

# C & H HOG FARMS GESTATION-FARROWING FARM AS BUILT ENGINEERING PLAN SHEETS

SECTION 26, T 15 N, R 20 W  
NEWTON COUNTY, ARKANSAS

DATE: APRIL 12, 2013

## SHEET INDEX

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- SHEET 8 – PROPOSED SITE PLAN CROSS SECTION
  
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- SHEET 11 – WASTE STORAGE POND CROSS SECTIONS
  
- SHEET 13 – POND INLET & MAXIMUM BERM DETAILS
- SHEET 14 – WASTE STORAGE POND 1 STAGE STORAGE TABLE
- SHEET 15 – WASTE STORAGE POND 2 STAGE STORAGE TABLE

GENERAL NOTES



No.	Revision/Issue	Date
1	AS BUILT	4/12/13

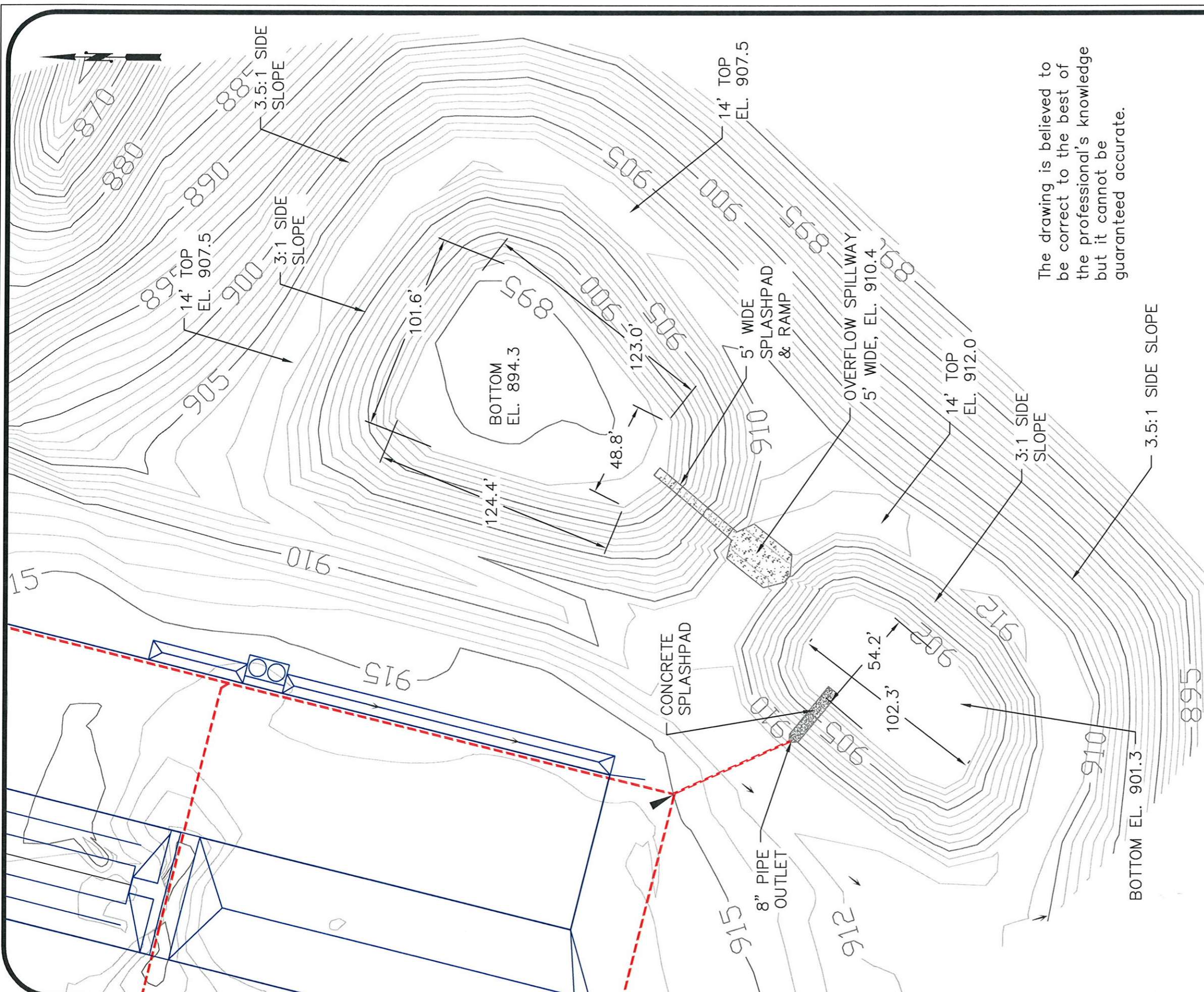
**DeHaan, Grabs & Associates, LLC**  
 Consulting Engineers  
 PO Box 522, Mandan, ND 58554  
 (701) 663-1116, FAX: (701) 667-1356  
[www.dgaengineering.com](http://www.dgaengineering.com)

**C & H HOG FARMS  
GESTATION-FARROWING FARM**

SECTION 26, T 15 N, R 20 W  
NEWTON COUNTY, AR

**COVER SHEET**

DATE: JUN 1, 2012	COVER
SCALE: NONE	
DRAWN BY: NAP	
CHECKED BY: DLD	



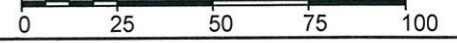
The drawing is believed to be correct to the best of the professional's knowledge but it cannot be guaranteed accurate.

