

STATE OF INDIANA  
INDIANA DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF RECLAMATION



ABANDONED COAL MINE  
RESTORATION  
CARDONIA GROUTING  
SITE 2228  
CONTRACT DEL1815208524 / E008-284  
CLAY COUNTY

**GENERAL NOTES**

2010 AML Standard Specifications to be used with these plans.

Topography from Indiana State Wide Lidar 2013, Indiana State Plane West Feet

All INDOT Standard Specifications and Standard Drawings shall apply for traffic control and road maintenance and repair.

References to INDOT Standard Specifications and Standard Drawings are for convenience and an omission shall not mean a particular specification or drawing does not apply.

County and City streets utilized for access and project construction limits shall be bonded per jurisdictional authority. Additional Mine Information (CMIS) may be located at <http://www.in.gov/dnr/reclamation/9310.htm>.

**INDEX**

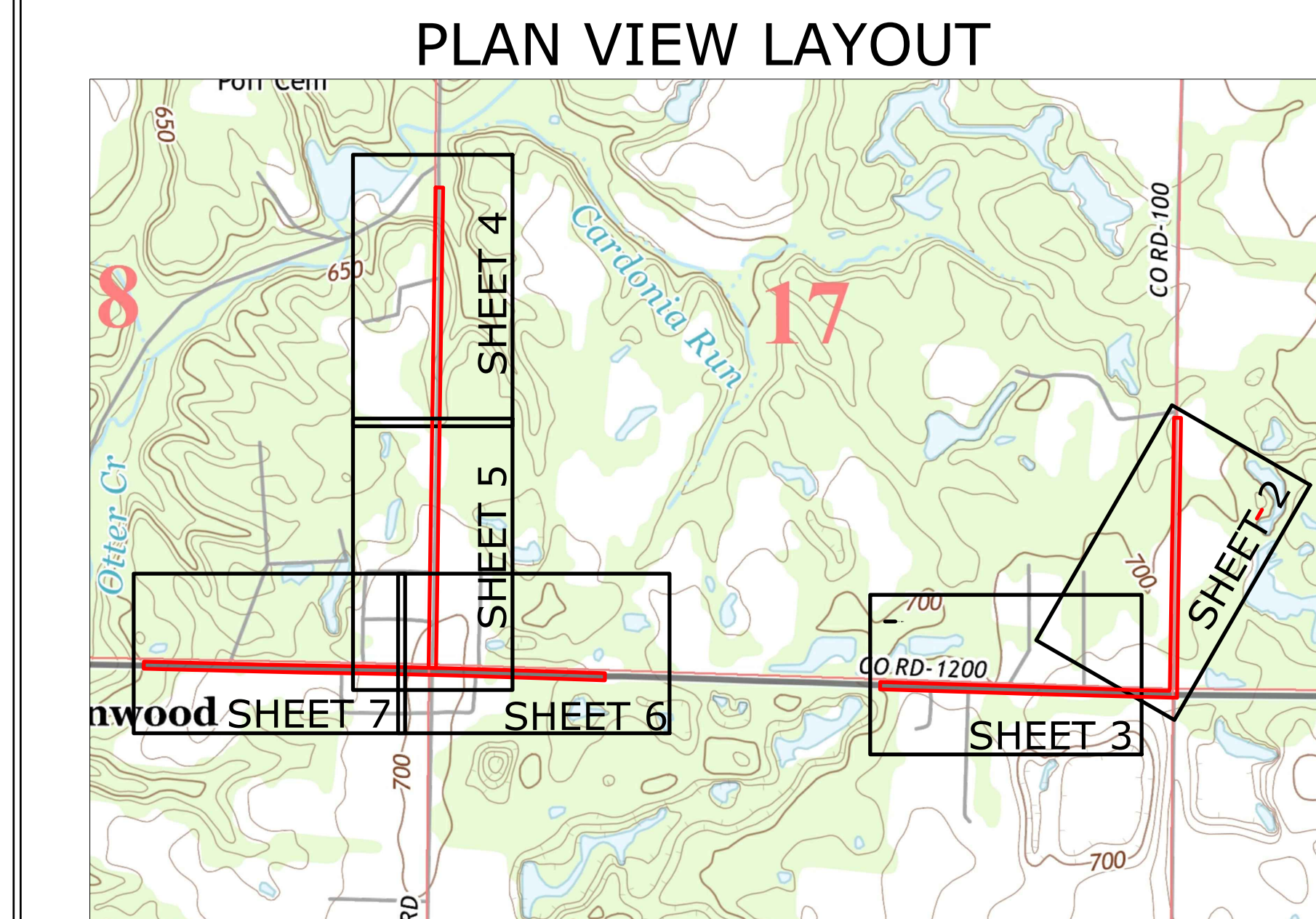
SHEET NO.	SHEET TITLE
1	TITLE, INDEX, & LOCATION MAP
2	CR 100E (N) PLAN VIEW
3	CR 100E (S) PLAN VIEW
4	N MURPHY ROAD (N) PLAN VIEW
5	N MURPHY ROAD (S) PLAN VIEW
6	CARDONIA (E) PLAN VIEW
7	CARDONIA (W) PLAN VIEW
8	DETAILS

