

Background
The purpose of the project is to construct a passive treatment system that will discharge into Whiskey Run a tributary of Blacklegs Creek in southwestern Indiana County, Pennsylvania. The receiving stream has a Chapter 93 classification of a cold water fishery that impaired by acid mine drainage.

The site is located 6.4 miles east of Spring Church, PA and 1.0 miles southwest of West Lebanon, PA. HedIn Environmental (195 Castle Shannon Boulevard, Pittsburgh, Pa 15228, phone 412 571-2204) developed the plans and narrative for this project. Variations to this plan will be discussed with and approved by the Construction Inspector before being implemented.

Erosion and Sediment Controls

- At least 7 days prior to starting any earth disturbance activities (including clearing and grubbing), the owner and/or operator shall invite all contractors, the landowner, appropriate municipal officials, the E&S plan preparer, the PCSM plan preparer, and a representative from the (insert appropriate County) conservation district to an on-site preconstruction meeting.
- Upon installation or stabilization of all perimeter sediment control BMPs and at least 3 days prior to proceeding with the bulk earth disturbance activities, the permittee or co-permittee shall provide notification to the Department or authorized conservation district.
- At least 3 days prior to starting any earth disturbance activities, or expanding into an area previously unmarked, the Pennsylvania One Call System Inc. shall be notified at 1-800-242-1776 for the location of existing underground utilities.
- All earth disturbance activities shall proceed in accordance with the sequence provided on the plan drawings. **Deviations from that sequence must be approved by the (insert appropriate County) conservation district or by the Department prior to implementation. Each step of the sequence shall be completed before proceeding to the next step, except where noted.**

Sequence of BPM Installation

- Mark in the field all limits of disturbance and environmentally sensitive areas (including steep slopes, riparian buffers, wetlands, springs, and floodways).
- Construct a rock construction entrance at the beginning of the access road off of State Route 2023.
- Install silt sock as shown on sheet 1 of the plans and according to the detail shown on sheet 2.
- Clear and grub site.
- Construct mine water collection system. Keep mine water directed into existing channel until treatment system is completed.
- Excavate cells in numerical order. Stabilize disturbed areas immediately once final grade has been established. In the event of any temporary cessation of work in excess of 4 days, disturbed areas must be stabilized.
- Construct spillways and rock-lined channels as shown on plans.
- Finish all final grading and stabilize site.
- Once site is stabilized, remove temporary BMPs

As soon as possible following each activity and as weather conditions permit, all disturbed areas should be graded to a condition suitable for public use, seeded and mulched per the following rates. All temporary seeding and mulching must occur within four (4) days of disturbance. Final graded areas shall be seeded and mulched immediately.

Straw Mulch	2.5 tons/acre or 100 bales/acre.*
Fertilizer (10-20-20)	400 lbs/acre
Perennial Rye Grass	10 lbs/acre
Red Fescue Grass	10 lbs/acre
White Dutch Clover	5 lbs/acre
Crimson Clover	5 lbs/acre
Birdsfoot Trefoil	3 lbs/acre
Rye or Wheat Grain	2 bushel/acre
Lime	4 tons/acre

*Must use chain flail mulcher or mulched by hand if using square bales. No mulcher with knives can be used.

E&S Maintenance

For erosion and sediment control, the location for silt sock is shown on the plans. Silt sock shall be erected before earth disturbance activities begin. The maximum sediment storage level behind the silt socks shall be 1/3 of the total height of the trap. Sediment shall be disposed of in the proposed disposal area as indicated on sheet 1 of the plan drawings. Until the site is stabilized, all erosion and sediment BMPs shall be maintained properly. Maintenance shall include inspections of all erosion and sediment BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance, including clean out, repair, replacement, regrading, reseeding, re-mulching and renetting must be performed immediately. If the E&S BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required. A DEP provided Checklist showing dates that E&S BMPs were inspected as well as deficiencies found and the date they were corrected shall be maintained on the site and made available to regulatory agency officials at the time of inspection.

