOTES:**
1. GRANULAR BACKFILL REQUIRED WHERE TRENCH OPENING ENCLOSES TO WITHIN 5'-0" OF SIDEWALK OR PAVEMENT.
 2. EXCEPT FOR FORCE MAINS, CONTRACTOR TO INSTALL CONCRETE CRADLES WHEN THE VERTICAL SEPARATION (AS MEASURED FROM THE EXTERIOR OF THE PIPES) BETWEEN SANITARY SEWER FACILITIES AND STORM SEWERS IS 18" OR LESS.

RECORD DRAWING
 STORM SEWER AS-BUILTS
 STORM SEWER STRUCTURES ONLY
 10/12/2015
 JOSHUA DAVID WERNER, LS21200020



- ▲ AS-BUILT INFORMATION
- ✓ BUILT AS PLANNED

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 Entry Date: Feb 2016
 Entered By: SLM



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LEGEND

- EXISTING GRADE
- FINISHED GRADE
- █ GRANULAR BACKFILL

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 weihc.net
 317 | 846 - 6611
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WEIHE ENGINEERS
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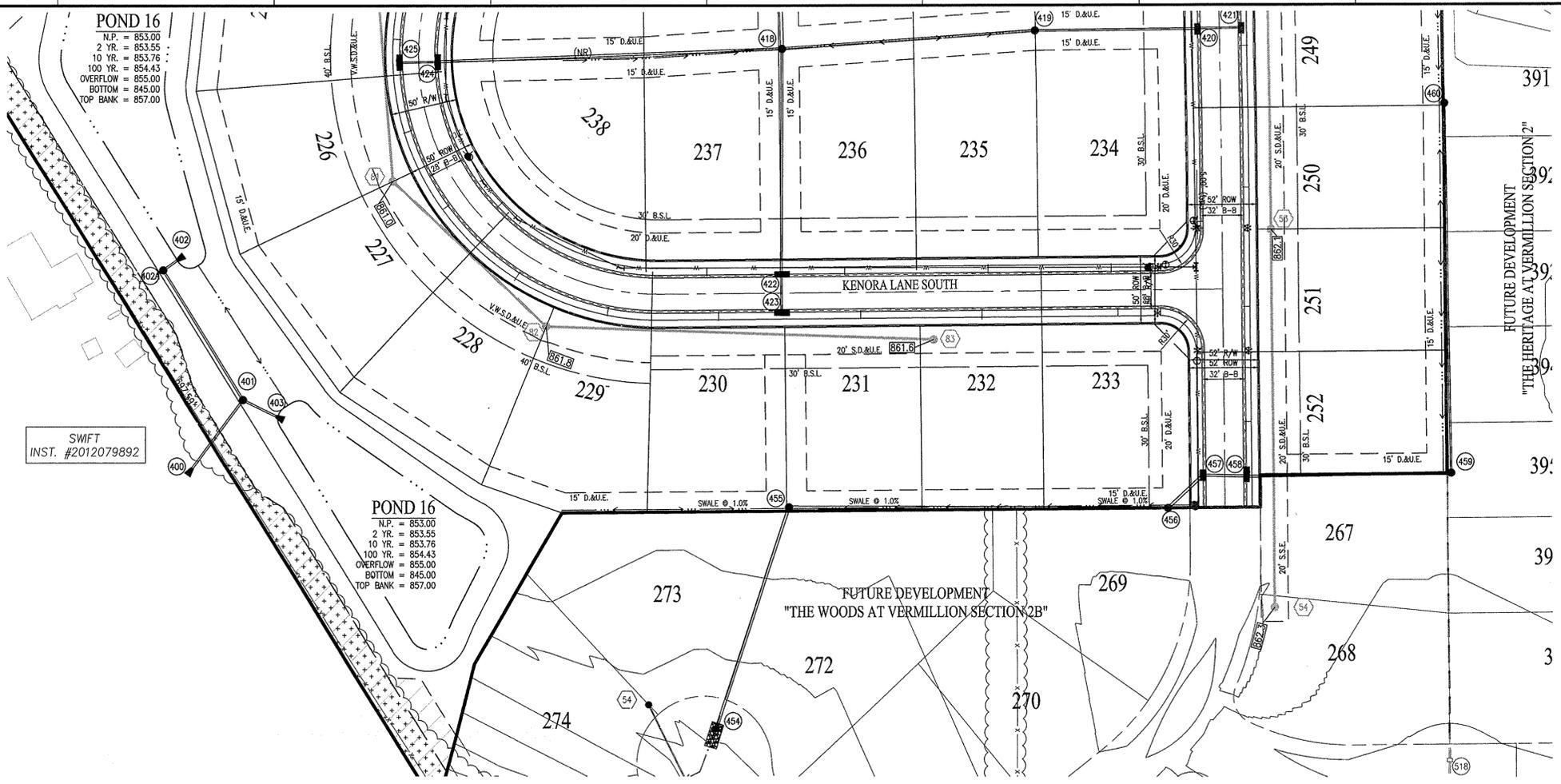
PROJECT NO.: W13.0129
 DWG NAME:
 DESIGNED BY:
 DRAWN BY:
 CHECKED BY:
 DATE: 06.12.2014

ALVIN E. SKOOG JR., PE 880573
 STATE OF INDIANA
 PROFESSIONAL ENGINEER

THE WOODS AT VERMILLION SECTION ONE
 NORTH CONNECTICUT DEVELOPMENT CORP.
 STORM SEWER PLAN & PROFILE
 Part of the SY28 1/4 of Section 15, Township 17 North, Range 6 East, Paul Coverdell Township, Hamilton County, Indiana

PREPARED FOR:
 SHEET NO. **C601**
 PROJECT NO. W13.0129

LOCATION: K:\2013\W130129\Section 01\Engineering\dwg\as-built\C601 Storm Plan.dwg
 USER: c601 Storm Plan
 PLOTTED BY: hundert
 DATE: 11/11/2014



SWIFT
INST. #2012079892

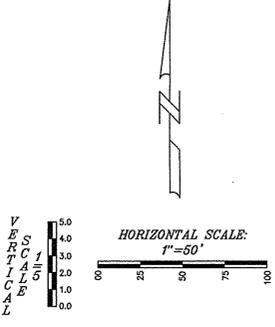
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10 YR. = 853.76
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OVERFLOW = 855.00
BOTTOM = 845.00
TOP BANK = 857.00

POND 16
N.P. = 853.00
2 YR. = 853.55
10 YR. = 853.76
100 YR. = 854.43
OVERFLOW = 855.00
BOTTOM = 845.00
TOP BANK = 857.00

- NOTES:**
1. GRANULAR BACKFILL REQUIRED WHERE TRENCH OPENING ENCROACHES TO WITHIN 5'-0" OF SIDEWALK OR PAVEMENT. 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.