GENERAL NOTES

LEGEND

- ⊕ BENCHMARK
- ▭ BUILDINGS
- x-x- FENCELINE
- .-.- CULVERT/PIPE
- ← DRAINAGE ARROW

SCALE, FEET



No.	Revision/Issue	Date
1	As Built	4/1/13

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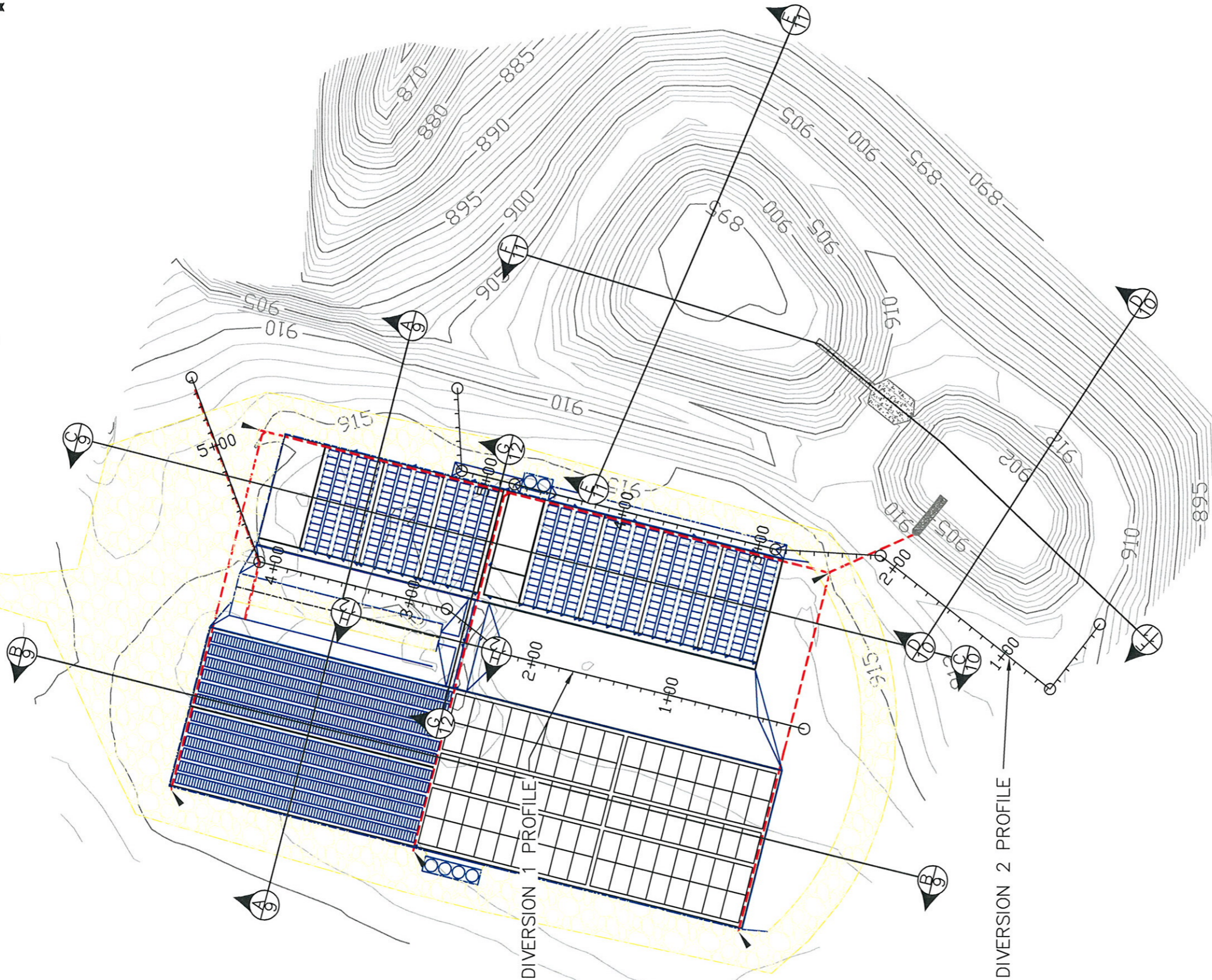
**C & H HOG FARMS**  
 GESTATION-FARROWING FARM

SECTION 26, T 16 N, R 20 W  
 NEWTON COUNTY, AR

**WASTE STORAGE POND**  
**FINAL DESIGN**

DATE: APR 30, 2012	SHEET:  7
SCALE: 1" = 50'	
DRAWN BY: NAP	
CHECKED BY: DLD	

The drawing is believed to be correct to the best of the professional's knowledge but it cannot be guaranteed accurate.

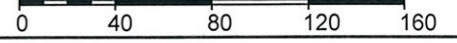


GENERAL NOTES

LEGEND

- ⊕ BENCHMARK
- ▭ BUILDINGS
- - - FENCELINE
- - - CULVERT/PIPE
- ← DRAINAGE ARROW

SCALE, FEET



No.	Revision/Issue	Date
1	As Built	4/1/13

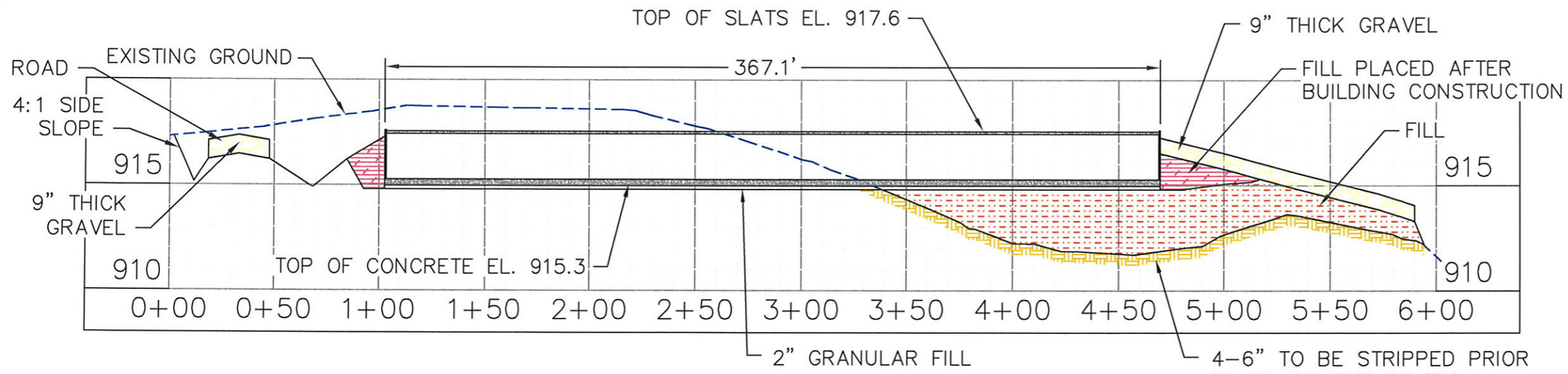
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**C & H HOG FARMS**  
 GESTATION-FARROWING FARM