Access Road

Access to the site will be from State Route 2023. The access road shall use the same route as the existing dirt road as shown on the plans. The access road will be constructed from SR 2023 for a distance of approximately 600 feet at which point the road ends at Cell 1. The road will use AASHTO #2 and #3 aggregate. The road surface must be maintained in a condition that is passable by road vehicles. At the northwestern end of the access road where it intersects with SR 2023, a rock construction entrance shall be constructed. The rock construction entrance shall be 50 ft long, 15 ft wide and 8 inches thick and contain 25 tons of AASHTO #1 aggregate. At no time shall mud be tracked out onto SR 2023. In the event the rock cleaning pad becomes clogged with soil, the rock must be removed and replaced with new AASHTO #1 aggregate. A stockpile shall be maintained on site for this purpose. All sediment deposited on paved roadways shall be removed and returned to the construction site immediately. If excessive amounts of sediment are being deposited on roadway, extend length of rock construction entrance by 50 feet increments until condition is alleviated or install wash rack. Washing the roadway or sweeping the deposits into roadway ditches, sewer, culverts, or other drainageways is not acceptable.

Clearing and Grubbing

The area shall be cleared and grubbed prior to construction of the treatment system.

Topsail

Any topsail removed for construction of the treatment system should be stockpiled and used for final grading and establishment of vegetation on disturbed areas.

Construction Wastes

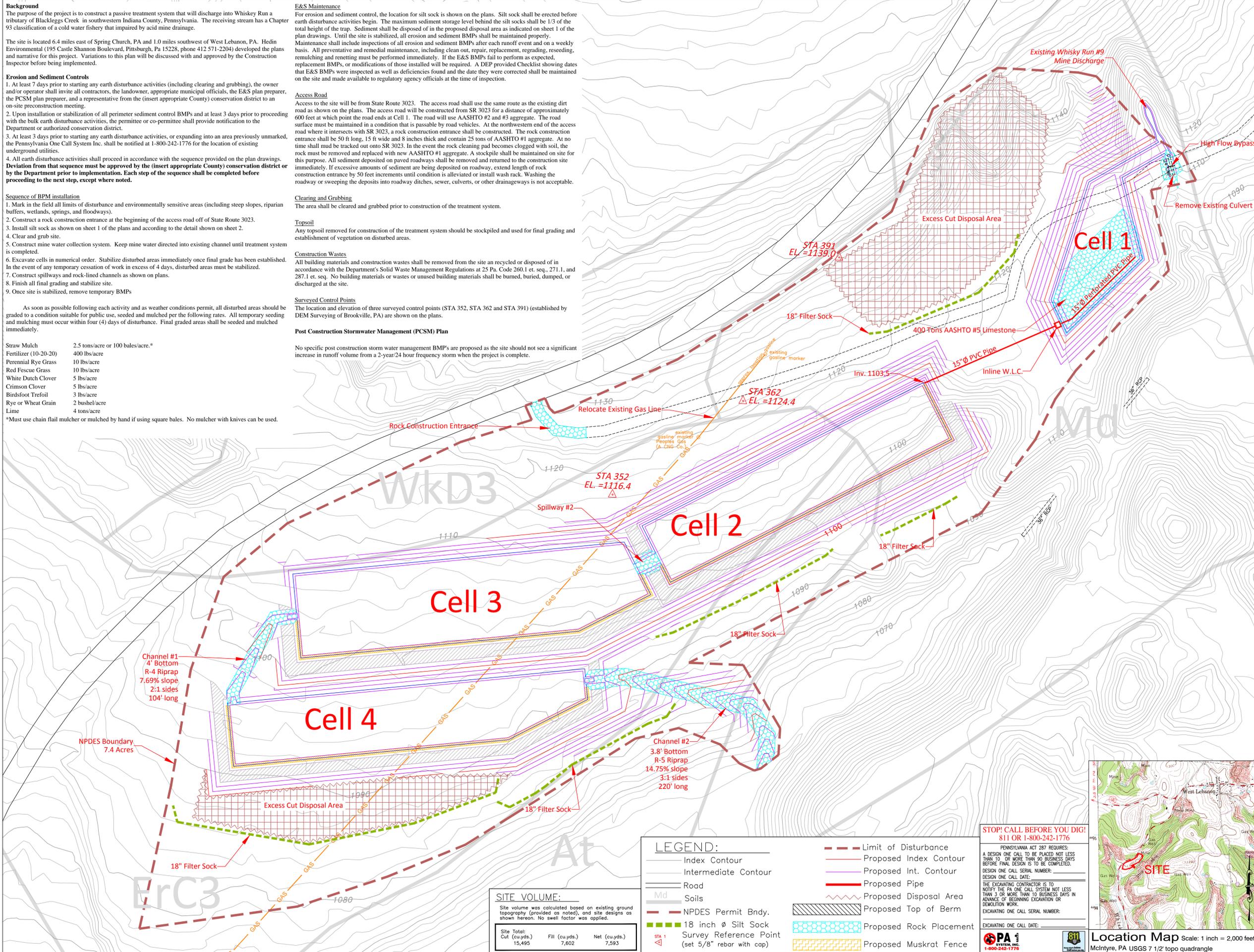
All building materials and construction wastes shall be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et. seq., 271.1, and 287.1 et. seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.