**UTILITIES**

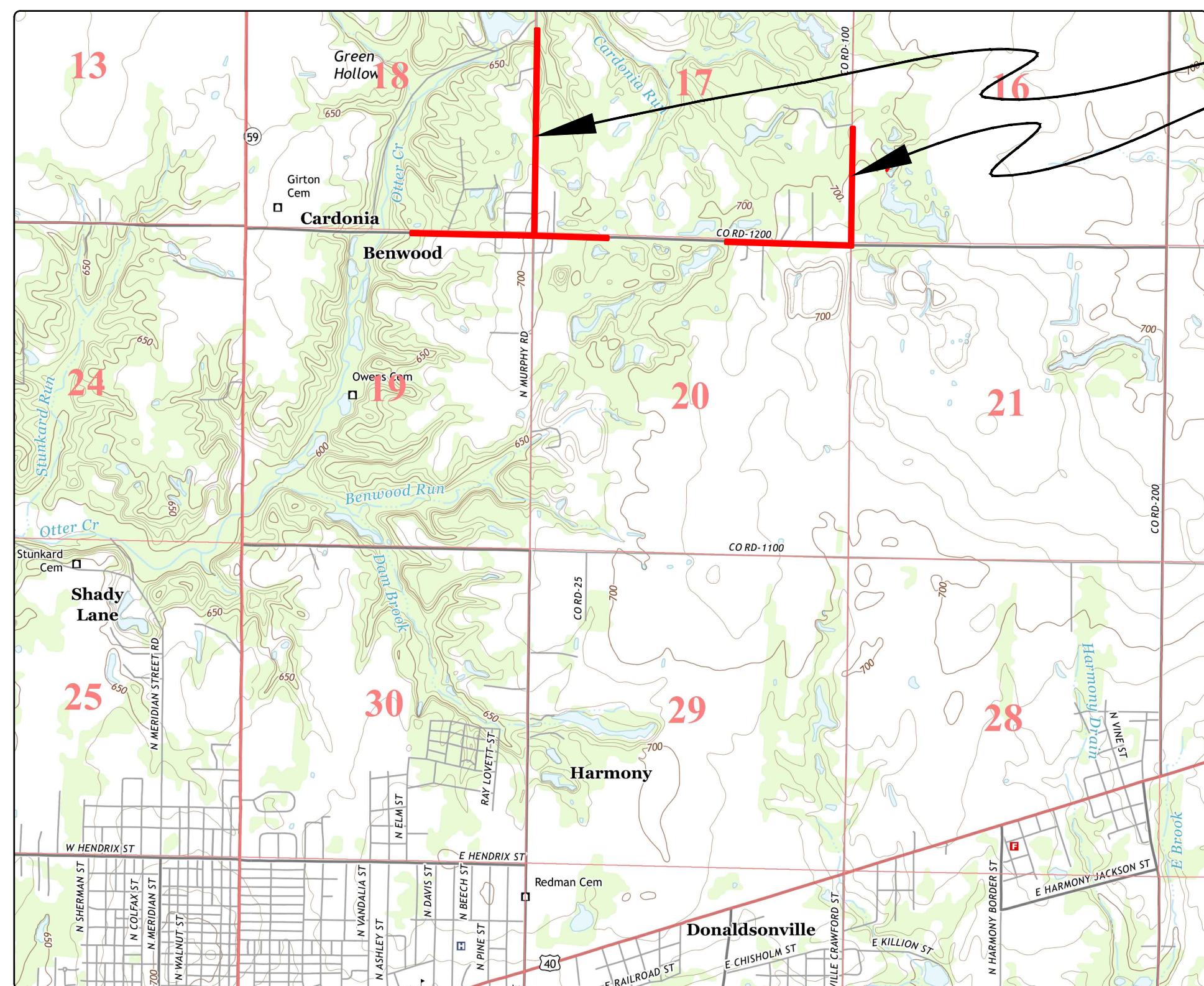
The facilities of the following utilities exist near the project site but are not expected to be affected by the proposed construction. If questions arise, the utility may be contacted using the information below.

<p><b>ELECTRIC:</b> Duke Energy 390 N Main St Martinsville, IN 46151 Tim Umbaugh Phone: (765) 349-4012</p> <p>Parke County R.E.M.C. 119 W High St Rockville, IN 47872 Gene Baxter Phone: (765) 569-4234</p> <p><b>GAS:</b> Vectren (Terre Haute) 475 South 1st St Terre Haute, IN 47807 Tim Hague Phone: (812) 231-6434</p>	<p><b>PIPELINE:</b> Midwest Gas Storage, Inc. 1010 Jorie Blvd Oak Brook, IL 60523 Terrance O'Malley</p> <p><b>WATER/SANITARY:</b> Carbon, Town of 13756 N Murphy Rd Carbon, IN 47837 Ronald Keen Phone: (812) 236-0984</p>
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Call Before You Dig, Indiana Underground Plant Protection Service (IUPPS) 1-800-382-5544 or 811 from your mobile phone.

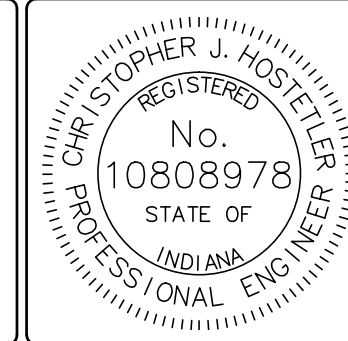


**MINE VOID GROUTING**



**SITE 2228**  
Lat: 39° 33' 55" N  
Long: 87° 06' 26" W

USGS Topographic Map  
Brazil East US TOPO (USGS, 2013)  
Van Buren Twp Section 16, 17, 18, 19, & 20 T-13N, R-6W  
Scale 1" = 2,000'



PLANS PREPARED BY: INDIANA DEPARTMENT OF NATURAL RESOURCES (812) 665-2207 DIVISION OF RECLAMATION PHONE NUMBER

CERTIFIED BY: *Christopher J. Hostetler* 3/21/18 DATE

APPROVED FOR LETTING: *M. D. E. O.* 3/21/18 DATE

DIVISION OF RECLAMATION

SCALE AS NOTED	SHEET 1 OF 8
PROJECT E008-284	SITE 2228



**LEGEND**

- EXIST. CONTOURS, 2'
- EXIST. CONTOURS, 10'
- PAVED ROAD
- CONSTRUCTION LIMITS
- MATCH LINE
- GH102  
GROUT PRODUCTION HOLE
- BH8-2  
EXPLORATORY BOREHOLE

