



SURVEYOR'S OFFICE
Hamilton **C**ounty

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

August 7, 2012

To: Hamilton County Drainage Board

Re: John Osborne Drain, Bridlebourne Reconstruction - Revised

This report is a revision of the John Osborne Drain, Bridlebourne Reconstruction report to the Board dated April 11, 2011 and approved at a hearing on May 23, 2011 (see Hamilton County Drainage Board Minutes Book 13, pages 404 to 414). Since that time there have been several meetings with the Bridlebourne Homeowners Association, City of Carmel and my office. This revision is based on the final agreed fixed between the City of Carmel and the Bridlebourne HOA.

Attached are plans, specifications and drain map for the reconstruction of the Bridlebourne Drain. This drain is located in Clay Township, more specific on the east side of Shelborne Road between 106th and 116th Streets.

The Bridlebourne Drain was established as an arm to the John Osborne Drain by the Board through a petition by the developer. My report to the Board for sections 2 and 3 dated January 7, 1988 was approved by the Board at hearing on February 8, 1988 (see Hamilton County Drainage Board Minutes Book 2, pages 254 – 255). The portion across Section 5 was included in my report dated February 21, 1989 for Larkspur Drain, Section 1 which was approved by the Board at hearing on April 24, 1989 (see Hamilton County Drainage Board Minutes Book 2, page 357). The remainder of the drain is covered in my report for the John Osborne Drain dated December 22, 1994 which was approved by the Board at hearing on February 27, 1995 (see Hamilton County Drainage Board Minutes Book 4, pages 72-75).

Over the period of time that Larkspur and Bridlebourne have been completed, this office has had many complaints regarding high water. Because of the complaints the Board contracted American Consulting, Inc. (now American Structurepoint, Inc.) at the meeting on August 23, 2004 through a RFP process (see Hamilton County Drainage Board Minutes Book 7, page 549). Three options were submitted to this office for review on April 18, 2005. After years of working with the Bridlebourne HOA and additional investigation, it was determined the lakes could not be lowered without causing problems. In mid-2011, Mike McBride, City of Carmel Engineer, and I worked with American Structurepoint to determine a plan to add additional storage volume

without being able to lower the normal pool elevations in Bridlebourne. Several options were reviewed during this process.

The result of that new engineering was to add a new off-site dry detention basin on the University High School property, which increase the storage capacity available for Pond 1. The dry detention basin will be connected to Pond 1 by a 36" pipe that will be sloped from the dry basin to Pond 1 and has been sized to allow Pond 1 to back up through this pipe into the dry basin. As the level of Pond 1 recedes after the storm events, this runoff stored in the dry basin will be released back into Pond 1 and drain through the existing system. The dry basin was sized to accommodate runoff from storms up to the 10-year storm event. Larger storm events will utilize the spillway provided on the eastern end of the dry detention basin to overflow into the existing University High School dry basin. The existing University High School pond system was analyzed to verify that there would not be an increase in the runoff rate to the east towards the Spring Mill Run Legal Drain from what was designed release rate of this existing basin. The analysis shows that no detrimental impact will occur to the University High School pond or storm sewer system.

Along with the additional dry basin, some work is proposed to the storm sewer system in Bridlebourne, which is part of the John Osborne Regulated Drain, to remove restriction and improve flow. This work is all shown in the revised final plans that were filed in my office on July 31, 2012. These plans call for the following improvements:

1. The existing 24" RCP between the north inlet on Hintocks Circle and the Larkspur pond to be removed and replaced with a 30" RCP.
2. Expand the storage volume of the Bridlebourne north pond (Pond 1) by creating a separate basin located adjacent to the existing dry basin on the University High School property. The dry detention basin will be connected to Pond 1 by a 36" RCP.
3. The current 18" RCP outlet pipe for the Bridlebourne south pond (Pond 2) to be removed and replaced with an 18" RCP pipe.
4. The current outlet channel between the Bridlebourne south pond (Pond 2) and Sedgemoor Circle Road will be cleared of large woody vegetation and regraded as needed.

The reconstructed drain will consist of the following:

18" RCP	140 feet	36" RCP	586 feet
30" RCP	151 feet		

The total length of new tile shall be 877 feet. Of that footage, 288 feet is replacing existing regulated drain tile or open ditch. This proposal will add an additional 589 feet to the drains total length.

The above improvements are outlined in the report submitted by American Structurepoint dated July 29, 2012 and the accompanying plans dated July 30, 2012. The cost estimate prepared by American Structurepoint dated July 30, 2012 for this work is as follows:

<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total</u>
1. Mobilization, Demobilization	LS	1	\$17,600.00	\$17,600.00

2. Clearing & Grubbing	LS	1	\$7,000.00	\$7,000.00
3. Tree Removal	LS	1	\$5,000.00	\$5,000.00
4. Utility Coordination	LS	1	\$10,000.00	\$10,000.00
5. Pipe Removal	LFT	720	\$25.00	\$18,000.00
6. Curb Removal	LFT	44	\$18.00	\$792.00
7. Fence, Remove & Replace	LFT	20	\$105.00	\$2,100.00
8. Storm Structure Removal	EACH	6	\$1,000.00	\$6,000.00
9. Paver Salvage & Replacement	SYD	55	\$200.00	\$11,000.00
10. Earthwork, Export	CYS	17,975	\$10.00	\$179,750.00
11. Concrete Curb	LFT	44	\$28.00	\$1,232.00
12. Type "J" Manhole	EACH	4	\$3,500.00	\$14,000.00
13. 30-Inch RCP Pipe	LFT	151	\$80.00	\$12,080.00
14. 36-Inch RCP Pipe	LFT	586	\$80.00	\$46,880.00
15. End Section – 30"	EACH	1	\$500.00	\$500.00
16. End Section – 36"	EACH	2	\$750.00	\$1,500.00
17. 18-Inch RCP Pipe	LFT	140	\$45.00	\$6,300.00
18. End Section – 18"	EACH	2	\$250.00	\$500.00
19. B-Borrow for Backfill	CYS	34	\$20.00	\$680.00
20. Compacted #8 Stone	TONS	29	\$30.00	\$870.00
21. Erosion Control Blanket	SYD	3,957	\$2.50	\$9,892.50
22. Seeding	LBS	610	\$2.50	\$1,525.00
23. Silt Fence Inlet Protection	EACH	3	\$250.00	\$750.00
24. Catch All Inlet Protection	EACH	4	\$350.00	\$1,400.00
25. #2 Stone Construction Entrance	TONS	210	\$25.00	\$5,250.00
26. Riprap, Class 2	TONS	305	\$25.00	\$7,625.00
27. Rock Check Dam	EACH	3	\$400.00	\$1,200.00
Contingency			10%	\$34,742.65
Grand Total				\$382,169.15

The work shall be conducted in existing platted easements for Larkspur and Bridlebourne. Those easements are shown on the following secondary plats:

- Larkspur Phase 1 Instrument Number 8905082
- Bridlebourne Section 2 Instrument Number 8742244
- Bridlebourne Section 3 Instrument Number 8804920
- Bridlebourne Section 4 Instrument Number 8820715
- Bridlebourne Section 5 Instrument Number 9026131
- Bridlebourne Section 6 Instrument Number 9134257

The above listed secondary plats are on file in the office of the Hamilton County Recorder.

The following lots will be affected with the removal and replacement of pipe and the clearing and regrading of the open ditch:

<u>Owner</u>	<u>Lot</u>	<u>Parcel Number</u>
Larkspur HOA	Common Area A	17-13-05-00-06-009.000
Roger & Jacqueline Malone	Lot 9	17-13-05-00-06-010.000

Bridlebourne HOA	Common Area G	17-13-05-00-08-015.000
Bridlebourne HOA	Common Area	17-13-05-00-08-016.000
Bridlebourne HOA	Common Area J	17-13-05-00-07-017.000
Niraj Gupta & Parul Agarwal	Lot 8A	17-13-05-00-08-001.000
Christopher & Mercy Obeime	Lot 7	17-13-05-00-08-002.000
Yiming Yang & Qi Huang Zheng	Lot 10	17-13-05-00-07-005.000
Christopher & Jane Clark	Lot 11	17-13-05-00-07-006.000
University High School of Indiana Inc.		17-13-05-00-00-001.103
Bridlebourne HOA	Common Area I	17-13-05-00-05-012.000
Tahir & Afia Naqvi	Lot 61	17-13-05-00-04-012.000
William F. Conour	Lot 62	17-13-05-00-04-011.000
William F. Conour	Pt. Lot 63	17-13-05-00-02-003.001

Additional easement is needed beyond the existing easement on the following parcels and the City of Carmel has appraisals complete and offer pending with the landowners. The City of Carmel will be purchasing the required easements from the following landowners

<u>Owner</u>	<u>Lot</u>	<u>Parcel Number</u>
University High School of Indiana Inc.		17-13-05-00-00-001.103
Niraj Gupta & Parul Agarwal	Lot 8A	17-13-05-00-08-001.000
Christopher & Mercy Obeime	Lot 7	17-13-05-00-08-002.000

Since the submission of the 2007 report the area of southwest Clay has been annexed into the City of Carmel. Prior to this time Carmel passed Ordinance C-263 which annexed Southwest Clay on November 24, 2004. This was remonstrated against in Hamilton County Superior Court, Cause No. 29D03-0502-MI-188. After the filing negotiations between the residents of Southwest Clay and the City of Carmel produced a settlement agreement dated September 6, 2005. This agreement is attached as Exhibit B to the annexation ordinance, Ordinance No. C-263-A which was passed on October 7, 2005, Instrument No. 200500011849. In this agreement the drainage problems associated with Bridlebourne and Larkspur are set out as items to be addressed with the annexation. The project is mentioned in the Southwest Clay Township Annexation Master Drainage Plan dated July 20, 2009. This plan was prepared for the City of Carmel by Cross Roads Engineers, Inc. In that plan the proposed project for Bridlebourne / Larkspur is considered a first level priority.

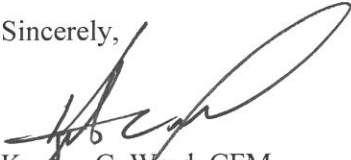
On February 8, 2011 the City of Carmel passed a bond issue with the Bridlebourne / Larkspur project, Interlocal Agreement C-266-11, Instrument No. 2011012198, which included in the funding package. On November 8, 2010 the Hamilton County Drainage Board approved an Interlocal Agreement for the construction by the Drainage Board of the improvements with the funding for the improvements to come from Carmel. On February 7, 2011 this agreement was approved by the City of Carmel.

Therefore, the funding of the proposed reconstruction project will be provided by the City of Carmel. Property Owners within the drainage shed will not be assessed for the reconstruction. The current maintenance assessments will not change with this proposal. Other than the purchase of easements mentioned above, no damages will result to property owners by the work; therefore, all damages other than required easements shall be set at \$0.00.

No state or federal permits are required for this reconstruction.

I recommend that this item be set for hearing for September 26, 2012.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. Ward', with a large, stylized flourish extending from the end of the signature.

Kenton C. Ward, CFM
Hamilton County Surveyor

KCW/llm

BRIDLEBOURNE SUBDIVISION - DRAINAGE IMPROVEMENTS					
ENGINEER'S PRELIMINARY OPINION OF PROBABLE COSTS OF CONSTRUCTION					
July 30, 2012					
CARMEL, INDIANA					
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
1	CLEARING AND GRUBBING	LS	1	\$ 7,000.00	\$ 7,000.00
2	TREE REMOVAL	LS	1	\$ 5,000.00	\$ 5,000.00
3	UTILITY COORDINATION	LS	1	\$ 10,000.00	\$ 10,000.00
4	PIPE REMOVAL	LFT	720	\$ 25.00	\$ 18,000.00
5	CURB REMOVAL	LFT	44	\$ 18.00	\$ 792.00
6	FENCE, REMOVE AND REPLACE	LFT	20	\$ 105.00	\$ 2,100.00
7	STORM STRUCTURE REMOVAL	EA	6	\$ 1,000.00	\$ 6,000.00
8	PAVER SALVAGE AND REPLACEMENT	SYD	55	\$ 200	\$ 11,000.00
9	EARTHWORK, EXPORT	CYS	17,975	\$ 10.00	\$ 179,750.00
10	CONCRETE CURB	LFT	44	\$ 28.00	\$ 1,232.00
11	TYPE "J" MANHOLE	EA	4	\$ 3,500.00	\$ 14,000.00
12	PIPE, 30" RCP	LFT	151	\$ 80.00	\$ 12,080.00
13	PIPE, 36" RCP	LFT	586	\$ 80.00	\$ 46,880.00
14	END SECTION, 30"	EA	1	\$ 500.00	\$ 500.00
15	END SECTION, 36"	EA	2	\$ 750.00	\$ 1,500.00
16	PIPE, 18" RCP	LFT	140	\$ 45.00	\$ 6,300.00
17	END SECTION, 18"	EA	2	\$ 250.00	\$ 500.00
18	B-BORROW FOR STRUCTURAL BACKFILL	CYS	34	\$ 20.00	\$ 680.00
19	COMPACTED AGGREGATE, #8 STONE	TONS	29	\$ 30.00	\$ 870.00
20	EROSION CONTROL BLANKET	SYS	3,957	\$ 2.50	\$ 9,892.50
21	SEEDING	LBS	610	\$ 2.50	\$ 1,525.00
22	SILT FENCE INLET PROTECTION	EA	3	\$ 250.00	\$ 750.00
23	CATCH ALL INLET PROTECTION	EA	4	\$ 350.00	\$ 1,400.00
24	#2 STONE FOR CONSTRUCTION ENTRANCE	TONS	210	\$ 25.00	\$ 5,250.00
25	RIPRAP, CLASS 2	TONS	305	\$ 25.00	\$ 7,625.00
26	ROCK CHECK DAM	EA	3	\$ 400.00	\$ 1,200.00
27	MOBILIZATION/DEMOBILIZATION	LS	1	\$ 17,600.00	\$ 17,600.00
	TOTAL				\$ 347,426.50
				15%	52,113.98
				CONTINGENCY (10%)	\$ 34,742.65
				TOTAL	\$ 382,169.15

EASEMENTS
399,540.48
205,800.00
605,340.48

399,540.48
190,900.00
590,440.48

STATE OF INDIANA)
) ss:
COUNTY OF HAMILTON)

BEFORE THE HAMILTON COUNTY
DRAINAGE BOARD
NOBLESVILLE, INDIANA

IN THE MATTER OF THE
RECONSTRUCTION OF THE
John Osborne Drain, Bridlebourne Reconstruction (Revised)

FINDINGS AND ORDER FOR RECONSTRUCTION

The matter of the proposed Reconstruction of the **John Osborne Drain, Bridlebourne Reconstruction** came before the Hamilton County Drainage Board for hearing **on September 26, 2012**, on the Reconstruction Report consisting of the report and the Schedule of Damages and Assessments. The Board also received and considered the written objection of an owner of certain lands affected by the proposed Reconstruction, said owner being:

Evidence was heard on the Reconstruction Report and on the aforementioned objections.

The Board, having considered the evidence and objections, and, upon motion duly made, seconded and unanimously carried, did find and determine that the costs, damages and expenses of the proposed Reconstruction will be less than the benefits accruing to the owners of all land benefited by the Reconstruction.

The Board having considered the evidence and objections, upon motion duly made, seconded and unanimously carried, did adopt the Schedule of Assessments as proposed, subject to amendment after inspection of the subject drain as it relates to the lands of any owners which may have been erroneously included or omitted from the Schedule of Assessments.

The Board further finds that it has jurisdiction of these proceedings and that all required notices have been duly given or published as required by law.

Wherefore, it is ORDERED, that the proposed Reconstruction of the **John Osborne Drain, Bridlebourne Reconstruction** be and is hereby declared established.

Thereafter, the Board made inspection for the purpose of determining whether or not the lands of any owners had been erroneously included or excluded from the Schedule of Assessments. The Board finds on the basis of the reports and findings at this hearing as follows:

HAMILTON COUNTY DRAINAGE BOARD



PRESIDENT



Member



Member

ATTEST:


Executive Secretary

OFFICE OF
HAMILTON COUNTY DRAINAGE BOARD
August 24, 2012

RETURNED

Notice of Hearing on Reconstruction & Schedule of Assessments and Damages on the **John Osborn Drain, Bridlebourne Reconstruction - Revised.**

Christian, Justin & Darrienne P
8921 Greenridge Dr
Indianapolis, IN 46278

Under the Indiana Drainage Code, all land which drains directly, or indirectly, may be assessed for either maintenance cost or reconstruction cost within the drain. In making the calculation for each parcel, the Drainage Board must calculate the percentage of the cost attributable to each parcel of land benefitted. The Drainage Board has received a reconstruction report and schedule of assessments which affects your land. The purpose of the reconstruction project is to perform work which will substantially improve the drainage for the entire watershed served by the drain.

You are hereby notified that the reconstruction report of the County 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 County Surveyor. The chart below contains your proposed assessment and your percentage of the total reconstruction assessment.

The reconstruction report of the Surveyor and schedule of damages and benefits as determined by the Drainage Board for the proposed improvement known as the **John Osborn Drain, Bridlebourne Reconstruction** have been filed and are available for inspection in the office of the County Surveyor. The schedule of assessments shows the following lands in your name are affected as follows. This assessment is not a charge for services associated with regulating the quality of storm water within your city or town.

Description of Land	Acres Benefitted	Damages	Reconst. Assmt.	% of Total Benefit	Maint. Assmt.
17-13-05-00-08-008.000					
S5 T17 R3 Bridlebourne 6th Lot 1 1.29Ac	1.29	Zero	*	0.67%	*
*Cost of reconstruction to be paid by City of Carmel. No change in current maintenance assessment.					

The hearing on the Surveyor's reconstruction report and on the schedules of damages and assessments are set for hearing at **9:50 A.M. on September 26, 2012**, in the Commissioner's Court. The law provides that objections must be written and filed not less than 5 days before the date of the hearing. Objections may be for causes as specified by law and which are available at the Surveyor's Office. Written evidence in support of objections may be filed. The failure to file objections constitutes a waiver of your right to thereafter object, either before the Board or in court on such causes, to any final action of the Board. On or before the day of the hearing before the Board, the Surveyor shall and any owner of affected lands may cause written evidence to be filed in support of or in rebuttal to any filed objections.

HAMILTON COUNTY DRAINAGE BOARD
One Hamilton County Square, Ste. 188
Noblesville, IN 46060-2230

For a copy of the Surveyor's Report to the Drainage Board and a copy of the map, if applicable, please go to www.hamiltoncounty.in.gov/drainageboardnotices.

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD
IN THE MATTER OF

John Osborne Drain, Bridlebourne Reconstruction (Revised)

NOTICE

To Whom It May Concern and: _____

Notice is hereby given of the hearing of the Hamilton County Drainage Board concerning the reconstruction of the **John Osborne Drain, Bridlebourne Reconstruction (Revised)** on **September 26, 2012** at **9:50 A.M.** in Commissioners Court, Hamilton County Judicial Center, One Hamilton County Square, Noblesville, Indiana. Construction and maintenance reports of the Surveyor and the Schedule of Assessments proposed 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

STATE OF INDIANA)
) SS BEFORE THE HAMILTON
)
COUNTY OF HAMILTON) DRAINAGE BOARD

IN THE MATTER OF **John Osborne Drain, Bridlebourne
Reconstruction**

NOTICE

Notice is hereby given that the Hamilton County Drainage Board at its regular meeting **September 26, 2012** adopted the reconstruction report of the Surveyor and the Amended Schedule of damages and assessments including annual assessment for periodic maintenance, finding that the costs, damages and expense of the proposed improvement would be less than the benefits which will result to the owner of lands benefited thereby.

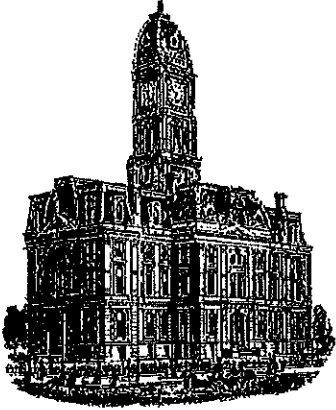
The Board issued an order declaring the proposed improvement established. Such findings and order were marked filed and are available for inspection in the Office of the Hamilton County Surveyor.

If judicial review of the findings and order of the Board is not requested pursuant to Article VIII of the 1965 Indiana Drainage Code as amended within twenty (20) days from the date of publication of this notice, the findings and order shall become conclusive.

HAMILTON COUNTY DRAINAGE BOARD

BY: Steven C. Dillinger
PRESIDENT

ATTEST: Lynette Mosbaugh
SECRETARY



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 27, 2016

Re: John Osborn Drain: Bridlebourne Reconstruction

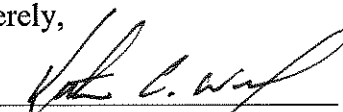
Attached are as-built, certificate of completion & compliance, and other information for Bridlebourne Reconstruction. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable.

During construction, changes were made to the drain, which will alter the plans submitted with my report for this drain-dated August 7, 2012. The report was approved by the Board at the hearing held September 26, 2012. (See Drainage Board Minutes Book 14, Pages 314-319) The changes are as follows: the 18" RCP was shortened from 140 feet to 133 feet. The 30" RCP was lengthened from 151 feet to 154 feet. The 36" RCP was shortened from 586 feet to 582 feet. The length of the drain due to the changes described above is now **869 feet**. It should be noted that the project removed 141 feet of the existing Bridlebourne drain. Also removed was 148 feet of the Larkspur Drain.

The additional drainage easements required for this project were recorded in the Hamilton County Recorder's office under instrument #'s 2014041513, 2013019386, and 2013019387. The project was paid for by the City of Carmel. The final project cost was \$560,517.08 which consisted of \$203,000 for easements and \$357,517.08 for construction.

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

Sincerely,



Kenton C. Ward, CFM
Hamilton County Surveyor

From: Lustig, Kate [<mailto:klustig@carmel.in.gov>]
Sent: Tuesday, November 01, 2016 11:36
To: Gary Duncan
Subject: RE: Bridlebourne/Carmel

Hi Gary,

So the P.O. was for \$348,000. \$357,517.08 was billed. Here are the change orders:

1. \$12,920.62
2. \$3,394.90
3. -\$6,798.44
4. Sub-Surface sent in a check for \$2,500.00

Make sense?

From: Gary Duncan [<mailto:Gary.Duncan@hamiltoncounty.in.gov>]
Sent: Tuesday, November 01, 2016 9:57 AM
To: Lustig, Kate
Subject: RE: Bridlebourne/Carmel

Good morning! Has Dan had a chance to confirm the final cost?

Thanks so much!

G

Suzie L. Mills

From: Lustig, Kate <klustig@carmel.in.gov>
Sent: Wednesday, November 09, 2016 9:48 AM
To: Suzie L. Mills
Subject: RE: Bridlebourne Reconstruction 2012

Hi Suzie,

We paid \$203,000 for the drainage easement to University High School. I believe that this is the only easement purchase.

Thanks,
Kate

From: Suzie L. Mills [mailto:Suzie.Mills@hamiltoncounty.in.gov]
Sent: Monday, November 07, 2016 10:08 AM
To: Lustig, Kate
Subject: Bridlebourne Reconstruction 2012

Hi Katie,

Gary Duncan worked with you on the final project cost for this. Any chance you could get me the cost of the easement purchases as well. I had a figure of \$190,900.00.

Thanks for your help.

Suzie

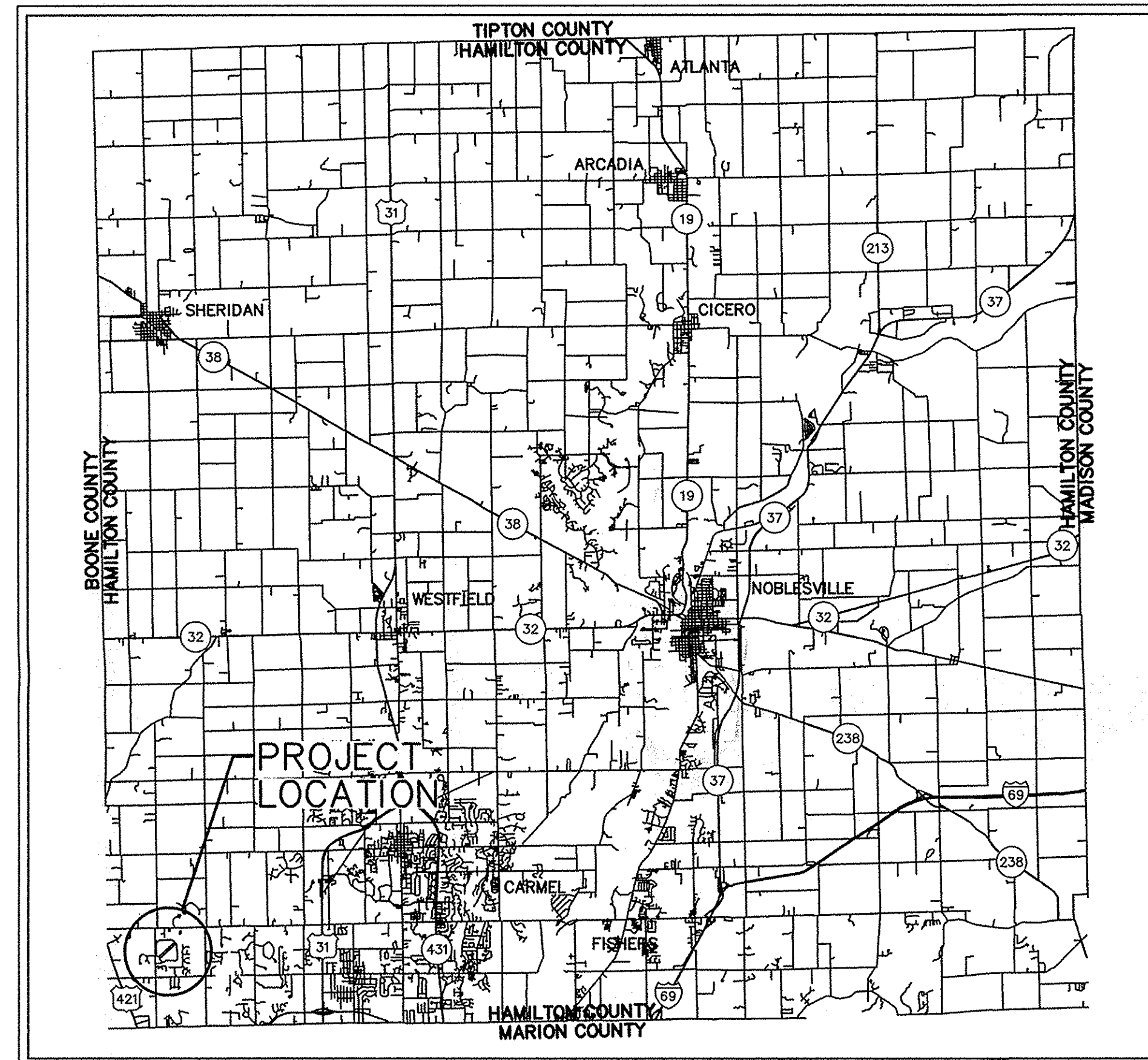
Suzie Mills, GIS Specialist
Hamilton County Surveyor's Office

CONSTRUCTION PLANS

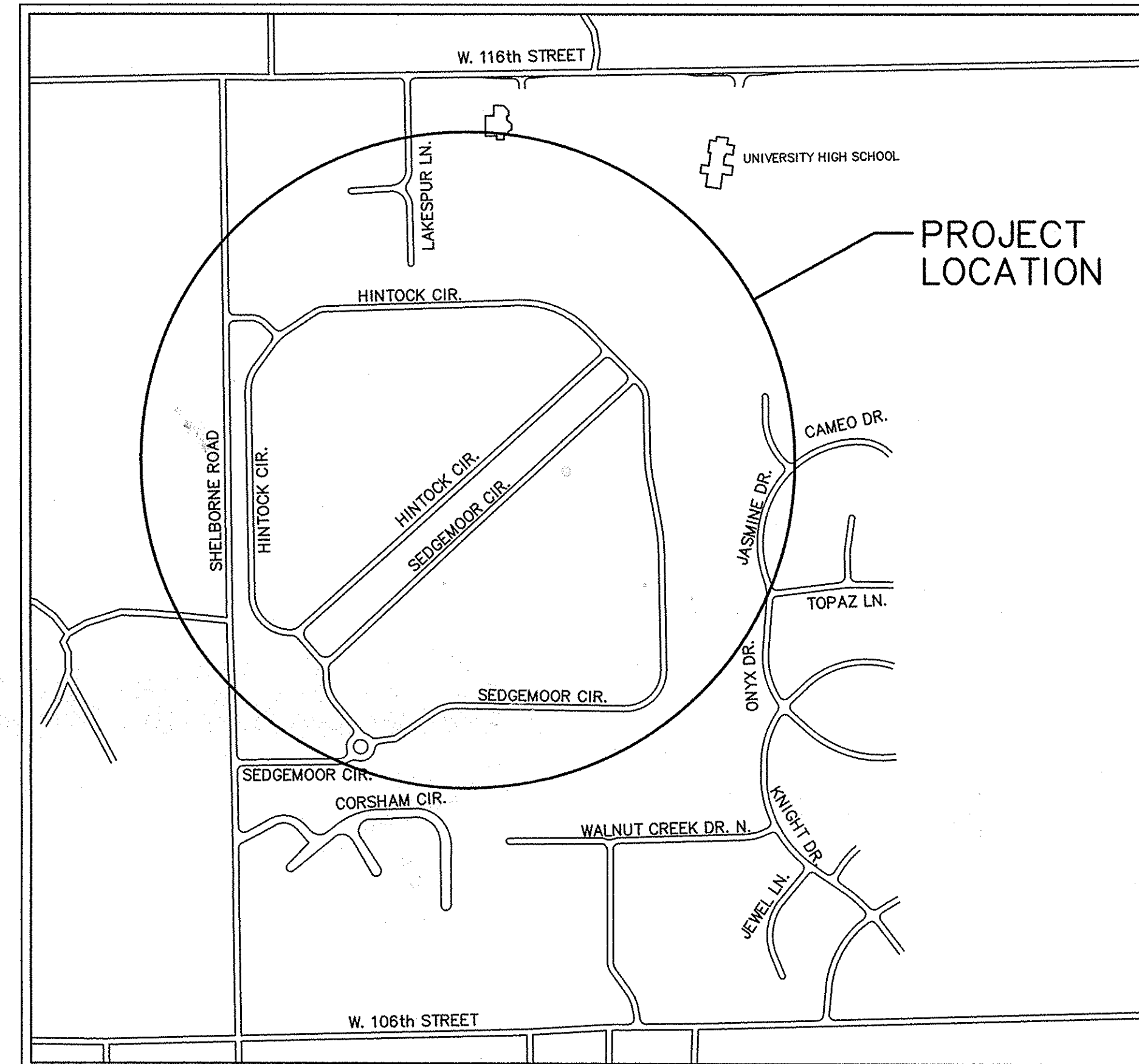
FOR

BRIDLEBOURNE DRAINAGE MODIFICATION 106th STREET & SHELBORNE ROAD CARMEL, INDIANA

AS-BUILT



LOCATION MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

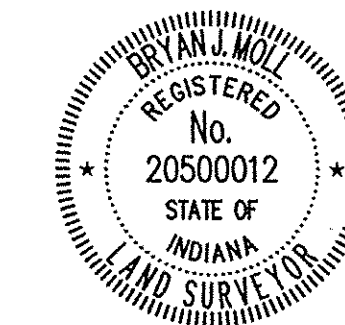
INDEX	
DESCRIPTION	SHEET No.
TITLE SHEET	C0.1
OVERALL DEVELOPMENT PLAN	C1.1
EXISTING TOPOGRAPHY / DEMOLITION PLAN	C2.1-C2.3
GRADING PLAN & PROFILE	C3.1-C3.4
BUCKEYE PIPELINE PLAN & PROFILE	C3.5
EROSION CONTROL PLAN	C4.1-C4.2
EROSION CONTROL DETAILS	C5.1
STORM WATER PREVENTION POLLUTION PLAN	C6.1
DETAILS	C7.1-C7.2

PLAN DATE: 07/30/2012

STORM SEWER AS-BUILT STATEMENT

As-Built information for storm sewer rims are based upon above ground evidence of the existing storm sewer system. The strike through data shown on the Storm Sewers are the proposed elevations for all the structures to be placed. Said information has been replaced by the as-built information per elevations collected in the field on July 2, 2015.