Surveyed Control Points

The location and elevation of three surveyed control points (STA 352, STA 362 and STA 391) (established by DEM Surveying of Brookville, PA) are shown on the plans.

Post Construction Stormwater Management (PCSM) Plan

No specific post construction storm water management BMP's are proposed as the site should not see a significant increase in runoff volume from a 2-year/24 hour frequency storm when the project is complete.



SITE VOLUME:

Site volume was calculated based on existing ground topography (provided as noted), and site designs as shown hereon. No swell factor was applied.

Site Total:	Fill (cu.yds.)	Net (cu.yds.)
Cut (cu.yds.)	15,495	7,593
	7,602	

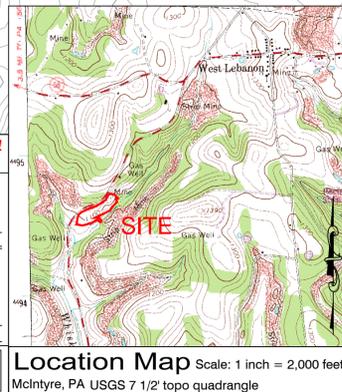
STOP! CALL BEFORE YOU DIG!
811 OR 1-800-242-1776

PENNSYLVANIA ACT 287 REQUIRES: A DESIGN ONE CALL TO BE PLACED NOT LESS THAN 10 OR MORE THAN 90 BUSINESS DAYS BEFORE FINAL DESIGN IS TO BE COMPLETED. DESIGN ONE CALL SERIAL NUMBER: _____

THE EXCAVATING CONTRACTOR IS TO NOTIFY THE PA ONE CALL SYSTEM NOT LESS THAN 1 OR MORE THAN 10 BUSINESS DAYS IN ADVANCE OF BEGINNING EXCAVATION OR DEMOLITION WORK. EXCAVATING ONE CALL SERIAL NUMBER: _____

EXCAVATING ONE CALL DATE: _____

PA
1-800-242-1776



NOTES:

- ALL CONTROL POINTS SET BY DEM SURVEYING
- ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY CONTRACTOR AT THE SITE.
- TOPOGRAPHY BY: _____
- PA DESIGNER'S OFFICE: _____
- SOILS INFORMATION OBTAINED FROM PSU 428 OF JUNE 1, 1945.

Sheet **1** of **1**

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

E&S Control Plan
Whiskey Run #9
Passive Treatment System

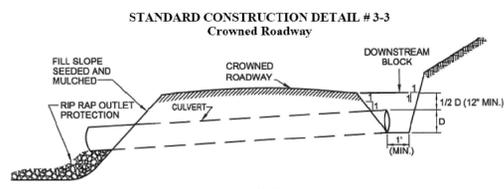
FILE NAME: Whiskey LIDAR.dwg
DATE: See revision block
DRAWN BY: NAW
SCALE: as shown

MUNICIPALITY: Young Township
COUNTY: Indiana County, PA

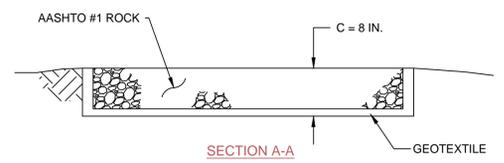
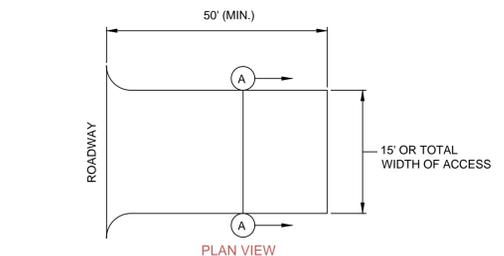
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Pittsburgh, PA 15228
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Design Criteria Developed By
Hedin Environmental