SECTION 26, T 15 N, R 20 W  
 NEWTON COUNTY, AR

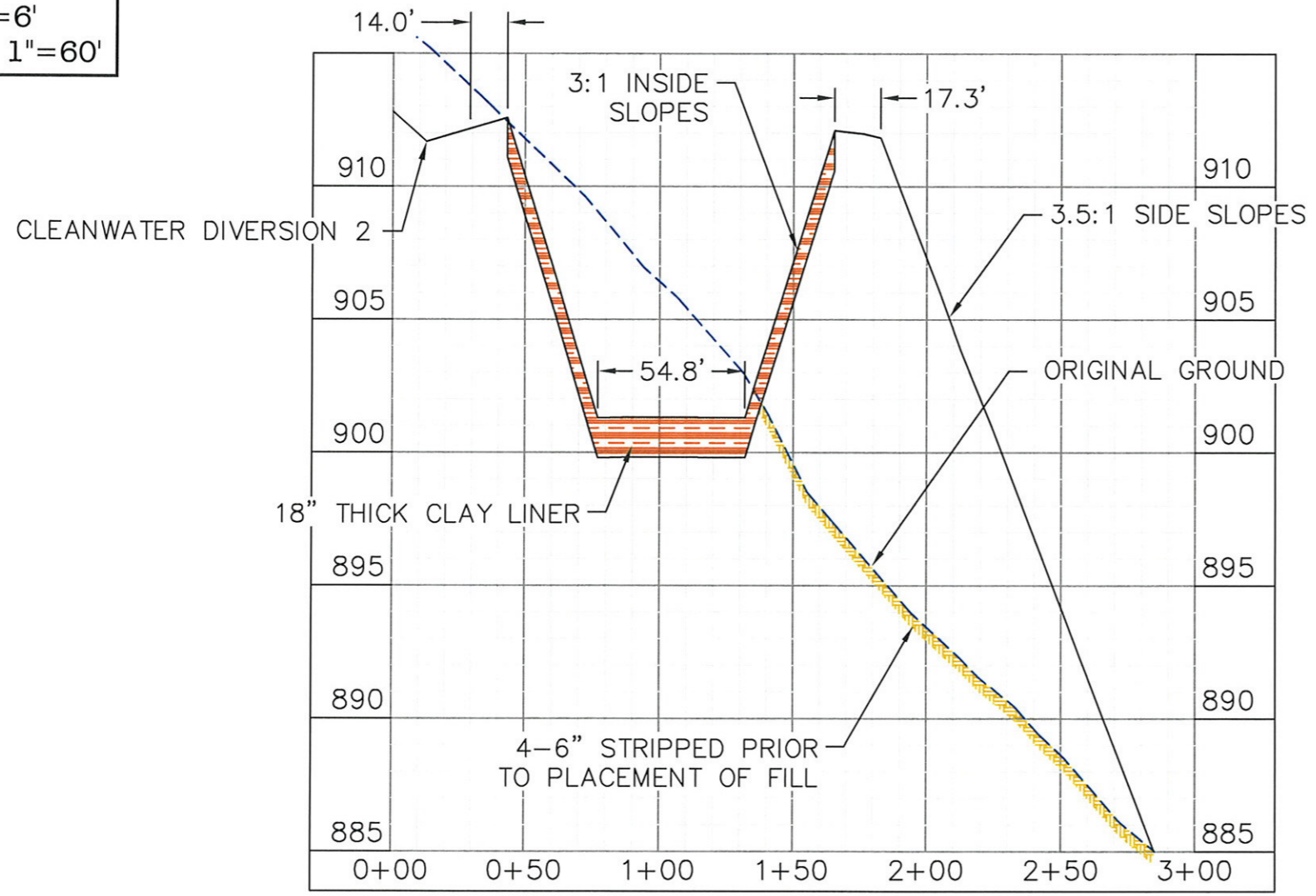
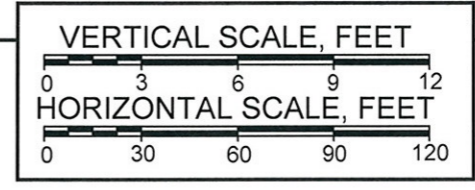
**PROPOSED SITE PLAN**  
**CROSS SECTIONS**

DATE: APR 30, 2012	SHEET:  8
SCALE: 1" = 80'	
DRAWN BY: NAP	
CHECKED BY: DLD	



**C-C**  
8  
**BARN CROSS SECTION**

SCALE:  
VERTICAL: 1"=6'  
HORIZONTAL: 1"=60'



**D-D**  
8  
**WASTE STORAGE POND 1 CROSS SECTION**

The drawing is believed to be correct to the best of the professional's knowledge but it cannot be guaranteed accurate.