[Signature]
Bryan J. Moll
Registered Land Surveyor No. 20500012

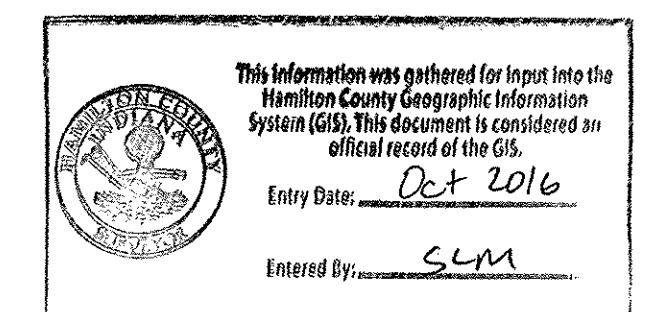


PLANS PREPARED FOR:

HAMILTON COUNTY DRAINAGE BOARD
1 HAMILTON COUNTY SQUARE, SUITE #188
NOBLESVILLE, IN 46060

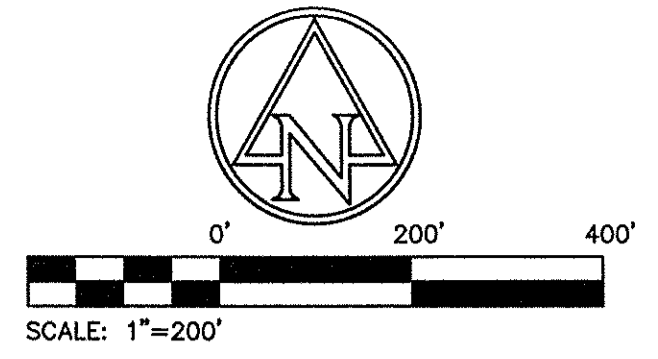
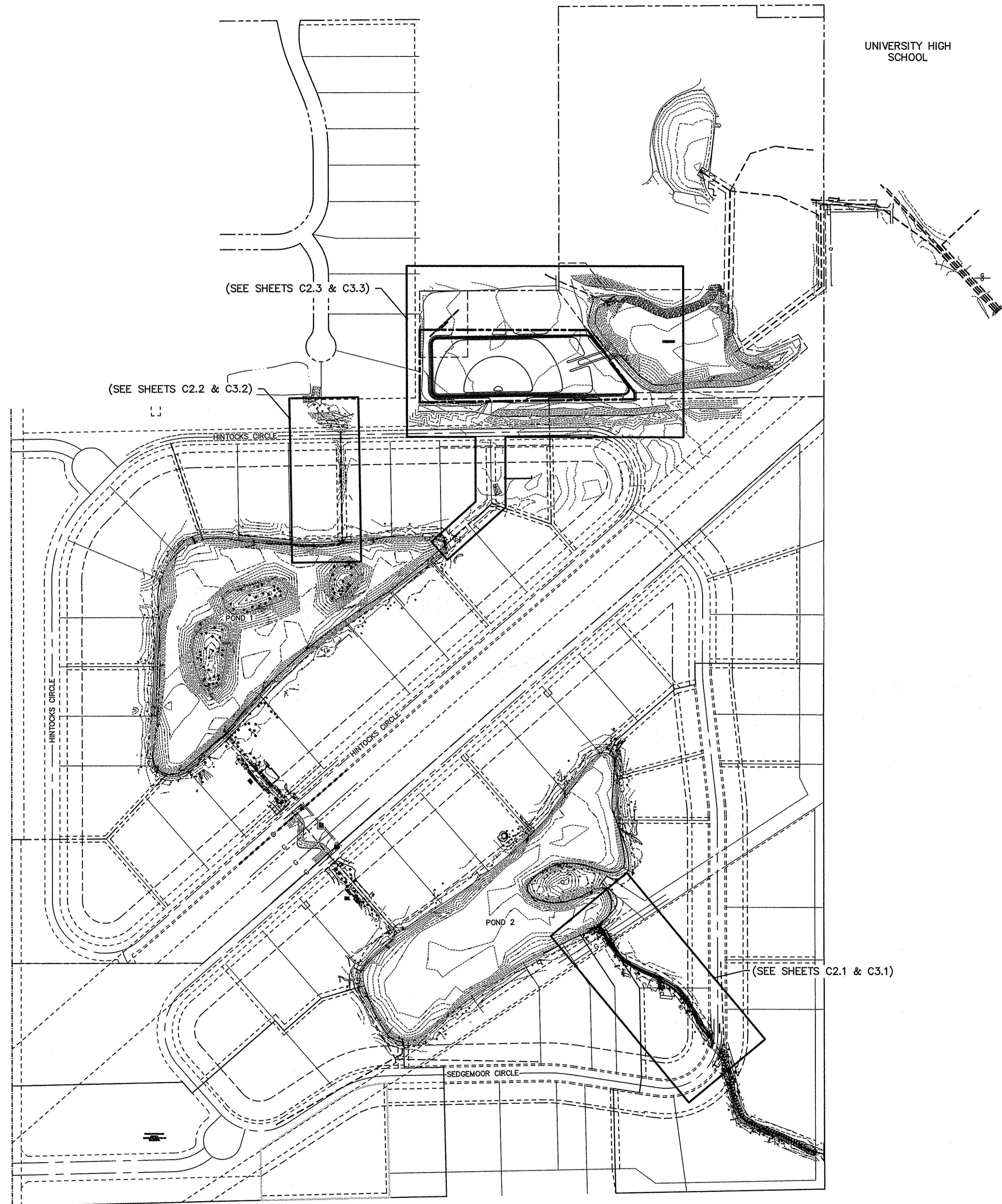


BRADLEY N. SCHRAGE, P.E.



C0.1
JOB # IN2011.00507

PRINT DATE: 7/30/12
 PLOT SCALE: 1"=200'
 EDIT DATE: 6/5/12 - 2:46 PM EDITED BY: POOTERY DRAWING FILE: P:\2011\00507\0 DRAWINGS\CIVIL\PLAN SET\2011_00507_CE_02.C01.1.CDP.DWG



BENCH INFORMATION	
SCHNEIDER TBM #100 = 906.07' (2 nd DATUM)	RR SPIKE IN EAST SIDE POWER POLE +/- 1.0' UP ON THE NORTH SIDE OF THE CENTERLINE OF GLEBE STREET +/- 100' WEST OF THE CENTERLINE OF TOWNE ROAD +/- 90'
ACE TBM #70 = 895.83'	CHISELED "BOX" ON THE NORTHWEST CORNER TRAFFIC PEDESTAL @ THE SOUTHWEST CORNER OF 116TH STREET AND TOWNE ROAD
ACE TBM #100 = 903.92'	CHISELED "X" IN SOUTH BOLT OF A FIRE HYDRANT LOCATED ON THE SOUTHERN SIDE OF HINTOCKS CIRCLE ON THE EXTENDED CENTERLINE OF THE NORTH ENTRANCE TO BRIDLEBOURNE SUBDIVISION
ACE TBM #101 = 899.90'	CHISELED "BOX" TOP OF CURB ON THE NORTH SIDE OF THE SOUTHERN MOST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM LOT LINE BETWEEN RESIDENCE NO. 3569 AND RES. NO. 3557
ACE TBM #102 = 902.44'	CHISELED "X" ON NORTH BOLT OF A FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SEDGEMOOR CIRCLE ACROSS FROM THE LINE BETWEEN RESIDENCE NO. 3555 AND RESIDENCE NO. 3515
ACE TBM #103 = 892.92'	CHISELED "BOX" ON TOP OF CURB LOCATED ON THE WEST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM RESIDENCE NO. 10887

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: Oct 2010
 Entered By: SLM

- NOTES:**
1. CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
 2. CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

CAUTION !!
 THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.
 1-800-382-5544
 CALL TOLL FREE
 - INDIANA UNDERGROUND -

7200 SHARPE AND STATION
 INDIANAPOLIS, IN 46256-3957
 TEL 317.547.5580 FAX 317.543.0270
 www.structurepoint.com

AMERICAN
STRUCTUREPOINT
 INC.

CERTIFIED BY _____

OVERALL DEVELOPMENT PLAN

PREPARED FOR:
HAMILTON COUNTY DRAINAGE BOARD
1 HAMILTON COUNTY SQUARE, SUITE #188
NOBLESVILLE, IN 46060

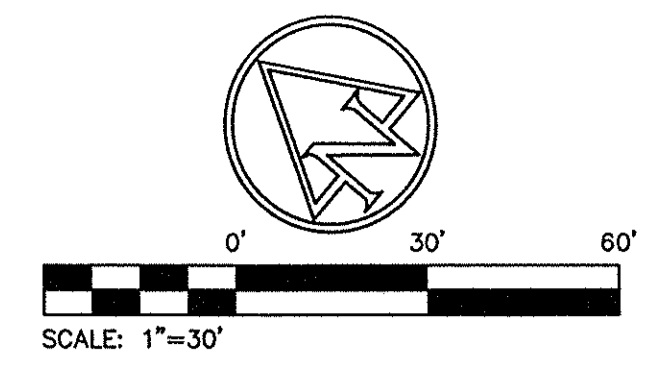
PROJECT:
BRIDLEBOURNE DRAINAGE MODIFICATION
106th STREET & SHELBORNE ROAD
CARMEL, INDIANA

DATE:	07/30/12
DRAWN BY:	FED
CHK'D BY:	BNS
JOB NO.:	2011.00507

REVISIONS	

SHEET NO.
C1.1
 OF

BENCHMARK INFORMATION
 SCHNEIDER TBM #100 = 906.07' (29' DATUM)
 RR SPIKE IN EAST SIDE POWER POLE +/- 1.0' UP ON THE NORTH SIDE OF THE CENTERLINE OF GLEBE STREET +/- 100' WEST OF THE CENTERLINE OF TOWNE ROAD +/- 90'
 ACE TBM #70 = 895.83'
 CHISELED "BOX" ON THE NORTHWEST CORNER TRAFFIC PEDESTAL @ THE SOUTHWEST CORNER OF 116TH STREET AND TOWNE ROAD
 ACE TBM #100 = 903.92'
 CHISELED "X" IN SOUTH BOLT OF A FIRE HYDRANT LOCATED ON THE SOUTHERN SIDE OF HINTOCKS CIRCLE ACROSS FROM LOT LINE BETWEEN RESIDENCE NO. 3560 AND RES. NO. 3557
 ACE TBM #101 = 899.90'
 CHISELED "BOX" TOP OF CURB ON THE NORTH SIDE OF THE SOUTHERN MOST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM LOT LINE BETWEEN RESIDENCE NO. 3560 AND RES. NO. 3557
 ACE TBM #102 = 902.44'
 CHISELED "X" ON NORTH BOLT OF A FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SEDGEMOOR CIRCLE ACROSS FROM THE LINE BETWEEN RESIDENCE NO. 3535 AND RESIDENCE NO. 3515
 ACE TBM #103 = 892.92'
 CHISELED "BOX" ON TOP OF CURB LOCATED ON THE WEST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM RESIDENCE NO. 10687



- EXISTING LEGEND**
- ☐ AIR CONDITIONER
 - ☐ BUSH
 - ☐ GROUND LIGHT
 - ☐ SPRINKLER CONTROL VALVE
 - ☐ TREE
 - ☐ PINE
 - ☐ FIRE HYDRANT
 - ☐ DRAINAGE MANHOLE
 - ☐ POST
 - ☐ INLET
 - ☐ WATER METER
 - ☐ MAILBOX
 - ☐ TELEPHONE PEDESTAL
 - ☐ TRANSFORMER
 - ☐ YARD LIGHT
 - ☐ CLEAN OUT
 - ☐ STUMP
 - ☐ SANITARY MANHOLE
 - ☐ SPIGOT
 - ☐ SIGN
 - ☐ STAND PIPE
 - ☐ CURB INLET
 - ☐ SATELLITE
 - ☐ BEEHIVE INLET

- DEMOLITION LEGEND**
- ▨ REMOVE AND REPLACE EXISTING BRICK PAVERS AFTER PIPE INSTALLATION.
 - ▩ CLEAR AND GRUB CREEK FROM TOP OF BANK TO TOP OF BANK
 - OBJECT TO BE REMOVED
 - ▬ EXISTING FENCE, CURBS, PIPES OR DRAIN TILES TO BE REMOVED

DEMOLITION NOTES:

BUILDING DEMOLITION
GENERAL
 THE CONTRACTOR SHALL REMOVE AND DISPOSE OFF SITE, ALL EXISTING STRUCTURES, FENCES, CONCRETE AND PAVEMENT ON SITE, UNLESS NOTED TO REMAIN ON THE CONTRACT DRAWINGS.
 THE CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.

SUMMARY
 THIS SECTION REQUIRES REMOVAL AND DISPOSAL, OFF SITE, OF THE FOLLOWING:

- EXISTING PIPE.
- MISCELLANEOUS TREES, SHRUBS, LANDSCAPING, ETC., LOCATED ON SITE.

SUBMITTALS
 SUBMIT THE FOLLOWING IN ACCORDANCE WITH CONDITIONS OF CONTRACT AND DIVISION 1 SPECIFICATION SECTIONS.

- SUBMIT A PROPOSED SCHEDULE OF OPERATIONS COORDINATION FOR SHUTOFF, SHUTOFF, CAPPING, AND CONTINUATION OF UTILITY SERVICES AS REQUIRED.
- PROVIDE A DETAILED SEQUENCE AND SCHEDULE OF DEMOLITION AND REMOVAL WORK TO BE COMPLETED.

JOB CONDITIONS

- SALVAGED MATERIALS: ITEMS OF SALVAGEABLE VALUE TO CONTRACTOR MAY BE REMOVED FROM STRUCTURE AS WORK PROGRESSES. TRANSPORT SALVAGED ITEMS FROM THE SITE AS THEY ARE REMOVED.
- STORAGE OR SALE OF REMOVED ITEMS WILL NOT BE PERMITTED ON SITE.
- EXPLOSIVES: USE OF ANY TYPE OF EXPLOSIVES WILL NOT BE PERMITTED.
- TRAFFIC: CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED AND USED FACILITIES.

- DO NOT CLOSE OR OBSTRUCT ROADS, STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM THE LOCAL AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY GOVERNING AUTHORITIES.
- PROTECTIONS: ENSURE SAFE PASSAGE OF PERSONS AROUND AREAS OF DEMOLITION. CONDUCT OPERATIONS TO PREVENT DAMAGE TO ADJACENT BUILDINGS, STRUCTURES, AND OTHER FACILITIES AND INJURY TO PERSONS.
- DAMAGES: PROMPTLY REPAIR ANY DAMAGES CAUSED TO ADJACENT FACILITIES, YARDS, ETC. BY DEMOLITION AND CONSTRUCTION OPERATIONS.
- UTILITY SERVICES: MAINTAIN EXISTING UTILITIES TO STAY IN SERVICE AND PROTECT AGAINST DAMAGE DURING DEMOLITION OPERATIONS. DISCONNECT, CAP AND REMOVE UTILITY SERVICES PER LOCAL REQUIREMENTS. DO NOT START DEMOLITION WORK UNTIL UTILITY DISCONNECTIONS HAVE BEEN COMPLETED TO THE SATISFACTION OF LOCAL UTILITIES.

DISPOSAL OF DEMOLISHED MATERIALS

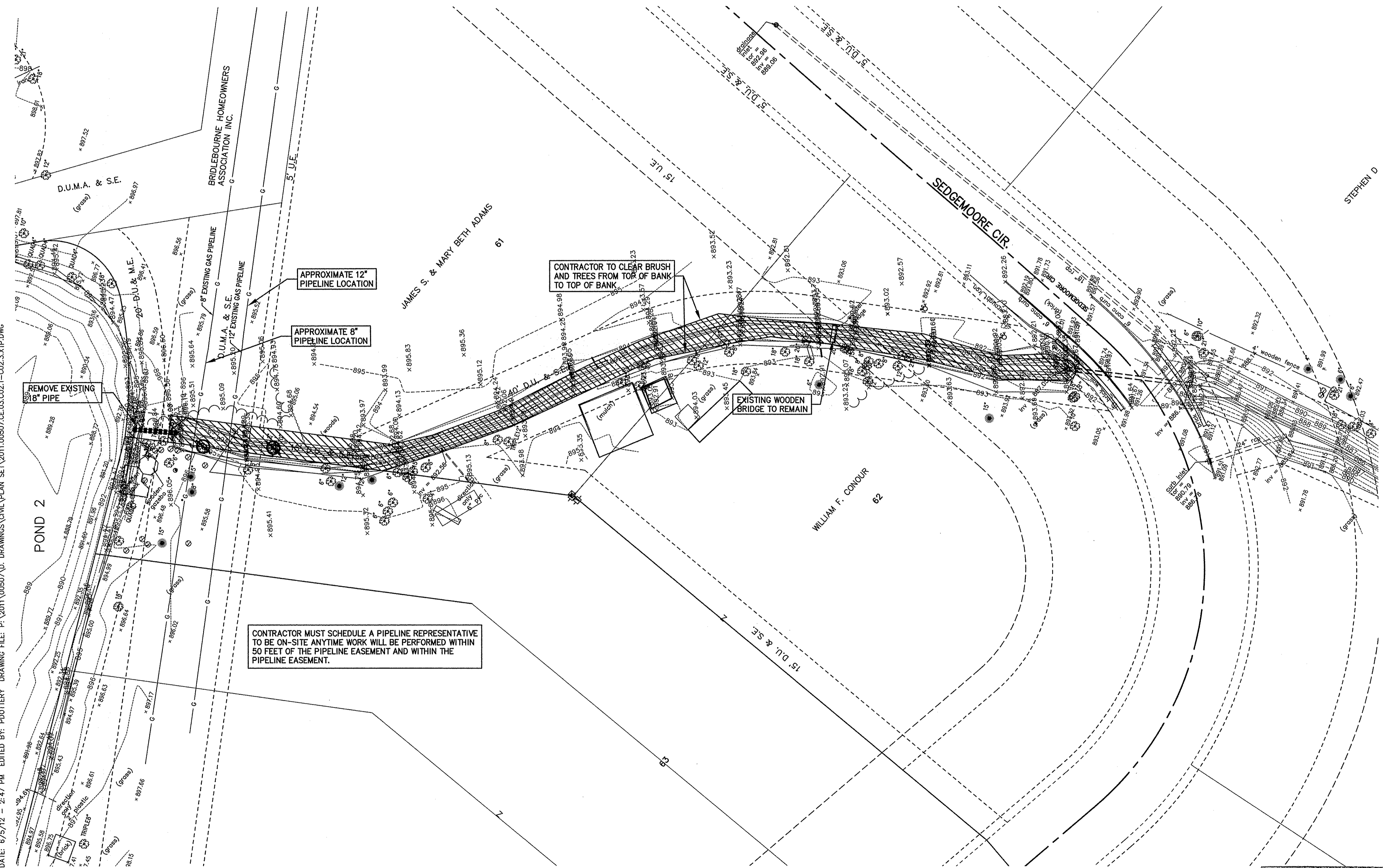
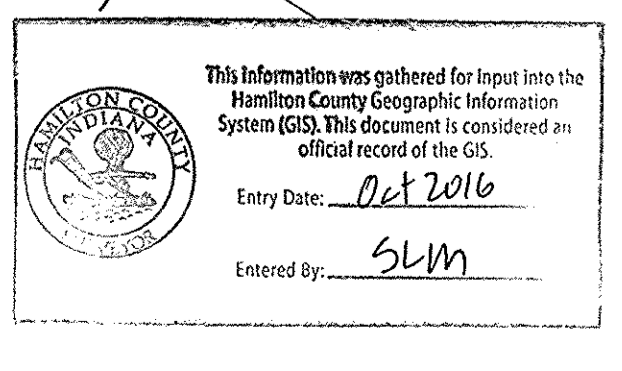
- GENERAL: REMOVE WEEKLY FROM SITE ACCUMULATED DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS.
- REMOVAL: TRANSPORT MATERIALS REMOVED FROM DEMOLITION OPERATIONS AND LEGALLY DISPOSE OF OFF-SITE.

NOTES:

- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
- CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

CAUTION !!
 THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

1-800-382-5544
 CALL TOLL FREE
 - INDIANA UNDERGROUND -



AMERICAN
STRUCTUREPOINT
 INC.

7656 SHELBOURNE STATION
 INDIANAPOLIS, IN 46256-3957
 TEL. 317.547.5580 FAX 317.543.0270
 www.structurepoint.com

CERTIFIED BY

EXISTING TOPOGRAPHY / DEMOLITION PLAN
 PREPARED FOR:

HAMILTON COUNTY DRAINAGE BOARD
1 HAMILTON COUNTY SQUARE, SUITE #188
NOBLESVILLE, IN 46060

PROJECT:

BRIDLEBOURNE DRAINAGE MODIFICATION
106th STREET & SHELBOURNE ROAD
CARMEL, INDIANA

DATE:	07/30/12
DRAWN BY:	PED
CHK'D BY:	BNS
JOB NO.:	2011.00507

REVISIONS

SHEET NO.
C2.1
 OF

2011.00507.CE.03.C02.1-C02.3.XTP.dwg

PRINT DATE: 7/30/12
 PLOT SCALE: 1"=30'
 EDIT DATE: 6/5/12 - 2:47 PM
 EDITED BY: PLOTTING
 DRAWING FILE: P:\2011\00507\00507.D
 DRAWINGS\CIVIL\PLAN SET\2011\00507\CE.03.C021-1-C02.3.XTP.DWG

BENCHMARK INFORMATION

SCHNEIDER TBM #100 = 906.07' (29' DATUM)

RR SPIKE IN EAST SIDE POWER POLE +/- 1.0' UP ON THE NORTH SIDE OF THE CENTERLINE OF GLEBE STREET +/- 100' WEST OF THE CENTERLINE OF TOWNE ROAD +/- 90'

ACE TBM #70 = 895.83'

CHISELED "BOX" ON THE NORTHWEST CORNER TRAFFIC PEDESTAL ON THE SOUTHWEST CORNER OF 116TH STREET AND TOWNE ROAD

ACE TBM #100 = 903.92'

CHISELED "X" IN SOUTH BOLT OF A FIRE HYDRANT LOCATED ON THE SOUTHERN SIDE OF HINTOCKS CIRCLE ON THE EXTENDED CENTERLINE OF THE NORTH ENTRANCE TO BRIDLEBOURNE SUBDIVISION

ACE TBM #101 = 899.90'

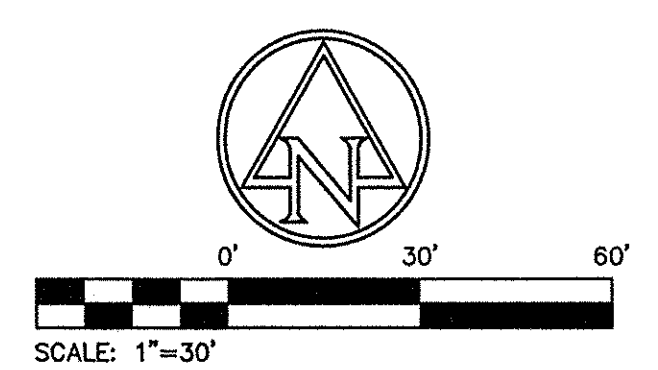
CHISELED "X" ON NORTH BOLT OF A FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SEDGEMOOR CIRCLE ACROSS FROM THE LINE BETWEEN RESIDENCE NO. 3569 AND RES. NO. 3557

ACE TBM #102 = 902.44'

CHISELED "X" ON NORTH BOLT OF A FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SEDGEMOOR CIRCLE ACROSS FROM THE LINE BETWEEN RESIDENCE NO. 3235 AND RESIDENCE NO. 3215

ACE TBM #103 = 892.92'

CHISELED "BOX" ON TOP OF CURB LOCATED ON THE WEST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM RESIDENCE NO. 10887

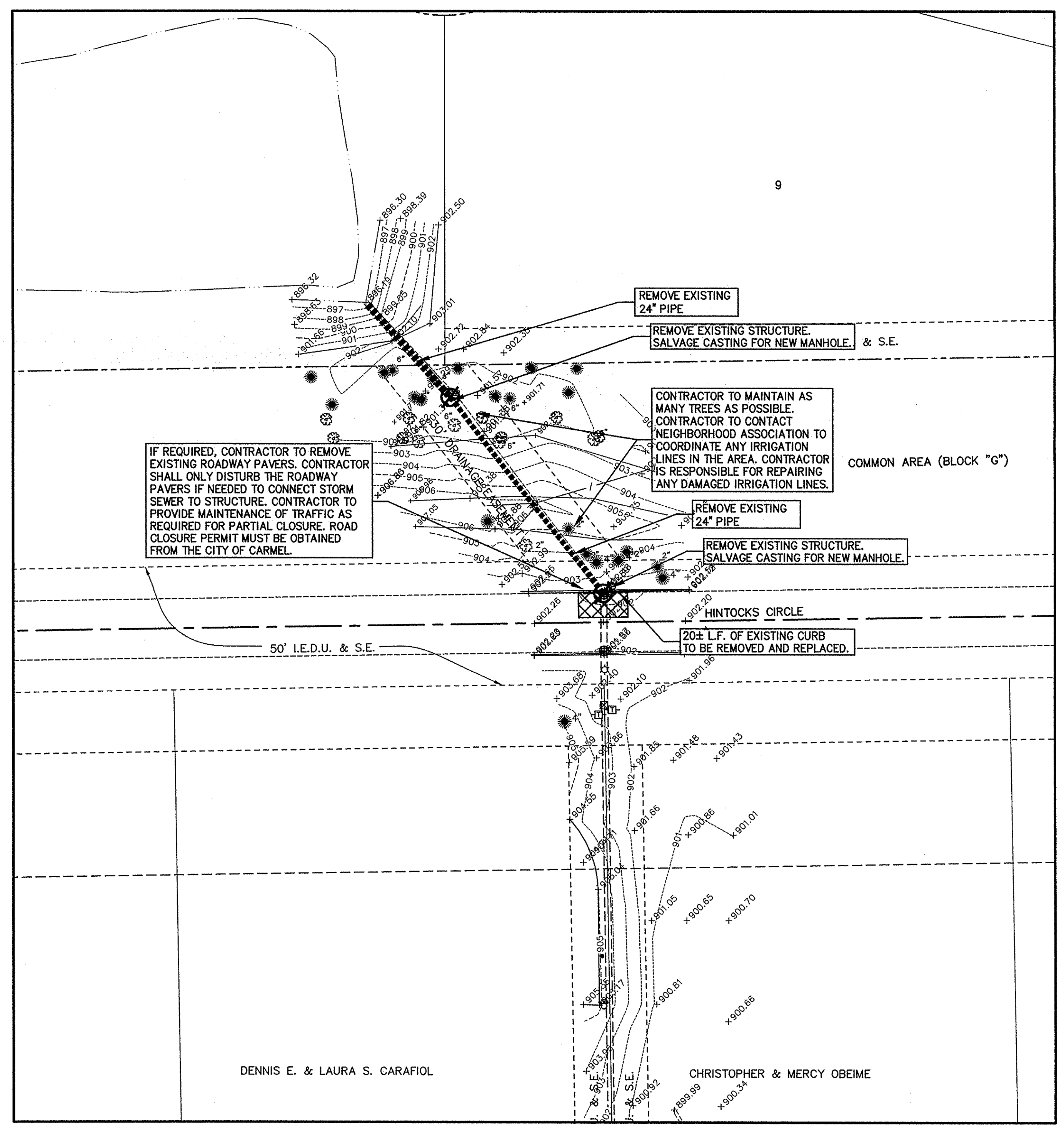


- EXISTING LEGEND**
- | | | | |
|--|-------------------------|--|--------------------|
| | AIR CONDITIONER | | TELEPHONE PEDESTAL |
| | BUSH | | TRANSFORMER |
| | GROUND LIGHT | | YARD LIGHT |
| | SPRINKLER CONTROL VALVE | | CLEAN OUT |
| | TREE | | STUMP |
| | PINE | | SANITARY MANHOLE |
| | FIRE HYDRANT | | SPIGOT |
| | DRAINAGE MANHOLE | | SIGN |
| | POST | | STAND PIPE |
| | INLET | | CURB INLET |
| | WATER METER | | SATELLITE |
| | MAILBOX | | BEEHIVE INLET |