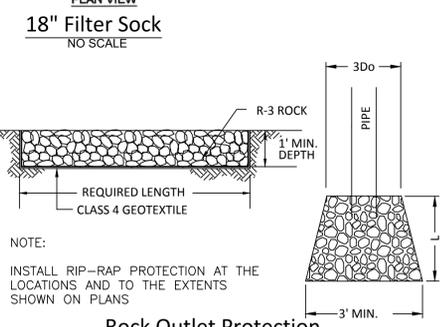
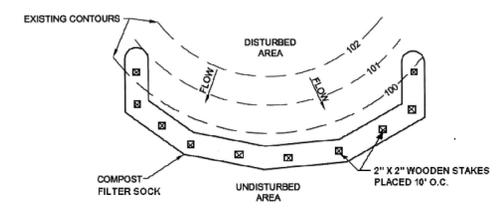
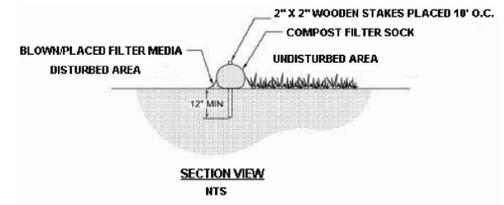
No.	Date	Description
0		
1	5/31/12	Hatch disposal area, expand site bdy., misc. edits
2	6/22/12	Change layout and add new E&S text
3		
4		
5		
6		
7		



PA DEP
INSTALL CULVERTS EVERY 500' ALONG ACCESS ROAD
Access Road Detail
NO SCALE



Rock Construction Entrance
NO SCALE

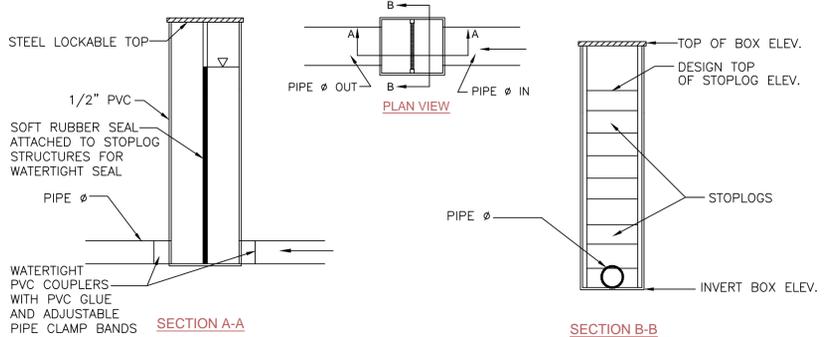


NOTE:
INSTALL RIP-RAP PROTECTION AT THE LOCATIONS AND TO THE EXTENTS SHOWN ON PLANS
Rock Outlet Protection
NO SCALE



Bypass Weir
NO SCALE

E&S Details

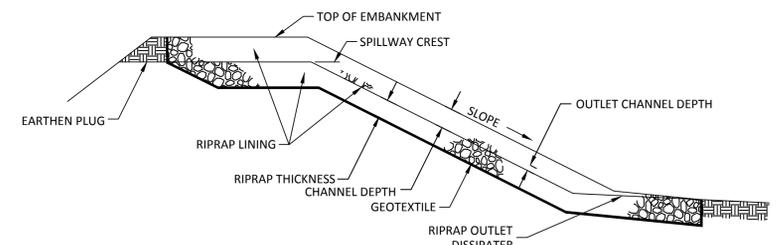
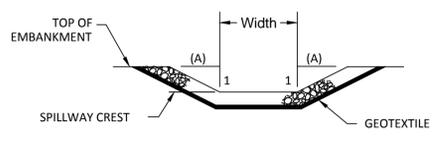


INLINE STRUCTURE	TOP OF BOX ELEV.	INVERT BOX ELEV.	STRUCTURE HEIGHT (FT)	INSIDE DIMENSION WIDTH	INSIDE DIMENSION DEPTH	PIPE Ø (IN)	PIPE TYPE	TOP STOPLOG ELEV.
Cell 1	1,112.0	1,104.0	8	14"	16"	15	PVC	1,107.0