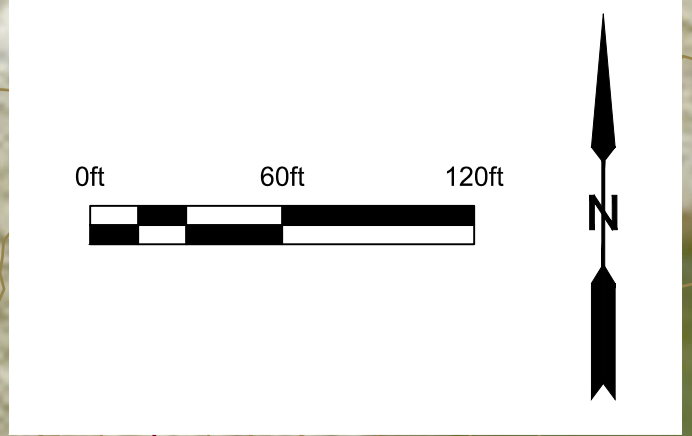
0ft 60ft 120ft

	RECOMMENDED FOR APPROVAL: <i>Christopher J. Hostetler</i> 3/21/18 DATE	DATE MADE 02/06/2018	CR 100E (N) PLAN VIEW	SCALE 1" = 60'	SHEET 2 OF 8
	DESIGNED BY M.A.B.	DRAWN BY M.A.B.		DATE REVISED 2/23/2018 11:31:05 AM	PROJECT E008-284
STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF RECLAMATION					

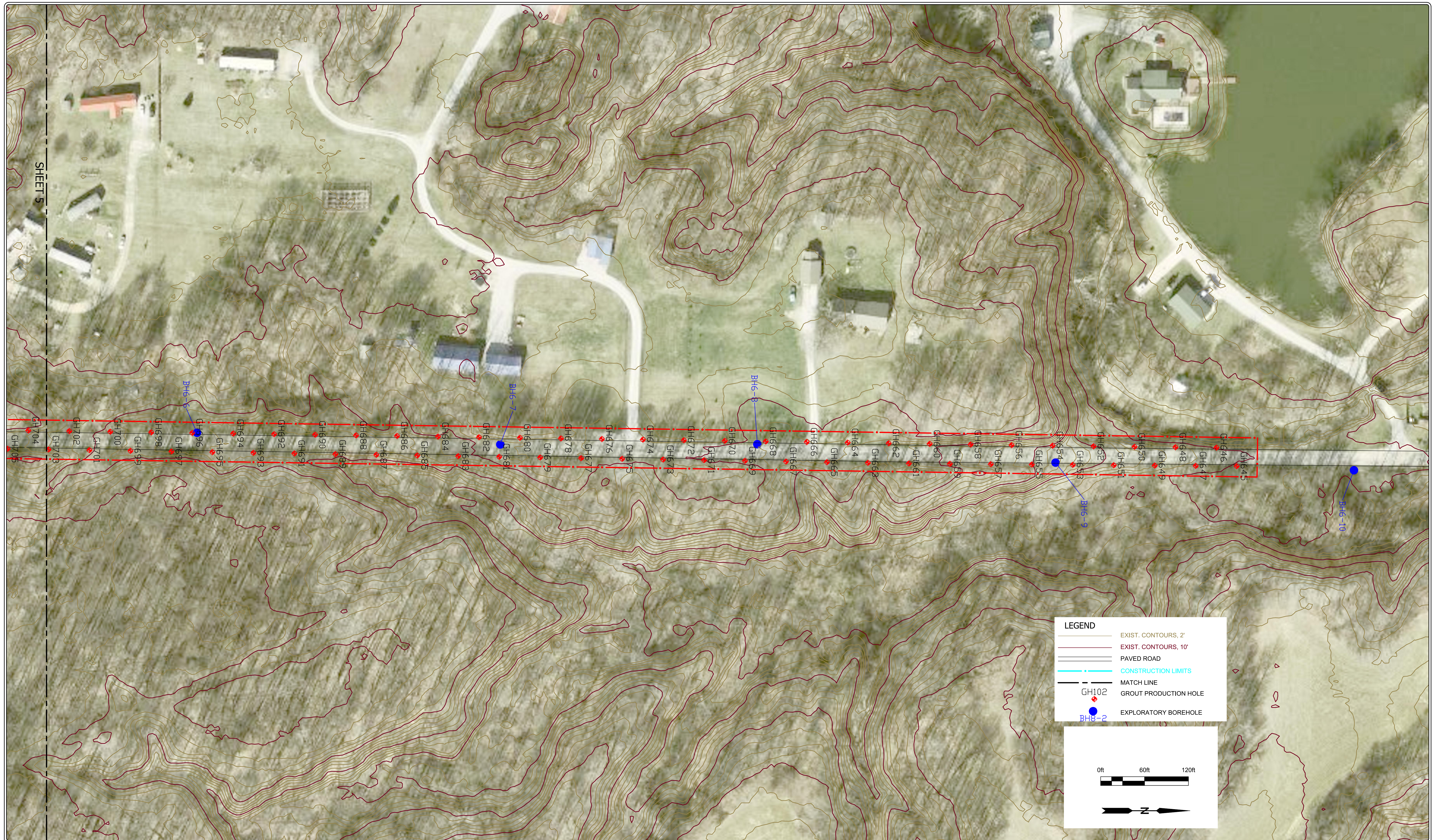


**LEGEND**

	EXIST. CONTOURS, 2'
	EXIST. CONTOURS, 10'
	PAVED ROAD
	CONSTRUCTION LIMITS
	GH102 GROUT PRODUCTION HOLE
	BHB-2 EXPLORATORY BOREHOLE



	RECOMMENDED FOR APPROVAL: <i>Christopher J. Hostetler</i> 3/21/18 DATE	DATE MADE 02/06/2018	CR 100E (S) PLAN VIEW	SCALE 1" = 60'	SHEET 3 OF 8
	DESIGNED BY M.A.B.	DRAWN BY M.A.B.		DATE REVISED 2/23/2018 11:31:05 AM	PROJECT E008-284
STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF RECLAMATION					