- DEMOLITION LEGEND**
- | | |
|--|---|
| | REMOVE AND REPLACE EXISTING BRICK PAVERS AFTER PIPE INSTALLATION. |
| | CLEAR AND GRUB CREEK FROM TOP OF BANK TO TOP OF BANK |
| | OBJECT TO BE REMOVED |
| | EXISTING FENCE, CURBS, PIPES OR DRAIN TILES TO BE REMOVED |

DEMOLITION NOTES:

- BUILDING DEMOLITION**
- GENERAL**
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OFF SITE, ALL EXISTING STRUCTURES, FENCES, CONCRETE AND PAVEMENT ON SITE, UNLESS NOTED TO REMAIN ON THE CONTRACT DRAWINGS.
- THE CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
- SUMMARY**
- THIS SECTION REQUIRES REMOVAL AND DISPOSAL, OFF SITE, OF THE FOLLOWING:
- EXISTING PIPE.
 - MISCELLANEOUS TREES, SHRUBS, LANDSCAPING, ETC., LOCATED ON SITE.
- SUBMITTALS**
- SUBMIT THE FOLLOWING IN ACCORDANCE WITH CONDITIONS OF CONTRACT AND DIVISION 1 SPECIFICATION SECTIONS.
- SUBMIT A PROPOSED SCHEDULE OF OPERATIONS COORDINATION FOR SHUTOFF, SHUTOFF, CAPPING, AND CONTINUATION OF UTILITY SERVICES AS REQUIRED.
 - PROVIDE A DETAILED SEQUENCE AND SCHEDULE OF DEMOLITION AND REMOVAL WORK TO BE COMPLETED.
- JOB CONDITIONS**
- SALVAGED MATERIALS: ITEMS OF SALVAGEABLE VALUE TO CONTRACTOR MAY BE REMOVED FROM STRUCTURE AS WORK PROGRESSES. TRANSPORT SALVAGED ITEMS FROM THE SITE AS THEY ARE REMOVED.
 - STORAGE OR SALE OF REMOVED ITEMS WILL NOT BE PERMITTED ON SITE.
 - EXPLOSIVES: USE OF ANY TYPE OF EXPLOSIVES WILL NOT BE PERMITTED.
 - TRAFFIC: CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED AND USED FACILITIES.
 - DO NOT CLOSE OR OBSTRUCT ROADS, STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM THE LOCAL AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY GOVERNING AUTHORITIES.
 - PROTECTIONS: ENSURE SAFE PASSAGE OF PERSONS AROUND AREAS OF DEMOLITION. CONDUCT OPERATIONS TO PREVENT DAMAGE TO ADJACENT BUILDINGS, STRUCTURES, AND OTHER FACILITIES AND INJURY TO PERSONS.
 - DAMAGES: PROMPTLY REPAIR ANY DAMAGES CAUSED TO ADJACENT FACILITIES, YARDS, ETC. BY DEMOLITION AND CONSTRUCTION OPERATIONS.
 - UTILITY SERVICES: MAINTAIN EXISTING UTILITIES TO STAY IN SERVICE AND PROTECT AGAINST DAMAGE DURING DEMOLITION OPERATIONS. DISCONNECT, CAP AND REMOVE UTILITY SERVICES PER LOCAL REQUIREMENTS. DO NOT START DEMOLITION WORK UNTIL UTILITY DISCONNECTIONS HAVE BEEN COMPLETED TO THE SATISFACTION OF LOCAL UTILITIES.
- DISPOSAL OF DEMOLISHED MATERIALS**
- GENERAL: REMOVE WEEKLY FROM SITE ACCUMULATED DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS.
 - REMOVAL: TRANSPORT MATERIALS REMOVED FROM DEMOLITION OPERATIONS AND LEGALLY DISPOSE OF OFF-SITE.



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: 06/20/16

Entered By: SLM

- NOTES:**
- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
 - CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

CAUTION !!

THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

1-800-382-5544
 CALL TOLL FREE
 - INDIANA UNDERGROUND -

780 SHAKER AND STATION
 INDIANAPOLIS, IN 46256-3957
 TEL: 317.547.5580 FAX: 317.544.0270
 www.structurepoint.com

AMERICAN
STRUCTUREPOINT
 INC.

CERTIFIED BY _____

EXISTING TOPOGRAPHY / DEMOLITION PLAN

PREPARED FOR:
HAMILTON COUNTY DRAINAGE BOARD
 1 HAMILTON COUNTY SQUARE, SUITE #188
 NOBLESVILLE, IN 46060

PROJECT:
BRIDLEBOURNE DRAINAGE MODIFICATION
 106th STREET & SHELBORNE ROAD
 CARMEL, INDIANA

DATE:	07/30/12
DRAWN BY:	PED
CHK'D BY:	BNS
JOB NO.:	2011.00507

REVISIONS	

SHEET NO.
C2.2
 OF



CERTIFIED BY

EXISTING TOPOGRAPHY / DEMOLITION PLAN

PREPARED FOR:

HAMILTON COUNTY DRAINAGE BOARD
1 HAMILTON COUNTY SQUARE, SUITE #188
NOBLESVILLE, IN 46060

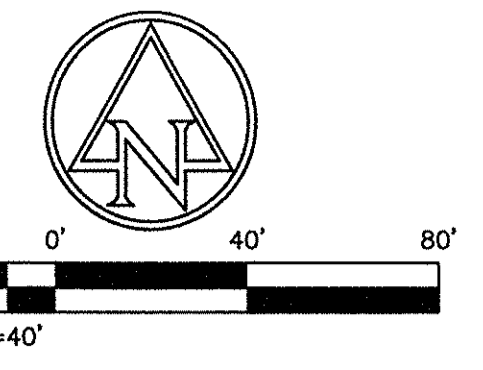
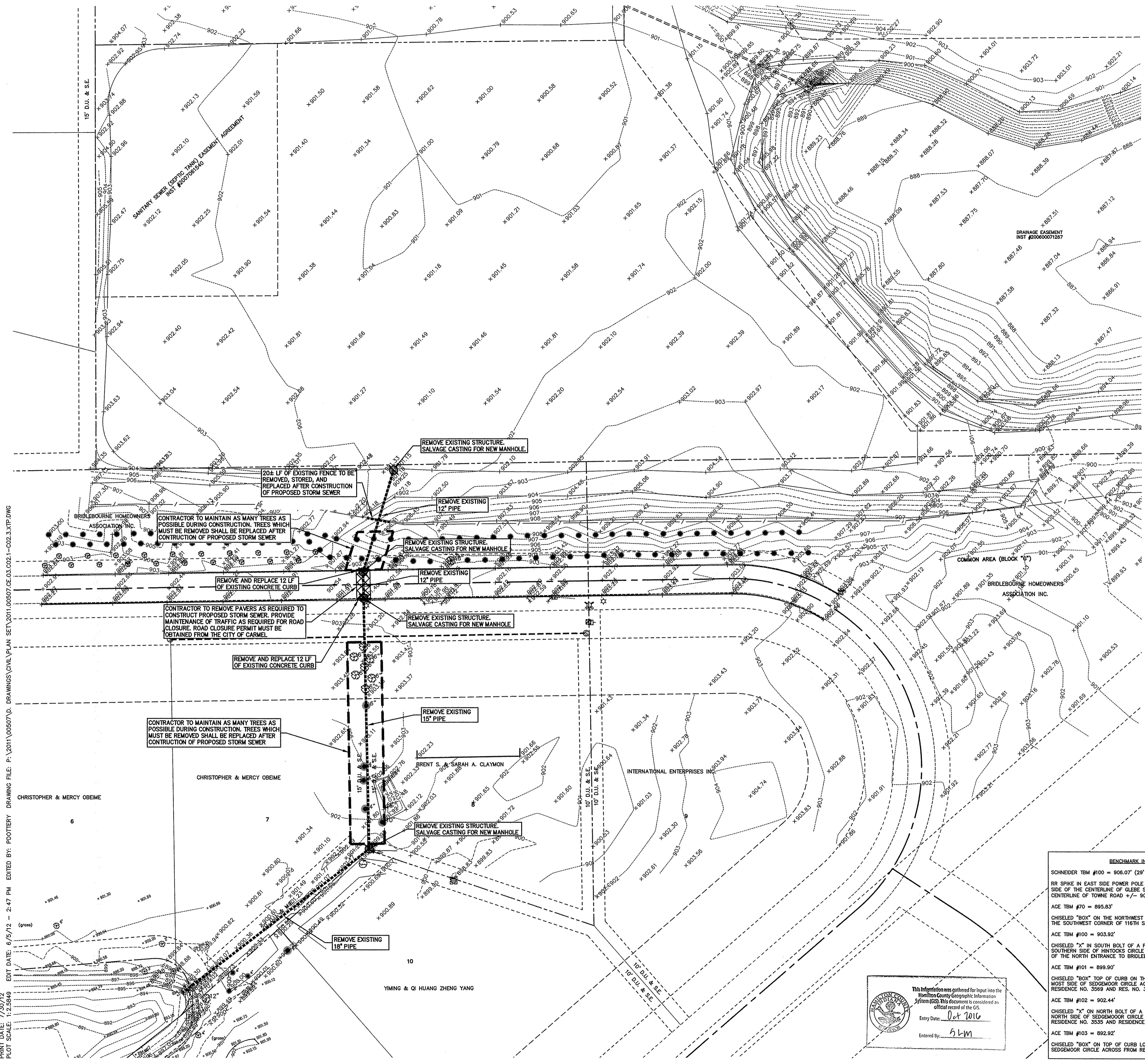
PROJECT:

BRIDLEBOURNE DRAINAGE MODIFICATION
106th STREET & SHELBORNE ROAD
CARMEL, INDIANA

DATE: 07/30/12
DRAWN BY: PED
CHK'D BY: BNS
JOB NO.: 2011.00507

REVISIONS	

SHEET NO.
C2.3
OF



EXISTING LEGEND

- AIR CONDITIONER
- BUSH
- GROUND LIGHT
- SPRINKLER CONTROL VALVE
- PINE
- FIRE HYDRANT
- DRAINAGE MANHOLE
- POST
- INLET
- WATER METER
- MAILBOX
- TELEPHONE PEDESTAL
- TRANSFORMER
- YARD LIGHT
- CLEAN OUT
- STUMP
- SANITARY MANHOLE
- SPIGOT
- SIGN
- STAND PIPE
- CURB INLET
- SATELLITE
- BEEHIVE INLET

DEMOLITION LEGEND

- REMOVE AND REPLACE EXISTING BRICK PAVERS AFTER PIPE INSTALLATION.
- CLEAR AND GRUB CREEK FROM TOP OF BANK TO TOP OF BANK
- OBJECT TO BE REMOVED
- EXISTING FENCE, CURBS, PIPES OR DRAIN TILES TO BE REMOVED

DEMOLITION NOTES:

- BUILDING DEMOLITION**
- GENERAL**
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OFF SITE, ALL EXISTING STRUCTURES, FENCES, CONCRETE AND PAVEMENT ON SITE, UNLESS NOTED TO REMAIN ON THE CONTRACT DRAWINGS.
- THE CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
- SUMMARY**
- THIS SECTION REQUIRES REMOVAL AND DISPOSAL, OFF SITE, OF THE FOLLOWING:
- EXISTING PIPE.
 - MISCELLANEOUS TREES, SHRUBS, LANDSCAPING, ETC., LOCATED ON SITE.
- SUBMITTALS**
- SUBMIT THE FOLLOWING IN ACCORDANCE WITH CONDITIONS OF CONTRACT AND DIVISION 1 SPECIFICATION SECTIONS.
- SUBMIT A PROPOSED SCHEDULE OF OPERATIONS COORDINATION FOR SHUTOFF, SHUTOFF, CAPPING, AND CONTINUATION OF UTILITY SERVICES AS REQUIRED.
 - PROVIDE A DETAILED SEQUENCE AND SCHEDULE OF DEMOLITION AND REMOVAL WORK TO BE COMPLETED.
- JOB CONDITIONS**
- A. SALVAGED MATERIALS: ITEMS OF SALVAGEABLE VALUE TO CONTRACTOR MAY BE REMOVED FROM STRUCTURE AS WORK PROGRESSES. TRANSPORT SALVAGED ITEMS FROM THE SITE AS THEY ARE REMOVED.
- STORAGE OR SALE OF REMOVED ITEMS WILL NOT BE PERMITTED ON SITE.
 - EXPLOSIVES: USE OF ANY TYPE OF EXPLOSIVES WILL NOT BE PERMITTED.
 - TRAFFIC: CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED AND USED FACILITIES.
- DO NOT CLOSE OR OBSTRUCT ROADS, STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM THE LOCAL AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY GOVERNING AUTHORITIES.
 - PROTECTIONS: ENSURE SAFE PASSAGE OF PERSONS AROUND AREAS OF DEMOLITION. CONDUCT OPERATIONS TO PREVENT DAMAGE TO ADJACENT BUILDINGS, STRUCTURES, AND OTHER FACILITIES AND INJURY TO PERSONS.
 - DAMAGES: PROMPTLY REPAIR ANY DAMAGES CAUSED TO ADJACENT FACILITIES, YARDS, ETC. BY DEMOLITION AND CONSTRUCTION OPERATIONS.
 - UTILITY SERVICES: MAINTAIN EXISTING UTILITIES TO STAY IN SERVICE AND PROTECT AGAINST DAMAGE DURING DEMOLITION OPERATIONS. DISCONNECT, CAP AND REMOVE UTILITY SERVICES PER LOCAL REQUIREMENTS. DO NOT START DEMOLITION WORK UNTIL UTILITY DISCONNECTIONS HAVE BEEN COMPLETED TO THE SATISFACTION OF LOCAL UTILITIES.
- DISPOSAL OF DEMOLISHED MATERIALS**
- GENERAL: REMOVE WEEKLY FROM SITE ACCUMULATED DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS.
 - REMOVAL: TRANSPORT MATERIALS REMOVED FROM DEMOLITION OPERATIONS AND LEGALLY DISPOSE OF OFF-SITE.

BENCHMARK INFORMATION

- SCHNEIDER TBM #100 = 906.07' (29' DATUM)
- RR SPIKE IN EAST SIDE POWER POLE +/- 1.0' UP ON THE NORTH SIDE OF THE CENTERLINE OF GLEBE STREET +/- 100' WEST OF THE CENTERLINE OF TOWNE ROAD +/- 90'
- ACE TBM #70 = 895.83'
- CHISELED "BOX" ON THE NORTHWEST CORNER TRAFFIC PEDESTAL @ THE SOUTHWEST CORNER OF 116TH STREET AND TOWNE ROAD
- ACE TBM #100 = 903.92'
- CHISELED "X" IN SOUTH BOLT OF A FIRE HYDRANT LOCATED ON THE SOUTHERN SIDE OF HAYCOCKS CIRCLE ON THE EXTENDED CENTERLINE OF THE NORTH ENTRANCE TO BRIDLEBOURNE SUBDIVISION
- ACE TBM #101 = 899.90'
- CHISELED "BOX" TOP OF CURB ON THE NORTH SIDE OF THE SOUTHERN MOST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM LOT LINE BETWEEN RESIDENCE NO. 3569 AND RES. NO. 3557
- ACE TBM #102 = 902.44'
- CHISELED "X" ON NORTH BOLT OF A FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SEDGEMOOR CIRCLE ACROSS FROM THE LINE BETWEEN RESIDENCE NO. 3535 AND RESIDENCE NO. 3515
- ACE TBM #103 = 892.92'
- CHISELED "BOX" ON TOP OF CURB LOCATED ON THE WEST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM RESIDENCE NO. 10887

NOTES:

- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
- CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

CAUTION !!

THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

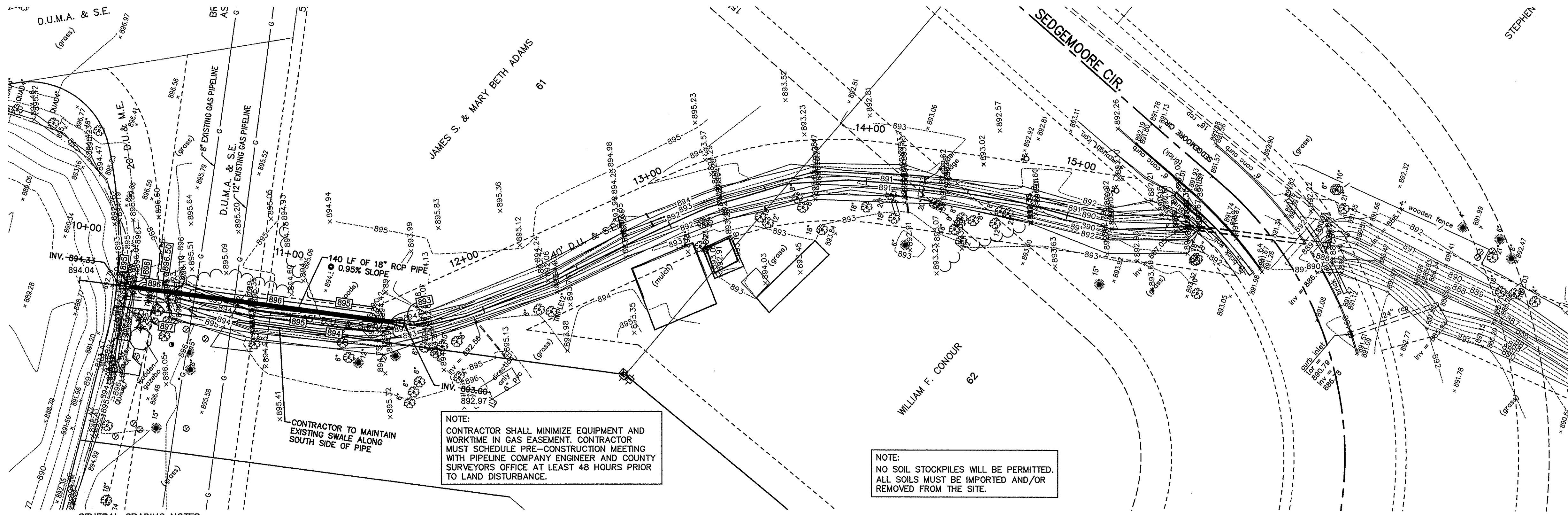
1-800-382-5544
CALL TOLL FREE
- INDIANA UNDERGROUND -

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: Oct 2016

Entered By: SLW

EDIT DATE: 6/5/12 - 2:47 PM
DRAWING FILE: P:\2011\00507.D
DRAWINGS CIVIL PLAN SET\2011\00507.CE.03.C021-C02.3.XTP.DWG
PRINT DATE: 7/30/12
PLOT SCALE: 1:2,584.9



- EXISTING LEGEND**
- AIR CONDITIONER
 - BUSH
 - GROUND LIGHT
 - SPRINKLER CONTROL VALVE
 - TREE
 - PINE
 - FIRE HYDRANT
 - DRAINAGE MANHOLE
 - INLET
 - WATER METER
 - MAILBOX
 - TELEPHONE PEDESTAL
 - TRANSFORMER
 - YARD LIGHT
 - CLEAN OUT
 - STUMP
 - SANITARY MANHOLE
 - SPIGOT
 - SIGN
 - STAND PIPE
 - CURB INLET
 - SATELLITE
 - BEEHIVE INLET

- PROPOSED GRADING LEGEND**
- M.E. MATCH EXISTING
 - EP EDGE OF PAVEMENT
 - BC BOTTOM OF CURB
 - TC TOP OF CURB
 - CONTOURS
 - FLOW LINE
 - TC 000.50
BC 000.00
 - SPOT ELEVATIONS

GENERAL GRADING NOTES

- ALL WORK TO CONFORM TO STATE AND LOCAL REGULATIONS.
- SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS (VERTICAL AND HORIZONTAL) IN THE FIELD PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM THE ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTOR'S AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (location, size and depth) SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING IS AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION.
- TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
- AFTER STRIPPING TOPSOIL MATERIAL, PROOFROLL WITH A MEDIUM WEIGHT ROLLER TO DETERMINE LOCATIONS OF ANY POCKETS OF UNSUITABLE MATERIAL. THE NECESSITY FOR SUBDRAINS AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WITHIN THE PROPOSED PARKING AREAS WILL BE DETERMINED AT THE TIME OF CONSTRUCTION.
- PROVIDE POSITIVE DRAINAGE WITHOUT PONDING, IN ALL AREAS. AFTER INSTALLATION, CONTRACTOR TO TEST FOR, AND CORRECT, IF ANY, "BIRD BATH" CONDITIONS.
- ALL PROPOSED SPOT ELEVATIONS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS.
- SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE ELEVATIONS INDICATED.
- ALL STORM SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE HAMILTON COUNTY SURVEYOR AND THE CITY OF CARMEL STANDARDS.
- INVERTS AT PIPE OUTLETS ARE GIVEN AT END OF PIPE END SECTION.

NOTE:
CONTRACTOR SHALL MINIMIZE EQUIPMENT AND WORKTIME IN GAS EASEMENT. CONTRACTOR MUST SCHEDULE PRE-CONSTRUCTION MEETING WITH PIPELINE COMPANY ENGINEER AND COUNTY SURVEYORS OFFICE AT LEAST 48 HOURS PRIOR TO LAND DISTURBANCE.

NOTE:
NO SOIL STOCKPILES WILL BE PERMITTED. ALL SOILS MUST BE IMPORTED AND/OR REMOVED FROM THE SITE.

CONTRACTOR MUST SCHEDULE A PIPELINE REPRESENTATIVE TO BE ON-SITE ANYTIME WORK WILL BE PERFORMED WITHIN 50 FEET OF THE PIPELINE EASEMENT AND WITHIN THE PIPELINE EASEMENT.

AS-BUILT

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: Oct 2016
Entered By: GJM

STORM SEWER AS-BUILT STATEMENT

As-Built information for storm sewer rims are based upon above ground evidence of the existing storm sewer system. The strike through data shown on the Storm Sewers are the proposed elevations for all the structures to be placed. Said information has been replaced by the as-built information per elevations collected in the field on July 2, 2015.

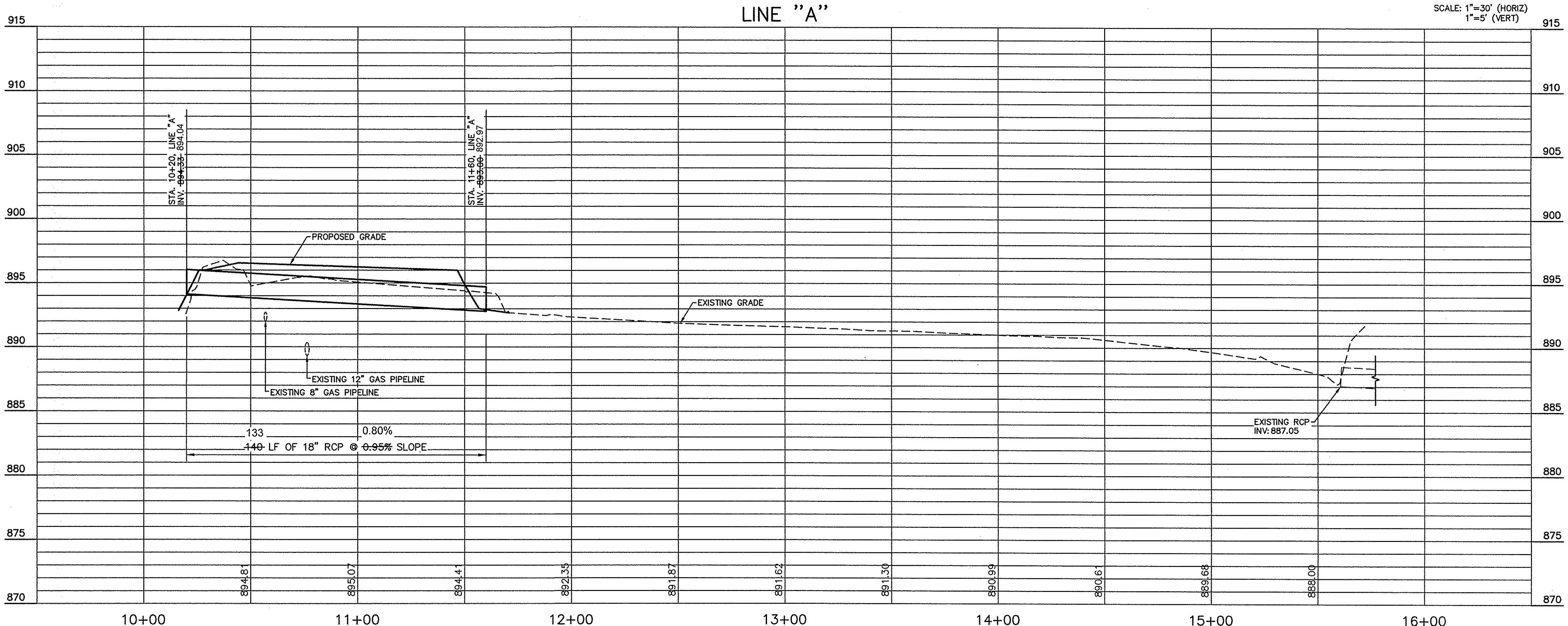
Bryan J. Moll
Registered Land Surveyor No. 20500012



CERTIFIED BY

GRADING PLAN & PROFILE
PREPARED FOR:
HAMILTON COUNTY DRAINAGE BOARD
1 HAMILTON COUNTY SQUARE, SUITE #188
NOBLESVILLE, IN 46060

PROJECT:
BRIDLEBOURNE DRAINAGE MODIFICATION
106th STREET & SHELBORNE ROAD
CARMEL, INDIANA



- BENCHMARK INFORMATION**
- SCHNEIDER TBM #100 = 906.07' (29' DATUM)
 - RR SPIKE IN EAST SIDE POWER POLE +/- 1.0' UP ON THE NORTH SIDE OF THE CENTERLINE OF GLEBE STREET +/- 100' WEST OF THE CENTERLINE OF TOWNE ROAD +/- 90'
 - ACE TBM #70 = 895.83'
 - CHISELED "BOX" ON THE NORTHWEST CORNER TRAFFIC PEDESTAL ON THE SOUTHWEST CORNER OF 116TH STREET AND TOWNE ROAD
 - ACE TBM #100 = 903.92'
 - CHISELED "X" IN SOUTH BOLT OF A FIRE HYDRANT LOCATED ON THE SOUTHERN SIDE OF HINCKOCKS CIRCLE ON THE EXTENDED CENTERLINE OF THE NORTH ENTRANCE TO BRIDLEBOURNE SUBDIVISION
 - ACE TBM #101 = 899.90'
 - CHISELED "BOX" TOP OF CURB ON THE NORTH SIDE OF THE SOUTHERN MOST SIDE OF SEDGEMOORE CIRCLE ACROSS FROM LOT LINE BETWEEN RESIDENCE NO. 3569 AND RES. NO. 3557
 - ACE TBM #102 = 902.44'
 - CHISELED "X" ON NORTH BOLT OF A FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SEDGEMOORE CIRCLE ACROSS FROM THE LINE BETWEEN RESIDENCE NO. 3535 AND RESIDENCE NO. 3515
 - ACE TBM #103 = 892.92'
 - CHISELED "BOX" ON TOP OF CURB LOCATED ON THE WEST SIDE OF SEDGEMOORE CIRCLE ACROSS FROM RESIDENCE NO. 10887

- NOTES:**
- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
 - CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