AgriDrain Inline Water Level Control Structure
NO SCALE

LOCATION	TOP OF BERM ELEV.	BOT. ELEV.	SPILLWAY ELEV.
Cell 1	All Cut	1,104.0	1,107.5
Cell 2	1,105.0	1,102.0	1,103.0
Cell 3	1,104.0	1,101.0	1,102.0
Cell 4	1,096.0	1,093.0	1,094.0

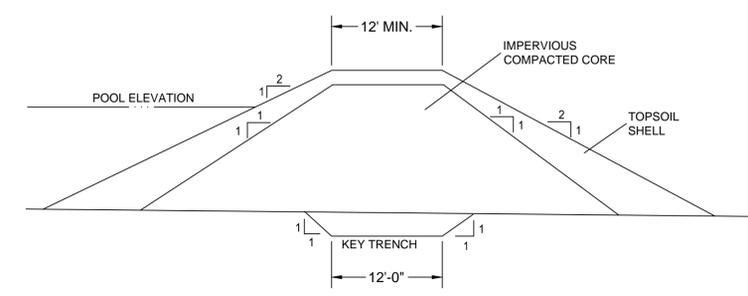
Elevation Table



Rock Lined Channel
NO SCALE

Channel	TOTAL LENGTH	BOT. WIDTH	SLOPE	(A) SIDE SLOPE	DESIGN FLOW	CHANNEL DEPTH	RIP RAP SIZE	RIP RAP THICKNESS	TOP BERM ELEV.	SPILLWAY CREST ELEV.
Channel 1	104'	4.0'	7.69%	2:1	1,100 GPM	2' MIN.	R-4 MIN.	18" MIN.	1,105.0	1,102.5
Channel 2	220'	3.8'	14.75%	3:1	1,100 GPM	2' MIN.	R-5 MIN.	27" MIN.	1,096.0	1,093.5

Channel Table



Typical Berm Section
NO SCALE

General Details

Details
Whisky Run #9
Passive Treatment System

FILE NAME: Whisky LIDAR.dwg
DATE: September 7, 2011
MUNICIPALITY: Young Township
COUNTY: Indiana County, PA
DRAWN BY: NAW
SCALE: as shown

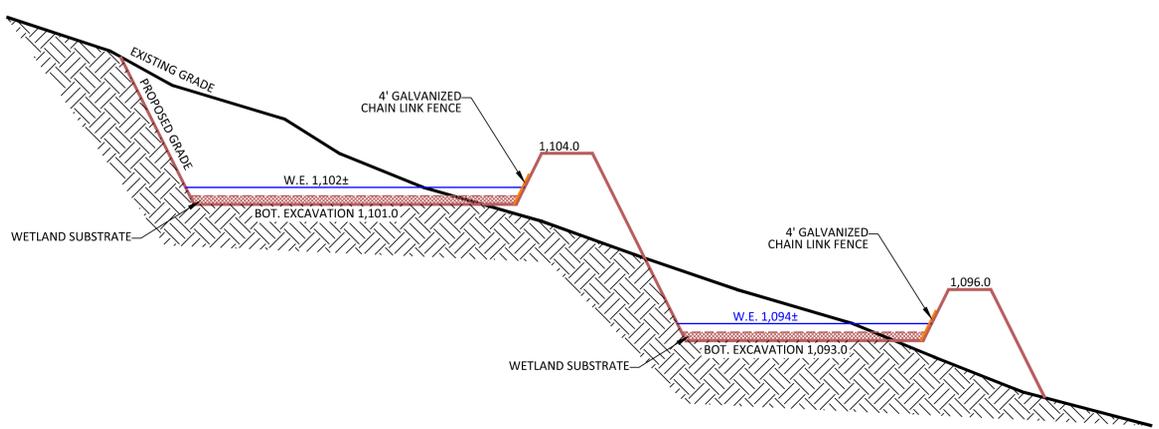
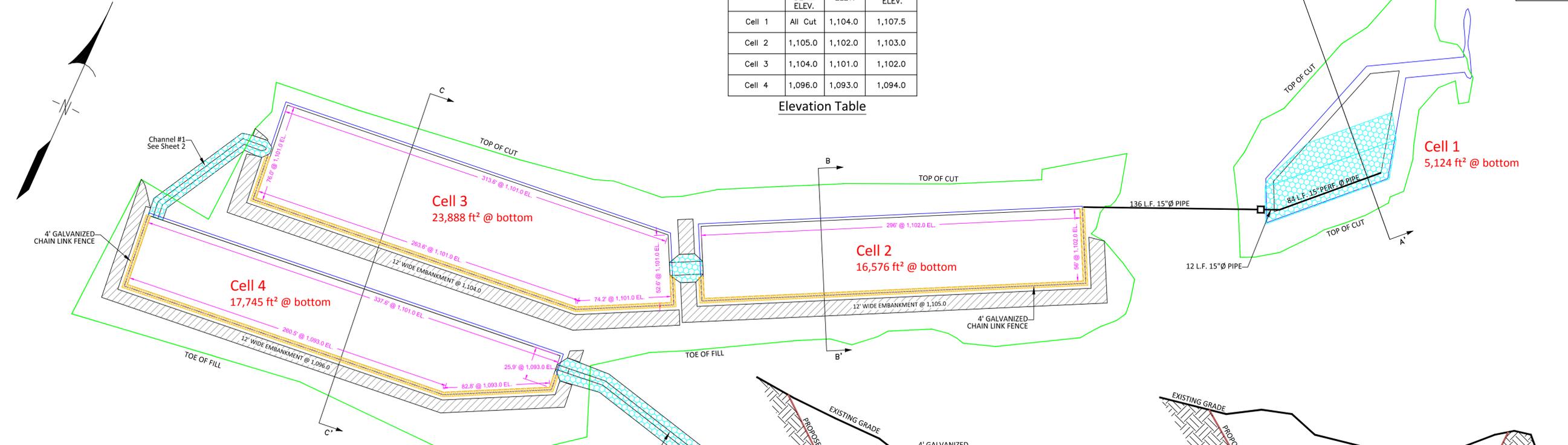
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Design Criteria Developed By
Hedin Environmental

