



155 E. Front Street (rear-carriage house)

Lititz, PA 17543 P (717) 625-1930 F (717) 625-1931 [www.VisionEngineeringInc.net](http://www.VisionEngineeringInc.net)

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July 1, 2020

**Caernarvon Township Supervisors**

2139 Main Street, Narvon, PA 17555

RE: Monthly **Engineers' Report (NO PLANNING OR SEO ITEMS)**

As an update, this office has worked on the following matters this past month. Any **projects requiring action** are highlighted (yellow). We could answer any questions or would welcome feedback and direction on any and all matters.

1. **Knobby Hill Stormwater**. We continue our work on the final design and bidding documents as time permits. As we finalize the hydraulic design of the system we are seeking the Board's input on some pipe sizing and design year decisions. We will present this information for Board review and consideration at the meeting and may advance certain information (email).
2. **Township garage site improvements**. We continue our work on the grading and driveway layouts, as time permits.
3. **Zoning & Stormwater Follow up**
  - a. **\*2747 Valley View Road (DIEHM)**. We are awaiting contact by the owner to discuss with his site Engineer to develop an overall stormwater plan for further review and compliance. (reminder letter sent out).
  - b. **501 Edwards Road (Glick)**. This office had forwarded the Board with further correspondence and details related to the zoning permit issued (2014). And are awaiting direction on this matter.
4. **\*Historic Poole Forge (Streambank) PERMIT RENEWAL**. As directed, we submitted the appropriate permit extensions for the NPDES permit. The permit renewal was granted this past month (**to 12/27/2024**). We will also initiate an extension request for the Joint Permit to be extended to this same date (currently due to expire 12/31/2020) as directed by the Board.
5. **STORMWATER MANAGEMENT (SWM) PLAN ACTIVE PROJECTS FOR BOARD UPDATES ONLY (NO ACTION)**: The following stormwater applications do NOT require Board Consideration/action at this time.
  - a. **\*013102 - BRUBACHER SWM PLAN**. (Approval July 2017) Awaiting final compliance submittal and start work date (**DUE TO EXPIRE 7/2020**). We sent a letter notifying the applicant of the plan expiration. The applicant indicated the work will be completed this summer. The Board was going to discuss this again this month.

- b. **015104 - Twin County Rd. (Q. Shirk) SWM Plan.** This project has commenced with the work, but seems to have been suspended. The work was activated (2018), but has been inactive since that time (incomplete). We spoke with the owner who is awaiting a new contractor (RS Brubacher) to contact us for completion and inspections (this spring/summer).
- c. **\*015106 - Edwards Rd. (Verizon) SWM Plan.** The contractor has completed the work but the corrective actions requires the filing (recording at court house) of an amended plan. We are working with the applicants engineer accordingly. The Township solicitor has written a new agreement (could not use the standard one) and is now awaiting signatures.
- d. **016110 - Ivan Smucker SWM Plan.** This plan has been under construction (2018) & inspections. We are awaiting final completion (DUE TO EXPIRE 2020). **This past month, some work commenced on completing this plan (underground detention & amended soils).**
- e. **017102 - Valley View Road SWM Plan (Sasso).** As discussed, we are working with the Township Solicitor in resolving the outstanding items for this project (incomplete but bank released funds). At this point, we will coordinate an updated inspection to create a final punch list of items and are awaiting responses from the Bank.
- f. **\*018103 WAWA Land Development & SW Plan.** This past month the Contractor continued installing some of the stormwater facilities and the BASE paving along Swamp Road & Route 23. We have been observing as needed. (\*Daily reports separate ATT).
- g. **019102 2645 Wood Ln. Miller Stormwater Plan.** As an update, the stormwater system has been adequately installed (May, 2020) per the plans and is now waiting final site stabilization.
- h. **019103 Stormwater Management Plan for Pinnacle Premier Properties, LLC** (6980 & 6950 Division Highway). PROJECT is under construction (awaiting inspections).
- i. **019107 Lambert Road Emmanuel Lapp (SWM Plan).** The Board conditionally approved this plan (12/9/19) and is under construction (may be completed this month).
- j. **020101 - 2449 Hammertown Road (STOLTZFUS).** The Board conditionally approved this plan (3/2/20) and is under construction (awaiting inspections).