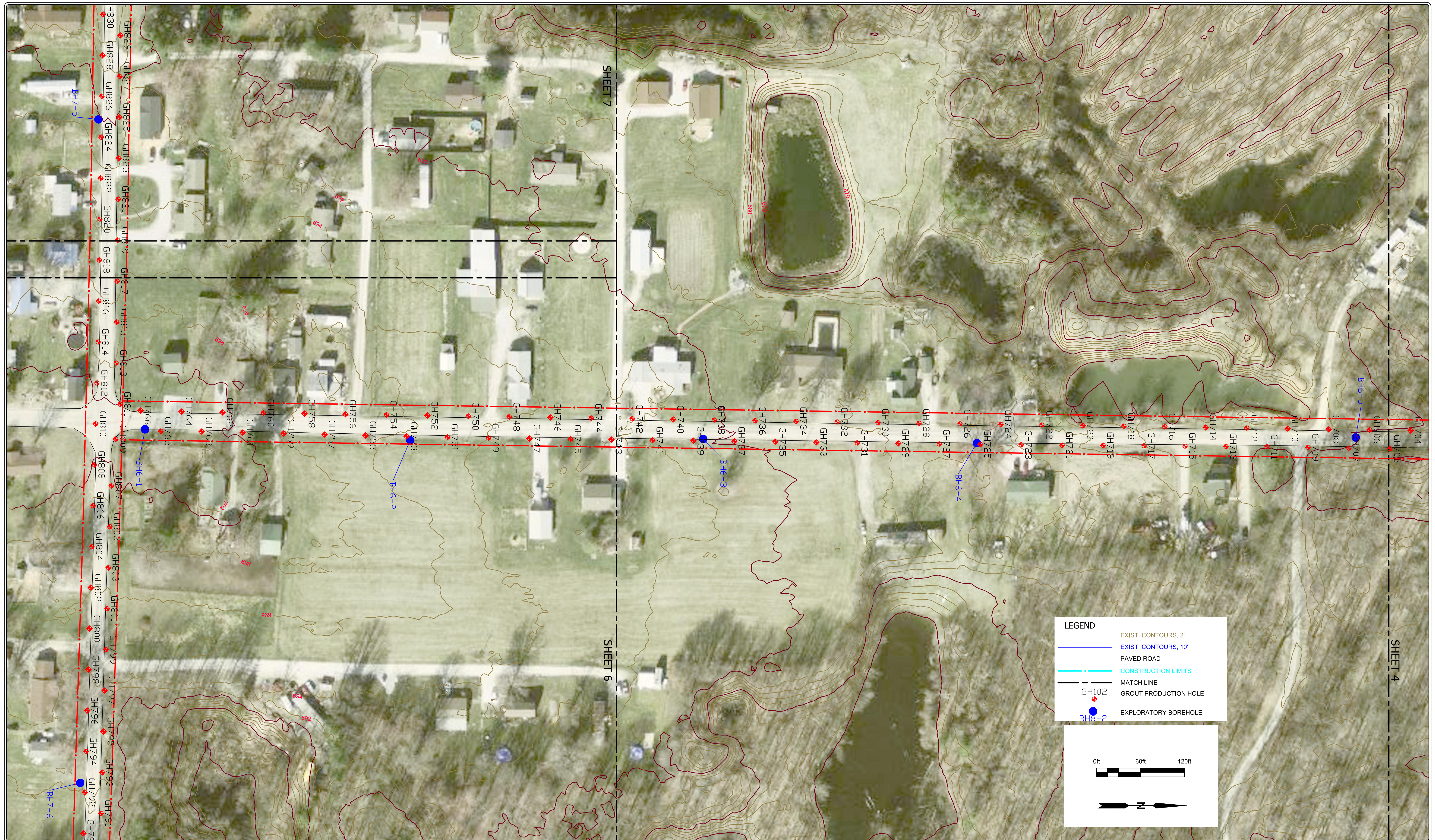


SHEET 5

**LEGEND**

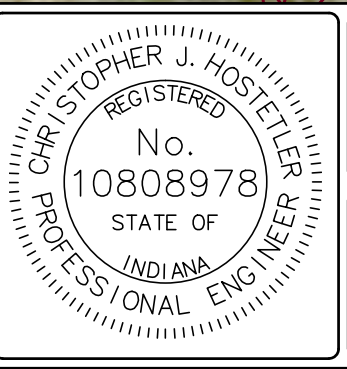
- EXIST. CONTOURS, 2'
- EXIST. CONTOURS, 10'
- PAVED ROAD
- CONSTRUCTION LIMITS
- MATCH LINE
- GH102  
GROUT PRODUCTION HOLE
- BH-2  
EXPLORATORY BOREHOLE

	RECOMMENDED FOR APPROVAL: <i>Christopher J. Nostrick</i> 3/21/18 <small>DATE</small>		DATE MADE 02/06/2018	<b>N MURPHY ROAD (N) PLAN VIEW</b>		SCALE 1" = 60'	SHEET 4 OF 8
	DESIGNED BY M.A.B.	DRAWN BY M.A.B.	DATE REVISED 2/23/2018 11:31:05 AM	STATE OF INDIANA <b>DEPARTMENT OF NATURAL RESOURCES</b> <small>DIVISION OF RECLAMATION</small>		PROJECT E008-284	SITE 2228



**LEGEND**

- EXIST. CONTOURS, 2'
- EXIST. CONTOURS, 10'
- PAVED ROAD
- CONSTRUCTION LIMITS
- MATCH LINE
- GH102 GROUT PRODUCTION HOLE
- BH6-2 EXPLORATORY BOREHOLE



RECOMMENDED FOR APPROVAL: *Christopher J. Hostetler* 3/21/18 DATE

DESIGNED BY  
M.A.B.

DRAWN BY  
M.A.B.

DATE MADE  
02/06/2018

DATE REVISED  
2/23/2018 11:31:05 AM

N MURPHY ROAD (S) PLAN VIEW

STATE OF INDIANA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF RECLAMATION

SCALE  
1" = 60'