GENERAL NOTES

	GRAVEL
	FILL
	CONCRETE
	STRIPPING
	EXISTING GROUND



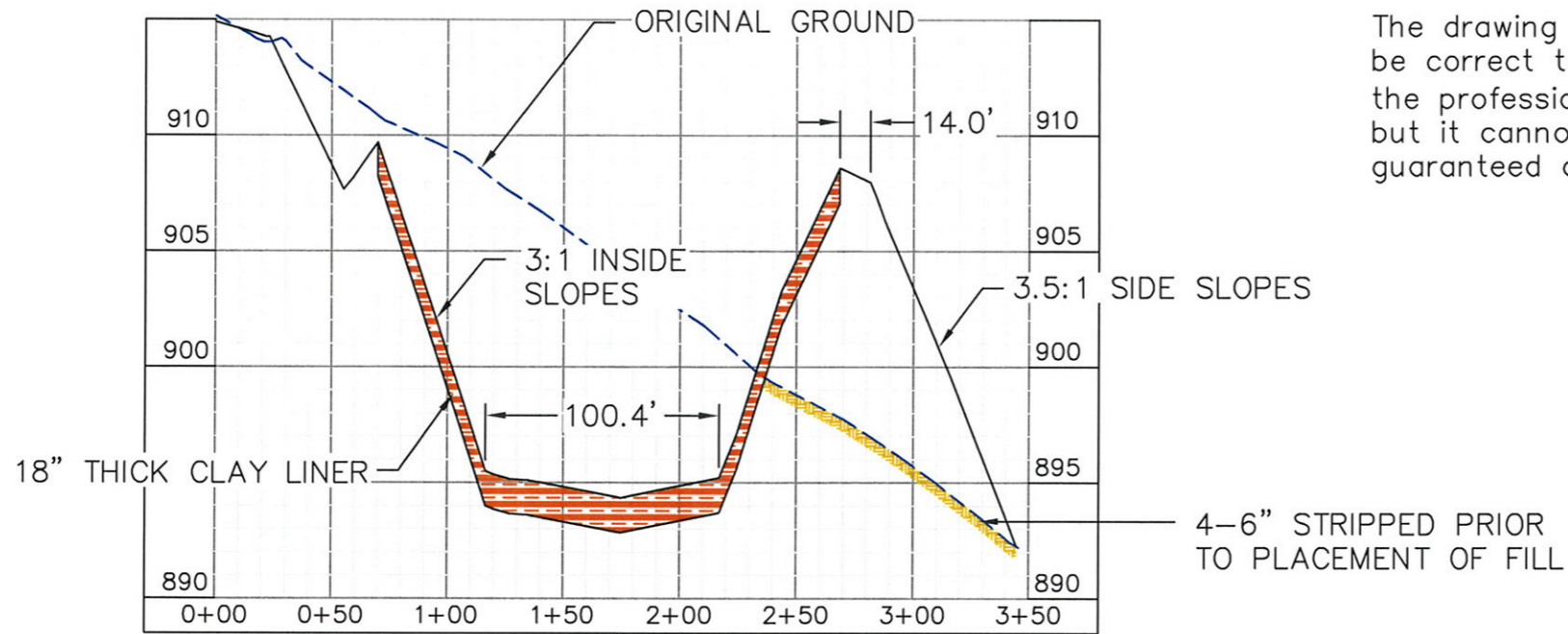
No.	Revision/Issue	Date
1	As Built	4/1/13

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GESTATION-FARROWING FARM  
  
SECTION 26, T 15 N, R 20 W  
NEWTON COUNTY, AR

**WASTE STORAGE POND & BARN CROSS SECTIONS**

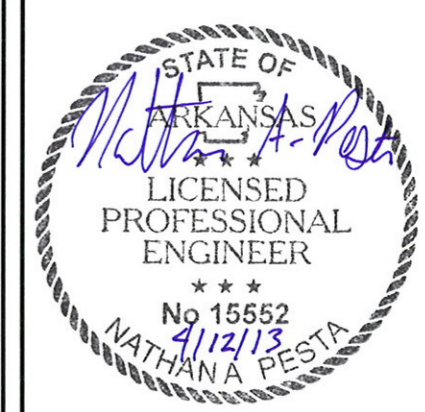
DATE: APR 30, 2012	SHEET:  10
SCALE: AS SHOWN	
DRAWN BY: NAP	
CHECKED BY: DLD	



The drawing is believed to be correct to the best of the professional's knowledge but it cannot be guaranteed accurate.