LEGEND	
	EXISTING GRADE
	FINISHED GRADE
	GRANULAR BACKFILL

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Entry Date: Feb 2014
Entered by: SLW

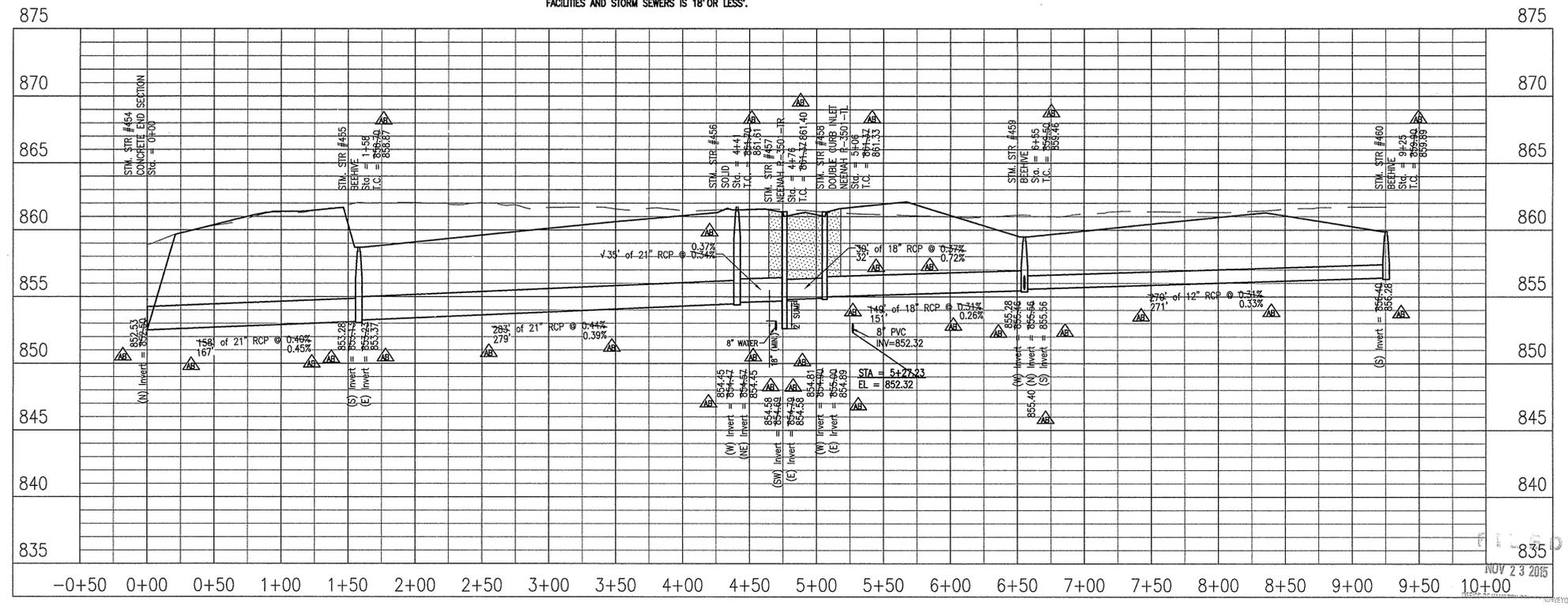


RECORD DRAWING
STORM SEWER AS-BUILTS
STORM SEWER STRUCTURES ONLY
10/12/2015

JOSHUA DAVID WERNER, LS21200020



- AS-BUILT INFORMATION
- BUILT AS PLANNED



10505 N. College Avenue
Indianapolis, Indiana 46280
weilhe.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546/ax
ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture

PROJECT NO.: W13.0129
DESIGNED BY: [blank]
DRAWN BY: RPL
CHECKED BY: CRP
DATE: 03/12/2014

DATE: [blank]
BY: [blank]
REVISIONS AND ISSUES: [blank]

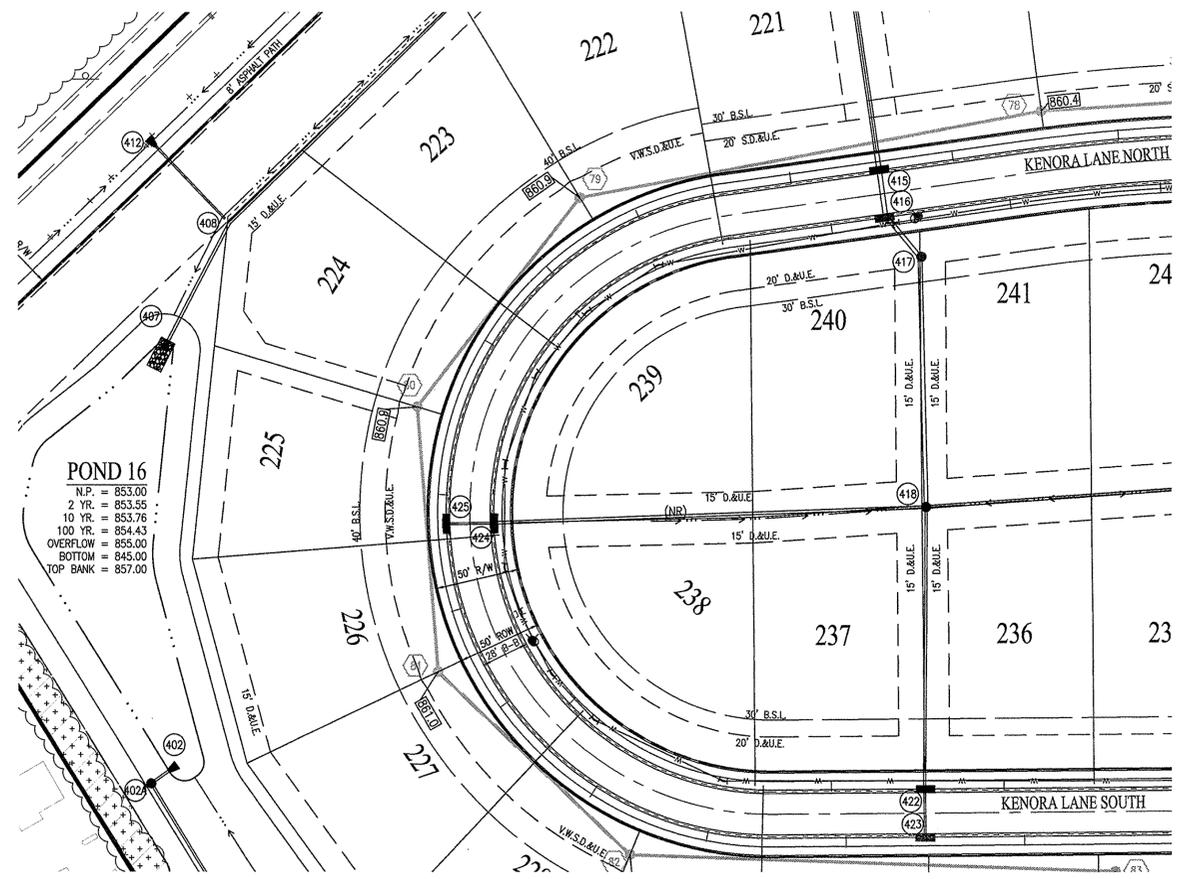
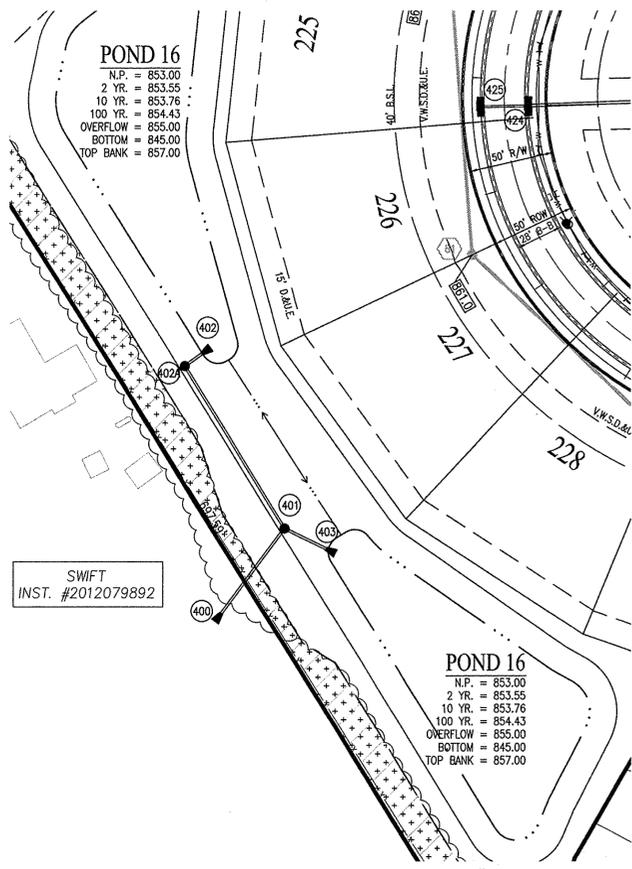