PROJECT  
E008-284

SHEET  
5 OF 8

SITE  
2228



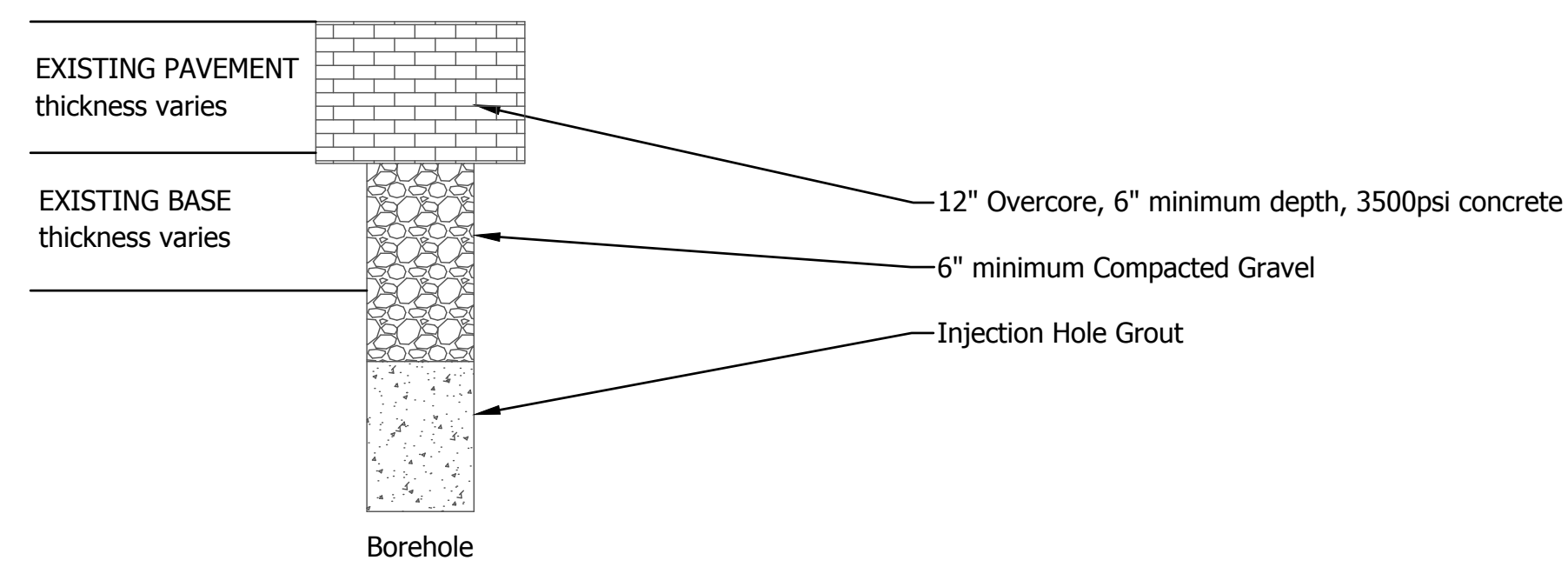
**LEGEND**

- EXIST. CONTOURS, 2'
- EXIST. CONTOURS, 10'
- PAVED ROAD
- CONSTRUCTION LIMITS
- MATCH LINE
- GH102  
 GROUT PRODUCTION HOLE
- BH8-2  
 EXPLORATORY BOREHOLE

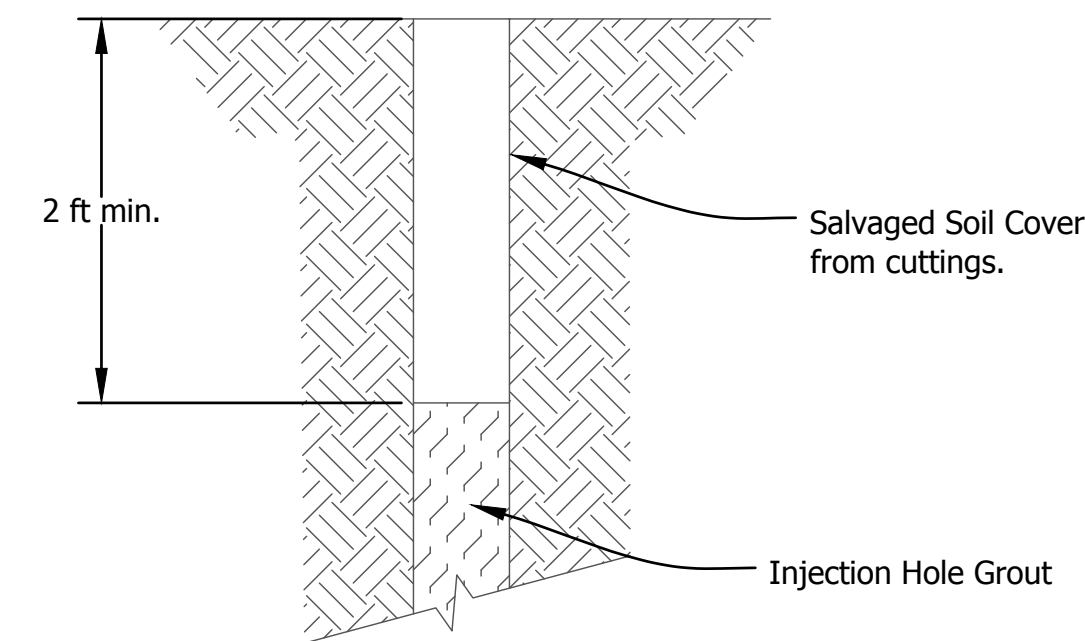
	RECOMMENDED FOR APPROVAL: <i>Christopher J. Hostels</i> 3/21/18 <small>DATE</small>		DATE MADE 02/06/2018	CARDONIA (E) PLAN VIEW		SCALE 1" = 60'	SHEET 6 OF 8
	DESIGNED BY M.A.B.	DRAWN BY M.A.B.	DATE REVISED 2/23/2018 11:31:05 AM	STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES <small>DIVISION OF RECLAMATION</small>		PROJECT E008-284	SITE 2228