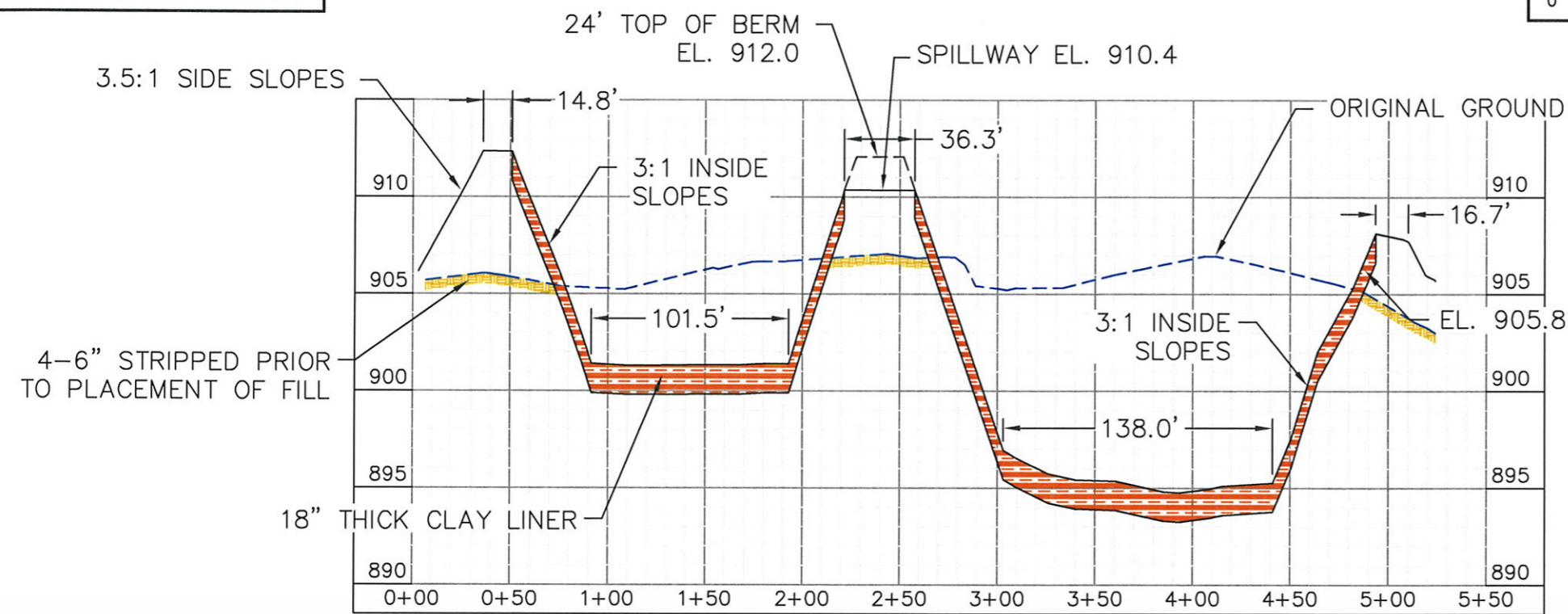
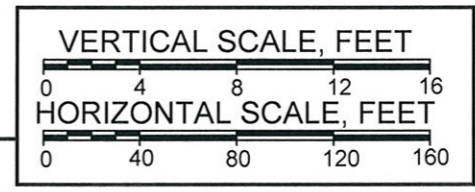
GENERAL NOTES

- GRAVEL
- FILL
- CONCRETE
- STRIPPING
- EXISTING GROUND



SCALE:  
VERTICAL: 1"=8'  
HORIZONTAL: 1"=80'

**E-E**  
8 WASTE STORAGE POND 2 CROSS SECTION



**F-F**  
8 WASTE STORAGE POND 1 & 2 CROSS SECTION

No.	Revision/Issue	Date
1	As Built	4/1/13

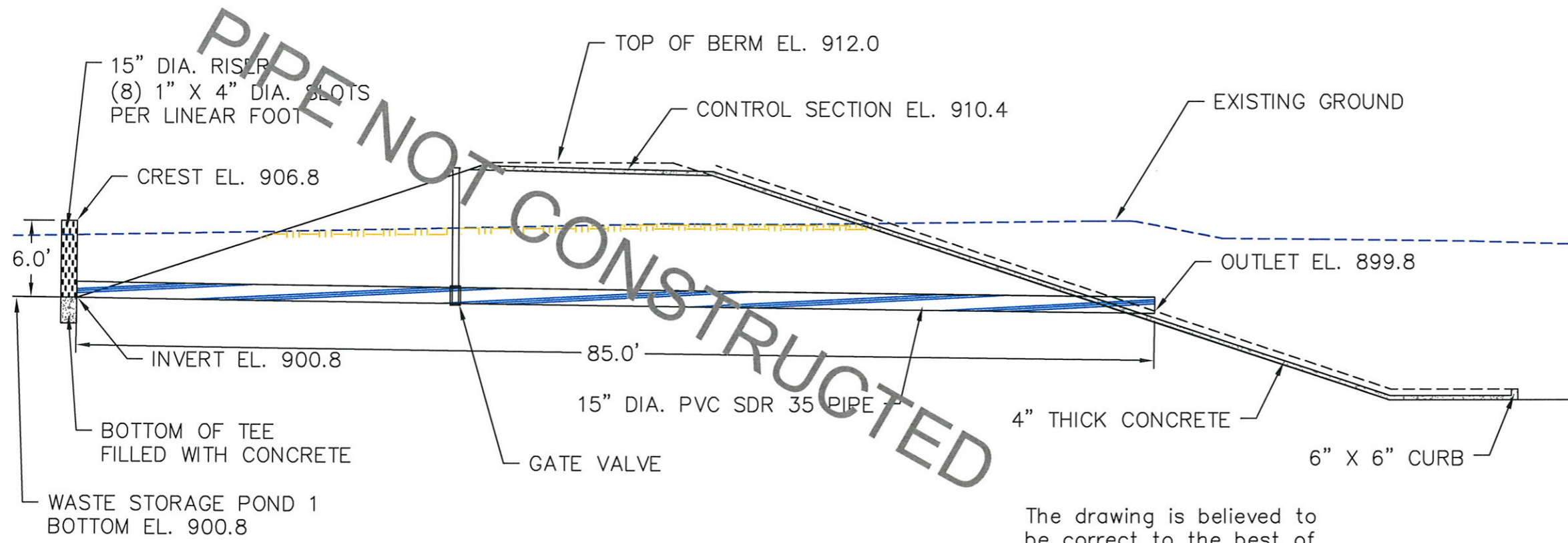
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**C & H HOG FARMS**  
GESTATION-FARROWING FARM

SECTION 26, T 15 N, R 20 W  
NEWTON COUNTY, AR

**WASTE STORAGE POND CROSS SECTIONS**

DATE: APR 30, 2012	SHEET:  11
SCALE: AS SHOWN	
DRAWN BY: NAP	
CHECKED BY: DLD	

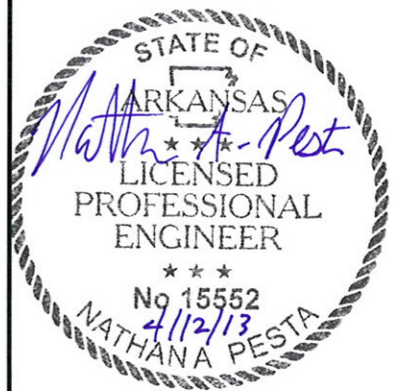


**PIPE INLET DETAILS**  
SCALE: 1" = 10'

The drawing is believed to be correct to the best of the professional's knowledge but it cannot be guaranteed accurate.