**6. Compliance and Violations:**

- a. **\*SLAWKO Stormwater Plans.** Awaiting further direction by the Township Solicitor's office on this matter. A recent MEMO issued by the Solicitor (4/24/20) is looking for further direction from the Board on how to proceed.
- b. **\*Conrad/Blevins Stormwater Violation.** We have been working with the Township Solicitor (Susan Peipher) as needed and directed accordingly

**7. STORMWATER EXEMPTIONS (UNDER 1,000 SQUARE FT.).** This office has reviewed/issued the following this past month (none):

- a. **\*247 S. Poole Forge Road (FISHER).** The applicant proposed paving of existing gravel driveways (no expansion). A letter was issued confirming no stormwater was required.

**8. \*SMALL STORMWATER PROJECTS (1,000 SQUARE FT. TO 5,000 SQUARE FT.).** This office has reviewed/issued the following this past month:

- a. **\*CAERN 020303 6146 Div. HWY. MILLER (PENDING; AWAITING MORE INFO from applicant).**
- b. **\*CAERN 020314 1690 Union Grove Rd LICHTYS MENNONITE CHURCH.** Addition (768 SF).
- c. **\*CAERN 020315 456 Lambert Rd SMUCKER.** Garage/driveway (2,542 SF).
- d. **\*CAERN 020316 380 Hammertown Rd BEILER.** Addition (371 SF).
- e. **\*CAERN 020317 1056 Elwood St. KING.** Addition (760 SF).
- f. **\*CAERN 020318 1110 Logan Ln. CORRELL.** Garage (2,800 SF).
- g. **\*CAERN 020319 2455 Hammertown Rd. PARSONS.** Deck (40 SF)

We also worked on various other items that have come before us as needed and will continue them as needed and directed.

Respectfully,  
**Vision Engineering, Inc.**  
Caernarvon Township Engineer



John K. Roche, P.E.,  
President



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June 1, 2020

**Lancaster County Conservation District**

1383 Arcadia Road Room 200

Lancaster, PA 17601

**ATTN: Ryan Weck, Resource Conservationist**

RE: General NPDES Permit - PAG0200361093(1) Expiration 6/2/20  
Stream Restoration & Park Improvements Project (Historic Poole Forge)  
Caernarvon Township, Lancaster County, Pennsylvania

Dear Mr. Weck,

Please allow this letter to formally request the District to favorably consider the Board's request to please RENEW the above captioned permit. This RENEWAL request is ONLY to extend the current expiration date another PERMIT CYCLE (approximately FIVE (5) YEARS) so that the Board can complete the work associated with this permit. The Board had phased the work due to funding considerations and have NOT been able to complete the entire work at this time.

We have attached to this letter a summary of the work that HAS been completed to date and the work that has NOT been completed to date.

Please do not hesitate to contact our office should you have any questions or require any additional information.

Sincerely at the Direction of the Board,  
Vision Engineering, Inc.  
Caernarvon Township Engineer

A handwritten signature in black ink, appearing to read "John K. Roche", written over a horizontal line.

John K. Roche, P.E.  
President

cc: Caernarvon Township & FILE

Stream Restoration & Park Improvements Project (Historic Poole Forge)  
Caernarvon Township, Lancaster County, Pennsylvania

### **SUMMARY OF WORK COMPLETED TO DATE VERSUS WORK NOT**

**COMPLETED TO DATE:** We have included a summary below and specific line items (contract) as well to help understand the work completed and to be completed.

#### **Historic Poole Forge – Streambank Restoration Project**

Joint Permit (E36-932) authorized the following work as copied from the PERMIT:

giving its consent to relocate 445 lineal feet of the Conestoga River resulting in a net loss of 25 lineal feet, to remove 1,750 cubic yards of fill, and to install and maintain: 1) 2 rock cross vanes, 2) 295 lineal feet of 5 foot high boulder wall stream bank protection, 3) 2 mud sill stream habitat facilities, 4) a 62 foot long by 8 foot wide steel and wood pedestrian bridge, 5) a 742 square foot fishing and observation deck, 6) a 32 foot long by 6 foot wide, wood pedestrian bridge over a mill race, 7) a 57 foot long by 8 foot wide wood elevated walkway, 8) a 12 inch diameter steel casing utility line, and 9) place 1,100 cubic feet of fill in the floodway. All the above activities will be in the floodway or over the Conestoga River (WWF, MF) (Latitude: 40° 07' 50"; Longitude: -75° 58' 37") for the purpose of reducing stream bank degradation and improving the flood carrying capacity of the river. No wetlands will be impacted from this portion of the project; and to relocate 200 lineal feet of an unnamed tributary to the Conestoga River resulting in a net loss of 161 lineal feet, to remove 600 cubic yards of fill, and to install and maintain: 1) 2 rock cross vanes, 2) 85 lineal feet of 5 foot high boulder wall stream bank protection, and 3) a 12 inch diameter steel casing utility line. One hundred forty nine (149) square feet of existing wetlands will be permanently impacted. Two thousand square feet (2,000) of new constructed wetlands are proposed. All the above activities are in the floodway or over the unnamed tributary to the Conestoga River (WWF, MF) (Latitude: 40° 07' 50"; Longitude: -75° 58' 37") for the purpose of reducing stream bank degradation and improving the flood carrying capacity of the river.