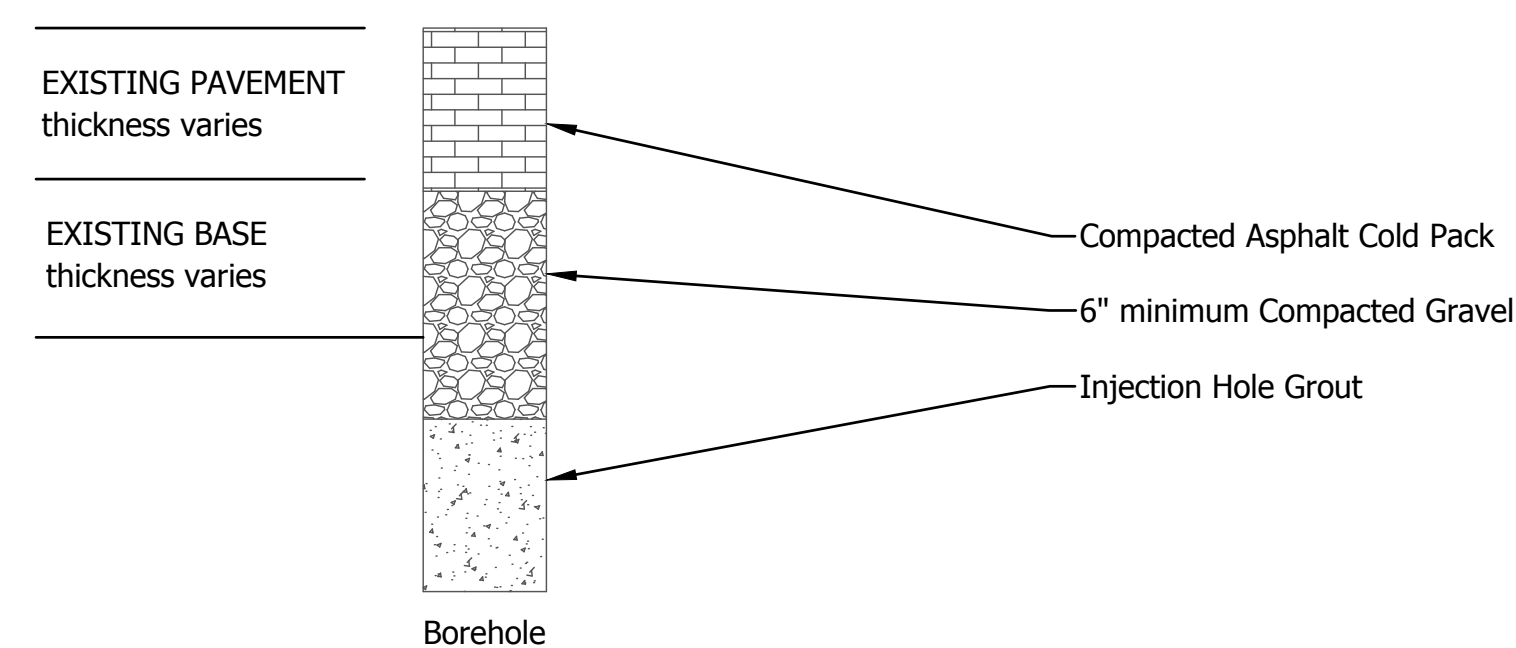
	RECOMMENDED FOR APPROVAL: <i>Christopher J. Hostetler</i> 3/21/18 DATE	DATE MADE 02/06/2018	CARDONIA (W) PLAN VIEW  STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF RECLAMATION	SCALE 1" = 60'	SHEET 7 OF 8
	DESIGNED BY M.A.B.	DRAWN BY M.A.B.		DATE REVISED 2/23/2018 11:31:05 AM	PROJECT E008-284