GENERAL NOTES

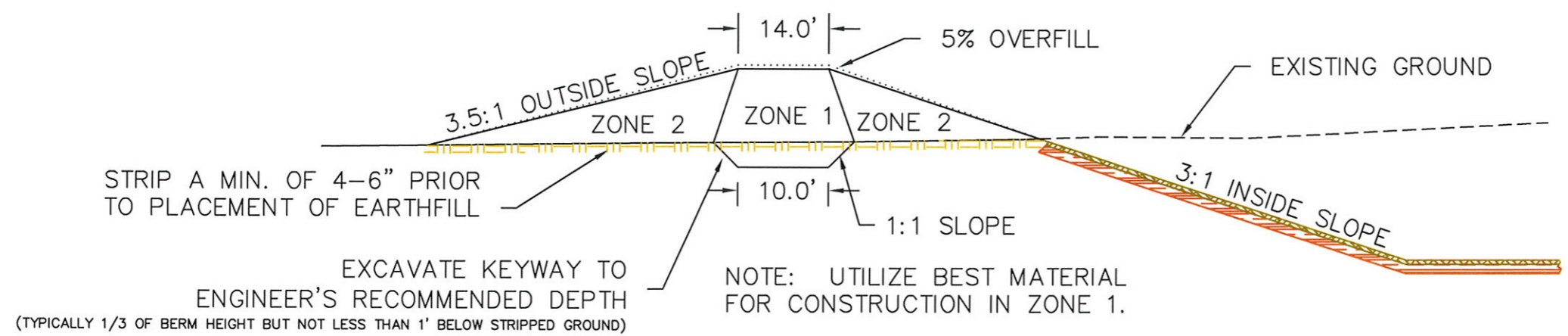
- GRAVEL
- FILL
- CONCRETE
- STRIPPING
- EXISTING GROUND



No.	Revision/Issue	Date

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SECTION 26, T 15 N, R 20 W  
NEWTON COUNTY, AR  
  