ALVIN E. SKOOG JR., PE 60060573

PREPARED FOR:
THE WOODS AT VERMILLION SECTION ONE
NORTH CONNECTICUT DEVELOPMENT CORP.
STORM SEWER PLAN & PROFILE
Part of the 57.58 1/4 of Section 15, Township 17 North, Range 6 East, Full Creek Township, Hamilton County, Indiana

SHEET NO.
C602
PROJECT NO.
W13.0129

LOCATION: H:\2013\W130129\Section 01\Engineering\dwg\asbuilt\ASB_C602 Storm Plan.dwg
LAYOUT: C602 Storm Plan.dwg
PLOT DATE: 12/11/2014 11:16am
PLOTTER: HP DesignJet 500



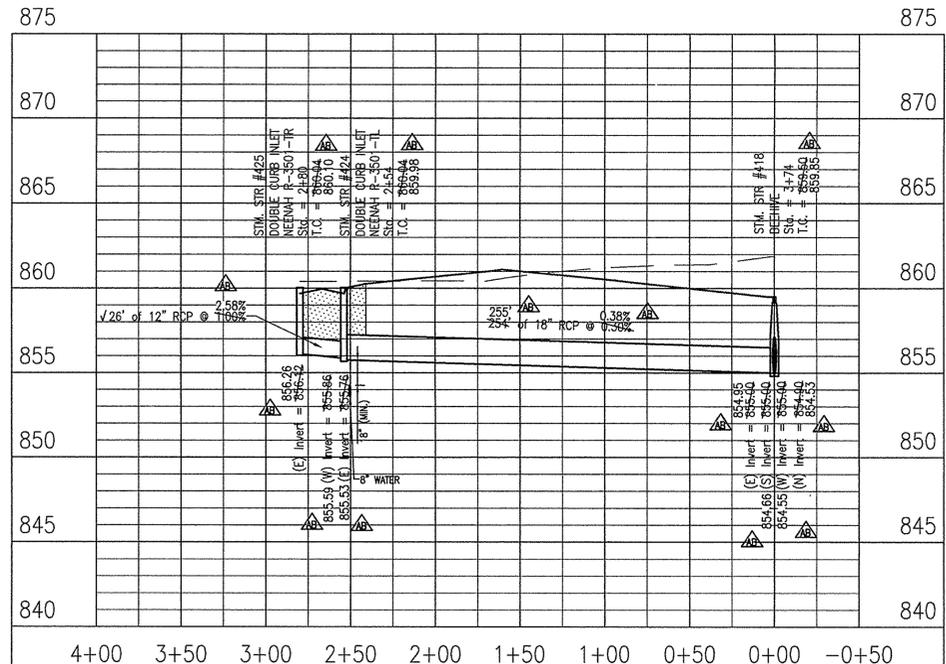
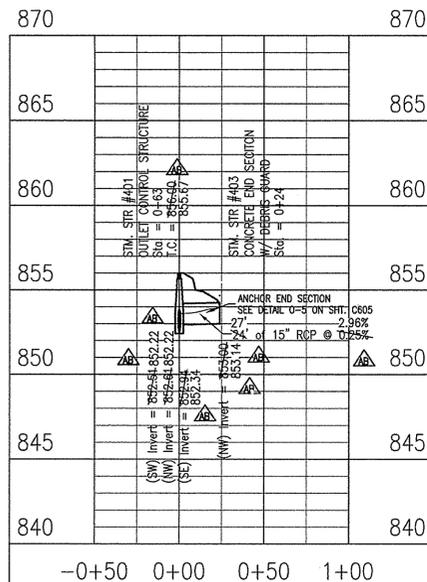
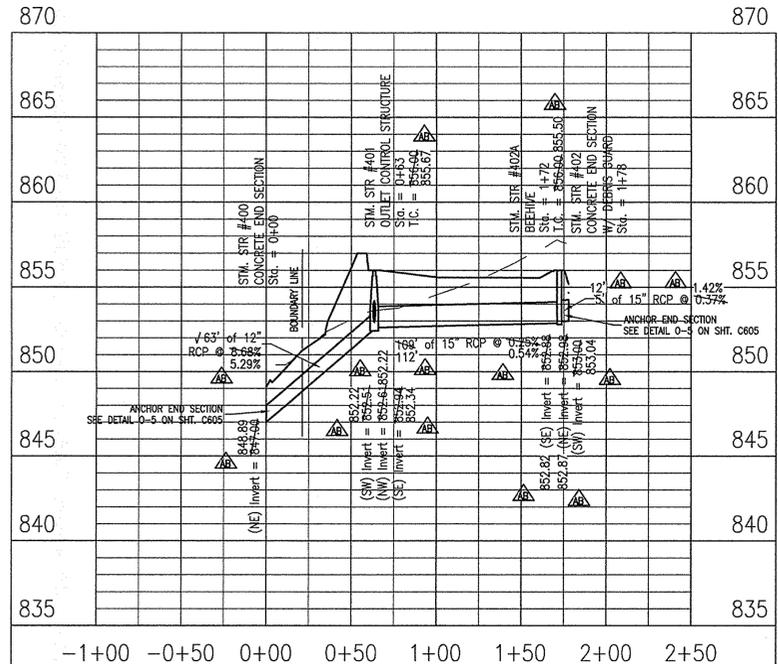
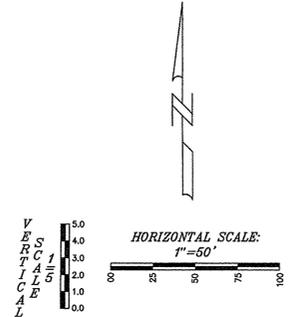
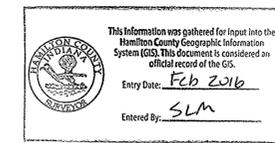
RECORD DRAWING
STORM SEWER AS-BUILTS
STORM SEWER STRUCTURES ONLY
10/12/2015