EXISTING CONCRETE PAVEMENT  
TYPICAL HOLE CAP  
NOT TO SCALE

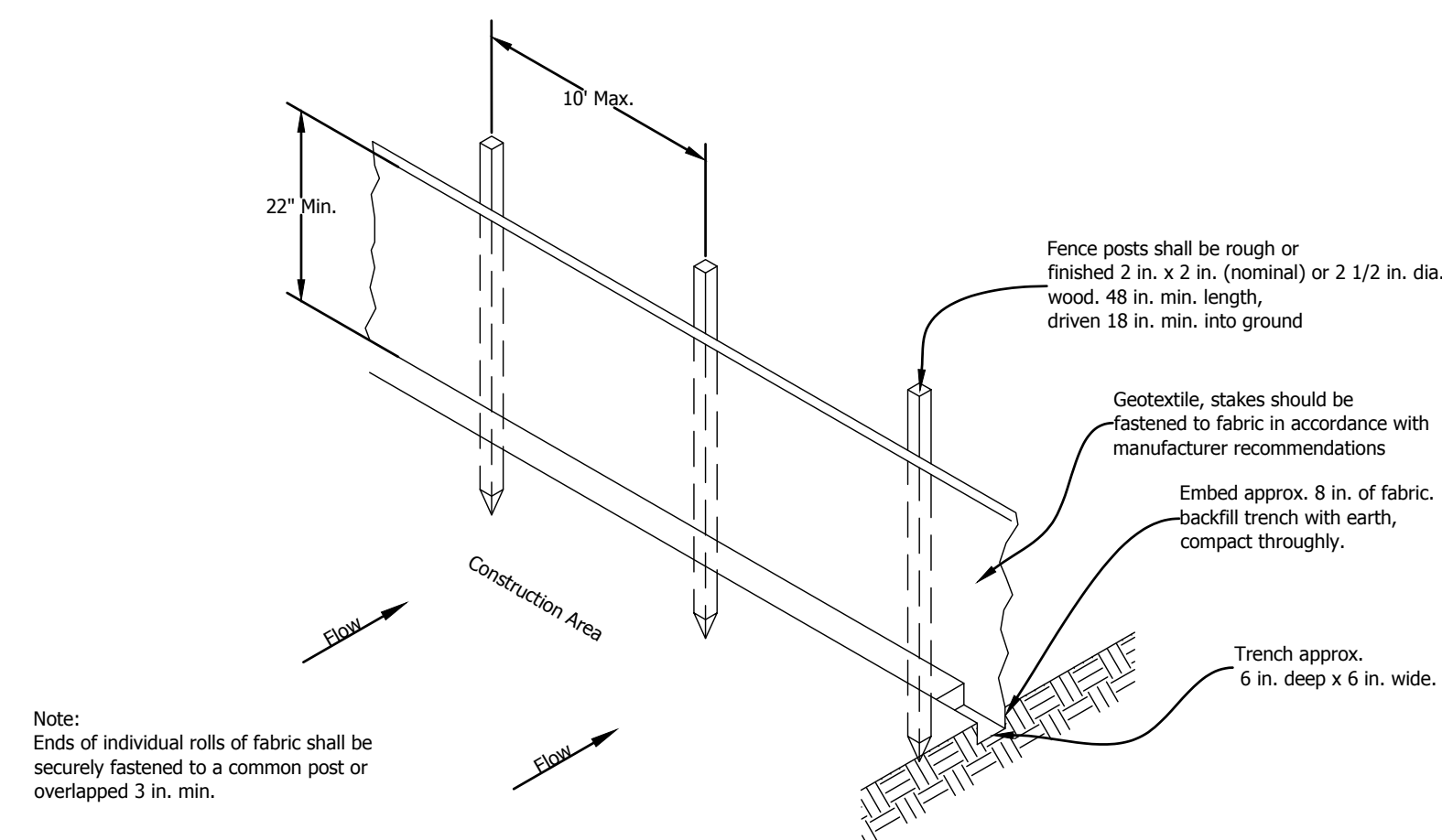
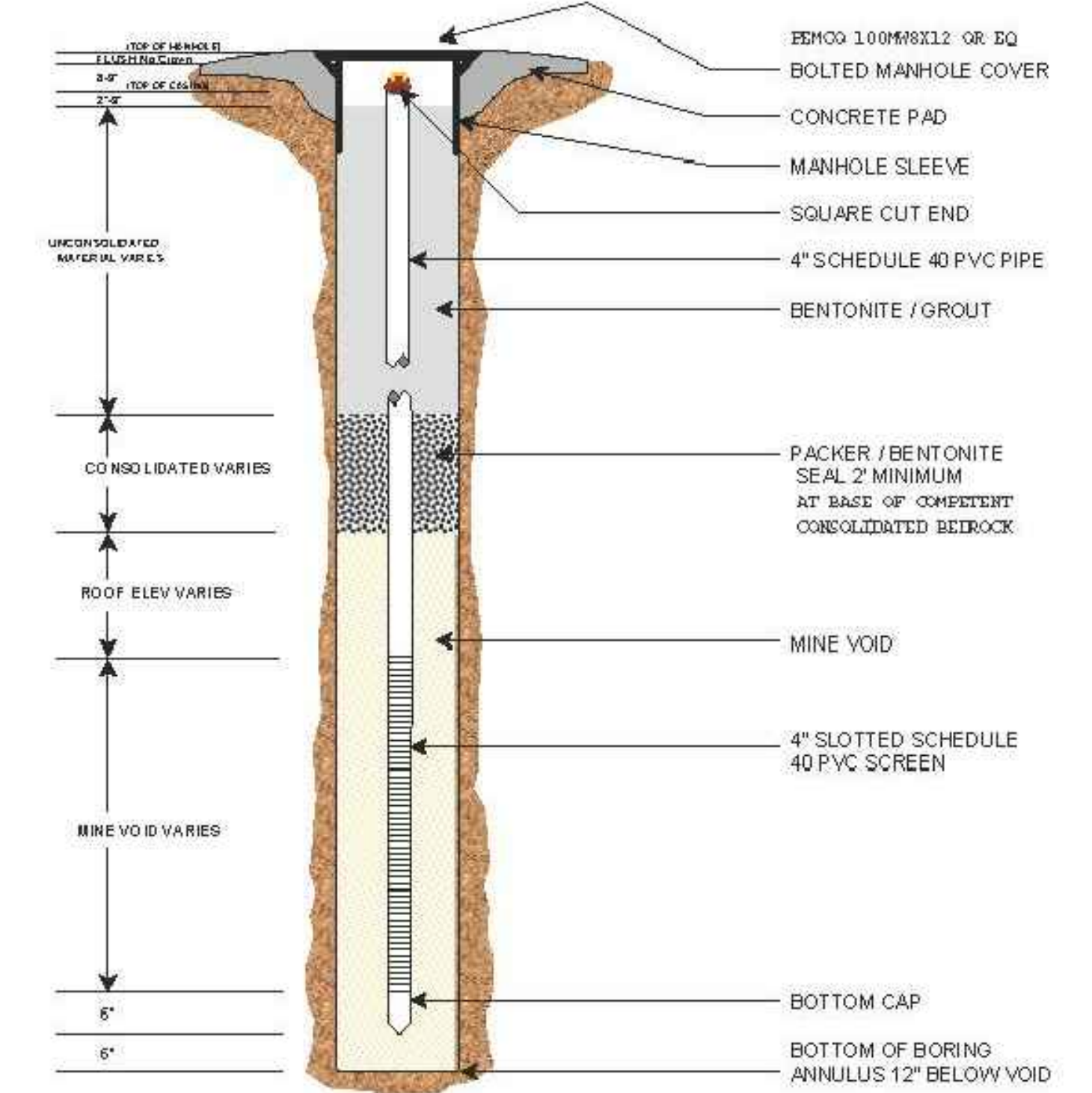