**POND INLET & MAXIMUM BERM DETAILS**

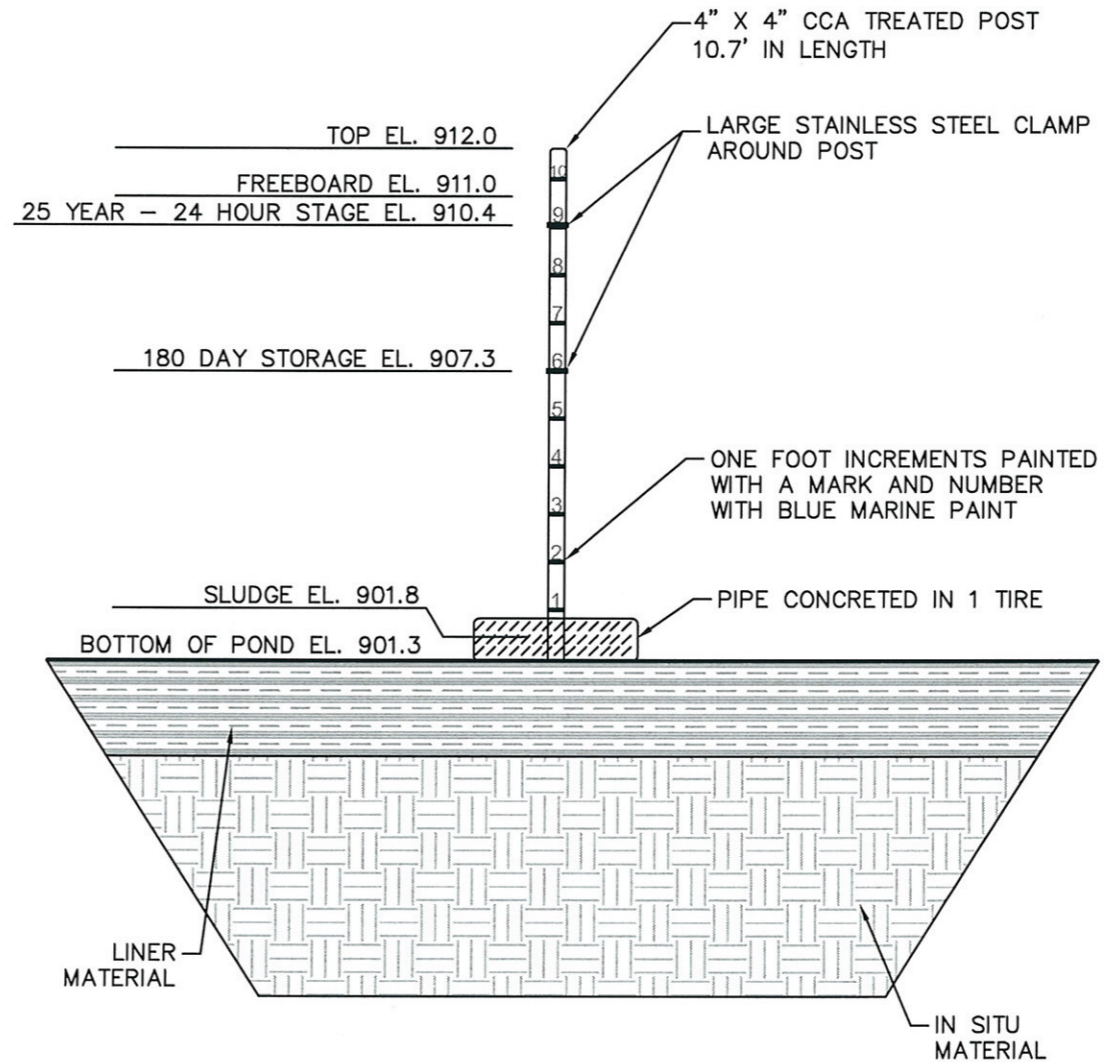


**TYPICAL HOLDING POND MAXIMUM BERM DETAIL**  
NOT TO SCALE

DATE: APR 30, 2012	SHEET:  <b>13</b>
SCALE: AS SHOWN	
DRAWN BY: NAP	
CHECKED BY: DLD	



The drawing is believed to be correct to the best of the professional's knowledge but it cannot be guaranteed accurate.

Waste Storage Pond 1 Stage Storage Table						
Elevation	Stage	Area	Volume	Cum. Volume	Cum. Volume	
(ft)	(ft)	(ft <sup>2</sup> )	(ft <sup>3</sup> )	(ft <sup>3</sup> )	(acre-feet)	
912.0	10.7	20,153	28,793	118,918		Top
911.0	9.7	17,130	19,227	100,065	2.3	Freeboard
910.4	9.1	15,838	16,603	90,125	2.1	25 Year-24 Hour Stage/Overflow El.
909.8	8.5	14,915	7,316	80,838	1.9	
909.3	8.0	14,349	6,946	73,522	1.7	
908.8	7.5	13,435	6,585	66,576	1.5	
908.3	7.0	12,905	6,235	59,991	1.4	
907.8	6.5	12,035	5,898	53,756	1.2	
907.3	6.0	11,557	5,570	47,858	1.1	180 Day Stage
906.8	5.5	10,723	5,253	42,288	1.0	
906.3	5.0	10,289	4,947	37,035	0.9	
905.8	4.5	9,499	4,648	32,088	0.7	
905.3	4.0	9,093	4,360	27,440	0.6	
904.8	3.5	8,347	4,079	23,080	0.5	
904.3	3.0	7,969	3,808	19,001	0.4	
903.8	2.5	7,263	3,524	15,193	0.3	
903.3	2.0	6,833	3,294	11,669	0.3	
902.8	1.5	6,343	3,060	8,375	0.2	
902.3	1.0	5,897	2,837	5,315	0.1	
901.8	0.5	5,451	2,478	2,478	0.1	Sludge El.
901.3	0.0	0	0	0	0.0	Bottom



WASTE STORAGE POND 1

GENERAL NOTES

-  INSITU MATERIAL
-  CLAY LINER

SCALE, FEET



No.	Revision/Issue	Date
1	As Built	4/1/13

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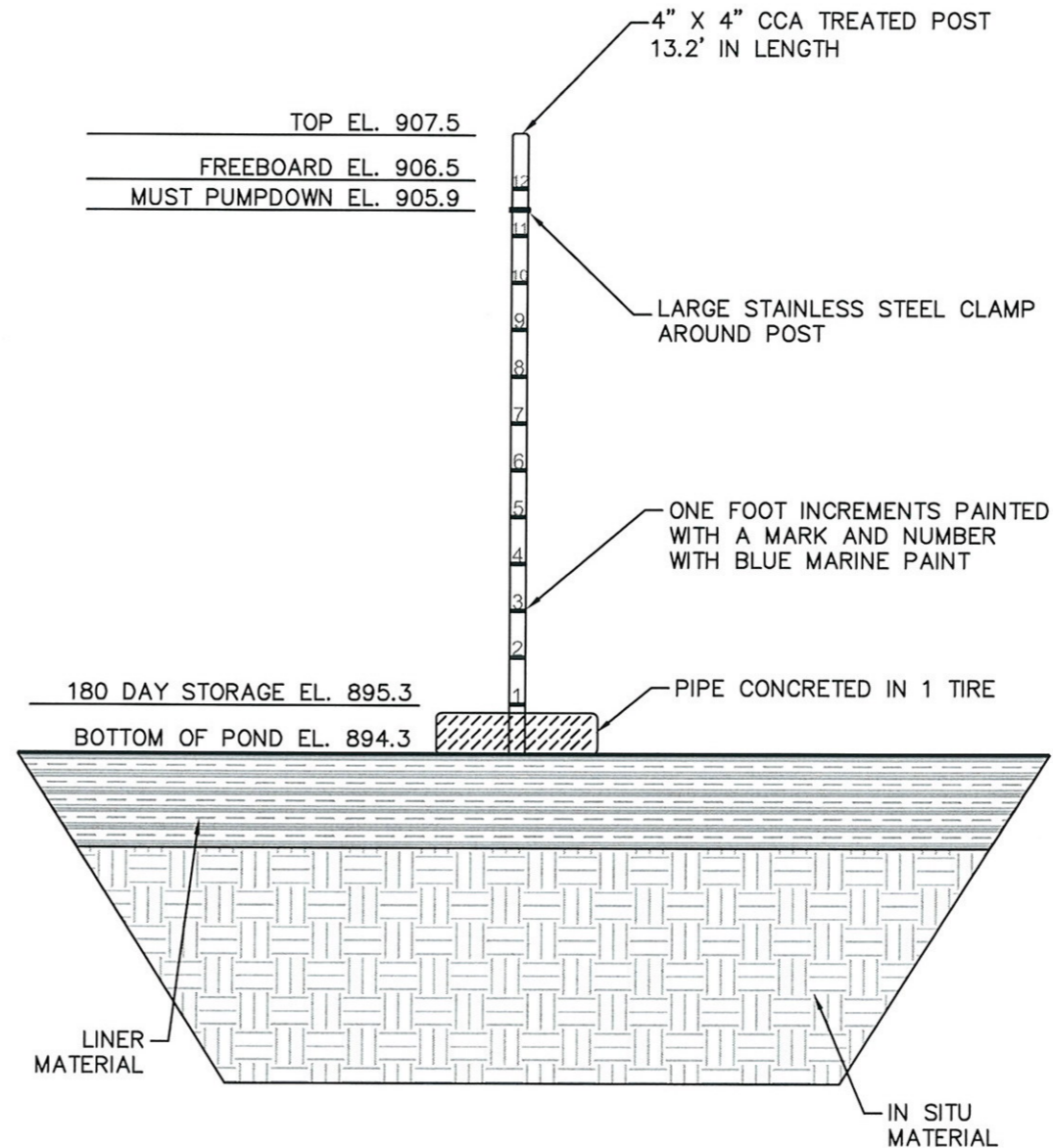
WASTE STORAGE POND 1  
STAGE STORAGE TABLE