The Joint Permit (E36-932) is dated October 30, 2015. The permit becomes void on December 31, 2020. We will be submitting a separate concurrent request to the PADEP to allow for a renewal of the JOINT PERMIT.

#### **Progress Summary (WORK COMPLETED TO DATE):**

The stream was relocated, rock vanes, boulder walls and mud sills were installed with a net removal of soil from the floodplain. Items completed as shown on the plans but not mentioned in the permit include rain garden, plantings along stream and site improvements in and around the Mansion.

#### **Not completed but permitted**

The steel and wood pedestrian bridge was not installed. The fishing and observation deck was not installed. The wood bridge over the Mill race was not completely installed although that project is underway at this time. The elevated walkway was not installed. The steel utility casing line was not installed under the stream. Other items not completed but shown on the plan are parking areas, infiltration bed, walking paths, lighting and educational signing. Moreover, No work was completed in the second area of the permit which included the unnamed Tributary (property separated by Poole Forge Road).



## CONSTRUCTION COST OPINION

Project: Historic Poole Forge Stream Restoration Project

Location: Caernarvon Twp.

Client: Caernarvon Township

Date: 11/20/15 UPDATED 10/4/19

### ITEMS COMPLETED SHADED

<u>Description</u>	<u>Units</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>
<b><u>A. STREAM RESTORATION WORK SEGMENT 1</u></b>				
<b>Segment 1, Clearing &amp; Grubbing</b>	<b>SY</b>	<b>9602.00</b>	<b>\$ 1.00</b>	<b>\$ 9,602.00</b>
remove 7 trees and miscellaneous clearing				
<b>Segment 1, Strip Topsoil, stockpile, Respread, Seed &amp; Mulch</b>	<b>SY</b>	<b>9602.00</b>	<b>\$ 5.00</b>	<b>\$ 48,010.00</b>
<b>Segment 1, grading, onsite</b>	<b>CY</b>	<b>1106</b>	<b>\$ 5.00</b>	<b>\$ 5,530.00</b>
<b>Segment 1, grading, excess</b>	<b>CY</b>	<b>1791</b>	<b>\$ 12.00</b>	<b>\$ 21,492.00</b>
<b>Segment 1, E&amp;S total</b>	<b>L.S.</b>	<b>1.00</b>	<b>\$ 137,065.11</b>	<b>\$ 137,065.11</b>
Segment 1, E&S matting or sod	SY	9602.00	\$ 2.00	\$ 19,204.00
Segment 1, E&S pump around (coffer dams, pump, discharge)	EA	4.00	\$ 25,000.00	\$ 100,000.00
Segment 1, E&S - RCE,	EA	2.00	\$ 1,500.00	\$ 3,000.00
Segment 1, E&S miscellaneous				\$ -
topsoil stock pile maintenance	EA	2.00	\$ 1,000.00	\$ 2,000.00
concrete wash out	EA	1.00	\$ 250.00	\$ 250.00
silt socks	LF	1000.00	\$ 5.00	\$ 5,000.00
staging area	EA	1.00	\$ 4,800.00	\$ 4,800.00
riprap	EA	1.00	\$ 1,500.00	\$ 1,500.00
tree protection marking	LF	1000.00	\$ 1.00	\$ 1,000.00
matting of spillway	SY	44.44	\$ 7.00	\$ 311.11
<b>Segment 1, structures, cross rock vanes</b>	<b>EA</b>	<b>2.00</b>	<b>\$ 3,500.00</b>	<b>\$ 7,000.00</b>
<b>Segment 1, structures, mud sills</b>	<b>EA</b>	<b>2.00</b>	<b>\$ 3,000.00</b>	<b>\$ 6,000.00</b>
<b>Segment 1, structures, Boulder wall</b>	<b>LF</b>	<b>270.00</b>	<b>\$ 30.00</b>	<b>\$ 8,100.00</b>



### CONSTRUCTION COST OPINION

Project: Historic Poole Forge Stream Restoration Project

Location: Caernarvon Twp.