CAUTION !!
THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

1-800-382-5544
CALL TOLL FREE
INDIANA UNDERGROUND

DATE:	07/30/12
DRAWN BY:	FED
CHK'D BY:	BNS
JOB NO.:	2011.00507

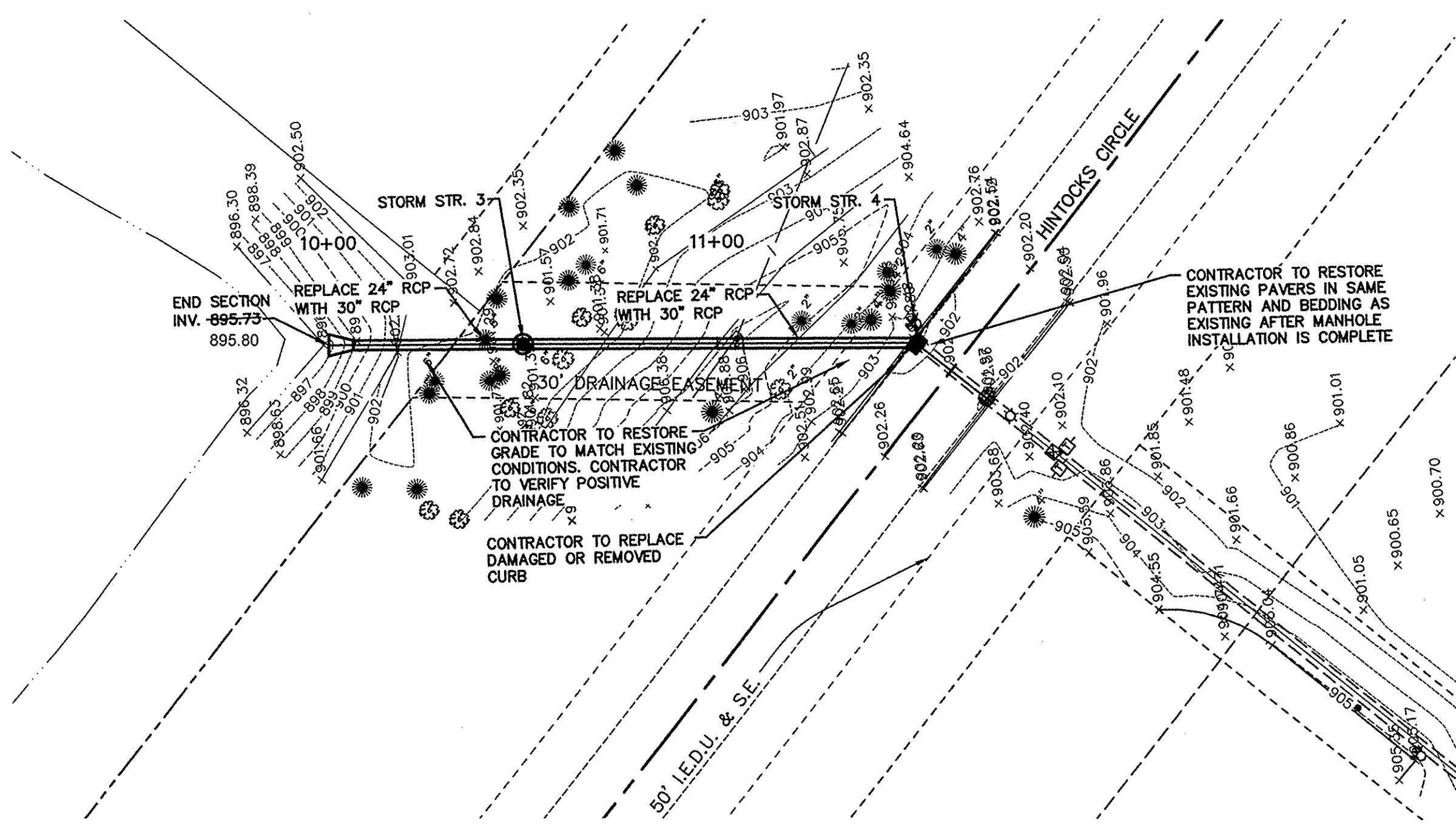
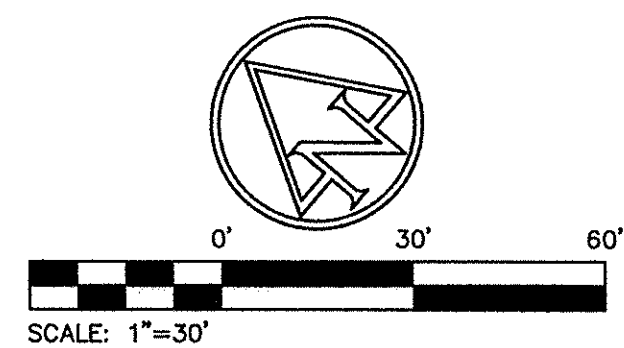
REVISIONS

SHEET NO.
C3.1
OF

PRINT DATE: 7/30/12 3:18 PM EDITED BY: POOTTERY DRAWING FILE: P:\2011\00507\01.DRAWINGS\CIVIL\PLAN SET\2011.00507.CE.04.C31-C33.GPP.DWG PLOT SCALE: 1:25000

GENERAL GRADING NOTES

- ALL WORK TO CONFORM TO STATE AND LOCAL REGULATIONS.
- SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS (VERTICAL AND HORIZONTAL) IN THE FIELD PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM THE ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTOR'S AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START, TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (location, size and depth) SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING IS AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION.
- TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
- AFTER STRIPPING TOPSOIL MATERIAL, PROOFROLL WITH A MEDIUM WEIGHT ROLLER TO DETERMINE LOCATIONS OF ANY POCKETS OF UNSUITABLE MATERIAL. THE NECESSITY FOR SUBDRAINS AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WITHIN THE PROPOSED PARKING AREAS WILL BE DETERMINED AT THE TIME OF CONSTRUCTION.
- PROVIDE POSITIVE DRAINAGE WITHOUT PONDING, IN ALL AREAS. AFTER INSTALLATION, CONTRACTOR TO TEST FOR, AND CORRECT, IF ANY, "BIRD BATH" CONDITIONS.
- ALL PROPOSED SPOT ELEVATIONS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS.
- SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE ELEVATIONS INDICATED.
- ALL STORM SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE HAMILTON COUNTY SURVEYOR AND THE CITY OF CARMEL STANDARDS.
- INVERTS AT PIPE OUTLETS ARE GIVEN AT END OF PIPE END SECTION.
- DEBRIS GUARD TO BE INSTALLED AT ALL OPEN ENDED INLETS.
- DUE TO SITE CONSTRAINTS, THE SITE MAY OR MAY NOT BALANCE. THE CONTRACTOR IS RESPONSIBLE FOR ALL EARTHWORK IMPORTS AND/OR EXPORTS.
- THE SITE IS NOT LOCATED WITHIN ANY FLOODPLAIN, FLOODWAY OR FLOODWAY FRINGE AS INDICATED ON THE FLOODWAY INSURANCE RATE MAP COMMUNITY PANEL NUMBER 1805700005 FOR THE COUNTY OF HAMILTON, INDIANA, DATED FEB. 19, 2003.



BENCHMARK INFORMATION

SCHNEIDER TBM #100 = 906.07' (29' DATUM)
RR SPIKE IN EAST SIDE POWER POLE +/- 1.0' UP ON THE NORTH SIDE OF THE CENTERLINE OF GLEBE STREET +/- 100' WEST OF THE CENTERLINE OF TOWNE ROAD +/- 90'

ACE TBM #70 = 895.83'
CHISELED "BOX" ON THE NORTHWEST CORNER TRAFFIC PEDESTAL @ THE SOUTHWEST CORNER OF 116TH STREET AND TOWNE ROAD

ACE TBM #100 = 903.92'
CHISELED "X" IN SOUTH BOLT OF A FIRE HYDRANT LOCATED ON THE SOUTHERN SIDE OF HINTOCKS CIRCLE ON THE EXTENDED CENTERLINE OF THE NORTH ENTRANCE TO BRIDLEBOURNE SUBDIVISION

ACE TBM #101 = 899.90'
CHISELED "BOX" TOP OF CURB ON THE NORTH SIDE OF THE SOUTHERN MOST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM LOT LINE BETWEEN RESIDENCE NO. 3969 AND RES. NO. 3957

ACE TBM #102 = 902.44'
CHISELED "X" ON NORTH BOLT OF A FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SEDGEMOOR CIRCLE ACROSS FROM THE LINE BETWEEN RESIDENCE NO. 3535 AND RESIDENCE NO. 3515

ACE TBM #103 = 892.92'
CHISELED "BOX" ON TOP OF CURB LOCATED ON THE WEST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM RESIDENCE NO. 10667

EXISTING LEGEND

☐ AIR CONDITIONER	☐ TELEPHONE PEDESTAL
☐ BUSH	☐ TRANSFORMER
☐ GROUND LIGHT	☐ YARD LIGHT
☐ SPRINKLER CONTROL VALVE	☐ CLEAN OUT
☐ TREE	☐ STUMP
☐ PINE	☐ SANITARY MANHOLE
☐ FIRE HYDRANT	☐ SPIGOT
☐ DRAINAGE MANHOLE	☐ SIGN
☐ POST	☐ STAND PIPE
☐ INLET	☐ CURB INLET
☐ WATER METER	☐ SATELLITE
☐ MAILBOX	☐ BEEHIVE INLET

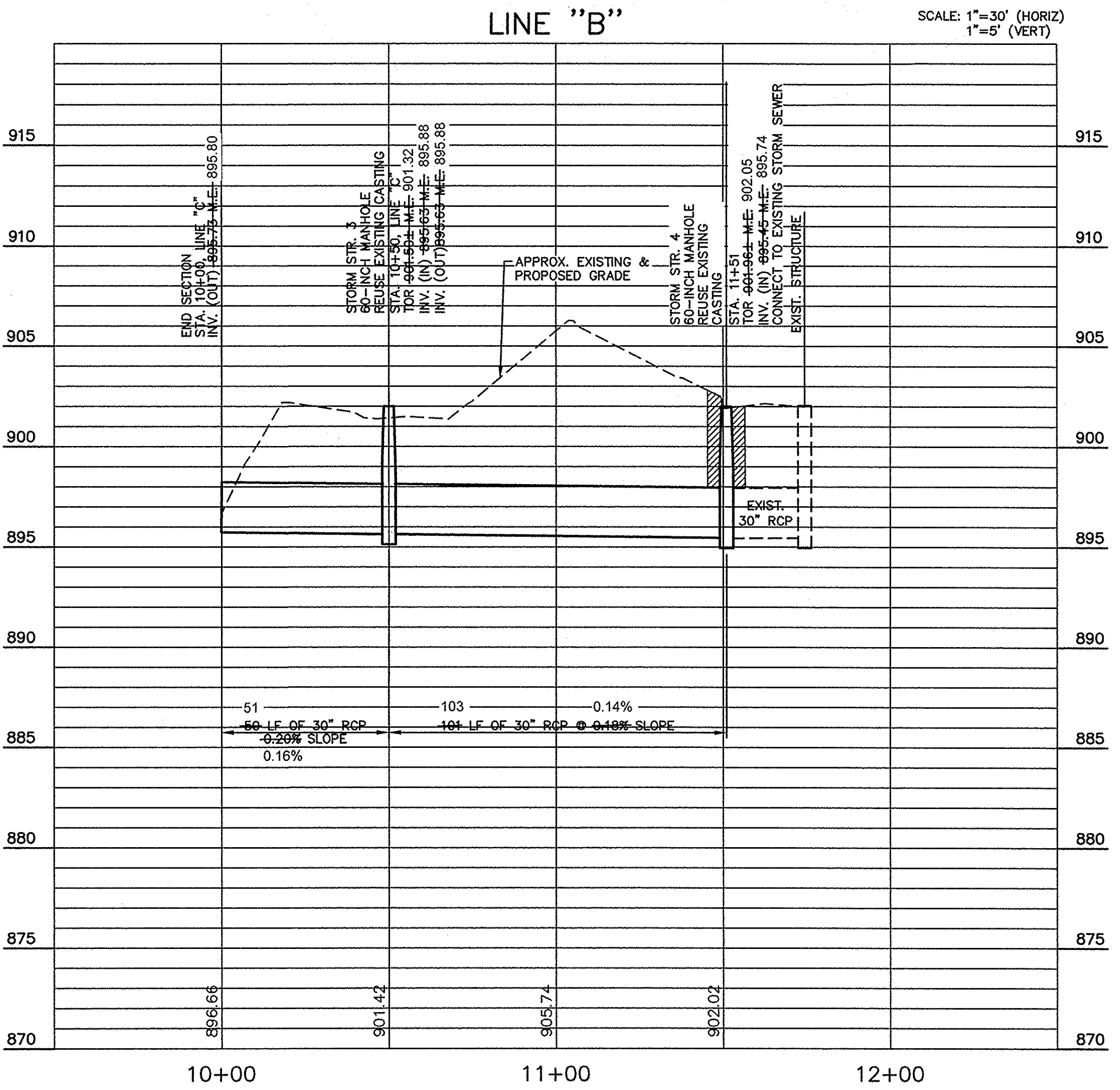
PROPOSED GRADING LEGEND

M.E.	MATCH EXISTING
EP	EDGE OF PAVEMENT
BC	BOTTOM OF CURB
TC	TOP OF CURB
—	CONTOURS
—	FLOW LINE
TC 000.50 BC 000.00	CURB ELEVATIONS
000.00	SPOT ELEVATIONS

NOTE:
CONTRACTOR SHALL MINIMIZE EQUIPMENT AND WORKTIME IN GAS EASEMENT. CONTRACTOR MUST SCHEDULE PRE-CONSTRUCTION MEETING WITH PIPELINE COMPANY ENGINEER AND COUNTY SURVEYORS OFFICE AT LEAST 48 HOURS PRIOR TO LAND DISTURBANCE.

NOTE:
NO SOIL STOCKPILES WILL BE PERMITTED. ALL SOILS MUST BE IMPORTED AND/OR REMOVED FROM THE SITE.

☐ FULL DEPTH GRANULAR BACKFILL, REQ'D UNDER AND WITHIN 5' OF PAVEMENT

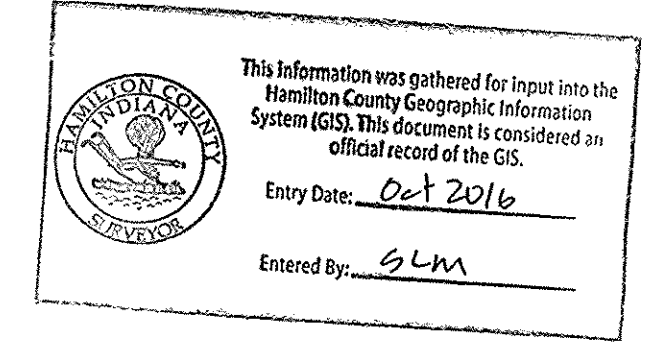


AS-BUILT

STORM SEWER AS-BUILT STATEMENT

As-Built information for storm sewer rims are based upon above ground evidence of the existing storm sewer system. The strike through data shown on the Storm Sewers are the proposed elevations for all the structures to be placed. Said information has been replaced by the as-built information per elevations collected in the field on July 2, 2015.

Bryan J. Moll
Bryan J. Moll
Registered Land Surveyor No. 20500012



- NOTES:**
- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
 - CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

CAUTION !!
THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

1-800-382-5544
CALL TOLL FREE
— INDIANA UNDERGROUND —

7260 SHARPLEND STATION
INDIANAPOLIS, IN 46226-3957
TEL: 317.547.5580 FAX: 317.544.0270
www.structurepoint.com

AMERICAN
STRUCTUREPOINT
INC.

CERTIFIED BY

GRADING PLAN & PROFILE

PREPARED FOR:
HAMILTON COUNTY DRAINAGE BOARD
1 HAMILTON COUNTY SQUARE, SUITE #188
NOBLESVILLE, IN 46060

PROJECT:
BRIDLEBOURNE DRAINAGE MODIFICATION
106th STREET & SHELBORNE ROAD
CARMEL, INDIANA

DATE:	07/30/12
DRAWN BY:	PED
CHK'D BY:	BNS
JOB NO.:	2011.00507

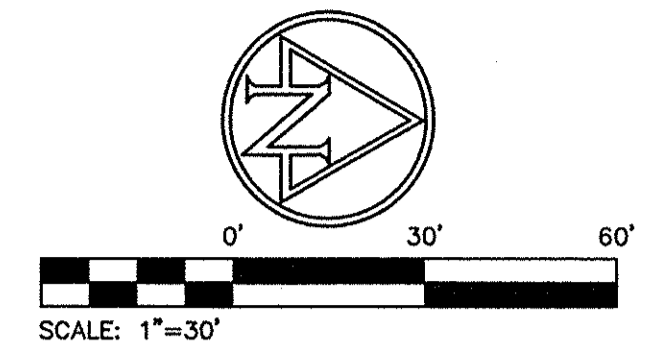
REVISIONS

SHEET NO.
C3.2
OF

GENERAL GRADING NOTES

- ALL WORK TO CONFORM TO STATE AND LOCAL REGULATIONS.
- SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS (VERTICAL AND HORIZONTAL) IN THE FIELD PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM THE ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTOR'S AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START, TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (location, size and depth) SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING IS AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION.
- TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
- AFTER STRIPPING TOPSOIL MATERIAL, PROOFROLL WITH A MEDIUM WEIGHT ROLLER TO DETERMINE LOCATIONS OF ANY POCKETS OF UNSUITABLE MATERIAL. THE NECESSITY FOR SUBDRAINS AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WITHIN THE PROPOSED PARKING AREAS WILL BE DETERMINED AT THE TIME OF CONSTRUCTION.
- PROVIDE POSITIVE DRAINAGE WITHOUT PONDING, IN ALL AREAS. AFTER INSTALLATION, CONTRACTOR TO TEST FOR, AND CORRECT, IF ANY, "BIRD BATH" CONDITIONS.
- ALL PROPOSED SPOT ELEVATIONS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS.
- SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE ELEVATIONS INDICATED.
- ALL STORM SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE HAMILTON COUNTY SURVEYOR AND THE CITY OF CARMEL STANDARDS.
- INVERTS AT PIPE OUTLETS ARE GIVEN AT END OF PIPE END SECTION.
- DEBRIS GUARD TO BE INSTALLED AT ALL OPEN ENDED INLETS.
- DUE TO SITE CONSTRAINTS, THE SITE MAY OR MAY NOT BALANCE. THE CONTRACTOR IS RESPONSIBLE FOR ALL EARTHWORK IMPORTS AND/OR EXPORTS.
- THE SITE IS NOT LOCATED WITHIN ANY FLOODPLAIN, FLOODWAY OR FLOODWAY FRINGE AS INDICATED ON THE FLOODWAY INSURANCE RATE MAP COMMUNITY PANEL NUMBER 180570005F FOR THE COUNTY OF HAMILTON, INDIANA, DATED FEB. 19, 2003.

AS-BUILT

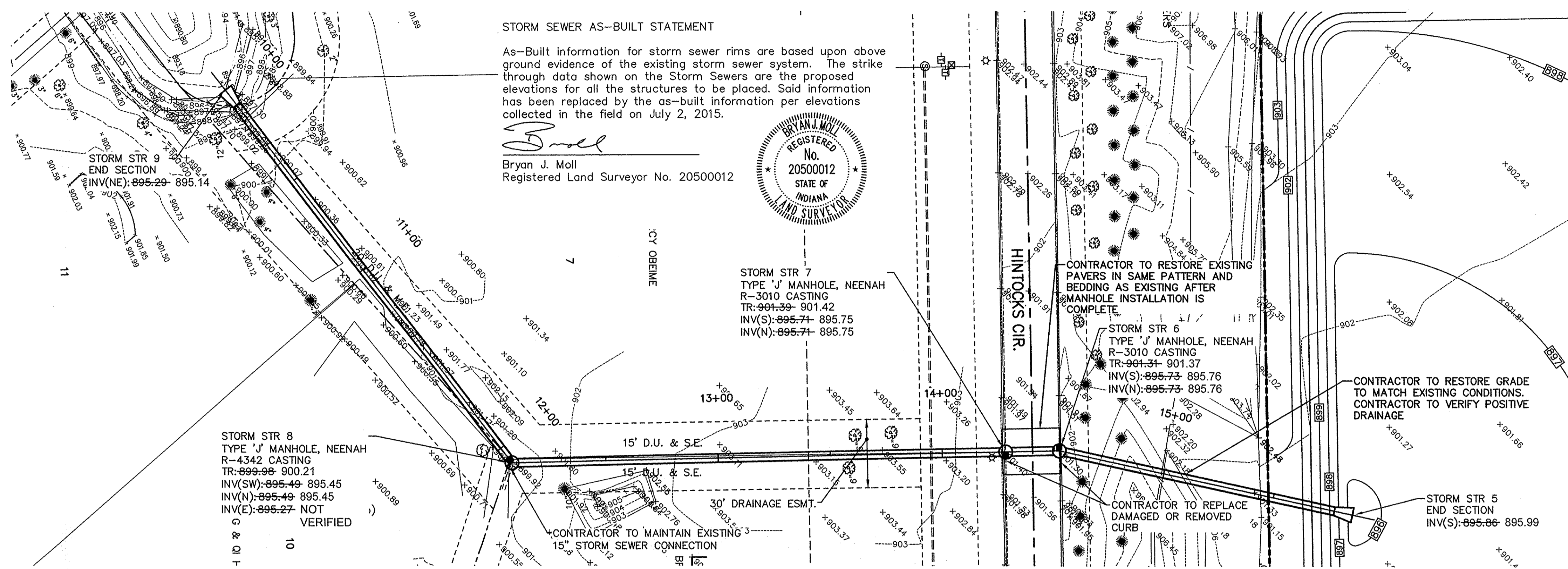


EXISTING LEGEND

- | | |
|---------------------------|----------------------|
| ☐ AIR CONDITIONER | ☐ TELEPHONE PEDESTAL |
| ⊙ BUSH | ⊙ TRANSFORMER |
| ⊙ GROUND LIGHT | ⊙ YARD LIGHT |
| ⊙ SPRINKLER CONTROL VALVE | ⊙ CLEAN OUT |
| ⊙ TREE | ⊙ STUMP |
| ⊙ PINE | ⊙ SANITARY MANHOLE |
| ⊙ FIRE HYDRANT | ⊙ SPIGOT |
| ⊙ DRAINAGE MANHOLE | ⊙ SIGN |
| ⊙ POST | ⊙ STAND PIPE |
| ⊙ INLET | ⊙ CURB INLET |
| ⊙ WATER METER | ⊙ SATELLITE |
| ⊙ MAILBOX | ⊙ BEEHIVE INLET |

PROPOSED GRADING LEGEND

- | | |
|------------------------|--|
| M.E. | MATCH EXISTING |
| EP | EDGE OF PAVEMENT |
| BC | BOTTOM OF CURB |
| TC | TOP OF CURB |
| 000 | CONTOURS |
| --- | FLOW LINE |
| TC 000.50
BC 000.00 | CURB ELEVATIONS |
| 000.00 | SPOT ELEVATIONS |
| ▨ | FULL DEPTH GRANULAR BACKFILL REQ'D UNDER AND WITHIN 5' OF PAVEMENT |



STORM SEWER AS-BUILT STATEMENT
As-Built information for storm sewer rims are based upon above ground evidence of the existing storm sewer system. The strike through data shown on the Storm Sewers are the proposed elevations for all the structures to be placed. Said information has been replaced by the as-built information per elevations collected in the field on July 2, 2015.

Bryan J. Moll
Bryan J. Moll
Registered Land Surveyor No. 20500012



STORM STR 7
TYPE 'J' MANHOLE, NEENAH
R-3010 CASTING
TR: 901.39- 901.42
INV(S): 895.71- 895.75
INV(N): 895.71- 895.75

CONTRACTOR TO RESTORE EXISTING PAVERS IN SAME PATTERN AND BEDDING AS EXISTING AFTER MANHOLE INSTALLATION IS COMPLETE.

STORM STR 6
TYPE 'J' MANHOLE, NEENAH
R-3010 CASTING
TR: 901.31- 901.37
INV(S): 895.73- 895.76
INV(N): 895.73- 895.76

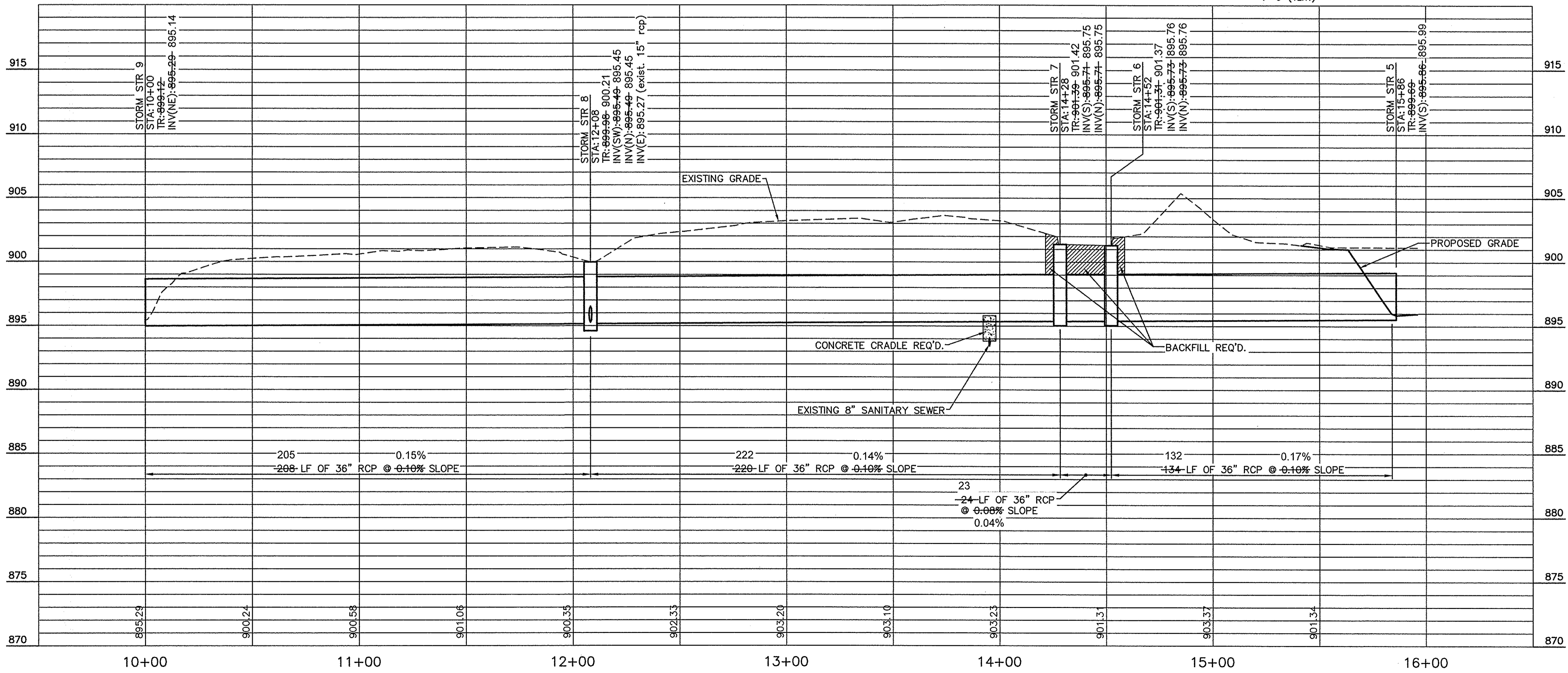
CONTRACTOR TO RESTORE GRADE TO MATCH EXISTING CONDITIONS. CONTRACTOR TO VERIFY POSITIVE DRAINAGE

CONTRACTOR TO REPLACE DAMAGED OR REMOVED CURB

STORM STR 5
END SECTION
INV(S): 895.86- 895.99

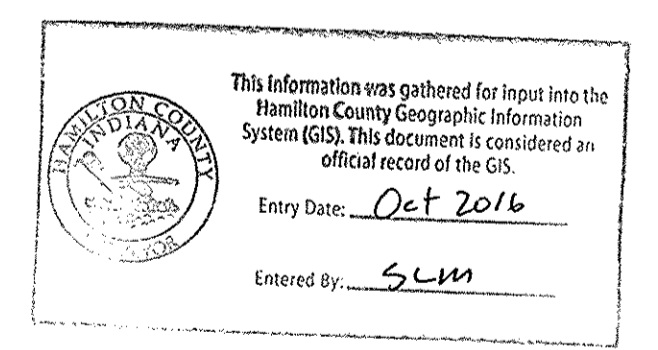
LINE "C"

SCALE: 1"=30' (HORIZ)
1"=5' (VERT)



NOTE:
CONTRACTOR SHALL MINIMIZE EQUIPMENT AND WORKTIME IN GAS EASEMENT. CONTRACTOR MUST SCHEDULE PRE-CONSTRUCTION MEETING WITH PIPELINE COMPANY ENGINEER AND COUNTY SURVEYORS OFFICE AT LEAST 48 HOURS PRIOR TO LAND DISTURBANCE.

NOTE:
NO SOIL STOCKPILES WILL BE PERMITTED. ALL SOILS MUST BE IMPORTED AND/OR REMOVED FROM THE SITE.



- NOTES:**
- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
 - CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

CAUTION !!
THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.
1-800-382-5544
CALL TOLL FREE
- INDIANA UNDERGROUND -

7260 SHADE AND STATION
INDIANAPOLIS, IN 46254-9857
TEL: 317.547.5580 FAX: 317.543.0270
www.structurepoint.com

STRUCTUREPOINT INC.