DATE: MAY 30, 2012	SHEET:  14
SCALE: 1" = 4'	
DRAWN BY: CAS	
CHECKED BY: DLD	

The drawing is believed to be correct to the best of the professional's knowledge but it cannot be guaranteed accurate.

**Waste Storage Pond 2 Stage Storage Table**

Elevation (ft)	Stage (ft)	Area (ft <sup>2</sup> )	Volume (ft <sup>3</sup> )	Cum. Volume (ft <sup>3</sup> )	Cum. Volume (acre-feet)	
907.5	13.2	32,950	16,166	246,200	5.7	Top
907.0	12.7	31,714	15,536	230,034	5.3	
906.5	12.2	30,430	17,828	214,498	4.9	Freeboard
905.9	11.6	28,996	16,963	196,670	4.5	25 Year-24 Hour Stage/Must Pumpdown
905.3	11.0	27,547	13,488	179,707	4.1	
904.8	10.5	26,405	12,914	166,219	3.8	
904.3	10.0	25,251	12,353	153,305	3.5	
903.8	9.5	24,161	11,805	140,952	3.2	
903.3	9.0	23,059	11,270	129,147	3.0	
902.8	8.5	22,021	10,755	117,877	2.7	
902.3	8.0	20,999	10,261	107,122	2.5	
901.8	7.5	20,045	9,786	96,861	2.2	
901.3	7.0	19,099	9,332	87,075	2.0	
900.8	6.5	18,229	8,894	77,743	1.8	
900.3	6.0	17,347	8,467	68,849	1.6	
899.8	5.5	16,521	8,049	60,382	1.4	
899.3	5.0	15,675	7,640	52,333	1.2	
898.8	4.5	14,885	7,239	44,693	1.0	
898.3	4.0	14,071	6,848	37,454	0.9	
897.8	3.5	13,321	6,464	30,606	0.7	
897.3	3.0	12,535	6,088	24,142	0.6	
896.8	2.5	11,817	5,638	18,054	0.4	
896.3	2.0	10,735	5,060	12,416	0.3	
895.8	1.5	9,505	4,240	7,356	0.2	
895.3	1.0	7,455	2,565	3,116	0.1	180 Day Stage
894.8	0.5	2,805	551	551	0.0	
894.3	0.0	0	0	0	0.0	Bottom

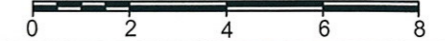


**WASTE STORAGE POND 2**

GENERAL NOTES

- INSITU MATERIAL
- CLAY LINER

SCALE, FEET



No.	Revision/Issue	Date
1	As Built	4/1/13

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 NEWTON COUNTY, AR

**WASTE STORAGE POND 2  
 STAGE STORAGE TABLE**

DATE: MAY 30, 2012	SHEET:  15
SCALE: 1" = 4'	
DRAWN BY: CAS	
CHECKED BY: DLD	



## Gage, Hannah

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**From:** Hogan, Stephen  
**Sent:** Wednesday, April 17, 2013 8:18 AM  
**To:** Deardoff, Amy  
**Subject:** FW: 2-2  
**Attachments:** 20130416084545.pdf

Amy,

Please add this to zylab and the web. ARG590001. This only difference between this one and the previous one is this one has Sheet No. 15. Handle however you need to.

Thanks,

Stephen

---

**From:** Nathan Pesta [<mailto:Nathanpdga@btinet.net>]  
**Sent:** Tuesday, April 16, 2013 8:34 AM  
**To:** Hogan, Stephen  
**Cc:** 'Jason Henson'; 'Richard Gray'  
**Subject:** RE: 2-2

Stephen,

Sorry, I was out yesterday we got 18" of snow on Sunday and they didn't get our office road opened up till late afternoon yesterday. The scanner must have grabbed 14 and 15 together.

Nathan

---

**From:** Hogan, Stephen [<mailto:HOGAN@adeq.state.ar.us>]  
**Sent:** Monday, April 15, 2013 10:04 AM  
**To:** Nathan Pesta  
**Subject:** RE: 2-2

Nathan,

I seem to be missing Sheet 15. Email this to me as soon as possible.

If you have any questions, please let me know.

Thanks,

Stephen Hogan, P.E.  
(501) 682-0651

---

**From:** Nathan Pesta [<mailto:Nathanpdga@btinet.net>]  
**Sent:** Friday, April 12, 2013 10:29 AM  
**To:** Hogan, Stephen  
**Cc:** 'Jason Henson'; 'Richard Gray'; 'Patrick Pollack'  
**Subject:** 2-2

Nathan A.Pesta P.E.  
Senior Project Engineer  
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Fax 701-667-1356  
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