Client: Caernarvon Township

Date: 11/20/15 UPDATED 10/4/19

#### ITEMS COMPLETED SHADED

<u>Description</u>	<u>Units</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>
<b>Segment 1, landscaping</b>	<b>L.S.</b>	<b>1.00</b>	<b>\$ 28,091.00</b>	<b>\$ 28,091.00</b>
trees	EA	20.00	\$ 250.00	\$ 5,000.00
shrubs	EA	210.00	\$ 75.00	\$ 15,750.00
herbaceous plugs	EA	450.00	\$ 2.00	\$ 900.00
wetland plugs	EA	720.00	\$ 2.00	\$ 1,440.00
no mow signs	EA	2.00	\$ 100.00	\$ 200.00
lawn	SY	4801.00	\$ 1.00	\$ 4,801.00
<b>Segment 1, rain garden</b>	<b>L.S.</b>	<b>1.00</b>	<b>\$ 9,055.33</b>	<b>\$ 9,055.33</b>
excavation	SY	300.00	\$ 1.00	\$ 300.00
Stone bedding	CY	66.67	\$ 20.00	\$ 1,333.33
modified soil	CY	200.00	\$ 5.00	\$ 1,000.00
mulch	CY	25.00	\$ 15.00	\$ 375.00
trees	EA	15.00	\$ 150.00	\$ 2,250.00
shrubs	EA	19.00	\$ 75.00	\$ 1,425.00
ornamental grasses	EA	42.00	\$ 25.00	\$ 1,050.00
wetland plugs	EA	661.00	\$ 2.00	\$ 1,322.00
<b>Expanded and new parking areas/demo/bollards/landscapi</b>	<b>L.S.</b>	<b>1.00</b>	<b>\$ 55,703.89</b>	<b>\$ 55,703.89</b>
remove existing pavement	SY	222.22	\$ 15.00	\$ 3,333.33
subgrade	SY	1200.00	\$ 4.00	\$ 4,800.00
6" stone	SY	1200.00	\$ 9.00	\$ 10,800.00
4" base	SY	1200.00	\$ 10.00	\$ 12,000.00
1 1/2" wearing	SY	1200.00	\$ 5.50	\$ 6,600.00
1/2 " Oil & Chip	SY	1200.00	\$ 4.00	\$ 4,800.00
trees	EA	13.00	\$ 250.00	\$ 3,250.00



### CONSTRUCTION COST OPINION

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Location: Caernarvon Twp.

Client: Caernarvon Township

Date: 11/20/15 UPDATED 10/4/19

#### ITEMS COMPLETED SHADED

<u>Description</u>	<u>Units</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>
shrubs	EA	61.00	\$ 75.00	\$ 4,575.00
flowers	EA	72.00	\$ 5.00	\$ 360.00
Bollards	EA	3.00	\$ 150.00	\$ 450.00
Pavement markings, HC signs	LS	1.00	\$ 500.00	\$ 500.00
infiltration bed	LS	1.00	\$ 3,555.56	\$ 3,555.56
River jack border	LF	85.00	\$ 8.00	\$ 680.00
<b>Lighting</b>	<b>EA</b>	<b>3.00</b>	<b>\$ 2,000.00</b>	<b>\$ 6,000.00</b>
<b>Bituminous paths</b>	<b>SY.</b>	<b>345.56</b>	<b>\$ 15.00</b>	<b>\$ 5,183.33</b>
access path to mansion	SY.	46.67	\$ 15.00	\$ 700.00
Path joining parking areas	SY.	143.33	\$ 15.00	\$ 2,150.00
Path to Bridge #1	SY.	35.56	\$ 15.00	\$ 533.33
Path to Bridge #2	SY.	33.33	\$ 15.00	\$ 500.00
Path to Ex Bridge	SY.	86.67	\$ 15.00	\$ 1,300.00
<b>Elevated walk and deck/pier (assumes volunteer installation)</b>	<b>L.S.</b>	<b>1.00</b>	<b>\$ 8,000.00</b>	<b>\$ 8,000.00</b>
<b>Pedestrian Bridge #1 (assumes volunteer installation)</b>	<b>L.S.</b>	<b>1.00</b>	<b>\$ 54,000.00</b>	<b>\$ 54,000.00</b>
Bridge abutments				
Bridge superstructure				
<b>Pedestrian Bridge #2 (assumes volunteer installation)</b>	<b>L.S.</b>	<b>1.00</b>	<b>\$ 20,500.00</b>	<b>\$ 20,500.00</b>
Bridge abutments				
Bridge superstructure				





### CONSTRUCTION COST OPINION

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Location: Caernarvon Twp.