No.	Date	Description
1	6/22/12	Remove E&S maintenance text, move to sheet 1

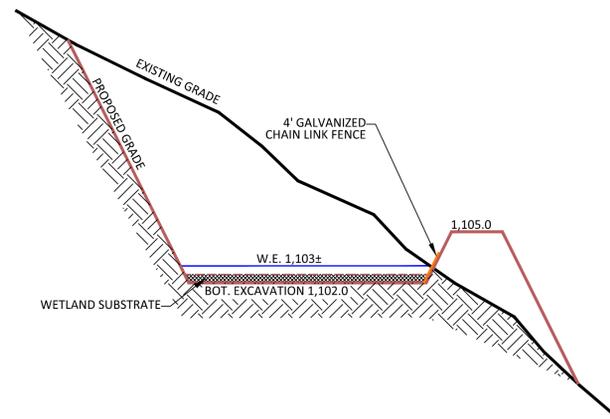
LOCATION	TOP OF BERM ELEV.	BOT. ELEV.	SPILLWAY ELEV.
Cell 1	All Cut	1,104.0	1,107.5
Cell 2	1,105.0	1,102.0	1,103.0
Cell 3	1,104.0	1,101.0	1,102.0
Cell 4	1,096.0	1,093.0	1,094.0

Elevation Table



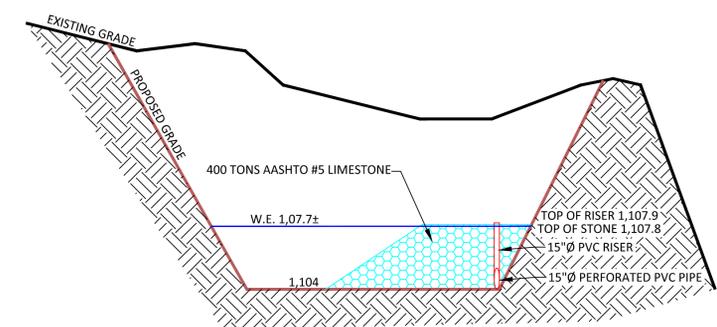
Cross Section C-C'

1"=20' H
1"=5' V



Cross Section B-B'

1"=20' H
1"=5' V



Cross Section A-A'

1"=20' H
1"=5' V

Details

Whisky Run #9
Passive Treatment System

FILE NAME: Whisky LIDAR.dwg
DATE: September 7, 2011
MUNICIPALITY: Young Township
COUNTY: Indiana County, PA
DRAWN BY: NAW
SCALE: as shown

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Design Criteria Developed By
Hedin Environmental

No.	Date	Description	By
8			
7			
6			
5			
4			
3			
2			
1			