EXISTING SOIL COVER  
TYPICAL HOLE CAP  
NOT TO SCALE

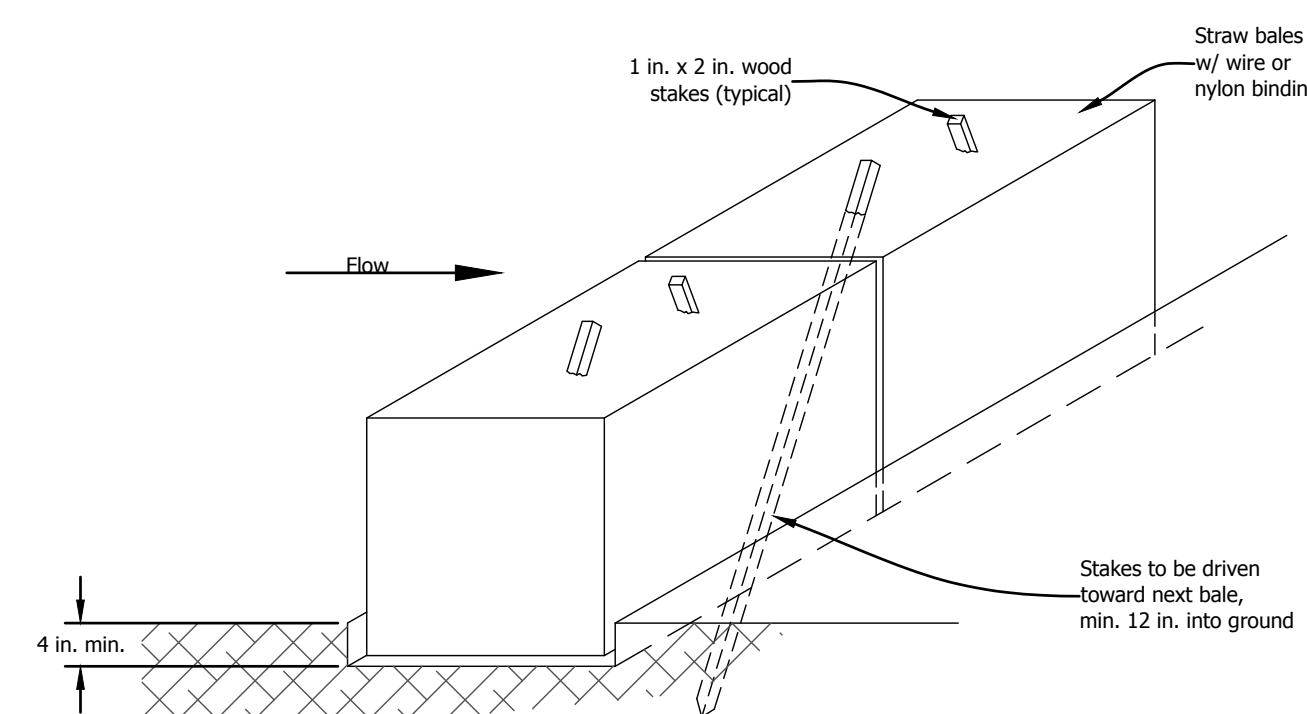


EXISTING ASPHALT PAVEMENT  
TYPICAL HOLE CAP  
NOT TO SCALE

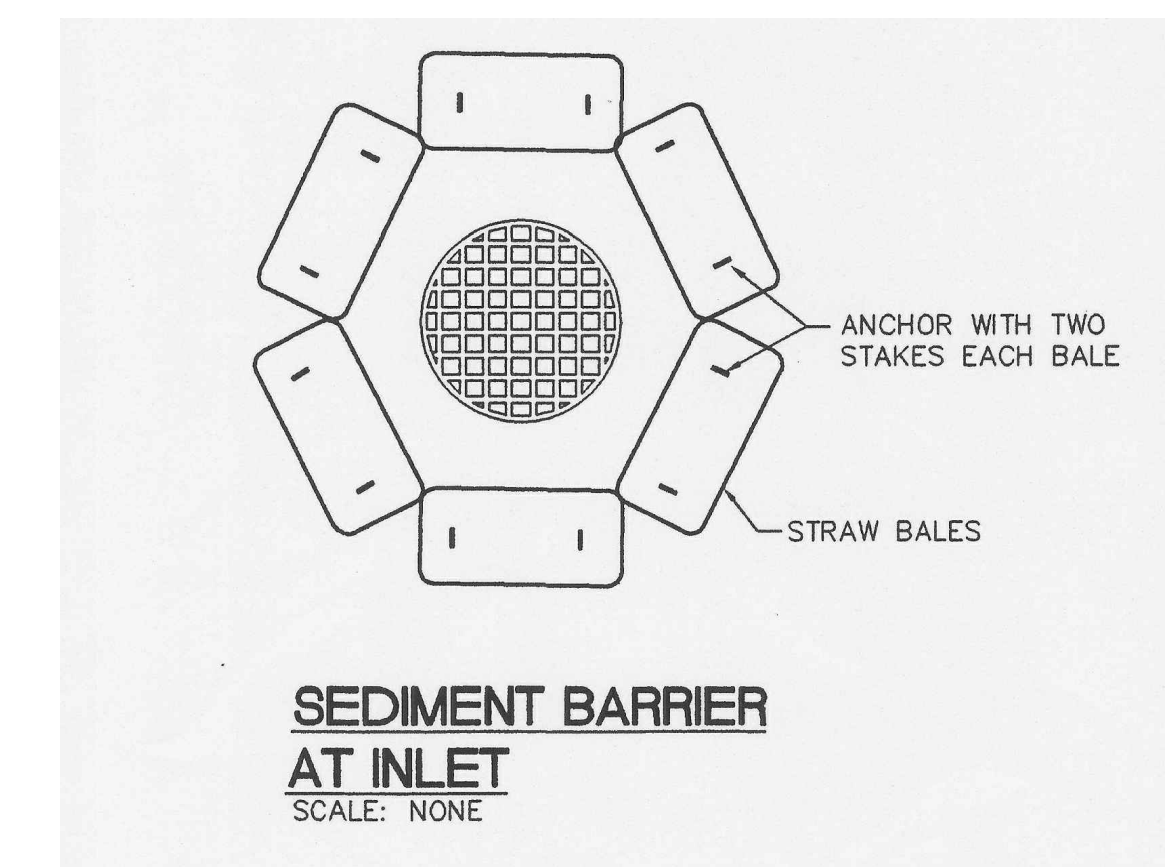
TYPICAL  
FLUSH-MOUNT GROUNDWATER MONITORING WELL  
CONSTRUCTION DIAGRAM



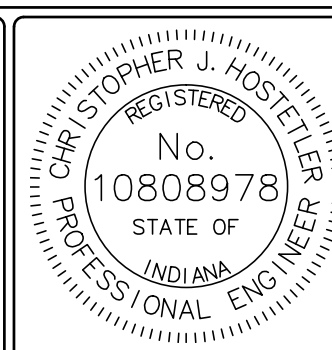
SILT FENCE  
SCALE: NONE



STRAW BALE CHECK DAM  
SCALE: NONE



SEDIMENT BARRIER  
AT INLET  
SCALE: NONE



RECOMMENDED FOR APPROVAL: *Christopher J. Hostetler* 3/21/18 DATE

DATE MADE  
02/06/2018

DESIGNED BY  
M.A.B.

DRAWN BY  
M.A.B.

DATE REVISED  
2/23/2018 11:31:05 AM

STATE OF INDIANA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF RECLAMATION

DETAILS

SCALE  
As Shown

SHEET  
8 OF 8

PROJECT  
E008-284

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