Client: Caernarvon Township

Date: 11/20/15 UPDATED 10/4/19

#### ITEMS COMPLETED SHADED

<u>Description</u>	<u>Units</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>
<b>Split rail fencing (assumes volunteer installation)</b>	<b>LS</b>	<b>1.00</b>	<b>\$ 4,000.00</b>	<b>\$ 4,000.00</b>
top of stream bank	LF	200.00	\$ 10.00	\$ 2,000.00
at parallel parking	LF	200.00	\$ 10.00	\$ 2,000.00
Electrical conduits	L.S.	1.00	\$ 600.00	\$ 600.00
Educational signage	L.S.	1.00	\$ 1,500.00	\$ 1,500.00
Picnic tables	EA	4.00	\$ 150.00	\$ 600.00
Handrails at Mansion steps	L.S.	1.00	\$ 400.00	\$ 400.00
<b>SUBTOTAL OF ITEM A (ABOVE)</b>				<b>\$ 433,332.67</b>
<b>COMPLETED WORK IN ITEM A Above</b>	<b>65%</b>			<b>\$ 279,945.44</b>
<b>REMAINING WORK IN ITEM A Above</b>	<b>35%</b>			<b>\$ 153,387.22</b>



## CONSTRUCTION COST OPINION

Project: Historic Poole Forge Stream Restoration Project

Location: Caernarvon Twp.

Client: Caernarvon Township

Date: 11/20/15 UPDATED 10/4/19

### ITEMS COMPLETED SHADED

<u>Description</u>	<u>Units</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>
<b>B. ITEMS B BELOW (SEGMENT # 2)</b>				
Segment 2, Clearing & Grubbing	SY	1580.00	\$ 1.00	\$ 1,580.00
Segment 2, Strip Topsoil, stockpile, Respread, Seed & Mulch	SY	1580.00	\$ 5.00	\$ 7,900.00
Segment 2, grading, onsite	CY	35.00	\$ 5.00	\$ 175.00
Segment 2, grading, excess	CY	602	\$ 12.00	\$ 7,224.00
<b>Segment 2, E&amp;S</b>	<b>L.S.</b>	<b>1.00</b>	<b>\$ 42,236.00</b>	<b>\$ 42,236.00</b>
Segment 2, E&S matting or sod	SY	1580.00	\$ 2.00	\$ 3,160.00
Segment 2, E&S pump around (coffer dams, pump, discharge)	EA	1.00	\$ 25,000.00	\$ 25,000.00
Segment 2, E&S - RCE,	EA	1.00	\$ 1,500.00	\$ 1,500.00
Segment 2, E&S miscellaneous				
topsoil stock pile maintenance	EA	1.00	\$ 1,000.00	\$ 1,000.00
silt socks	LF	800.00	\$ 5.00	\$ 4,000.00
staging area	EA	1.00	\$ 4,800.00	\$ 4,800.00
tree protection marking	LF	1000.00	\$ 1.00	\$ 1,000.00
maintain access	SY	222.00	\$ 8.00	\$ 1,776.00
<b>Segment 2, structures, cross rock vanes</b>	<b>EA</b>	<b>2.00</b>	<b>\$ 1,800.00</b>	<b>\$ 3,600.00</b>
<b>Segment 2, structures, mud sills</b>	<b>EA</b>	<b>2.00</b>	<b>\$ 3,000.00</b>	<b>\$ 6,000.00</b>
<b>Segment 2, structures, Boulder wall</b>	<b>LF</b>	<b>130.00</b>	<b>\$ 30.00</b>	<b>\$ 3,900.00</b>
<b>Segment 2, landscaping</b>	<b>L.S.</b>	<b>1.00</b>	<b>\$ 12,187.50</b>	<b>\$ 12,187.50</b>
trees	EA	6.00	\$ 250.00	\$ 1,500.00
shrubs	EA	112.50	\$ 75.00	\$ 8,437.50
herbaceous plugs	EA	480.00	\$ 2.00	\$ 960.00
no mow signs	EA	5.00	\$ 100.00	\$ 500.00
lawn	SY	790.00	\$ 1.00	\$ 790.00