JOSHUA DAVID WERNER, LS21200020



- ASBUILT INFORMATION
- BUILT AS PLANNED

- NOTES:**
- GRANULAR BACKFILL REQUIRED WHERE TRENCH OPENING ENCROACHES TO WITHIN 5'-0" OF SIDEWALK OR PAVEMENT.
 - 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.



LEGEND

- EXISTING GRADE
- FINISHED GRADE
- GRANULAR BACKFILL

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WEIHE ENGINEERS
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REVISIONS AND ISSUES

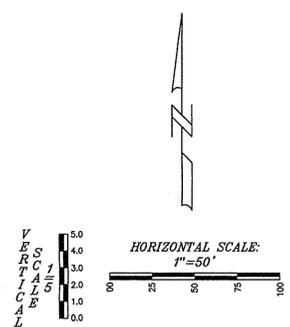
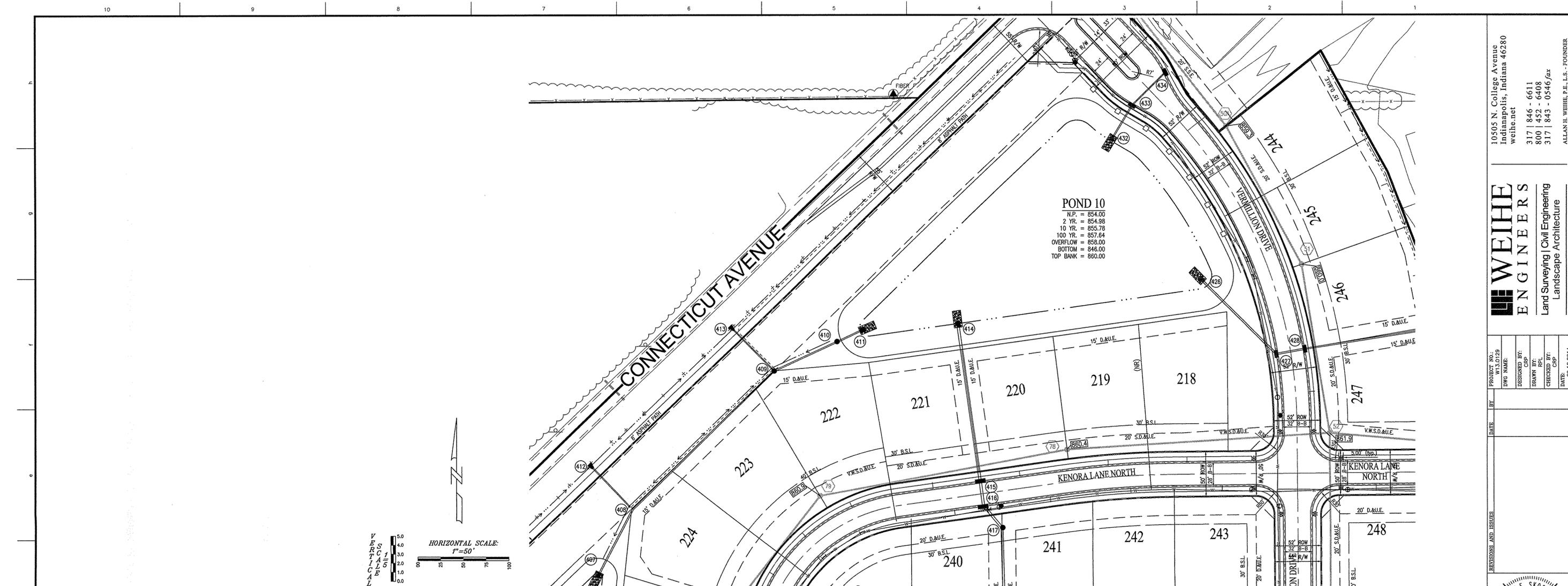
NO.	DATE	DESCRIPTION
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18	06-12-2014	ISSUED FOR PERMITS
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ALVIN E. SKOOG JR., PE 880573

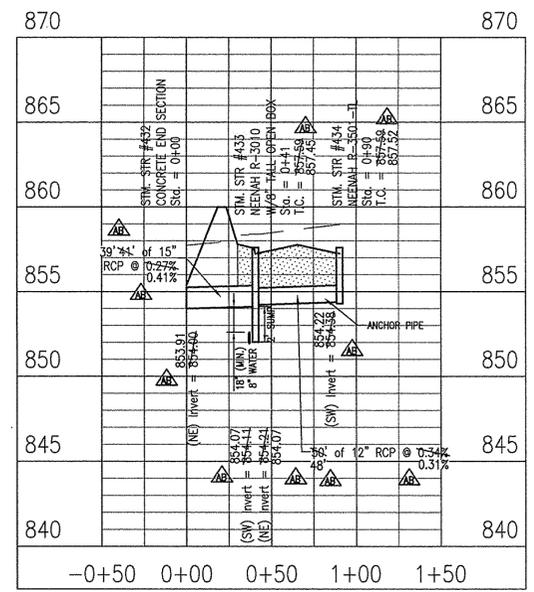
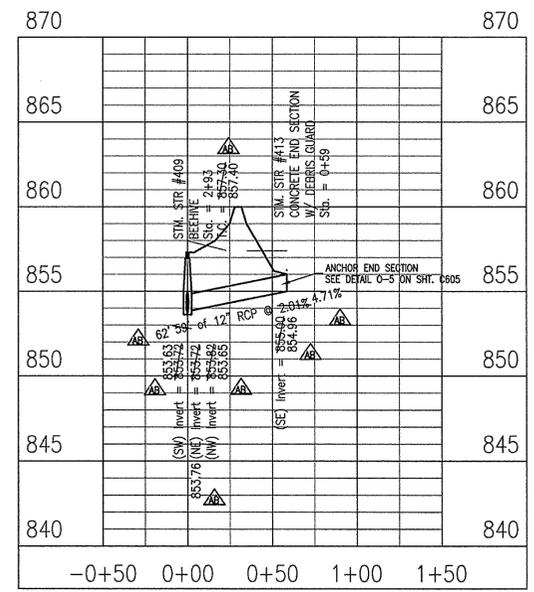
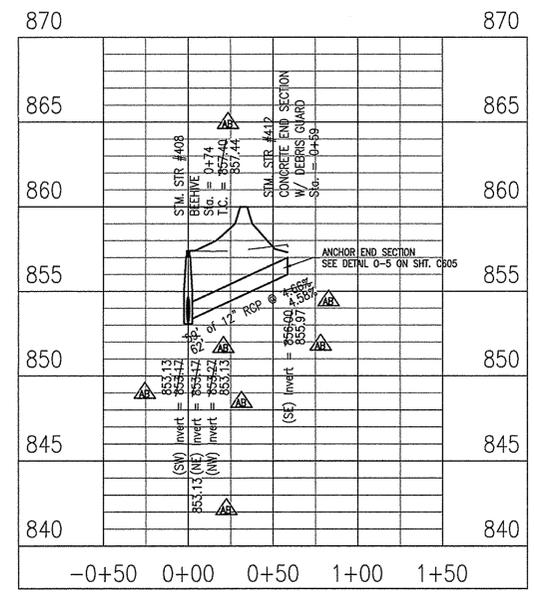
PREPARED FOR:
THE WOODS AT VERMILLION SECTION ONE
NORTH CONNECTICUT DEVELOPMENT CORP.
STORM SEWER PLAN & PROFILE
Part of the SF25 1/4 of Section 15, Township 17 North, Range 6 East, Paul Creek Township, Hamilton County, Indiana