CERTIFIED BY

GRADING PLAN & PROFILE

PREPARED FOR:
HAMILTON COUNTY DRAINAGE BOARD
1 HAMILTON COUNTY SQUARE, SUITE #188
NOBLESVILLE, IN 46060

PROJECT:
BRIDLEBOURNE DRAINAGE MODIFICATION
106th STREET & SHELBORNE ROAD
CARMEL, INDIANA

DATE: 07/30/12
DRAWN BY: PED
CHK'D BY: BNS
JOB NO.: 2011.00507

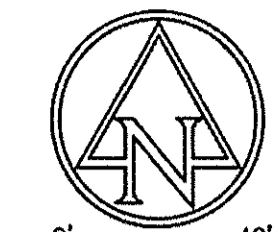
REVISIONS

SHEET NO.
C3.3
OF

GENERAL GRADING NOTES

- ALL WORK TO CONFORM TO STATE AND LOCAL REGULATIONS.
- SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS (VERTICAL AND HORIZONTAL) IN THE FIELD PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM THE ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTOR'S AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START, TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (location, size and depth) SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING IS AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION.
- TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
- AFTER STRIPPING TOPSOIL MATERIAL, PROOFROLL WITH A MEDIUM WEIGHT ROLLER TO DETERMINE LOCATIONS OF ANY POCKETS OF UNSUITABLE MATERIAL. THE NECESSITY FOR SUBDRAINS AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WITHIN THE PROPOSED PARKING AREAS WILL BE DETERMINED AT THE TIME OF CONSTRUCTION.
- PROVIDE POSITIVE DRAINAGE WITHOUT PONDING, IN ALL AREAS. AFTER INSTALLATION, CONTRACTOR TO TEST FOR, AND CORRECT, IF ANY, "BIRD BATH" CONDITIONS.
- ALL PROPOSED SPOT ELEVATIONS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS.
- SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE ELEVATIONS INDICATED.
- ALL STORM SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE HAMILTON COUNTY SURVEYOR AND THE CITY OF CARMEL STANDARDS.
- INVERTS AT PIPE OUTLETS ARE GIVEN AT END OF PIPE END SECTION.
- DEBRIS GUARD TO BE INSTALLED AT ALL OPEN ENDED INLETS.
- DUE TO SITE CONSTRAINTS, THE SITE MAY OR MAY NOT BALANCE. THE CONTRACTOR IS RESPONSIBLE FOR ALL EARTHWORK IMPORTS AND/OR EXPORTS.
- THE SITE IS NOT LOCATED WITHIN ANY FLOODPLAIN, FLOODWAY OR FLOODWAY FRINGE AS INDICATED ON THE FLOODWAY INSURANCE RATE MAP COMMUNITY PANEL NUMBER 1805700206 FOR THE COUNTY OF HAMILTON, INDIANA, DATED FEB. 19, 2003.

AS-BUILT



EXISTING LEGEND

- | | | | |
|--|-------------------------|--|--------------------|
| | AIR CONDITIONER | | TELEPHONE PEDESTAL |
| | BUSH | | TRANSFORMER |
| | GROUND LIGHT | | YARD LIGHT |
| | SPRINKLER CONTROL VALVE | | CLEAN OUT |
| | TREE | | STUMP |
| | PINE | | SANITARY MANHOLE |
| | FIRE HYDRANT | | SPIGOT |
| | DRAINAGE MANHOLE | | SIGN |
| | POST | | STAND PIPE |
| | INLET | | CURB INLET |
| | WATER METER | | SATELLITE |
| | MAILBOX | | BEEHIVE INLET |

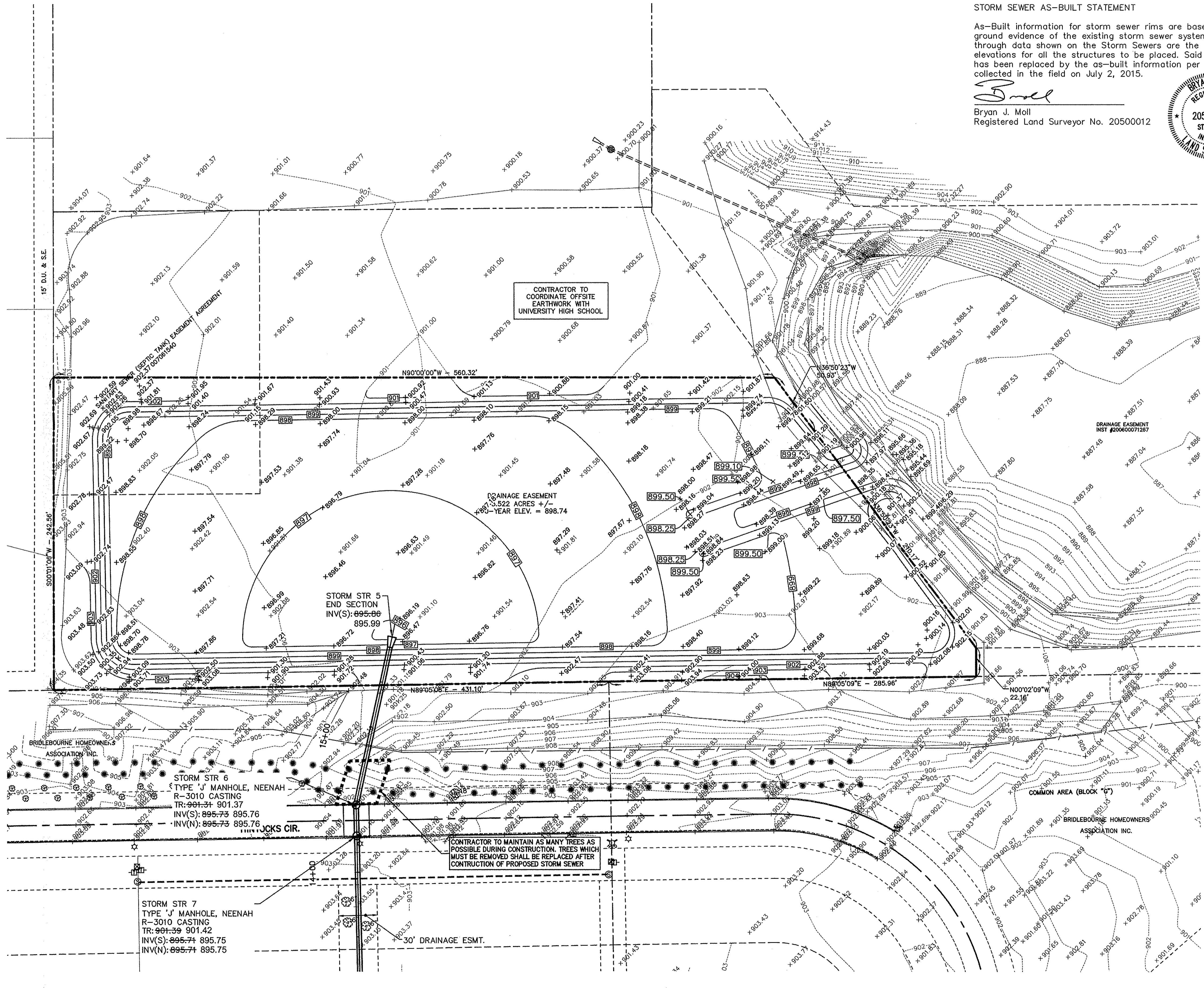
PROPOSED GRADING LEGEND

- | | |
|-----------|------------------|
| M.E. | MATCH EXISTING |
| EP | EDGE OF PAVEMENT |
| BC | BOTTOM OF CURB |
| TC | TOP OF CURB |
| | CONTOURS |
| | FLOW LINE |
| TC 000.50 | CURB ELEVATIONS |
| BC 000.00 | |
| | SPOT ELEVATIONS |

STORM SEWER AS-BUILT STATEMENT

As-Built information for storm sewer rims are based upon above ground evidence of the existing storm sewer system. The strike through data shown on the Storm Sewers are the proposed elevations for all the structures to be placed. Said information has been replaced by the as-built information per elevations collected in the field on July 2, 2015.

Bryan J. Moll
 Bryan J. Moll
 Registered Land Surveyor No. 20500012



BENCHMARK INFORMATION

SCHNEIDER TBM #100 = 906.07' (29' DATUM)
 RR SPIKE IN EAST SIDE POWER POLE +/- 1.0' UP ON THE NORTH SIDE OF THE CENTERLINE OF GLEBE STREET +/- 100' WEST OF THE CENTERLINE OF TOWNE ROAD +/- 90'

ACE TBM #70 = 895.83'
 CHISELED "BOX" ON THE NORTHWEST CORNER TRAFFIC PEDESTAL ON THE SOUTHWEST CORNER OF 11TH STREET AND TOWNE ROAD

ACE TBM #100 = 903.92'
 CHISELED "X" IN SOUTH BOLT OF A FIRE HYDRANT LOCATED ON THE SOUTHERN SIDE OF SEDGEMOOR CIRCLE ON THE EXTENDED CENTERLINE OF THE NORTH ENTRANCE TO BRIDLEBOURNE SUBDIVISION

ACE TBM #101 = 899.90'
 CHISELED "BOX" TOP OF CURB ON THE NORTH SIDE OF THE SOUTHERN MOST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM LOT LINE BETWEEN RESIDENCE NO. 3569 AND RES. NO. 3557

ACE TBM #102 = 902.44'
 CHISELED "X" ON NORTH BOLT OF A FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SEDGEMOOR CIRCLE ACROSS FROM THE LINE BETWEEN RESIDENCE NO. 3535 AND RESIDENCE NO. 3515

ACE TBM #103 = 892.92'
 CHISELED "BOX" ON TOP OF CURB LOCATED ON THE WEST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM RESIDENCE NO. 10887

NOTE:
 CONTRACTOR SHALL MINIMIZE EQUIPMENT AND WORKTIME IN GAS EASEMENT. CONTRACTOR MUST SCHEDULE PRE-CONSTRUCTION MEETING WITH PIPELINE COMPANY ENGINEER AND COUNTY SURVEYORS OFFICE AT LEAST 48 HOURS PRIOR TO LAND DISTURBANCE.

NOTE:
 NO SOIL STOCKPILES WILL BE PERMITTED. ALL SOILS MUST BE IMPORTED AND/OR REMOVED FROM THE SITE.

FULL DEPTH GRANULAR BACKFILL REQ'D UNDER AND WITHIN 5' OF PAVEMENT

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: Oct 2016
 Entered by: SLM

NOTES:

- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
- CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

CAUTION !!
 THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

1-800-382-5544
 CALL TOLL FREE
 - INDIANA UNDERGROUND -

7540 BRIDLEBOURNE STATION
 INDIANAPOLIS, IN 46261-9897
 TEL: 317.547.5580 FAX: 317.543.0270
 www.structurepoint.com

STRUCTUREPOINT INC.

CERTIFIED BY

GRADING PLAN

PREPARED FOR:
HAMILTON COUNTY DRAINAGE BOARD
 1 HAMILTON COUNTY SQUARE, SUITE #188
 NOBLESVILLE, IN 46060

PROJECT:
BRIDLEBOURNE DRAINAGE MODIFICATION
 106th STREET & SHELBORNE ROAD
 CARMEL, INDIANA

DATE: 07/30/12
 DRAWN BY: PED
 CHK'D BY: BNS
 JOB NO.: 2011.00507

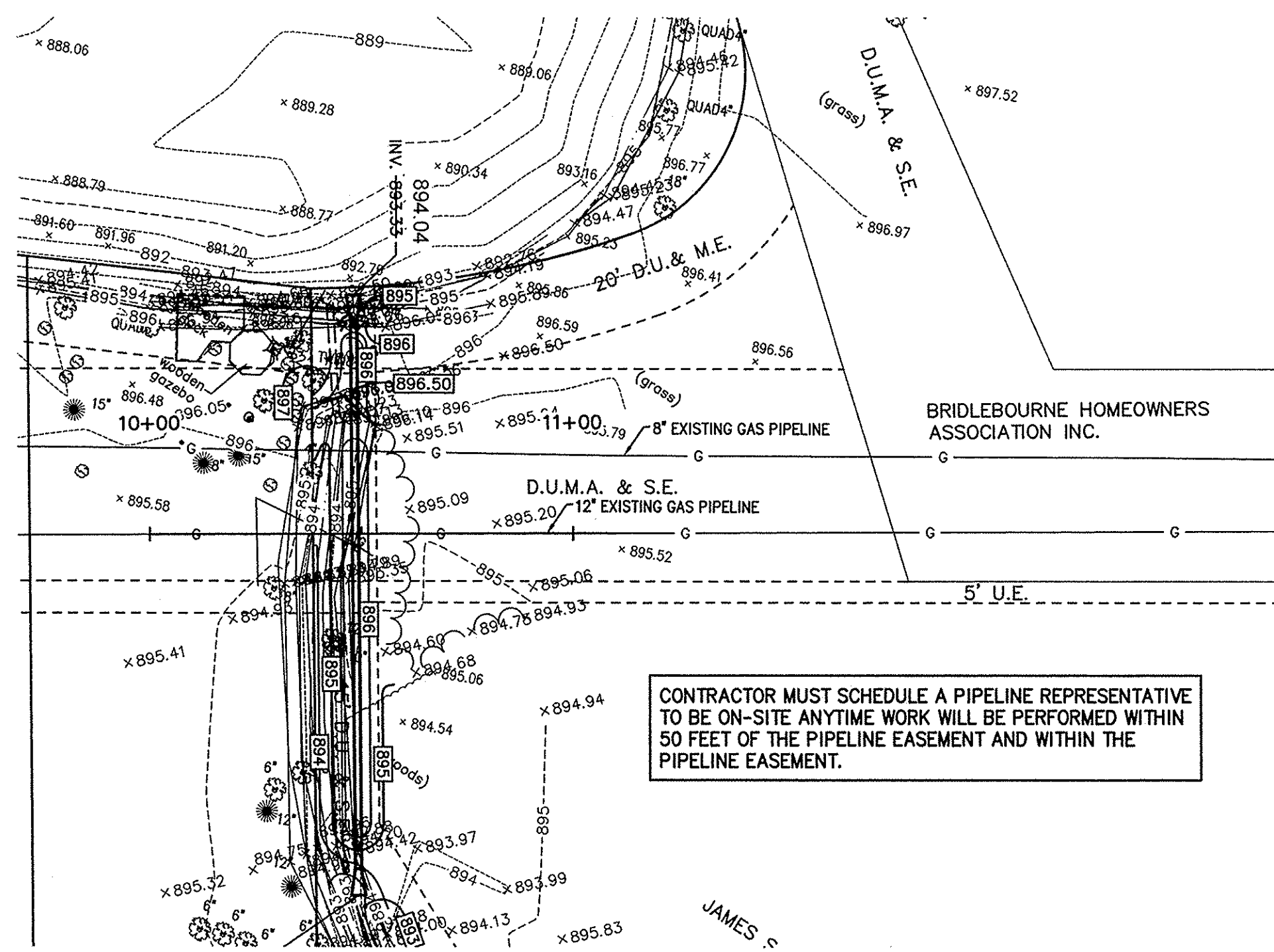
REVISIONS

SHEET NO.
C3.4
 OF

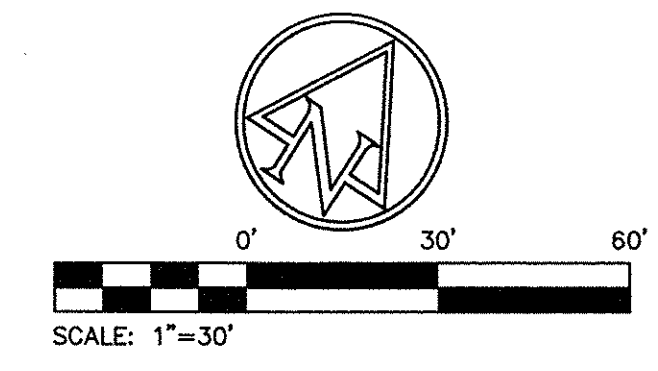
PIPELINE NOTES:

- General Guidelines
 - The safety of the pipeline must be considered at all times. No attempt to probe for or engage in any construction activities which might damage the pipeline is permitted.
 - Before any preliminary field work or construction begins in the vicinity of Buckeye's pipeline, a determination of the exact location and elevation of the pipeline must be made. To coordinate this procedure, please contact our local Field Operations Supervisor at the Buckeye facility nearest to your proposed project.
 - When any construction activity is conducted in or around our pipeline right-of-way, Buckeye's On-Site Inspector must be present at all times. **NO WORK SHALL TAKE PLACE WITHOUT A BUCKEYE ON-SITE INSPECTOR PRESENT.** For a free service, contact our local Field Operations Supervisor at the Buckeye facility nearest to your proposed project.
 - The Contractor shall contact Buckeye for re-marking of a pipeline if the existing markers are inadequate for any reason, including disturbances due to construction activities.
 - Note: Federal law prohibits the removal of pipeline markers.**
 - The Contractor shall not burn trash, brush, or other items or substances on-site.
 - The Contractor shall not store any equipment or materials on the pipeline or public right-of-way.
 - During routine or emergency maintenance on the pipeline, the cost to restore approved surface improvements (e.g., pavement, landscaping, sidewalks, etc.) shall be the responsibility of the Crossing Party.
- Excavation and Construction Restrictions
 - Excavation operations shall be performed in accordance with appropriate State "One-Call" utility locating system requirements. As a matter of State law, anyone undertaking excavation work is required to call three (3) working days before excavating.
 - The Contractor must conduct "white-lining" of any proposed excavation areas. Buckeye will erect temporary pipeline markers/bags (yellow) identifying the location of the pipeline within the work area, and will provide information on how to respond should the pipeline be damaged or a commodity release occur. All personnel operating equipment over or around the pipeline must be made aware of its location and what to do if they make contact with the pipeline.
 - When the Contractor excavates near Buckeye's pipeline, a Buckeye Representative must locate the pipeline and determine the depth of cover before the Contractor begins excavation. The Contractor shall not perform any excavation, crossing, backfilling, or construction operations until Buckeye's On-Site Inspector has reviewed the proposed work on site and given approval for work to proceed. Buckeye's On-Site Inspector shall have full authority to stop the work if it is determined that the work is being performed in an unsafe manner.
 - No equipment shall work directly over the pipeline. The Contractor shall install temporary fencing along Buckeye's right-of-way boundaries so that equipment will not inadvertently pass over the pipeline at locations other than those established for crossing.
 - When excavating within the pipeline right-of-way, the Contractor's backhoe shall have a plate welded over the teeth of the backhoe bucket, and the side cutters must be removed prior to excavation. Within 24 inches of the outer edge of the pipe (this "tolerance zone" extends on all sides of the pipe), only hand excavation, air cutting, and vacuum excavation are permitted.
 - No excavations shall be made on land adjacent to the pipeline that will in any way impair, withdraw lateral support, cause subsidence, create the accumulation of water, or cause damage to the pipeline or right-of-way.
 - The Contractor shall ensure all excavation work complies with OSHA's excavation standards outlined in 29 CFR 1926 and correct any noncompliant excavation site before Buckeye's On-Site Inspector or the Contractor enters the site to perform work.
 - If conditions require, the Contractor shall be directed by Buckeye to install sand or cement bags or other suitable insulating materials to maintain proper vertical clearance from the pipeline.
 - At any location where the pipeline is exposed, the Contractor shall provide Buckeye the opportunity to inspect the pipeline condition, install cathodic protection test leads, and/or install underground warning mesh.
 - The maximum unsupported exposed length of pipe shall be 20 feet for 4-inch-diameter pipe, 25 feet for 6-inch- to 10-inch-diameter pipe, and 35 feet for 12-inch- to 24-inch-diameter pipe. When required, the pipeline shall be supported with grout and sand bags or padded skids. At no time shall the pipeline be used as a brace to support equipment or sheetpiling/shoring materials.
 - No buried pipeline may be left exposed for any duration of time without concurrence of Buckeye's On-Site Inspector.
 - Backfill and compaction shall be performed to the satisfaction and in the presence of Buckeye's On-Site Inspector. At least 6 inches of fine, loose earth or sand with no sharp gravel, rock, hard clods, vegetation, or other debris shall be placed on all sides of any pipeline, and remaining backfill shall be placed so as not to disturb the padding material or damage the pipeline. Backfill over the pipe shall be compacted by hand until 18 inches of cover is achieved. The disturbed ground shall be compacted to the same degree of compaction of surrounding areas. The Contractor shall restore the site to its original condition except for items that are part of the Buckeye approved change.

- Foreign Utility Crossings
 - General Requirements:
 - Utilities shall cross perpendicular to the pipeline.
 - Sands or select fill shall be placed between the pipeline and utility.
 - Warning tape, in accordance with A.P.W.A. Uniform Color Code, shall be placed above utility, 12 inches below ground, for a distance of 25 feet on either side of crossing.
 - Signage shall be placed at crossing as determined appropriate by Buckeye.
 - Blind boring is not permitted within Buckeye's right-of-way.
 - Non-Metallic Utilities:
 - Utilities shall be wrapped with tracer wire within the width of the right-of-way.
- Temporary Access Roads and Construction Vehicle Crossings
 - General Requirements:
 - Trucks carrying a maximum axle load up to 15,000 pounds may cross the right-of-way after Buckeye has confirmed a minimum cover of 48 inches over the pipeline.
 - For all other cases, earthen ramps, swamp mats, reinforced-concrete slabs, or steel plates may be required. Loading conditions and protection measures will be evaluated and dictated by Buckeye's Relocation Engineer.
 - During the use of an approved temporary construction road, Buckeye may require that the Contractor provide additional protective measures deemed necessary to prevent damage to the pipeline.
 - Buckeye will limit the number of temporary construction roads constructed by the Crossing Party.
 - Blasting and Construction-Induced Vibrations
 - Blasting Requirements:
 - Blasting and seismic vibrating operations shall be performed in accordance with Buckeye Specification "Blasting by Outside Parties".
 - A blasting plan and DEF approval letter shall be submitted to Buckeye if blasting is planned within 500 feet of the pipeline.
 - The blasting plan shall be submitted for approval at least 14 calendar days prior to blasting for evaluation. The Contractor shall also make arrangements for a Buckeye On-Inspector to be on site to witness the blast operation.
 - Blasting within 300 feet of the pipeline shall be monitored by a seismograph to ensure the peak particle velocity does not exceed 2.0 inches per second. The Contractor shall provide monitoring equipment and service.
 - Construction-Induced Vibrations:
 - Construction activities that generate ground vibrations, including, but without limitation, pile driving, sheet driving, soil compaction work, jacking/shoring, or ramming, shall be reviewed by Buckeye on a case-by-case basis.
 - If the Contractor anticipates such an activity within 300 feet of the pipeline, then continuous testing monitored by a seismograph located directly over the pipeline at its closest point to the activity must be conducted. The Contractor shall provide monitoring equipment and service.
 - The particle velocity of any one component of a three-component seismograph must not exceed 2.0 inches per second as recorded on the seismograph placed directly over the pipeline.
- Deviations and Exceptions
 - When and where special circumstances dictate, deviation from these requirements must be formally approved by Buckeye in writing prior to commencement of any excavation or other construction activity that may impact the pipeline. Any such deviations must be explained and documented and provided to Buckeye for review and approval.



CONTRACTOR MUST SCHEDULE A PIPELINE REPRESENTATIVE TO BE ON-SITE ANYTIME WORK WILL BE PERFORMED WITHIN 50 FEET OF THE PIPELINE EASEMENT AND WITHIN THE PIPELINE EASEMENT.



EXISTING LEGEND

- | | | | |
|--|-------------------------|--|--------------------|
| | AIR CONDITIONER | | TELEPHONE PEDESTAL |
| | BUSH | | TRANSFORMER |
| | GROUND LIGHT | | CLEAN OUT |
| | SPRINKLER CONTROL VALVE | | STUMP |
| | TREE | | SANITARY MANHOLE |
| | PINE | | SPIGOT |
| | FIRE HYDRANT | | SIGN |
| | DRAINAGE MANHOLE | | STAND PIPE |
| | POST | | CURB INLET |
| | INLET | | SATELLITE |
| | WATER METER | | BEEHIVE INLET |
| | MAILBOX | | |

PROPOSED GRADING LEGEND

- | | |
|------|------------------|
| M.E. | MATCH EXISTING |
| EP | EDGE OF PAVEMENT |
| BC | BOTTOM OF CURB |
| TC | TOP OF CURB |
| | CONTOURS |
| | FLOW LINE |
| | CURB ELEVATIONS |
| | SPOT ELEVATIONS |

BENCHMARK INFORMATION

SCHNEIDER TBM #100 = 906.07' (29' DATUM)

RR SPIKE IN EAST SIDE POWER POLE +/- 1.0' UP ON THE NORTH SIDE OF THE CENTERLINE OF GLEBE STREET +/- 100' WEST OF THE CENTERLINE OF TOWNE ROAD +/- 90'

ACE TBM #70 = 895.83'

CHISELED "BOX" ON THE NORTHWEST CORNER TRAFFIC PEDESTAL • THE SOUTHWEST CORNER OF 116TH STREET AND TOWNE ROAD

ACE TBM #100 = 903.92'

CHISELED "X" IN SOUTH BOLT OF A FIRE HYDRANT LOCATED ON THE SOUTHERN SIDE OF HINTOCKS CIRCLE ON THE EXTENDED CENTERLINE OF THE NORTH ENTRANCE TO BRIDLEBOURNE SUBDIVISION

ACE TBM #101 = 899.90'

CHISELED "BOX" TOP OF CURB ON THE NORTH SIDE OF THE SOUTHERN MOST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM LOT LINE BETWEEN RESIDENCE NO. 3569 AND RES. NO. 3557

ACE TBM #102 = 902.44'

CHISELED "X" ON NORTH BOLT OF A FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SEDGEMOOR CIRCLE ACROSS FROM THE LINE BETWEEN RESIDENCE NO. 3535 AND RESIDENCE NO. 3515

ACE TBM #103 = 892.92'

CHISELED "BOX" ON TOP OF CURB LOCATED ON THE WEST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM RESIDENCE NO. 10887

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: Oct 2016

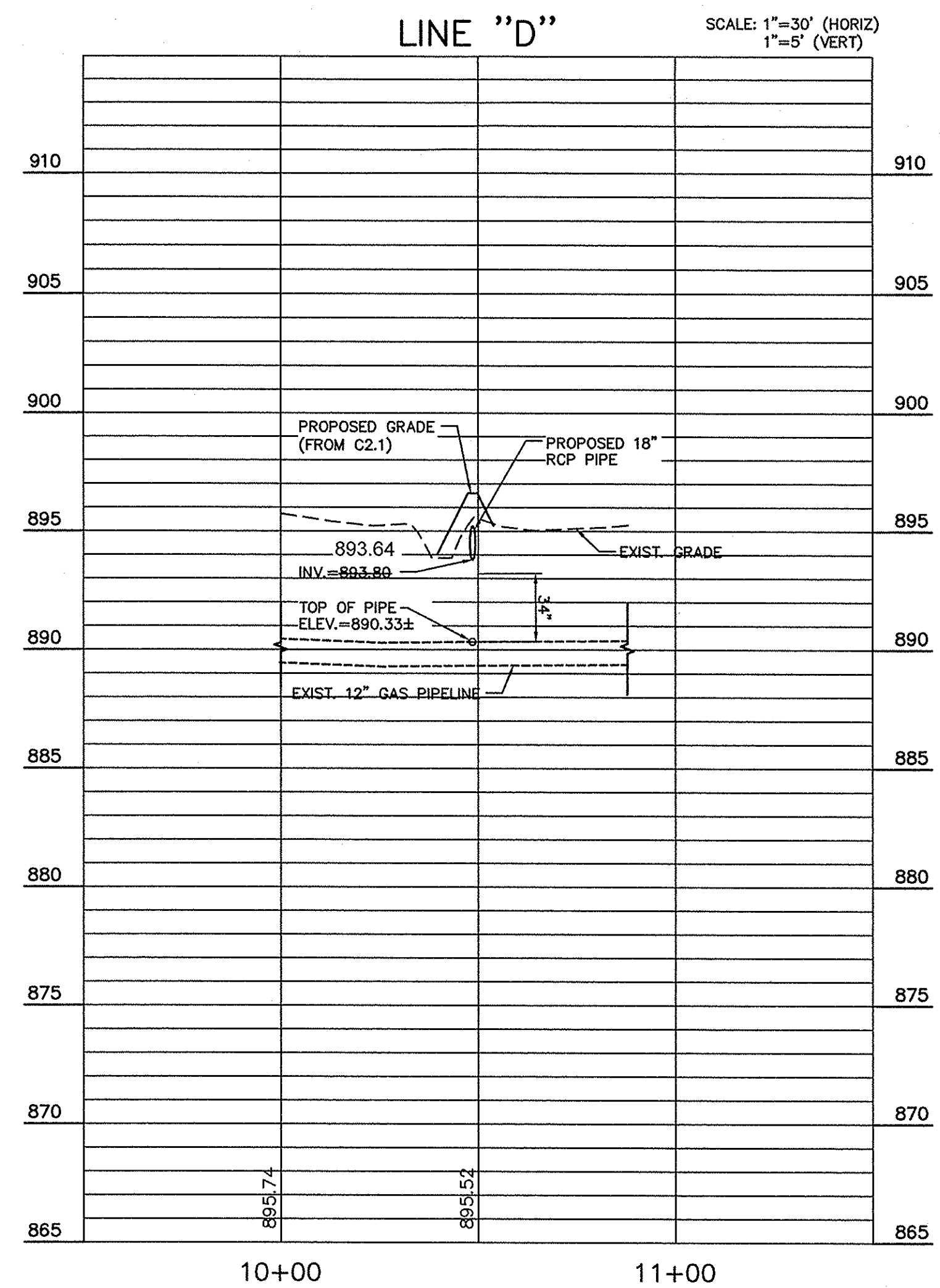
Entered By: SLM

- NOTES:**
- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
 - CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

CAUTION !!

THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

1-800-382-5544
CALL TOLL FREE
- INDIANA UNDERGROUND -

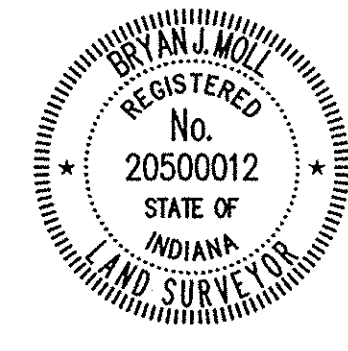


AS-BUILT

STORM SEWER AS-BUILT STATEMENT

As-Built information for storm sewer rims are based upon above ground evidence of the existing storm sewer system. The strike through data shown on the Storm Sewers are the proposed elevations for all the structures to be placed. Said information has been replaced by the as-built information per elevations collected in the field on July 2, 2015.

Bryan J. Moll
Registered Land Surveyor No. 20500012



7280 SHADELAND STATION
INDIANAPOLIS, IN 46256-3957
TEL 317.547.5580 FAX 317.544.0270
www.structurepoint.com

AMERICAN
STRUCTUREPOINT
INC.

CERTIFIED BY _____

BUCKEYE PIPELINE PLAN & PROFILE

PREPARED FOR:
HAMILTON COUNTY DRAINAGE BOARD
1 HAMILTON COUNTY SQUARE, SUITE #188
NOBLESVILLE, IN 46060

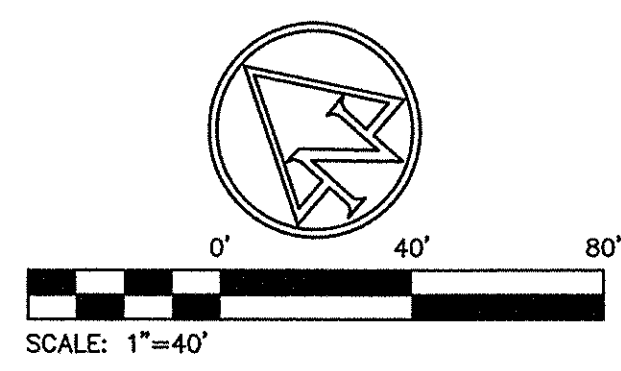
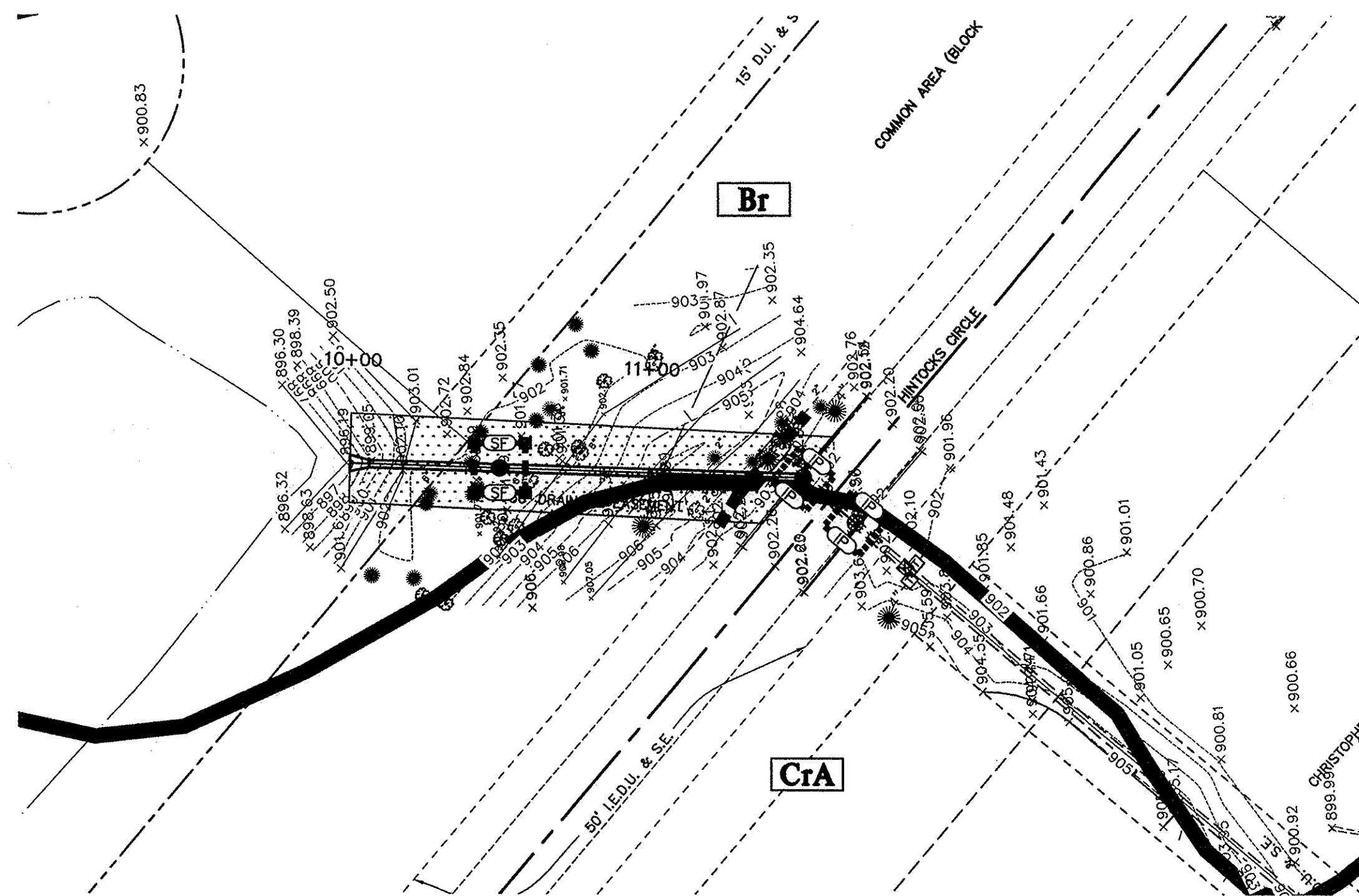
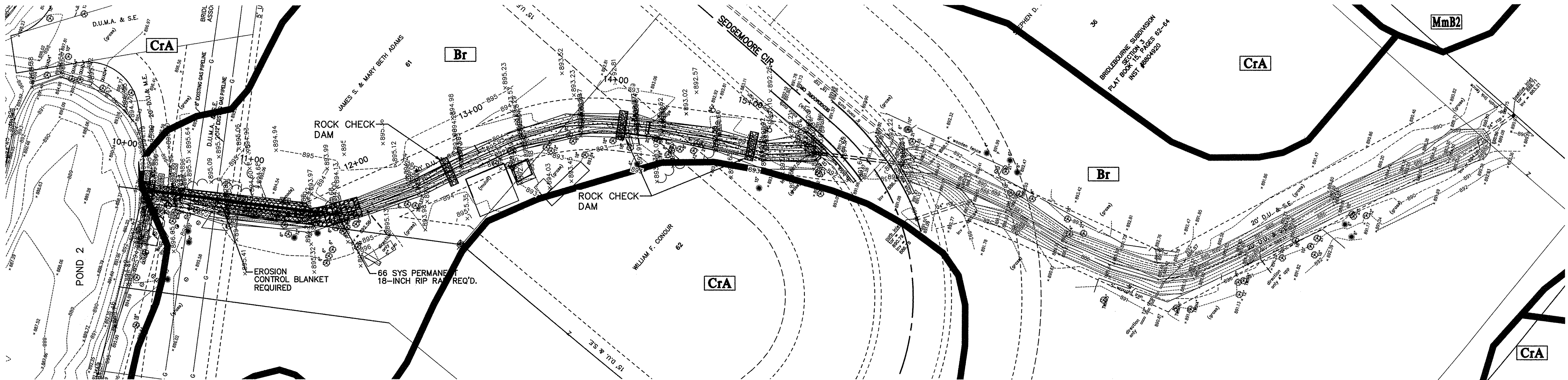
PROJECT:
BRIDLEBOURNE DRAINAGE MODIFICATION
106th STREET & SHELBOURNE ROAD
CARMEL, INDIANA

DATE: 07/30/12
DRAWN BY: PED
CHK'D BY: BNS
JOB NO.: 2011.00507

REVISIONS	

SHEET NO.
C3.5
OF

PRINT DATE: 7/30/12
 PLOT SCALE: 1:2,584.9
 EDIT DATE: 6/5/12 - 3:20 PM
 EDITED BY: POTTERY
 DRAWING FILE: P:\2011\00507\0 - DRAWINGS\CIVL\PLAN SET\2011\00507\CE.06.C04.1.ECP.DWG



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: Oct 2016
 Entered By: SLM

EXISTING LEGEND

- | | | | |
|--|-------------------------|--|--------------------|
| | AIR CONDITIONER | | TELEPHONE PEDESTAL |
| | BUSH | | TRANSFORMER |
| | GROUND LIGHT | | YARD LIGHT |
| | SPRINKLER CONTROL VALVE | | CLEAN OUT |
| | TREE | | STUMP |
| | PINE | | SANITARY MANHOLE |
| | FIRE HYDRANT | | SPIGOT |
| | DRAINAGE MANHOLE | | SIGN |
| | POST | | STAND PIPE |
| | INLET | | CURB INLET |
| | WATER METER | | SATELLITE |
| | MAILBOX | | BEEHIVE INLET |

PROPOSED EROSION CONTROL LEGEND

- | | |
|--|-----------------------------|
| | SILT FENCE |
| | CATCH ALL INLET PROTECTION |
| | SILT FENCE INLET PROTECTION |
| | ROCK CHECK DAM |
| | EROSION CONTROL BLANKET |
| | PERMANENT SEEDING |
| | SOIL BOUNDARY LINE |
| | Soil SOIL TYPE |

EROSION CONTROL NOTES

- LAND ALTERATION WHICH STRIPS THE LAND OF VEGETATION, INCLUDING REGRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION.
- CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
- THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
- SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE SEDIMENTATION IN THE RECEIVING STREAM. NO STORM WATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT OF DISCHARGE.
- WASTES AND UNUSED BUILDING MATERIALS SHALL NOT BE ALLOWED TO BE CARRIED FROM THE SITE BY STORM WATER RUNOFF. PROPER DISPOSAL OF ALL WASTES AND UNUSED BUILDING MATERIALS IS REQUIRED.
- SEDIMENT BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS SHALL BE MINIMIZED. CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FLUSHING WITH WATER. CLEARED SEDIMENT SHALL BE RETURNED TO THE SITE FOR DISPOSAL.
- SOIL WHICH HAS ACCUMULATED NEXT TO EROSION CONTROL DEVICES SHALL BE COLLECTED AND RE-DISTRIBUTED ON SITE AFTER EACH RAINFALL EVENT, AND AT LEAST ONCE A WEEK.
- IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
- ALL EXISTING STRUCTURES, FENCING, TREES AND ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OF OFF SITE. BURNING IS NOT ALLOWED ON SITE.
- THE SITE IS NOT LOCATED WITHIN ANY FLOODPLAIN, FLOODWAY OR FLOODWAY FRINGE AS INDICATED ON THE FLOODWAY INSURANCE RATE MAP COMMUNITY PANEL NUMBER 1805700205F FOR THE COUNTY OF HAMILTON, INDIANA, DATED FEBRUARY 19, 2003.
- SCHEDULE OF EARTHWORK ACTIVITIES:
 - THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM. THE AREA SHALL BE STABILIZED AS SOON AS POSSIBLE. TEMPORARY VEGETATION OR MULCHING SHALL BE USED TO PROTECT EXPOSED AREAS IF PERMANENT VEGETATION CANNOT BE SEEDED WITHIN 14 DAYS OR ACTIVITY CEASES FOR MORE THAN 21 DAYS OR AS DIRECTED BY THE ENGINEER.
 - TOPSOIL REPLACEMENT SHALL TAKE PLACE FROM MARCH 1 TO OCTOBER 31. STOCKPILE TOPSOIL AT ALL OTHER TIMES OF THE YEAR. PERMANENT AND FINAL VEGETATION AND STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING OR AS SOON AS POSSIBLE.

BENCHMARK INFORMATION
 SCHNEIDER TBM #100 = 906.07' (29' DATUM)
 RR SPIKE IN EAST SIDE POWER POLE +/- 1.0' UP ON THE NORTH SIDE OF THE CENTERLINE OF GLEE STREET +/- 100' WEST OF THE CENTERLINE OF TOWNE ROAD +/- 90'
 ACE TBM #70 = 895.83'
 CHISELED "BOX" ON THE NORTHWEST CORNER TRAFFIC PEDESTAL ON THE SOUTHWEST CORNER OF 11TH STREET AND TOWNE ROAD
 ACE TBM #100 = 903.92'
 CHISELED "X" IN SOUTH BOLT OF A FIRE HYDRANT LOCATED ON THE SOUTHERN SIDE OF HINTOCKS CIRCLE ON THE EXTENDED CENTERLINE OF THE NORTH ENTRANCE TO BRIDLEBOURNE SUBDIVISION
 ACE TBM #101 = 899.90'
 CHISELED "BOX" TOP OF CURB ON THE NORTH SIDE OF THE SOUTHERN MOST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM LOT LINE BETWEEN RESIDENCE NO. 3569 AND RES. NO. 3557
 ACE TBM #102 = 902.44'
 CHISELED "X" ON NORTH BOLT OF A FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SEDGEMOOR CIRCLE ACROSS FROM THE LINE BETWEEN RESIDENCE NO. 3535 AND RESIDENCE NO. 3515
 ACE TBM #103 = 892.92'
 CHISELED "BOX" ON TOP OF CURB LOCATED ON THE WEST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM RESIDENCE NO. 10887

NOTES:
 1. CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
 2. CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

CAUTION !!
 THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.
 1-800-382-5544
 CALL TOLL FREE
 - INDIANA UNDERGROUND -

7800 SHARER AVE. STATION
 INDIANAPOLIS, IN 46256-3927
 TEL: 317.547.5580 FAX: 317.549.0270
 www.structurepoint.com

AMERICAN
STRUCTUREPOINT
 INC.

CERTIFIED BY

EROSION CONTROL PLAN

PREPARED FOR:
HAMILTON COUNTY DRAINAGE BOARD
 1 HAMILTON COUNTY SQUARE, SUITE #188
 NOBLESVILLE, IN 46060

PROJECT:
BRIDLEBOURNE DRAINAGE MODIFICATION
 106th STREET & SHELBORNE ROAD
 CARMEL, INDIANA

DATE:	07/30/12
DRAWN BY:	PED
CHK'D BY:	BNS
JOB NO.:	2011.00507
REVISIONS	

SHEET NO.
C4.1
 OF

STORM SEWER AS-BUILT STATEMENT

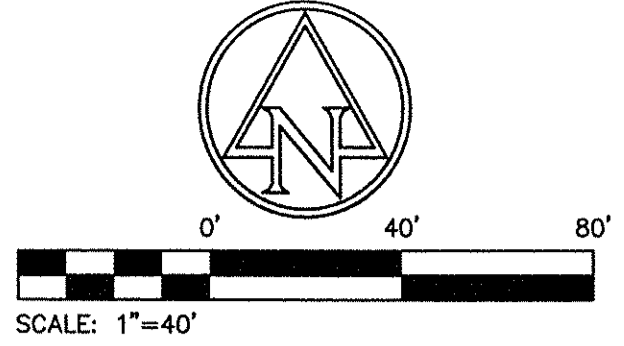
As-Built information for storm sewer rims are based upon above ground evidence of the existing storm sewer system. The strike through data shown on the Storm Sewers are the proposed elevations for all the structures to be placed. Said information has been replaced by the as-built information per elevations collected in the field on July 2, 2015.

Bryan J. Moll
 Bryan J. Moll
 Registered Land Surveyor No. 20500012



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: Oct 2010
 Entered By: GJM

AS-BUILT



EROSION CONTROL NOTES

1. LAND ALTERATION WHICH STRIPS THE LAND OF VEGETATION, INCLUDING REGRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION.
2. CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
3. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
4. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
5. SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE SEDIMENTATION IN THE RECEIVING STREAM. NO STORM WATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT OF DISCHARGE.
6. WASTES AND UNUSED BUILDING MATERIALS SHALL NOT BE ALLOWED TO BE CARRIED FROM THE SITE BY STORM WATER RUNOFF. PROPER DISPOSAL OF ALL WASTES AND UNUSED BUILDING MATERIALS IS REQUIRED.
7. SEDIMENT BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS SHALL BE MINIMIZED. CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FLUSHING WITH WATER. CLEARED SEDIMENT SHALL BE RETURNED TO THE SITE FOR DISPOSAL.
8. SOIL WHICH HAS ACCUMULATED NEXT TO EROSION CONTROL DEVICES SHALL BE COLLECTED AND RE-DISTRIBUTED ON SITE AFTER EACH RAINFALL EVENT, AND AT LEAST ONCE A WEEK.
9. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
10. ALL EXISTING STRUCTURES, FENCING, TREES AND ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OF OFF SITE. BURNING IS NOT ALLOWED ON SITE.
11. THE SITE IS NOT LOCATED WITHIN ANY FLOODPLAIN, FLOODWAY OR FLOODWAY FRINGE AS INDICATED ON THE FLOODWAY INSURANCE RATE MAP COMMUNITY PANEL NUMBER 18057C0205F FOR THE COUNTY OF HAMILTON, INDIANA, DATED FEBRUARY 19, 2003.
12. SCHEDULE OF EARTHWORK ACTIVITIES:
 - a. THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM. THE AREA SHALL BE STABILIZED AS SOON AS POSSIBLE. TEMPORARY VEGETATION OR MULCHING SHALL BE USED TO PROTECT EXPOSED AREAS IF PERMANENT VEGETATION CANNOT BE SEEDED WITHIN 14 DAYS OF ACTIVITY CEASES FOR MORE THAN 21 DAYS OR AS DIRECTED BY THE ENGINEER.
 - b. TOPSOIL REPLACEMENT SHALL TAKE PLACE FROM MARCH 1 TO OCTOBER 31. STOCKPILE TOPSOIL AT ALL OTHER TIMES OF THE YEAR. PERMANENT AND FINAL VEGETATION AND STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING OR AS SOON AS POSSIBLE.

EXISTING LEGEND

- | | | | |
|--|-------------------------|--|--------------------|
| | AIR CONDITIONER | | TELEPHONE PEDESTAL |
| | BUSH | | TRANSFORMER |
| | GROUND LIGHT | | YARD LIGHT |
| | SPRINKLER CONTROL VALVE | | CLEAN OUT |
| | TREE | | STUMP |
| | PINE | | SANITARY MANHOLE |
| | FIRE HYDRANT | | SPIGOT |
| | DRAINAGE MANHOLE | | SIGN |
| | POST | | STAND PIPE |
| | INLET | | CURB INLET |
| | WATER METER | | SATELLITE |
| | MAILBOX | | BEEHIVE INLET |

PROPOSED EROSION CONTROL LEGEND

- | | |
|--|-----------------------------|
| | SILT FENCE |
| | CATCH ALL INLET PROTECTION |
| | SILT FENCE INLET PROTECTION |
| | ROCK CHECK DAM |
| | EROSION CONTROL BLANKET |
| | PERMANENT SEEDING |
| | SOIL BOUNDARY LINE |
| | SOIL TYPE |
| | ROCK DONUT |

BENCHMARK INFORMATION
 SCHNEIDER TBM #100 = 906.07' (28' DATUM)
 RR SPIKE IN EAST SIDE POWER POLE +/- 1.0' UP ON THE NORTH SIDE OF THE CENTERLINE OF GLEBE STREET +/- 100' WEST OF THE CENTERLINE OF TOWNE ROAD +/- 90'
 ACE TBM #70 = 895.83'
 CHISELED "BOX" ON THE NORTHWEST CORNER TRAFFIC PEDESTAL ON THE SOUTHWEST CORNER OF 116TH STREET AND TOWNE ROAD
 ACE TBM #100 = 903.92'
 CHISELED "X" IN SOUTH BOLT OF A FIRE HYDRANT LOCATED ON THE SOUTHERN SIDE OF HINTOCKS CIRCLE ON THE EXTENDED CENTERLINE OF THE NORTH ENTRANCE TO BRIDLEBOURNE SUBDIVISION
 ACE TBM #101 = 899.90'
 CHISELED "BOX" TOP OF CURB ON THE NORTH SIDE OF THE SOUTHERN MOST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM LOT LINE BETWEEN RESIDENCE NO. 3569 AND RES. NO. 3557
 ACE TBM #102 = 902.44'
 CHISELED "X" ON NORTH BOLT OF A FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SEDGEMOOR CIRCLE FROM THE LINE BETWEEN RESIDENCE NO. 3535 AND RESIDENCE NO. 3516
 ACE TBM #103 = 892.92'
 CHISELED "BOX" ON TOP OF CURB LOCATED ON THE WEST SIDE OF SEDGEMOOR CIRCLE ACROSS FROM RESIDENCE NO. 10887

NOTES:
 1. CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
 2. CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

CAUTION !!
 THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.
 1-800-382-5544
 CALL TOLL FREE
 - INDIANA UNDERGROUND -

7260 SHADEL AND STATION
 INDIANAPOLIS, IN 46268-3957
 TEL 317.547.5580 FAX 317.543.0270
 www.structurepoint.com

STRUCTUREPOINT INC.

CERTIFIED BY

EROSION CONTROL PLAN

PREPARED FOR:
HAMILTON COUNTY DRAINAGE BOARD
1 HAMILTON COUNTY SQUARE, SUITE #188
NOBLESVILLE, IN 46060

PROJECT:
BRIDLEBOURNE DRAINAGE MODIFICATION
106th STREET & SHELBORNE ROAD
CARMEL, INDIANA

DATE: 07/30/12
 DRAWN BY: PED
 CHK'D BY: BNS
 JOB NO.: 2011.00507

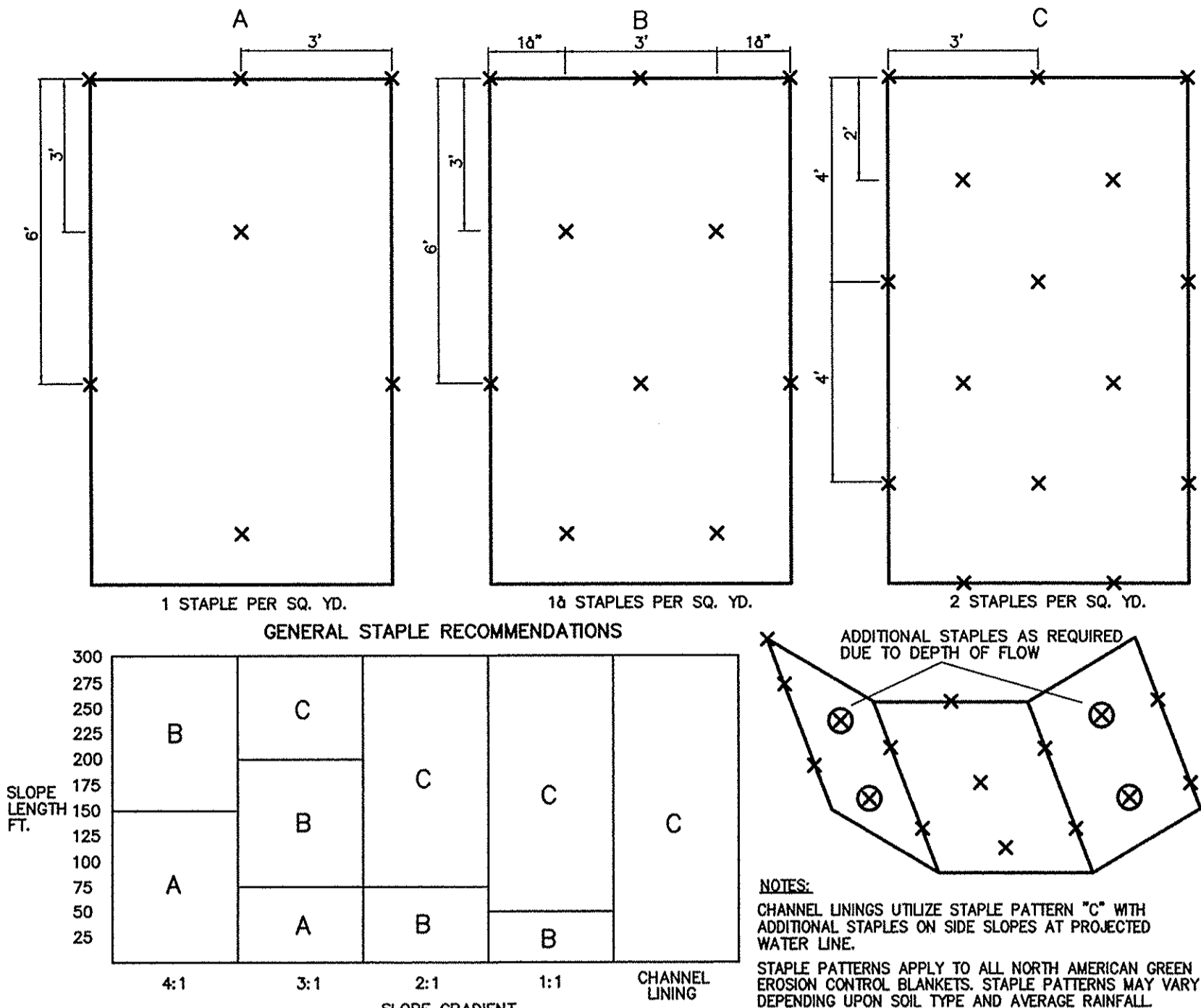
REVISIONS

SHEET NO.
C4.2
 OF

PRINT DATE: 7/30/12
 PLOT SCALE: 1:2,584.9
 EDIT DATE: 6/25/12 - 3:20 PM
 EDITED BY: FOOTTERY
 DRAWING FILE: P:\2011\00507\0.DRAWINGS\CIVIL\PLAN SET\2011.00507.CE.05.C04.1.ECP.DWG
 This copy printed from Digital Archive of the Hamilton County Surveyor's Office, One Hamilton Co. Square, Ste., Noblesville, IN 46060

EROSION CONTROL NOTES:

- CONSTRUCTION ACTIVITY SHALL CONSIST OF UTILITIES, DRAINAGE SWALES AND DETENTION BASIN.
- PRELIMINARY CONSTRUCTION SCHEDULE: EARTHWORK SHALL BEGIN IN THE FALL, 2012. INSTALLATION OF STORM DRAINAGE STRUCTURES SHALL BEGIN IN THE WINTER OF 2012. COMPLETION OF THE PROJECT IS ANTICIPATED IN 2013. THIS SCHEDULE IS SUBJECT TO CHANGE.
- LAND ALTERATION WHICH STRIPS THE LAND OF VEGETATION, INCLUDING REGRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION.
- CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
- THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
- SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE SEDIMENTATION IN THE RECEIVING STREAM. NO STORM WATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT OF DISCHARGE.
- WASTES AND UNUSED BUILDING MATERIALS SHALL NOT BE ALLOWED TO BE CARRIED FROM THE SITE BY STORM WATER RUNOFF. PROPER DISPOSAL OF ALL WASTES AND UNUSED BUILDING MATERIALS IS REQUIRED.
- SEDIMENT BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS SHALL BE MINIMIZED. CLEARED SEDIMENT SHALL BE RETURNED TO THE SITE FOR DISPOSAL.
- SOIL WHICH HAS ACCUMULATED NEXT TO EROSION CONTROL DEVICES SHALL BE COLLECTED AND RE-DISTRIBUTED ON SITE AFTER EACH RAINFALL EVENT, AND AT LEAST ONCE A WEEK.
- IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
- EXISTING VEGETATION SHALL BE PRESERVED IN AREAS NOT DISTURBED BY CONSTRUCTION ACTIVITY.
- THERE ARE NO BORROW AREAS OTHER THAN THOSE DESIGNATED.
- ALL APPLICABLE EROSION CONTROL MEASURES SHALL BE PLACED BEFORE ANY LAND DISTURBING ACTIVITIES.
- SCHEDULE OF EROSION CONTROL ACTIVITIES:
 - INSTALL INLET PROTECTION AROUND INLETS IMMEDIATELY UPON COMPLETION OF THE STRUCTURE. REMOVE INLET PROTECTION FOR PAVING OPERATION, REPLACE INLET PROTECTION AFTER PAVING IS COMPLETE. INLET PROTECTION SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON SEEDED AREAS BEHIND THE CURB.
 - THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM. THE AREA SHALL BE STABILIZED AS SOON AS POSSIBLE. TEMPORARY VEGETATION OR MULCHING SHALL BE USED TO PROTECT EXPOSED AREAS IF PERMANENT VEGETATION CANNOT BE SEEDED WITHIN 14 DAYS OR ACTIVITY CEASES FOR MORE THAN 21 DAYS OR AS DIRECTED BY THE ENGINEER.
 - TOPSOIL REPLACEMENT SHALL TAKE PLACE FROM MARCH 1 TO OCTOBER 31. STOCKPILE TOPSOIL AT ALL OTHER TIMES OF THE YEAR. PERMANENT AND FINAL VEGETATION AND STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING OR AS SOON AS POSSIBLE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FILING A NOTICE OF INTENT WITH THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.
- APPLY FERTILIZER AT A RATE ADEQUATE TO PROVIDE 1 LB. OF ACTUAL NITROGEN PER 1,000 SQUARE FEET. USE COMMERCIAL-GRADE COMPLETE FERTILIZER OF NEUTRAL CHARACTER CONSISTING OF FAST AND SLOW RELEASE NITROGEN, 50 PERCENT DERIVED FROM NATURAL ORGANIC SOURCES OF UREA-FORM, PHOSPHOROUS, AND IN FOLLOWING COMPOSITION:
 - FERTILIZER FOR LAWNS: PROVIDE A FAST RELEASE FERTILIZER WITH A COMPOSITION OF 1 LB PER 1,000 SQ. FT. OF ACTUAL NITROGEN, 4 PERCENT PHOSPHOROUS, AND 2 PERCENT POTASSIUM BY WEIGHT.
 - SLOW-RELEASE FERTILIZER FOR TREES AND SHRUBS: GRANULAR FERTILIZER CONSISTING OF 50 PERCENT WATER-INSOLUBLE NITROGEN, PHOSPHOROUS AND POTASSIUM MADE UP OF A COMPOSITION BY WEIGHT OF 5 PERCENT.
- ADD LIME TO TOPSOIL TO OBTAIN A pH RANGE OF 6.0 TO 7.0. LIME SHALL BE ASTM C 602, CLASS I, AGRICULTURAL LIMESTONE CONTAINING A MINIMUM OF 80 PERCENT CALCIUM CARBONATE EQUIVALENT, WITH A MINIMUM 99 PERCENT PASSING A NO. 8 (2.36 mm) SIEVE AND A MINIMUM 75 PERCENT PASSING A NO. 50 (250 MICROMETER) SIEVE.
- CONSTRUCTION TRAFFIC SHALL ENTER THE SITE AT DRIVES WHICH ARE CURRENTLY PAVED.
- CONTRACTOR TO SEED ALL DISTURBED AREAS. FINISH GRADE TO BE SEED AND STRAW.
- CONTRACTOR SHALL MONITOR TRUCK WASHING AND SEDIMENT TRACKING ONTO STREETS. STREET CLEANING WILL BE REQUIRED BY OWNER, TOWN OF FISHERS OR THE HAMILTON COUNTY SOIL AND WATER CONSERVATION DISTRICT IF ROADWAYS HAVE SOIL FROM THE SITE TRACKED ONTO THEM.