### CONSTRUCTION COST OPINION

Project: Historic Poole Forge Stream Restoration Project

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Client: Caernarvon Township

Date: 11/20/15 UPDATED 10/4/19

#### ITEMS COMPLETED SHADED

<u>Description</u>	<u>Units</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>
<b>Segment 2, wetlands</b>	<b>LS</b>	<b>1.00</b>	<b>\$ 2,220.00</b>	<b>\$ 2,220.00</b>
grading	SY	200.00	\$ 5.00	\$ 1,000.00
soil amendment	CY	33.33	\$ 15.00	\$ 500.00
wetland plugs	EA	360.00	\$ 2.00	\$ 720.00
<b>Stream crossing conduits</b>	<b>L.S.</b>	<b>1.00</b>	<b>\$ 6,000.00</b>	<b>\$ 6,000.00</b>
<b>REMAINING WORK SEGMENT 2 SUBTOTAL OF ITEM B</b>				<b>\$ 93,022.50</b>

SUBTOTAL OF ALL ITEMS A & B	<b>\$ 526,355.17</b>
CONTINGENCIES AT Approximately 10%	<b>\$ 52,600.00</b>
ESTIMATED TOTAL	<b>\$ 579,000.00</b>

NOTE: THIS Cost opinion is based upon prior/permit plans and is intended for general planning purposes (needs verified/updated).



LANCASTER COUNTY  
CONSERVATION DISTRICT

*Conserving Natural Resources for Our Future*

June 22, 2020

Caernarvon Township  
2139 Main Street  
Narvon, PA 17555

**COPY**

Re: PAG-02 NPDES General Permit Coverage Approval  
Site Name: Historic Poole Forge Park Renewal Only  
NPDES Permit No. PAC360538  
Caernarvon Township, Lancaster County

Dear Applicant:

Under the authority of the federal Clean Water Act and Pennsylvania's Clean Streams Law, the Lancaster County Conservation District has approved your request for renewal of coverage under the PAG-02 NPDES General Permit for Discharges of Stormwater Associated with Construction Activities ("PAG-02 General Permit"). The latest versions of the Notice of Intent (NOI) and all supporting documents, including the Erosion and Sediment Control (E&S) Plan and Post-Construction Stormwater Management (PCSM) Plan, are incorporated into this approval, including the following plan drawings:

- The E&S Plan drawings and PCSM Plan drawings for Historic Poole Forge Park Renewal Only, dated (no date given).

Your coverage under the PAG-02 General Permit, which has been assigned NPDES Permit No. PAC360538, is effective on **June 22, 2020** and will expire on **December 7, 2024**. If stormwater discharges associated with construction activities are expected to continue beyond the expiration date of PAG-02 General Permit coverage, you must apply to renew your coverage at least 180 days prior to the expiration date, unless otherwise approved by the Department of Environmental Protection (DEP) or the District.

Please review the PAG-02 General Permit and the enclosed attachments carefully and contact this office if you have any questions. Please pay particular attention to the following requirements of the General Permit:

- In accordance with 25 Pa. Code § 102.5(h), operators who are not the permittee shall be co-permittees. An operator is a person who either has oversight responsibility of an earth disturbance activity on a project site who has the ability to make modifications to the E&S Plan, PCSM Plan or site specifications, or has day to day operational control over an earth disturbance activity on a project site. Please be advised that after an operator (contractor) has been selected for the project, the operator must be made a co-permittee and enter into an agreement with the permittee. Please use the enclosed Co-Permittee Acknowledgement Form for Chapter 102 Permits form (3800-FM-BCW0271a) to add a co-permittee.
- A pre-construction meeting is required as specified in 25 Pa. Code § 102.5(e), unless otherwise notified in writing by this office. The purpose of this meeting is to review all aspects of the permit with the permittee, co-permittees, operators, consultants, inspectors and licensed professionals or their designees who will be responsible for the





implementation of the critical stages of the approved PCSM Plan. You must provide at least seven days notice of the pre-construction meeting to all invited attendees.