SHEET NO.
C603
PROJECT NO.
W13.0129



- NOTES:**
1. GRANULAR BACKFILL REQUIRED WHERE TRENCH OPENING ENROACHES TO WITHIN 5'-0" OF SIDEWALK OR PAVEMENT.
 2. 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.

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: Feb 2016
 Entered by: SLM



RECORD DRAWING
 STORM SEWER AS-BUILTS
 STORM SEWER STRUCTURES ONLY
 10/12/2015



JOSHUA DAVID WERNER, LS21200020

- ▲ AS-BUILT INFORMATION
- ✓ BUILT AS PLANNED

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LEGEND

- EXISTING GRADE
- FINISHED GRADE
- █ GRANULAR BACKFILL

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 Indianapolis, Indiana 46280
 weihe.net
 317 | 846 - 6611
 800 | 452 - 6408
 317 | 843 - 0546 fax

WEIHE ENGINEERS
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 Landscape Architecture

PROJECT NO.: 13129
 DATE: 09/12/2014

DESIGNED BY: CRP
 DRAWN BY: CRP
 CHECKED BY: CRP

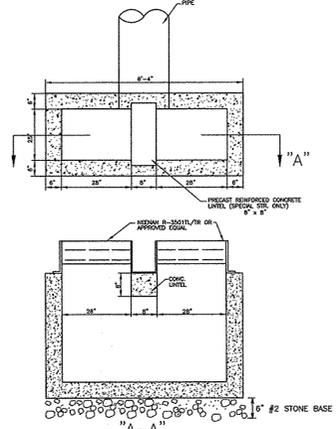
REVISIONS AND ISSUES

ALVIN E. SKOOG JR., PE 8805978

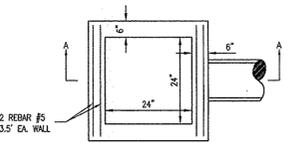
PREPARED FOR:
THE WOODS AT VERMILION SECTION ONE
 NORTH CONNECTICUT DEVELOPMENT CORP.
 STORM SEWER PLAN & PROFILE
 Part of the S&S2 (1/4 Section 15, Township 17 North, Range 6 East, Paul Deak Township, Hamilton County, Indiana)

SHEET NO.
C604
 PROJECT NO.
 W13.0129

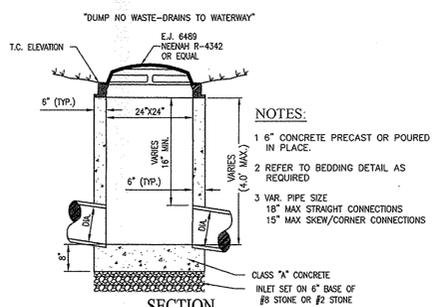
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 PLOTTED BY: jdwerner



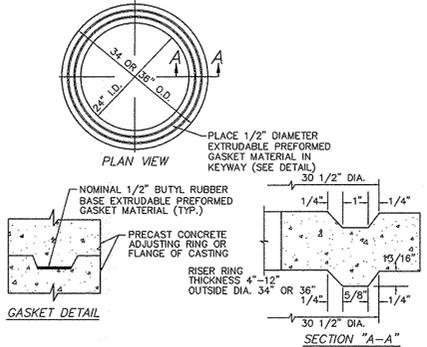
DOUBLE CURB INLET STRUCTURE DETAIL
(NO SCALE)



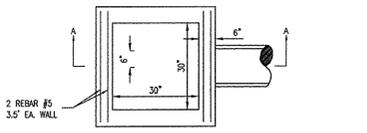
CURB INLET TYPE "E"
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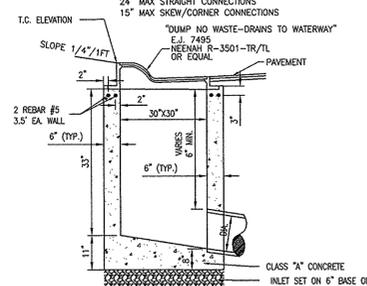
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PIPE SIZES 15" TO 18"
(NO SCALE)



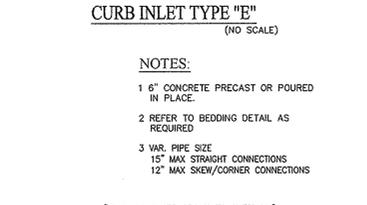
ADJUSTING RING DETAIL
(NO SCALE)



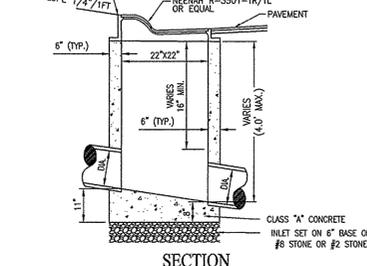
SECTION A-A
(NO SCALE)



SECTION A-A
(NO SCALE)



SECTION
(NO SCALE)



SECTION
(NO SCALE)



CURB INLET TYPE "A"
PIPE SIZES 12" TO 15"
(NO SCALE)

1. SCOPE OF WORK
The work under this section includes all storm sewers, storm sewer inlets, and related items, including excavating and backfilling, necessary to complete the work shown on the drawings.

2. MATERIALS

A. Storm Sewers:

- Reinforced concrete sewer pipe shall conform to ASTM C-76 Type III, w/ a wall thickness "B", latest revision with joints conforming to ASTM C-443 latest revision.
- Castings shall be of uniform quality, free from blow holes, porosity, hard spots, shrinkage distortion or other defects. They shall be smooth and well-cleaned by shotblasting or by some other approved method. They shall be coated with asphalt paint which shall result in a smooth coating. Tough and tenacious when cold, not lumpy or brittle. They shall be gray iron meeting ASTM A-48 latest revision.
- Joints - manhole sections shall be jointed with rubber type gaskets. The rubber type gaskets shall meet ASTM C-443 latest revision.