EROSION CONTROL MAT INSTALLATION GUIDE DETAIL
NOT TO SCALE

- EROSION CONTROL BLANKET (SURFACE APPLIED) INSTALLATION REQUIREMENTS**
- SELECT THE TYPE AND WEIGHT OF EROSION CONTROL BLANKET TO FIT THE SITE CONDITIONS (e.g., SLOPE, CHANNEL FLOW VELOCITY).
 - INSTALL ANY PRACTICES NEEDED TO CONTROL EROSION AND RUNOFF, SUCH AS TEMPORARY OR PERMANENT DIVERSION, SEDIMENT BASIN OR TRAP, SILT FENCE.
 - GRADE THE SITE AS SPECIFIED IN THE CONSTRUCTION PLAN.
 - ADD TOPSOIL WHERE APPROPRIATE.
 - PREPARE THE SEEDBED, FERTILIZE (AND LIME, IF NEEDED), AND SEED THE AREA IMMEDIATELY AFTER GRADING.
 - FOLLOWING MANUFACTURER'S DIRECTIONS, LAY THE BLANKETS ON THE SEEDBED AREA SUCH THAT THEY ARE IN CONTINUOUS CONTACT WITH THE SOIL AND THAT THE UPSLOPE OR UPSTREAM ONES OVERLAP THE LOWER ONES BY AT LEAST 8 IN.
 - TUCK THE UPPERMOST EDGE OF THE UPPER BLANKETS INTO A CHECK SLOT (SILT TRENCH), BACKFILL WITH SOIL AND TAMP DOWN.
 - ANCHOR THE BLANKETS AS SPECIFIED BY THE MANUFACTURER. THIS TYPICALLY INVOLVES DRIVING 8-8 IN. METAL STAPLES INTO THE GROUND IN A PATTERN DETERMINED BY THE SITE CONDITIONS.

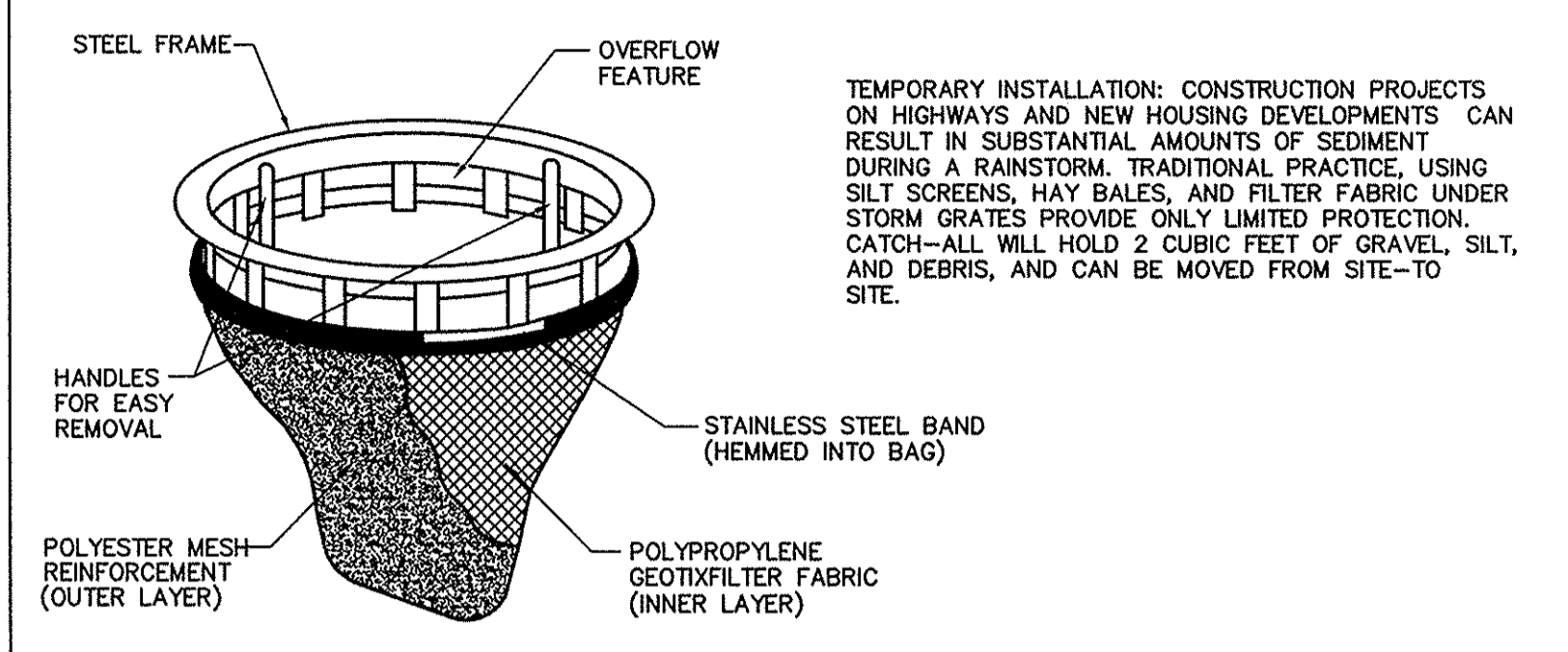
- EROSION CONTROL BLANKET (SURFACE APPLIED) MAINTENANCE REQUIREMENTS**
- DURING VEGETATIVE ESTABLISHMENT INSPECT AFTER STORM EVENTS FOR ANY EROSION BELOW THE BLANKET.
 - IF ANY AREA SHOWS EROSION PULL BACK THAT PORTION OF THE BLANKET COVERING IT, ADD SOIL, RE-SEED THE AREA, AND RE-LAY AND STAPLE THE BLANKET.
 - AFTER VEGETATIVE ESTABLISHMENT CHECK THE TREATED AREA PERIODICALLY.

STABILIZATION PRACTICE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING		A										
DORMANT SEEDING	B										B	
TEMPORARY SEEDING		C	E									

A = KENTUCKY BLUEGRASS 100 LBS./ACRE; CREEPING RED FESCUE 100 LBS./ACRE; HYDROSEEDED
 B = KENTUCKY BLUEGRASS 120 LBS./ACRE; CREEPING RED FESCUE 120 LBS./ACRE; HYDROSEEDED
 C = SPRING OATS 3 BUSHELS/ACRE
 D = WHEAT OR RYE 2 BUSHELS/ACRE
 E = ANNUAL RYE GRASS 40 LBS./ACRE (1 LB/1000 SQ. FT.)
 // = IRRIGATION NEEDED DURING JUNE, JULY, AUGUST AND/OR SEPTEMBER

**CATCH-ALL
STORMWATER INLET PROTECTOR**

THE CATCH-ALL IS AN INLET AND CATCH BASIN FILTRATION DEVICE DEVELOPED TO PREVENT SEDIMENTATION. CATCH-ALLS ARE AVAILABLE TO FIT VIRTUALLY ANY DRAINAGE STRUCTURE CASTING, AND COULD REPRESENT A BEST MANAGEMENT PRACTICE FOR YOUR EPA PHASE 2 PROGRAM.



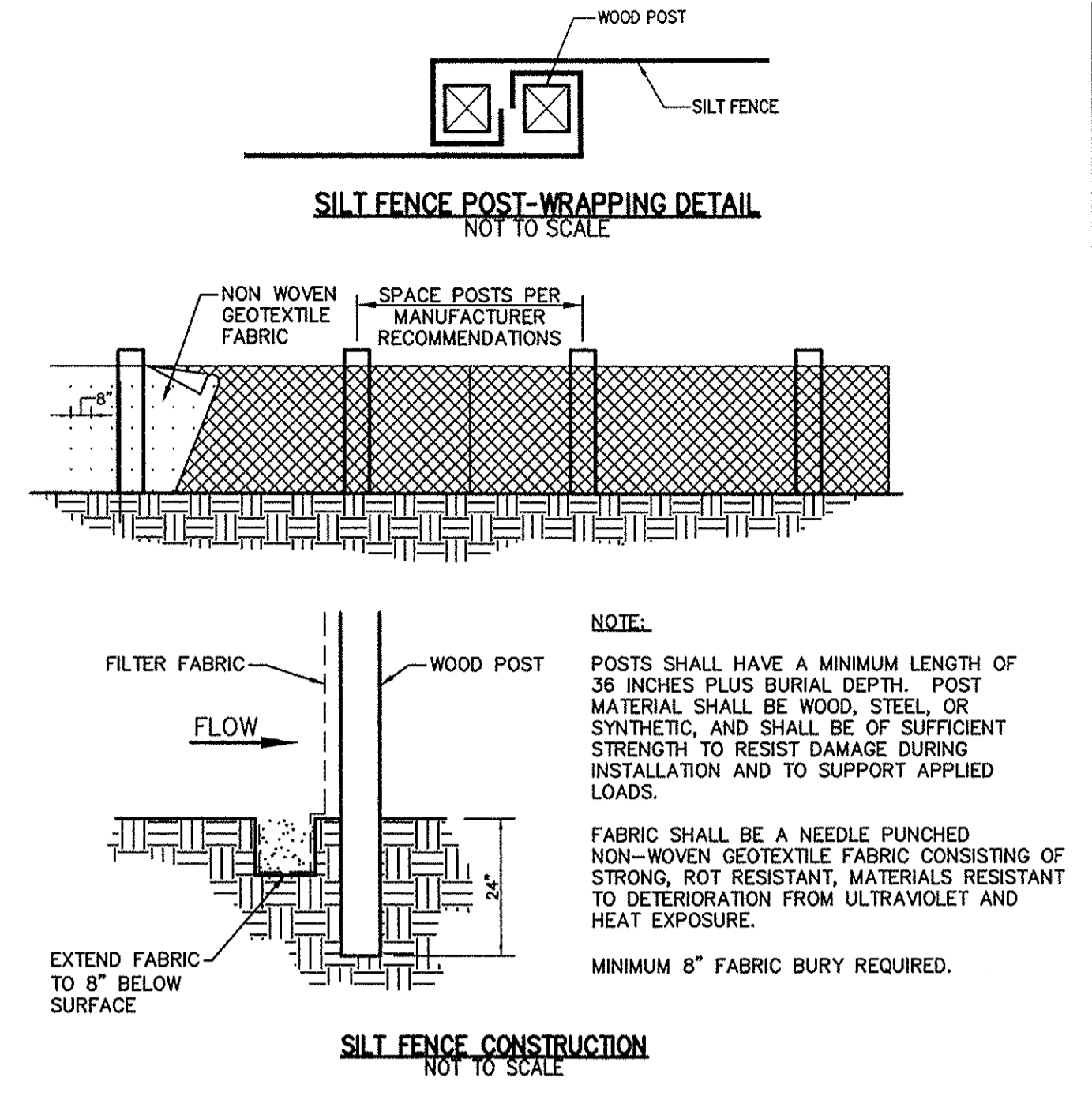
TEMPORARY INSTALLATION: CONSTRUCTION PROJECTS ON HIGHWAYS AND NEW HOUSING DEVELOPMENTS CAN RESULT IN SUBSTANTIAL AMOUNTS OF SEDIMENT DURING A RAINSTORM. TRADITIONAL PRACTICE, USING SILT SCREENS, HAY BALES, AND FILTER FABRIC UNDER STORM GRATES PROVIDE ONLY LIMITED PROTECTION. CATCH-ALL WILL HOLD 2 CUBIC FEET OF GRAVEL, SILT, AND DEBRIS, AND CAN BE MOVED FROM SITE-TO-SITE.

CATCH-ALL HAS BEEN APPROVED FOR USE ON MANY HOT ROAD CONSTRUCTION PROJECTS.

PERMANENT INSTALLATION:
 COMMERCIAL AND INDUSTRIAL SITES WITH IMPERVIOUS SURFACES, SUCH AS ROADS AND PARKING LOTS, PRODUCE STORMWATER RUN-OFF THAT MAY INCLUDE PAPER REFUSE, CIGARETTES, SEDIMENT, AND EVEN SOME FLOATING OILS. THESE CONTAMINANTS CAN QUICKLY ADD UP TO A SIGNIFICANT AMOUNT IN CATCH BASINS OR MUNICIPAL SYSTEMS. WITHOUT PROPER TREATMENT, STORMWATER LADEN WITH SUCH MATERIALS CAN POLLUTE STREAMS, LAKES, AND NEAR-SHORE WATERS. THE UNIQUE DESIGN OF THE REUSABLE STEEL FRAME OF CATCH-ALL PROVIDES AN OVERFLOW CAPACITY GREATER THAN THE OPEN AREA OF THE GRATE IT FITS UNDER. THIS MEANS LITTLE CHANCE FOR WATER TO BACK UP OR POOL, EVEN BETWEEN SCHEDULED CLEANINGS. THE DURABLE, REINFORCED SEDIMENT BAG CAN BE CLEANED NUMEROUS TIMES AND IS EASILY REPLACED IN THE FIELD. THE ENTIRE UNIT IS INSTALLED BELOW GRADE AND NO REBAR, CLIPS, OR STRAPS ARE EXPOSED ON THE SURFACE. WITH A TOP FLANGE LESS THAN 1/8" THICK, THE ADDITIONAL HEIGHT EXPOSURE OF THE GRATE IS MINIMAL. CATCH-ALL CAN BE AN IMPORTANT SUPPLEMENT FOR CATCH BASINS AND UNDERGROUND STORMWATER STORAGE SYSTEMS THAT ARE USUALLY DIFFICULT TO ACCESS FOR CLEANING. CATCH-ALLS ARE AVAILABLE TO FIT VIRTUALLY ANY DRAINAGE STRUCTURE CASTING.

D2 LAND & WATER RESOURCE INC.

P.O. BOX 20792
 INDIANAPOLIS, IN 46220
 PHONE (317) 917-2180
 FAX (317) 917-2181
 TOLL FREE (800) 597-2180
 www.d2lwr.com



SILT FENCE INSTALLATION REQUIREMENTS:

- NOTE:** POSTS SHALL HAVE A MINIMUM LENGTH OF 36 INCHES PLUS BURIAL DEPTH. POST MATERIAL SHALL BE WOOD, STEEL OR SYNTHETIC, AND SHALL BE OF SUFFICIENT STRENGTH TO RESIST DAMAGE DURING INSTALLATION AND TO SUPPORT APPLIED LOADS.
- FABRIC SHALL BE A NEEDLE PUNCHED NON-WOVEN GEOTEXTILE FABRIC CONSISTING OF STRONG, ROT RESISTANT, MATERIALS RESISTANT TO DETERIORATION FROM ULTRAVIOLET AND HEAT EXPOSURE.
- MINIMUM 8" FABRIC BURY REQUIRED.
- PREPARATION:**
- PLAN FOR THE FENCE TO BE AT LEAST 10 FT. FROM THE TOE OF THE SLOPE TO PROVIDE A SEDIMENT STORAGE AREA.
 - PROVIDE ACCESS TO THE AREA IF SEDIMENT CLEANOUT WILL BE NEEDED.
- OUTLET CONSTRUCTION (OPTIONAL):**
- DETERMINE THE APPROPRIATE LOCATION FOR A REINFORCED, STABILIZED BYPASS FLOW OUTLET (UNLESS THE FENCE IS DESIGNED TO RETAIN ALL RUNOFF FROM A 2 YEAR FREQUENCY, 24 HR DURATION STORM EVENT)
 - SET THE OUTLET ELEVATION SO THAT WATER DEPTH CANNOT EXCEED 1 1/2 FT. AT THE LOWEST POINT ALONG THE FENCE LINE.
 - LOCATE THE OUTLET WEIR SUPPORT POSTS NO MORE THAN 4 FT. APART, AND INSTALL A HORIZONTAL BRACE BETWEEN THEM. (WEIR HEIGHT SHOULD BE NO MORE THAN 1 FT. DEEP, 5 FT. WIDE, AND 3 FT. LONG ON LEVEL GRADE.)
 - EXCAVATE THE FOUNDATION FOR THE OUTLET SPLASH PAD TO MINIMUMS OF 1 FT. AND WATER DEPTH NO MORE THAN 1 1/2 FT. ANYWHERE ELSE ALONG THE FENCE.)
 - FILL THE EXCAVATED FOUNDATION WITH (INDOT CA NO. 1 STONE, BEING CAREFUL THAT THE FINISHED SURFACE BLENDS WITH THE SURROUNDING AREA, ALLOWING NO OVERFILL.
 - STABILIZE THE AREA AROUND THE PAD.

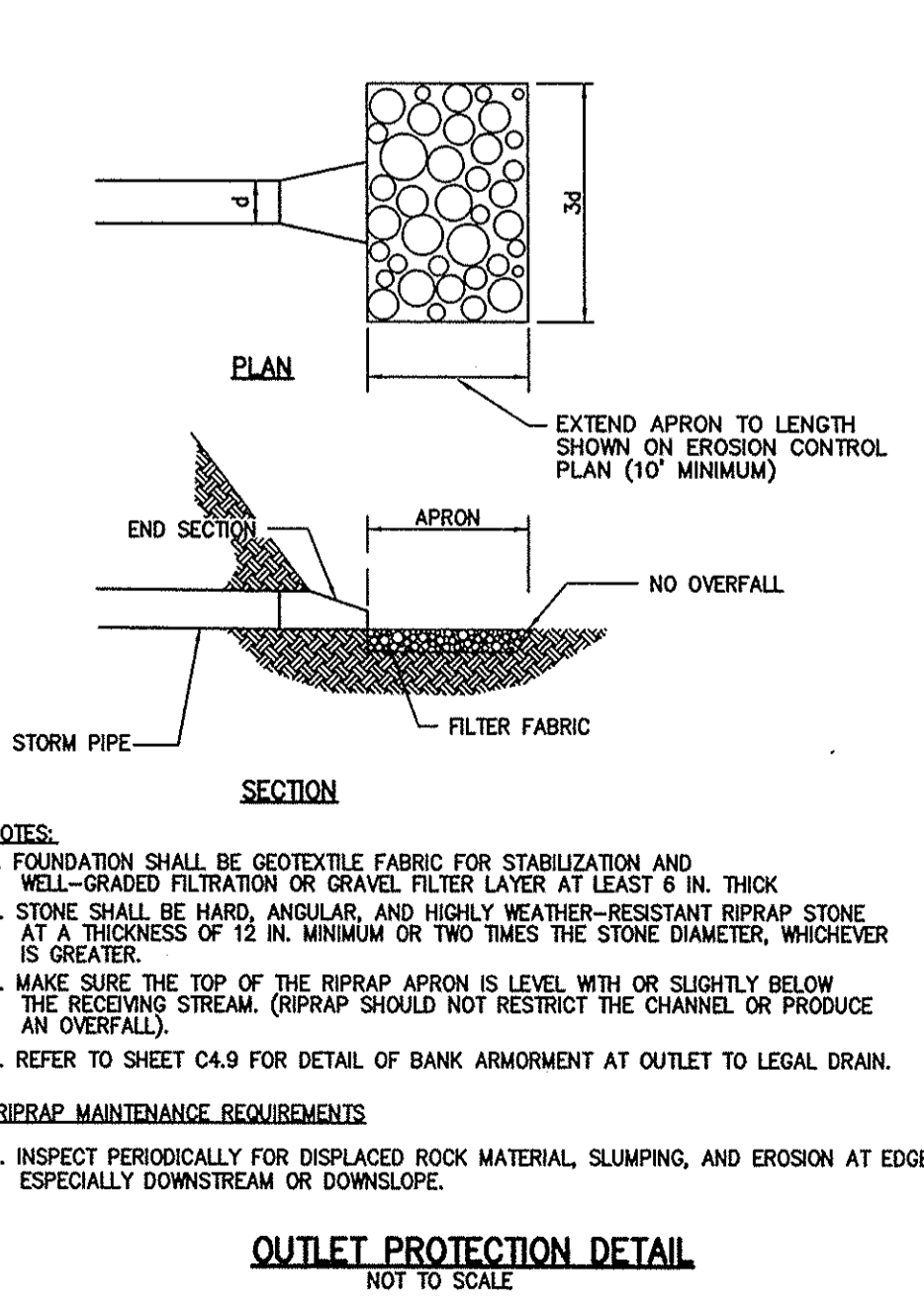
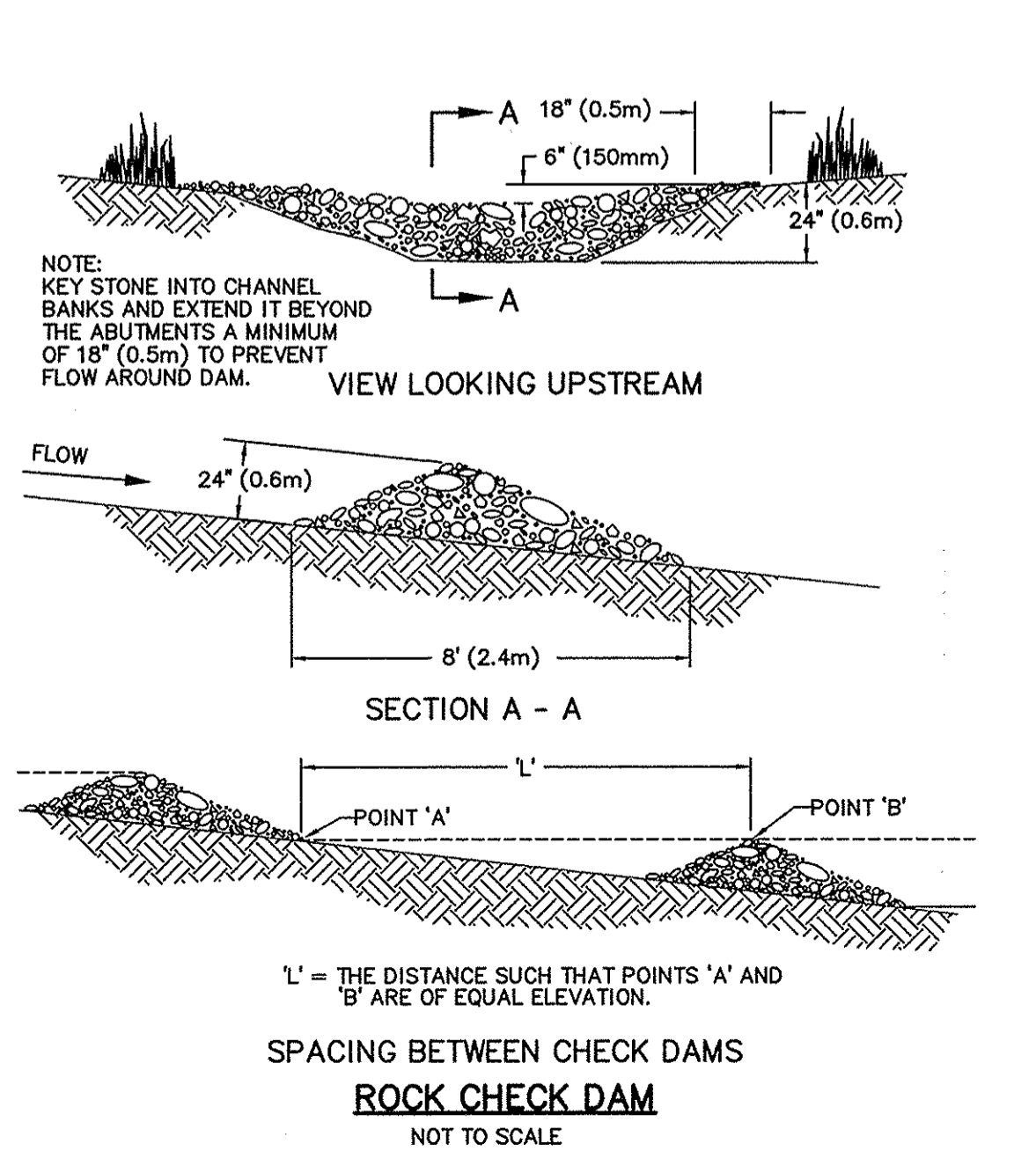
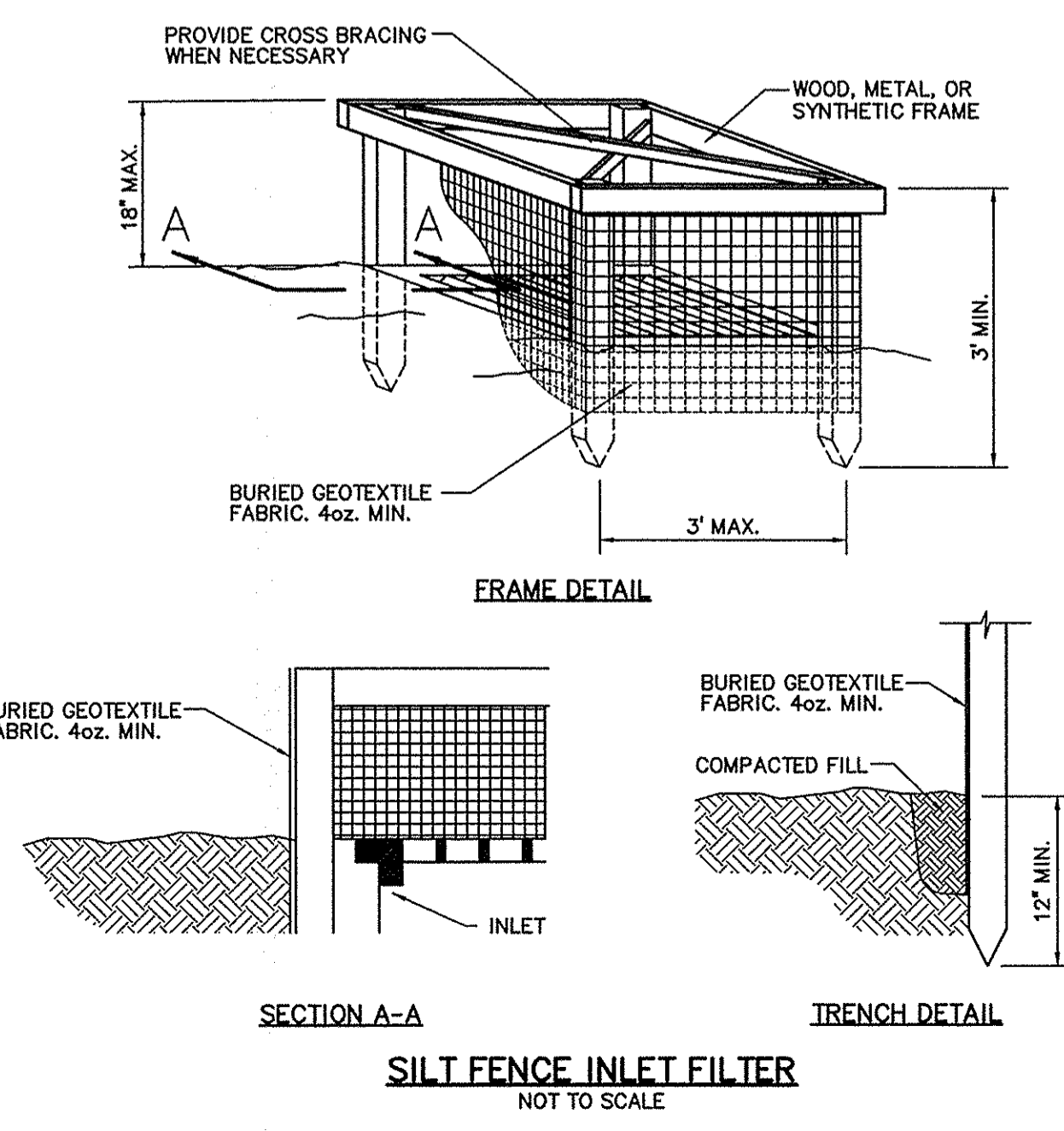
FENCE CONSTRUCTION:

- ALONG THE ENTIRE INTENDED FENCE LINE, DIG AN 8 IN. DEEP FLAT-BOTTOMED OR V-SHAPED TRENCH.
 - ON THE DOWNSIDE SLOPE OF THE TRENCH, DRIVE THE WOOD OR STEEL SUPPORT POSTS AT LEAST 1 FT. INTO THE GROUND (THE DEEPER THE BETTER). SPACING THEM NO MORE THAN 8 FT. APART IF THE FENCE IS SUPPORTED BY WIRE OR 6 FT. IF EXTRA-STRENGTH FABRIC IS USED WITHOUT SUPPORT WIRE. ADJUST SPACING, IF NECESSARY, TO ENSURE THAT POSTS ARE SET AT THE LOW POINTS ALONG THE FENCE LINE. (NOTE: IF THE FENCE HAS PRE-ATTACHED POSTS OR STAKES, DRIVE THEM DEEP ENOUGH SO THE FABRIC IS SATISFACTORILY IN THE TRENCH AS DESCRIBED IN STEP 6).
 - FASTEN SUPPORT WIRE FENCE (IF THE MANUFACTURER RECOMMENDS ITS USE) TO THE UPSLOPE SIDE OF THE POSTS, EXTENDING IT 8 IN. INTO THE TRENCH.
 - RUN A CONTINUOUS LENGTH OF GEOTEXTILE FABRIC IN FRONT (UPSLOPE) OF THE SUPPORT WIRE AND POSTS, AVOIDING JOINTS, PARTICULARLY AT LOW POINTS IN THE FENCE LINE.
 - IF A JOINT IS NECESSARY, NAIL THE JOINT TO THE NEAREST POST WITH LATH.
 - PLACE THE BOTTOM 1 FT. OF FABRIC IN THE 8 IN. DEEP TRENCH, EXTENDING THE REMAINING 4 IN. TOWARD THE UPSLOPE SIDE.
 - BACKFILL THE TRENCH WITH COMPACTED EARTH OR GRAVEL.
- NOTE:** IF USING A PRE-PACKED COMMERCIAL SILT FENCE RATHER THAN CONSTRUCTING ONE, FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.