- You must conduct inspections of all best management practices (BMPs) on a weekly basis and after each measurable stormwater event (i.e., precipitation in an amount of 0.25 inch or greater over a 24-hour period) to ensure effective and efficient operation. The Visual Site Inspection Report Form (3800-FM-BCW0271d) is enclosed along with instructions. This form (or an equivalent electronic form providing the same information) must be used to document the required site inspections.
- For any property containing a PCSM BMP, the permittee or co-permittee must record an instrument with the recorder of deeds which will assure disclosure of the PCSM BMP and the related obligations in the ordinary course of a title search of the subject property. The recorded instrument must identify the PCSM BMP, provide for necessary access related to long-term operation and maintenance (O&M) for PCSM BMPs, and provide notice that the responsibility for long-term O&M of the PCSM BMP is a covenant that runs with the land that is binding upon and enforceable by subsequent grantees. **You must record an instrument with the Recorder of Deeds within 45 days and provide proof of the recording at the time an application to transfer permit coverage is submitted, if applicable, and at the time a Notice of Termination (NOT) is submitted to this office.**
- If there are any changes to the PCSM BMPs or long-term operation and maintenance plan after the initial instrument recording and prior to permit termination, the permittee(s) will need to amend the initial recorded instrument at the recorder of deeds office prior to permit termination. Please note, most Recorder of Deeds Offices require that the land owner (at the time of actual recording) signs the instrument to be recorded. If the land owner changes and an amended instrument needs to be recorded, the Recorder of Deeds office will likely require the new land owner's signature on the amended instrument. It is recommended that for any sale or transfer of property to a new owner before this permit is terminated that the permittee seek legal counsel on how to structure the sale or transfer to allow the recorded instrument to be amended.
- The NOT form (3800-PM-BCW0229b) is also enclosed and must be completed and filed when construction activities have ceased and final stabilization has been achieved. The NOT must identify the responsible person(s) for the long-term O&M of the PCSM BMPs. Please be advised that the permittee and any co-permittees remain responsible for all operational maintenance for this project site until the NOT has been filed and acknowledged. **It is important that you fulfill your obligations under the General Permit and submit a complete NOT to this office upon final stabilization of the site.**

Please note that the permit number associated with your approval under the PAG-02 General Permit has been changed to conform to EPA NPDES permit numbering requirements. All future correspondence will reference this new permit number.

Persons aggrieved by an action of a conservation district under 25 Pa. Code Chapter 102 may request an informal hearing with DEP within 30 days of publication of this notice in the *Pennsylvania Bulletin*, pursuant to 25 Pa. Code § 102.32(c). DEP will schedule this informal hearing within 30 days of the request. After this informal hearing, any final determination by DEP may be appealed to the Environmental Hearing Board as provided below.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to

Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board  
Rachel Carson State Office Building, Second Floor  
400 Market Street  
P.O. Box 8457  
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at <http://ehb.courtapps.com> or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

**IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.**

If you have questions, please contact me at (717) 299-5361 and refer to Permit No. PAC360538.

Yours for a better environment,



Ryan Weck  
Resource Conservationist

cc: Vision Engineering Inc. – John Roche  
DEP Permits Section Chief

Enclosures: PAG-02 General Permit  
Visual Site Inspection Report Form and Instructions  
Co-Permittee Acknowledgement Form for Chapter 102 Permits and Instructions  
Notice of Termination Form





COPY

**PAG-02**  
**AUTHORIZATION TO DISCHARGE UNDER THE**  
**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)**  
**GENERAL PERMIT FOR DISCHARGES OF**  
**STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES**

**NPDES PERMIT NO: PAC360538**

In compliance with the provisions of the Clean Water Act, 33 U.S.C.A. §§ 1251—1387 and Pennsylvania's Clean Streams Law, as amended, 35 P.S. §§ 691.1—691.1001, the Department of Environmental Protection (DEP) authorizes the permittee named below to discharge stormwater associated with construction activities from an earth disturbance activity that involves earth disturbance greater than or equal to one acre, or an earth disturbance on any portion, part, or during any stage of a larger common plan of development or sale that involves earth disturbance greater than or equal to one acre:

Permittee

**Caernarvon Township  
2139 Main Street  
Narvon, PA 17555**

Project Site

**Historic Poole Forge Park Renewal Only  
Caernarvon Township, Lancaster County**

This authorization is subject to DEP's enclosed PAG-02 General Permit (General Permit) which incorporates all effluent limitations, monitoring and reporting requirements, and other terms, conditions, criteria, and special requirements for the discharge of stormwater associated with construction activities to surface waters, including through storm sewers. Authorization to discharge is subject to the implementation of the plans and additional associated information submitted as part of the Notice of Intent (NOI) for general permit coverage.

**APPROVAL TO DISCHARGE IN ACCORDANCE WITH THE TERMS AND CONDITIONS HEREIN IS AUTHORIZED BEGINNING ON JUNE 22, 2020 AND WILL EXPIRE ON DECEMBER 7, 2024 WHEN CONDUCTED PURSUANT TO THE TERMS AND CONDITIONS OF THIS GENERAL PERMIT. GENERAL PERMIT COVERAGE MAY BE TERMINATED PRIOR TO THE EXPIRATION DATE UPON RECEIPT AND ACKNOWLEDGEMENT OF A NOTICE OF TERMINATION FORM AND APPROVAL BY DEP OR THE AUTHORIZED CONSERVATION DISTRICT. NO CONDITION OF THIS GENERAL PERMIT SHALL RELEASE THE PERMITTEE OR CO-PERMITTEE(S) FROM ANY RESPONSIBILITY OR REQUIREMENT UNDER STATE OR FEDERAL ENVIRONMENTAL STATUTES, REGULATIONS, OR LOCAL ORDINANCES.**