B. Manholes:

- Precast reinforced concrete manhole sections and steps shall conform to ASTM C-478 latest revision.
- Coatings shall be of uniform quality, free from blow holes, porosity, hard spots, shrinkage distortion or other defects. They shall be smooth and well-cleaned by shotblasting or by some other approved method. They shall be coated with asphalt paint which shall result in a smooth coating. Tough and tenacious when cold, not lumpy or brittle. They shall be gray iron meeting ASTM A-48 latest revision.

C. Subdrains:

- Perforated plastic pipe subdrains shall conform to ASTM D 3034 SDR 35, ASTM D 2729, or ASTM F 405.

3. APPLICATION

A. Permits and Codes: The intent of this section of the specifications is that the contractor's bid on the work covered herein shall be based upon the drawings and specifications but that the work shall comply with all applicable codes and regulations as amended by any waivers. Contractor shall furnish all bonds necessary to get permits for cuts and connections to existing sewers.

B. Local Standards: The term "Local Standards" as used herein means the standards of design and construction of the Hamilton County Stormwater Technical Standards.

C. Existing Improvements: Maintain in operating condition all active utilities, sewers and other drains encountered in the sewer installation. Repair to the satisfaction of the owner any damage to existing active improvements.

D. Workmanship: To conform to all local state and national codes and to be approved by all local and state agencies having jurisdiction.

E. Trenching: lay all pipe in open trenches, except when the local authority gives written permission for tunneling. Open the trench sufficiently ahead of pipe-laying to reveal any obstructions. The width of the trench shall be the inside pipe diameter plus 24 inches for 12 inches above the pipe. Shield and brace trench as necessary to protect workmen and adjacent structures. All trenching to comply with Occupational Safety and Health Administration Standards. Keep trenches free from water while construction is in progress. Under no circumstances lay pipe or appurtenances in standing water. Conduct the discharge from trench dewatering to drains or natural drainage channels.

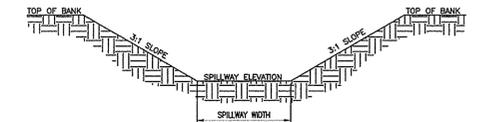
F. Special Supports: Whenever, in the opinion of the Engineer, the soil at or below the pipe grade is unsuitable for supporting sewers and appurtenances specified in this section, such special support, in addition to those shown or specified, shall be provided as the Engineer may direct, and the contract will be adjusted.

G. Backfilling: For depth of at least 12 inches above the top of the pipe, backfill with earth or granular material free from large stones, rock fragments, roots or rod. Tamp this backfill thoroughly taking care not to disturb the pipe. For the remaining trench depth, backfill with earth or granular material containing stones or rocks not larger than 4 inches. Backfill under walks, parking areas, driveways and streets shall be granular material only -thoroughly compacted by approved methods. Trenches parallel to and within 5 feet of paved roadways shall also be constructed with compacted granular materials.

H. Manhole Inverts: Construct manhole flow channels of concrete, smoothly finished and of semi-circular section conforming to the inside diameter of the connecting sewers. Make changes in size or grade gradually and changes in direction by true curves. Provide such channels for all connecting sewers of each manhole.

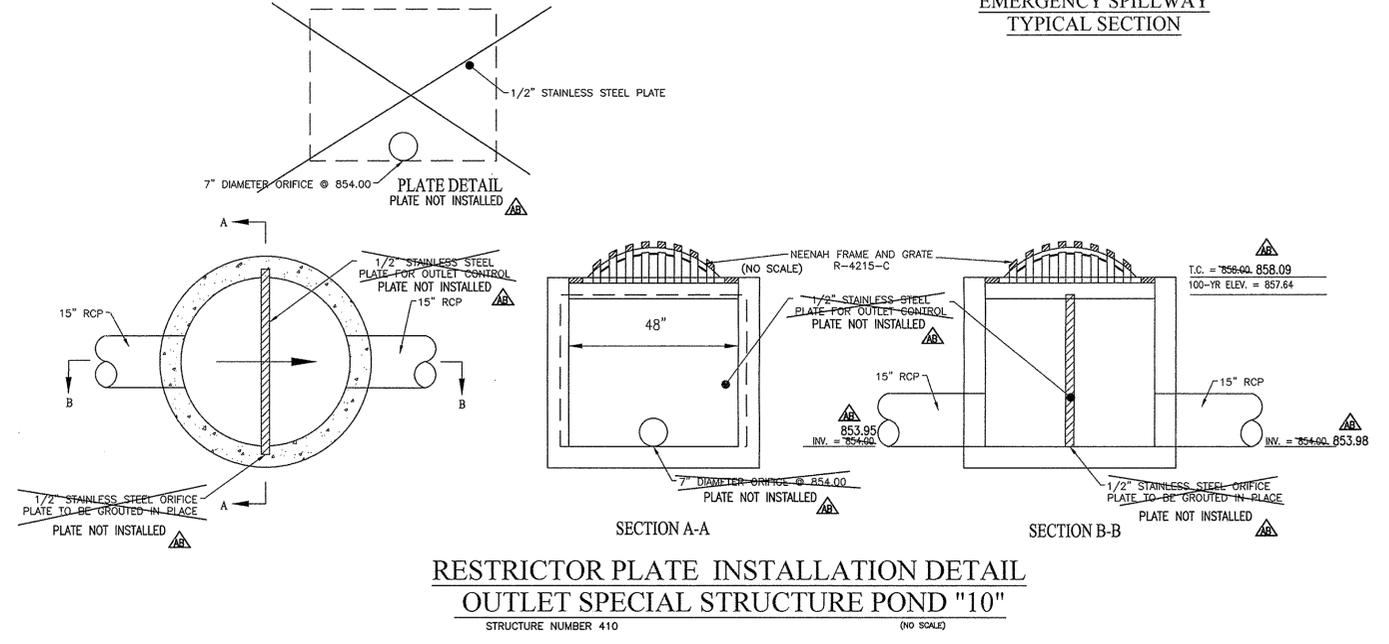
I. Subdrains: All subdrains onsite shall be of the size as shown and shall be placed as shown on the plans. They shall be constructed to the grades as shown on the plans.

J. UTILITIES: It shall be the responsibility of each contractor to verify all existing utilities and conditions pertaining to his phase of the work. It shall also, be the contractor's responsibility to contact the owners of the various utilities before work is started. The contractor shall notify in writing the owners or the engineer of any changes, errors or omissions found in these plans or in the field before work is started or resumed.