SILT FENCE MAINTENANCE REQUIREMENTS:

- INSPECT THE SILT FENCE PERIODICALLY AND AFTER EACH STORM EVENT.
- IF FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY.
- REMOVE DEPOSITED SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT OR IS CAUSING THE FABRIC TO BULGE.
- TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEAN OUT.
- AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED REMOVE THE FENCE AND SEDIMENT DEPOSITS, BRING THE DISTURBED AREA TO GRADE, AND STABILIZE.

PRINT DATE: 7/30/12 PLOT SCALE: 1:2,384.9 EDIT DATE: 6/9/12 -- 8:17 AM EDITED BY: PFOOTTERY DRAWING FILE: P:\2011\00507.D. DRAWINGS\DWL\PLAN SET\201100507.CE.C51.ECD.DWG



- NOTES:**
- FOUNDATION SHALL BE GEOTEXTILE FABRIC FOR STABILIZATION AND WELL-GRADED FILTRATION OR GRAVEL FILTER LAYER AT LEAST 6 IN. THICK
 - STONE SHALL BE HARD, ANGULAR, AND HIGHLY WEATHER-RESISTANT RIPRAP STONE AT A THICKNESS OF 12 IN. MINIMUM OR TWO TIMES THE STONE DIAMETER, WHICHEVER IS GREATER.
 - MAKE SURE THE TOP OF THE RIPRAP APRON IS LEVEL WITH OR SLIGHTLY BELOW THE RECEIVING STREAM. (RIPRAP SHOULD NOT RESTRICT THE CHANNEL OR PRODUCE AN OVERFALL).
 - REFER TO SHEET C4.9 FOR DETAIL OF BANK ARMORMENT AT OUTLET TO LEGAL DRAIN.
- RIPRAP MAINTENANCE REQUIREMENTS**
- INSPECT PERIODICALLY FOR DISPLACED ROCK MATERIAL, SLUMPING, AND EROSION AT EDGES, ESPECIALLY DOWNSTREAM OR DOWNSLOPE.

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: Oct 2010
 Entered By: SLM

7260 SHADELAND STATION
 INDIANAPOLIS, IN 46226-3957
 TEL 317.547.5580 FAX 317.543.0270
 www.structurepoint.com
STRUCTUREPOINT INC.
 AMERICAN
CERTIFIED BY
EROSION CONTROL DETAILS
 PREPARED FOR:
HAMILTON COUNTY DRAINAGE BOARD
1 HAMILTON COUNTY SQUARE, SUITE #188
NOBLESVILLE, IN 46060
 PROJECT:
BRIDLEBOURNE DRAINAGE MODIFICATION
106th STREET & SHELBORNE ROAD
CARMEL, INDIANA
 DATE: 07/30/12
 DRAWN BY: PED
 CHK'D BY: BNS
 JOB NO. 2011.00507
 REVISIONS
 SHEET NO.
C5.1
 OF
 2011.00507.CE.C51.ECD.DWG

OFFICE OF THE HAMILTON COUNTY SURVEYOR

CLEARING SPECIFICATIONS

WHAT TO CLEAR

1. Clear all woody vegetation, i.e. trees, willows, brush, briars and cacti.
2. Clear both ditch banks to the top of the bank. Clear the ditch bottom and remove all debris and obstructions within the channel.
3. On the working side, clear only enough room to complete the intended operation such as spreading spoil or installing an erosion control structure. If more than 75 feet is needed, the Hamilton County Surveyor must be contacted before additional clearing can be done.

OTHER NOTES

1. Cut trees as shown in the diagram below. Cut the stump flush with the ground, no more than 6 inches high. Cut the stump at the same angle as the ditch bank.
2. Paint stumps with an approved EPA brush killer according to the contract specifications.
3. Remove stumps if the bank is resloped or for proper channel alignment.

(DRAWING NOT TO SCALE)

HAMILTON COUNTY SURVEYOR'S OFFICE

APPROVED: *Kenton C. Ward* KENTON C. WARD, HAMILTON COUNTY SURVEYOR DATE: 4/11/00

STANDARD PLAN OD-1

OFFICE OF THE HAMILTON COUNTY SURVEYOR

DEBRIS GUARD

Apron Size	V-bar Size	No. of H-bars	H-bar Size	Bolt Size	"A" Dim
18	1/2	3	5/8	1/2	5
24	5/8	4	3/4	1/2	7
30	5/8	4	3/4	1/2	7 1/2
36	3/4	4	1	1/2	10 1/2
42	3/4	4	1	3/4	11
48	3/4	4	1 1/2	3/4	12
54	3/4	4	1 1/2	3/4	12
60	3/4	5	1 1/2	3/4	14
72	3/4	5	1 1/2	3/4	14
84	3/4	6	1 1/2	3/4	15

NOTES:

1. BARS & PLATES ARE HOT-ROLLED STEEL.
2. BARS, PLATES, & PIPE ARE FINISHED WITH 2 COATS OF ALUMINUM PAINT.
3. BOLTS ARE GALVANIZED.
4. NO REBAR THROUGH PIPES WILL BE ALLOWED.
5. DEBRIS GUARD SHALL BE REMOVABLE.

(DRAWING NOT TO SCALE)

HAMILTON COUNTY SURVEYOR'S OFFICE

APPROVED: *Kenton C. Ward* KENTON C. WARD, HAMILTON COUNTY SURVEYOR DATE: 4/11/00

STANDARD PLAN D-12

OFFICE OF THE HAMILTON COUNTY SURVEYOR

STANDARD FOR SANITARY SEWERS BEING CONSTRUCTED WITHIN A REGULATED DRAINAGE EASEMENT

A SANITARY SEWER MANHOLE CANNOT BE LOCATED ANY CLOSER THAN 30 FEET FROM THE TOP OF BANK OF AN OPEN DITCH, OR 15 FEET FROM THE CENTERLINE OF A REGULATED DRAIN TILE.

THE ACTUAL SANITARY SEWER PIPE CANNOT BE LOCATED ANY CLOSER THAN 15 FEET FROM THE TOP OF BANK OF AN OPEN DITCH, OR FROM THE CENTERLINE OF A REGULATED DRAIN TILE.

DEEPER INSTALLATIONS OF SANITARY SEWERS MAY REQUIRE GREATER DISTANCE BETWEEN DRAIN AND SANITARY SEWER MANHOLE OR PIPE.

(DRAWING NOT TO SCALE)

HAMILTON COUNTY SURVEYOR'S OFFICE

APPROVED: *Kenton C. Ward* KENTON C. WARD, HAMILTON COUNTY SURVEYOR DATE: 4/11/00

STANDARD PLAN M-5

OFFICE OF THE HAMILTON COUNTY SURVEYOR

STANDARD MANHOLE FOR PIPE SIZES 24" THRU 66"

MANHOLE DIA. "E"	PIPE DIA. "G"	PIPE TURNS
36"	24"	UP TO 90 DEG
42"	30"	GREATER THAN 45 TO 90 DEG
48"	36"	UP TO 90 DEG
54"	42"	GREATER THAN 45 TO 90 DEG
60"	48"	UP TO 90 DEG
66"	54"	GREATER THAN 45 TO 90 DEG

NOTE: MANHOLE CONFORMS TO ASTM C-708. NO BRICK OR BLOCK WILL BE ALLOWED IN MANHOLE. G-RING GASKET NON-ASPHALTIC MASTIC OR BUTYL RUBBER SEAL BETWEEN JOINTS.

(DRAWING NOT TO SCALE)

HAMILTON COUNTY SURVEYOR'S OFFICE

APPROVED: *Kenton C. Ward* KENTON C. WARD, HAMILTON COUNTY SURVEYOR DATE: 2/1/02

STANDARD PLAN D-21

OFFICE OF THE HAMILTON COUNTY SURVEYOR

RCP Bedding and Backfill Standard

NOTES:

1. BEDDING AND HAUNCHING FOR ALL RCP INSTALLATIONS SHALL BE #8 STONE 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" MINIMUM DEPTH OF MATERIAL BELOW THE PIPE BARREL AND A MINIMUM OF 3" BELOW THE BELL FOR PIPE SIZES 66" AND LARGER. THE MINIMUM DEPTH OF MATERIAL BELOW THE PIPE BARREL SHALL BE 6". BEDDING SHALL BE PLACED TO BE UNIFORM AS POSSIBLE, BUT SHALL BE LOOSELY PLACED UNCOMPACTED MATERIAL UNDER THE MIDDLE THIRD OF THE PIPE PRIOR TO PLACEMENT OF THE PIPE. IF THE UNDERLYING SOILS OF THE TRENCH BOTTOM ARE SOFT OR YIELDING, THE SOIL SHALL BE UNDERCUT TO SUCH A DEPTH THAT WHEN REPAIRED WITH #2 STONE IT WILL PRODUCE A UNIFORM AND STABLE FOUNDATION ALONG THE ENTIRE LENGTH OF THE PIPE. HAUNCHING AND INITIAL BACKFILL SHALL BE COMPACTED IN 6" 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. MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 18".
2. FINAL BACKFILL FOR ALL RCP INSTALLATIONS WHERE "L" IS 5' OR LESS SHALL BE B-BORROW FOR STRUCTURE BACKFILL MEETING THE MATERIAL REQUIREMENTS OF THE INDOT AND SHALL BE COMPACTED IN 6" MAXIMUM LIFTS TO NOT LESS THAN 90% STANDARD PROCTOR DENSITY FOR THE ENTIRE DEPTH OF THE MATERIAL PLACED. THE BACKFILL FOR THE TOP 6" OF THE EXCAVATION BELOW THE START OF THE AGGREGATE SUBBASE OF THE PAVEMENT SHALL BE #3 STONE MEETING THE MATERIAL REQUIREMENT OF THE INDOT AND SHALL BE COMPACTED TO NOT LESS THAN 90% STANDARD PROCTOR DENSITY. FINAL BACKFILL FOR ALL RCP INSTALLATIONS WHERE "L" IS GREATER THAN 5' SHALL BE CLEAN FILL MATERIAL FREE OF ROCKS LARGER THAN 6" IN DIAMETER, FROZEN LUMPS OF SOIL, WOOD, OR OTHER EXTRANEIOUS MATERIAL, COMPACTED IN 12" MAXIMUM LIFTS TO NOT LESS THAN 90% STANDARD PROCTOR DENSITY FOR THE ENTIRE DEPTH OF THE EXCAVATION. THE FINAL 6 INCHES OF THE EXCAVATION SHALL CONSIST OF TOPSOIL.
3. THE MINIMUM COVER FROM THE TOP OF THE INSTALLED PAVEMENT TO THE TOP OF THE INSTALLED PIPE SHALL BE THE PAVEMENT SECTION THICKNESS (ALL DIMENSIONS AND SPECIFIC MATERIAL ABOVE THE SUBGRADE) PLUS 1'-0", BUT UNDER NO CIRCUMSTANCES SHALL THE COVER ALONG ANY PART OF THE PIPE FROM THE FINAL PAVEMENT ELEVATION TO THE TOP OF THE PIPE BE LESS THAN 2.5 FEET.
4. IF EXISTING SUBGRADE HAS BEEN LINE STABILIZED, BACKFILL WITH B-BORROW UP TO BOTTOM OF UNTREATED EXISTING SUBGRADE AND FILL TO TOP OF TREATED SUBGRADE WITH LINE STABILIZED SOIL.
5. THESE STANDARDS SHALL APPLY FOR ALL REGULATED DRAIN STORM SEWERS UNLESS THE ENTITY HAVING CONTROL OVER THE RIGHT OF WAY HAS A MORE STRINGENT STANDARD, IN WHICH CASE THE HIGHER STANDARD SHALL APPLY.
6. THE MINIMUM COVER FROM THE FINAL GRADE TO THE TOP OF THE PIPE SHALL BE NOT LESS THAN 2 FEET OUTSIDE OF PAVEMENT AREAS.

(DRAWING NOT TO SCALE)

HAMILTON COUNTY SURVEYOR'S OFFICE

APPROVED: *Kenton C. Ward* KENTON C. WARD, HAMILTON COUNTY SURVEYOR DATE: 10/23/07

STANDARD PLAN D-23

OFFICE OF THE HAMILTON COUNTY SURVEYOR

BEEHIVE INLET CASTING

NOTE: ALL DIMENSIONS SHOWN ARE IN ENGLISH AND METRIC.

FREE OPEN AREA: 278 SQUARE INCHES

MATERIAL: CAST GRAY IRON ASTM A-18, CLASS 35B

FINISH: NO PAINT

WEIGHT: 280#

NEENAH	4342
EAST JORDAN	6489N

* Or approved by Hamilton County Surveyor's Office

(DRAWING NOT TO SCALE)

HAMILTON COUNTY SURVEYOR'S OFFICE

APPROVED: *Kenton C. Ward* KENTON C. WARD, HAMILTON COUNTY SURVEYOR DATE: 11/16/2004

STANDARD PLAN CT-10

OFFICE OF THE HAMILTON COUNTY SURVEYOR

LAKE OUTLET DETAIL FOR LAKE CROSS-SECTION OPTION 3

NOTES:

- METAL SHOWN/REQUIRES TOE PLATE
- PRECAST REQUIRES ANCHOR
- CONCRETE SLOPEWALL
- CONCRETE HEADWALL

(DRAWING NOT TO SCALE)

HAMILTON COUNTY SURVEYOR'S OFFICE

APPROVED: *Kenton C. Ward* KENTON C. WARD, HAMILTON COUNTY SURVEYOR DATE: 4/11/00

STANDARD PLAN D-11

OFFICE OF THE HAMILTON COUNTY SURVEYOR

1/2" RADIUS OPEN CURB BOX

NOTE: ALL DIMENSIONS SHOWN ARE IN ENGLISH AND METRIC.

MATERIAL: CAST GRAY IRON ASTM A-18, CLASS 35B

FINISH: NO PAINT

WEIGHT: 92#

(DRAWING NOT TO SCALE)

HAMILTON COUNTY SURVEYOR'S OFFICE

APPROVED: *Kenton C. Ward* KENTON C. WARD, HAMILTON COUNTY SURVEYOR DATE: 2/5/06

STANDARD PLAN CT-5

7260 SHADLAND STATION
INDIANAPOLIS, IN 46256-9877
TEL: 317.547.5580 FAX: 317.543.0270
www.structurpoint.com

AMERICAN STRUCTUREPOINT INC.

CERTIFIED BY

PREPARED FOR: HAMILTON COUNTY DRAINAGE BOARD
1 HAMILTON COUNTY SQUARE, SUITE #188
NOBLESVILLE, IN 46060

PROJECT: BRIDLEBOURNE DRAINAGE MODIFICATION
106th STREET & SHELBORNE ROAD
CARMEL, INDIANA

DATE: 07/30/12
DRAWN BY: PED
CHK'D BY: BNS
JOB NO.: 2011.00507

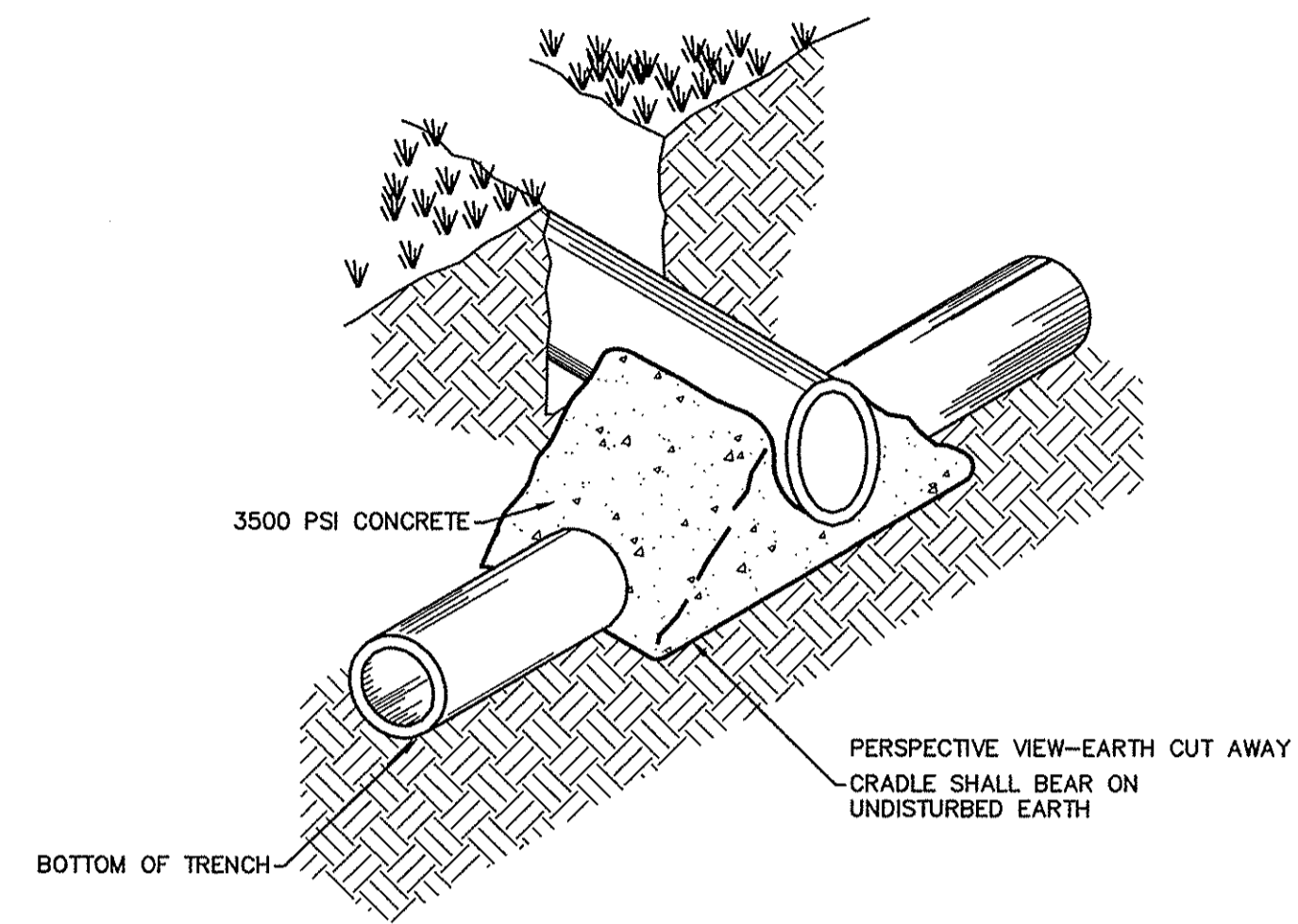
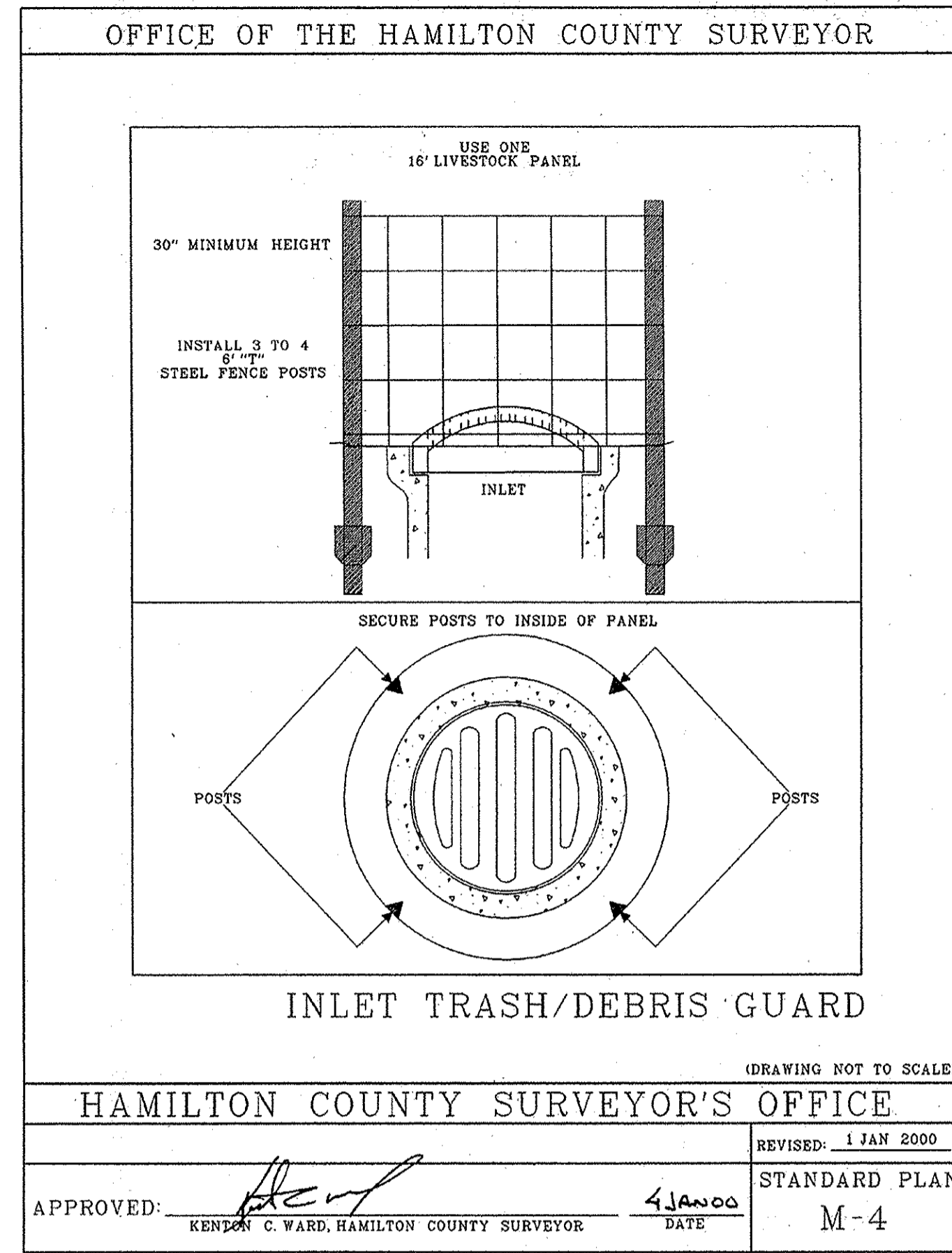
REVISIONS

SHEET NO. C7.1

2011.00507.CE.C71.SD.DWG

PRINT DATE: 7/30/12 PLOT SCALE: 1:2.5849 EDIT DATE: 6/2/12 - 2:17 PM EDITED BY: BSCHRAGE DRAWING FILE: P:\2011\00507\0. DRAWINGS\CIVIL\PLAN SET\2011.00507.CE.C71.SD.DWG

PRINT DATE: 7/30/12
 PLOT SCALE: 1:2.5849
 EDIT DATE: 6/9/12 - 2:17 PM
 EDITED BY: BSCHRAE
 DRAWING FILE: P:\2011\00507\0. DRAWINGS\CIVIL\PLAN SET\2011.00507.CE.C71.SD.DWG



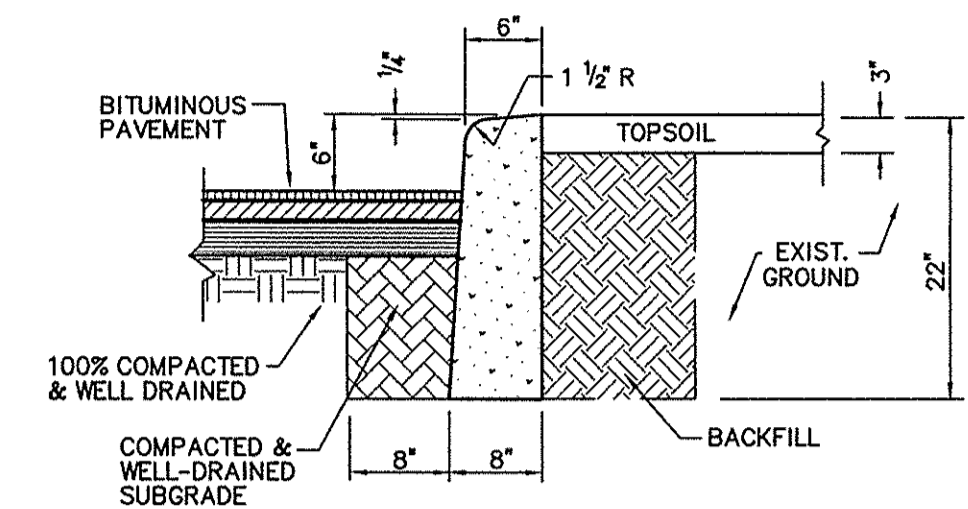
NOTE:

TO BE USED WHEN CLEAR DISTANCE (FROM EXTERIOR PIPE DIAMETER TO EXTERIOR PIPE DIAMETER) BETWEEN SANITARY SEWER PIPING (MAINS, LATERALS, FORCE MAINS, ETC.) AND ALL OTHER PIPES IS 18" OR LESS, PER ENGINEER'S DIRECTION, OR WHERE NOTED ON THE CONSTRUCTION PLANS. A MINIMUM CLEAR DISTANCE OF 3" MUST BE PROVIDED TO MAINTAIN STRUCTURAL INTEGRITY OF THE CONCRETE.

CONCRETE MUST NOT COME INTO CONTACT WITH FORCE MAIN. AT LEAST 3" OF SAND MUST BE PLACED AS A CUSHION AROUND THE FORCE MAIN.

IF THE CONFLICT IS BETWEEN A WATER MAIN AND ANY SANITARY SEWER PIPING, 18" CLEARANCE MUST BE MAINTAINED OR NOTE ABOVE APPLIES AND ONLY GRANULAR FILL MAYBE USED.

CONCRETE CRADLE DETAIL
 NOT TO SCALE



CONCRETE MONOLITHIC CURB DETAIL
 NOT TO SCALE

DETAILS

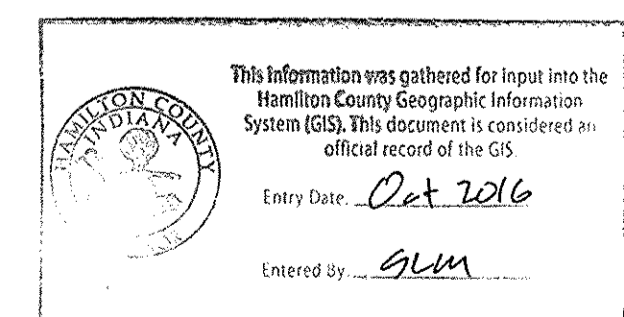
PREPARED FOR:
HAMILTON COUNTY DRAINAGE BOARD
 1 HAMILTON COUNTY SQUARE, SUITE #188
 NOBLESVILLE, IN 46060

PROJECT:
BRIDLEBOURNE DRAINAGE MODIFICATION
 106th STREET & SHELBORNE ROAD
 CARMEL, INDIANA

DATE:	07/30/12
DRAWN BY:	PED
CHK'D BY:	BNS
JOB NO.:	2011.00507

REVISIONS	

SHEET NO.
C7.2
 OF



CERTIFIED BY _____

AMERICAN
STRUCTUREPOINT
 INC.

7280 SHADELAND STATION
 INDIANAPOLIS, IN 46236-3957
 TEL 317.547.5580 FAX 317.543.0270
 www.structurepoint.com