COND.	TOP OF BANK	100%R.	SPILLWAY	SPILLWAY
CONVEYANCE	ELEV.	ELEV.	ELEV.	WIDTH
10' (A-A)	868.00	857.64	858.00	22'
14' (B-B)	857.00	854.43	855.00	10'

EMERGENCY SPILLWAY TYPICAL SECTION



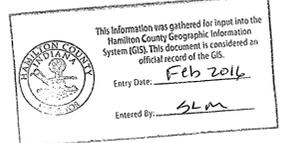
RESTRICTOR PLATE INSTALLATION DETAIL
OUTLET SPECIAL STRUCTURE POND "10"
STRUCTURE NUMBER 410
(NO SCALE)

RECORD DRAWING
STORM SEWER AS-BUILTS
STORM SEWER STRUCTURES ONLY
10/12/2015

JOSHUA DAVID WERNER, LS21200020



AS-BUILT INFORMATION
BUILT AS PLANNED



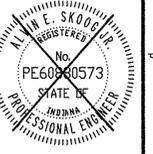
FILED
NOV 23 2015
OFFICE OF HAMILTON COUNTY SURVEYOR

RECORD DRAWING FINAL CONSTRUCTION PLANS - 12/11/2014

10505 N. College Avenue
Indianapolis, Indiana 46280
weithe.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax
ALLAN H. WEIHE, P. E., L.S. - FOUNDER

WEIHE ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture

PROJECT NO.: W13.0129
DWG NAME:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 03.12.2014



ALVIN E. SKOOG JR., PE 600573

PREPARED FOR:
THE WOODS AT VERMILLION SECTION ONE
NORTH CONNECTICUT DEVELOPMENT CORP.
STORM SEWER DETAILS
Part of the 57.58 1/4 of Section 16, Township 17 North, Range 6 East, Full Creek Township, Hamilton County, Indiana

SHEET NO.
C607
PROJECT NO.
W13.0129

RECORD DRAWING

WATER AS-BUILTS
WATER STRUCTURES ONLY
10/12/2015

JOSHUA DAVID WERNER, LS21200020



- AS-BUILT INFORMATION
- BUILT AS PLANNED
- AS-BUILT TEE
- AS-BUILT 11.25° BEND
- AS-BUILT 22.5° BEND
- AS-BUILT 45° BEND
- AS-BUILT FIRE HYDRANT
- AS-BUILT WATER VALVE
- AS-BUILT SLEEVE
- AS-BUILT BLOW OFF
- AS-BUILT REDUCER

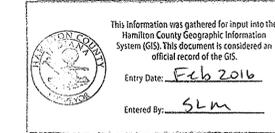
LEGEND	
	Existing Water Main
	Proposed Water Main
	Existing Hydrant with Hydrant Valve
	Hydrant with Hydrant Valve
	Valve
	Tee
	Cross
	Reducer
	Gas Lines
	Telephone Lines
	Electric Lines
	Ductile Iron Pipe
	1" Type K Copper or Poly w/ double meter pit
	3/4" Type K Copper or Poly w/ single meter pit
	Water Lateral As-Built Location

NOTES:

- ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 10'-0" OF SEPARATION BETWEEN THE MAIN AND SEWER STRUCTURES AND A MINIMUM OF 10'-0" OF SEPARATION BETWEEN WATER, SANITARY AND STORM PIPES.
- WATER TAP FEES WILL BE PAID AT THE TIME OF ACQUIRING THE BUILDING PERMIT.
- NO WATER VALVES ARE TO BE PLACED WITHIN THE LIMITS OF THE STREET.
- A ROAD CUT WILL NOT BE PERMITTED FOR ANY UTILITY AFTER A PROOF ROLL HAS BEEN COMPLETED. PRIOR TO A PROOF ROLL, ANY UTILITY PLACED WITHIN THE LIMITS OF THE ROADWAY SHALL BE BACKFILLED WITH GRANULAR MATERIAL COMPACTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS.

WATER MAIN NOTES:

- ALL FIRE HYDRANTS SHALL BE PAINTED PER FORTVILLE SPECIFICATIONS AND STANDARDS.
- FIRE HYDRANTS SHALL HAVE 5 INCH STORZ'S CONNECTION (APPROVED BY FISHERS FIRE).
- IF WATERMAIN IS 12 INCHES OR SMALLER, THEN C900 PIPE CAN BE USED.
- MAIN SHALL BE BEDDED WITH SAND 6 INCHES UNDER AND 12 INCHES OVER THE PIPE WITH MARKING TAPE INSTALLED 2 FEET ABOVE THE WATER MAIN.
- NUMBER TEN (#10) GAUGE LOCATING WIRE SHALL BE TAPED TO THE TOP OF THE MAIN AND PULLED THROUGH ALL VALVE BOXES (TO THE SURFACE) FOR LOCATING PURPOSES.
- IF DUCTILE PIPE IS USED, THE MAIN MUST BE POLY WRAPPED.
- CONTRACTOR MUST PROVIDE REDLINE "AS-BUILT" MARK-UPS TO ENGINEER OR ALL BENDS AND TEES MUST BE LOCATED WITH 2X4 BOARD PAINTED BLUE.
- ALL PROPOSED ROAD CROSSINGS MUST BE FULLY BACKFILLED WITH A GRANULAR BACKFILL MATERIAL.
- ALL TEMPORARY FIRE HYDRANTS TO BE INSTALLED WITH VALVES.
- ALL VALVES MUST HAVE POSI-CAP INSTALLED AND HAVE STAINLESS STEEL STEMS.
- WATER MAIN MUST MEET CURRENT FORTVILLE WATER DETAILS AND SPECIFICATIONS.
- ALL WATER TO BE RESTRAINED PER FORTVILLE WATER STANDARDS.
- WATER SERVICE LATERALS AND WATER METER PITS ARE SHOWN FOR LOCATION ONLY. WATER SERVICE LATERALS AND WATER METER PITS WILL BE INSTALLED BY THE HOME BUILDERS IN THE FUTURE.
- NO WATER VALVES ARE TO BE PLACED WITHIN THE LIMITS OF THE STREET.
- CONTRACTOR TO SUPPLY SHOP DRAWINGS TO THE TOWN OF FORTVILLE PRIOR TO CONSTRUCTION



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NOV 23 2015

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SCALE: 1" = 50'
0 25 50 100

RECORD DRAWING FINAL CONSTRUCTION PLANS 12/11/2014

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weihe.net
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800 | 452 - 6408
317 | 843 - 0546 fax
ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture

PROJECT NO.	W13.0129
DWG NAME	
DESIGNED BY	
DRAWN BY	RPL
CHECKED BY	CHP
DATE	03.12.2014

BY	
DATE	

REVISIONS AND ISSUES	
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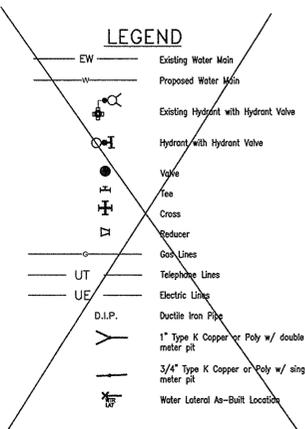
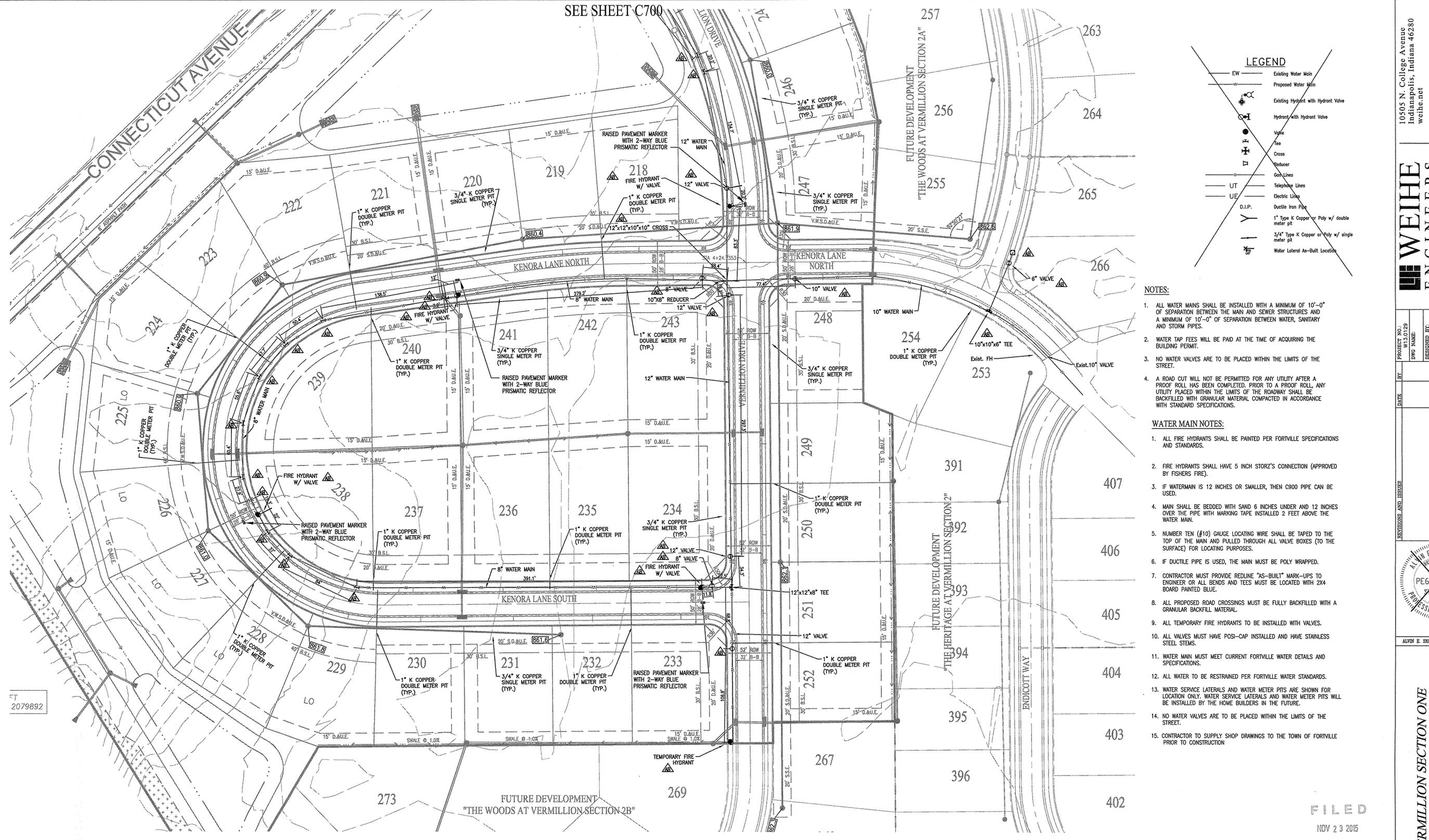
ALVIN E. SKOOG JR., PE 680673

PREPARED FOR:
THE WOODS AT VERMILLION SECTION ONE
NORTH CONNECTICUT DEVELOPMENT CORP.
WATER MAIN PLAN
Part of the SFR 25 (1/4 of Section 15, Township 17 North, Range 6 East, Roll One, Vermillion, Hamilton County, Indiana)

SHEET NO.
C700
PROJECT NO.
W13.0129

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DATE: 12/11/2014
PLOTTER: HP DesignJet 2400
PLOTED BY: jdw

SEE SHEET C700



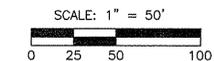
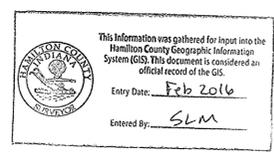
- NOTES:**
1. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 10'-0" OF SEPARATION BETWEEN THE MAIN AND SEWER STRUCTURES AND A MINIMUM OF 10'-0" OF SEPARATION BETWEEN WATER, SANITARY AND STORM PIPES.
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 14. NO WATER VALVES ARE TO BE PLACED WITHIN THE LIMITS OF THE STREET.
 15. CONTRACTOR TO SUPPLY SHOP DRAWINGS TO THE TOWN OF FORTVILLE PRIOR TO CONSTRUCTION

RECORD DRAWING
 WATER AS-BUILTS
 WATER STRUCTURES ONLY
 10/12/2015
 JOSHUA DAVID WERNER, LS21200020



- ASBUILT INFORMATION
- BUILT AS PLANNED
- ASBUILT TEE
- ASBUILT 11.25° BEND
- ASBUILT 22.5° BEND
- ASBUILT 45° BEND
- ASBUILT FIRE HYDRANT
- ASBUILT WATER VALVE
- ASBUILT SLEEVE
- ASBUILT BLOW OFF
- ASBUILT REDUCER



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RECORD DRAWING FINAL CONSTRUCTION PLANS 12/11/2014

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 800 | 452 - 6408
 317 | 843 - 0546 fax
 ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE ENGINEERS
 Land Surveying | Civil Engineering
 Landscape Architecture

PROJECT NO.	W13.0129
DWG NAME	
DESIGNED BY	
DRAWN BY	
CHECKED BY	
DATE	03.12.2014

REVISIONS AND ISSUES

NO.	DATE	BY	DESCRIPTION

ALVIN E. SKOOG JR., PE 8805973

Professional Engineer Seal: ALVIN E. SKOOG JR., No. PE60040573, State of Indiana

PREPARED FOR:
THE WOODS AT VERMILLION SECTION ONE
 NORTH CONNECTICUT DEVELOPMENT CORP.
WATER MAIN PLAN
 Part of the 28.62 ± A.C. Section 15, Township 17 North, Range 6 East, Paul Creek Township, Hamilton County, Indiana

SHEET NO.
C701
 PROJECT NO.
 W13.0129

LOCATION: H:\2013\W130129\Section 01\Engineering\dwg\asbults\AS_Constr\WAB_C700_Water_Main.dwg
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