Coverage under the PAG-02 General Permit is authorized by:

\_\_\_\_\_  
**Christopher M. Thompson  
District Manager  
Lancaster County Conservation District**

**OPERATION AND MAINTENANCE (O&M) AGREEMENT  
STORMWATER MANAGEMENT FACILITIES**

**THIS AGREEMENT**, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2020, by and between Cellco Partnership d/b/a Verizon Wireless,(hereinafter the “Developer”), Paul Z. and Irene Nolt (hereinafter the “Landowner”), and Caernarvon Township, Lancaster County, Pennsylvania, (hereinafter “Municipality”).

**WITNESSETH**

**WHEREAS**, the Landowner is the owner of certain real property as recorded by deed in the land records of Lancaster County, Pennsylvania, at Deed Book \_\_\_\_\_ Page \_\_\_\_\_ (hereinafter “Property”);

**WHEREAS**, the Developer is proceeding to build and develop the Property; and

**WHEREAS**, the SWM Facilities Operation and Maintenance (O&M) Plan approved by the Municipality (hereinafter referred to as the “As-Built / O&M Final Plan”) for the property identified herein, which is attached hereto as Appendix A and made part hereof, as approved by the Municipality, provides for management of stormwater within the confines of the Property through the use of Stormwater Management Best Management Practices (BMPs); and

**WHEREAS**, the Municipality, and the Developer and Landowner, and their successors and assigns, agree that the health, safety, and welfare of the residents of the Municipality and the protection and maintenance of water quality require that on-site SWM Facilities be constructed and maintained on the Property; and

**WHEREAS**, the Municipality requires, through the implementation of the SWM Site Plan, that SWM Facilities as required by said SWM Site Plan and the Municipal Stormwater Management Ordinance be constructed and adequately operated and maintained by the Landowner, successors, and assigns.

**NOW, THEREFORE**, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The Developer and Landowner shall construct the SWM Facilities in accordance with the plans and specifications identified in the SWM Site Plan.
2. The Developer and Landowner shall operate and maintain the SWM Facilities as shown on the SWM Plan in good working order in accordance with the specific operation and maintenance requirements noted on the approved As-Built / O&M Final Plan.



3. The Developer and Landowner hereby grant permission to the Municipality, its authorized agents and employees, to enter upon the property, at reasonable times and upon presentation of proper credentials, to inspect the SWM Facilities whenever necessary. Whenever possible, the Municipality shall notify the Landowner prior to entering the property.
4. In the event the Developer and/or Landowner fail to operate and maintain the SWM Facilities in accordance paragraph 2, the Municipality or its representatives may enter upon the Property and take whatever action is deemed necessary to maintain said SWM Facilities. It is expressly understood and agreed that the Municipality is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Municipality.
5. In the event the Municipality, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner shall reimburse the Municipality for all expenses (direct and indirect) incurred, plus a 10% penalty, within 10 days of receipt of invoice from the Municipality.
6. The intent and purpose of this Agreement is to ensure the proper maintenance of the onsite SWM Facilities by the Developer and Landowner; provided, however, that this Agreement shall not be deemed to create or effect any additional liability of any party for damage alleged to result from or be caused by stormwater runoff.
7. The Developer and Landowner, their executors, administrators, assigns, and other successors in interests, shall release the Municipality from all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against said employees and representatives from the construction, presence, existence, or maintenance of the BMP(s) by the Landowner or Municipality.
8. The Municipality intends to inspect the SWM Facilities at a minimum of once every three years to ensure their continued functioning.

9. This Agreement shall be recorded at the Office of the Recorder of Deeds of Lancaster County, Pennsylvania, and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Landowner, his administrators, executors, assigns, heirs, and any other successors in interests, in perpetuity.

WITNESS:

**CELLCO PARTNERSHIP D/B/A  
VERIZON WIRELESS**

\_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
**PAUL Z. NOLT**

\_\_\_\_\_

\_\_\_\_\_  
**IRENE NOLT**

**CAERNARVON TOWNSHIP**  
Lancaster County, Pennsylvania

Attest: \_\_\_\_\_

Name: \_\_\_\_\_

Title: (Assistant) Secretary

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: (Vice) Chairman

Board of Supervisors

STATE OF \_\_\_\_\_ :  
:  
COUNTY OF \_\_\_\_\_ :

On this, the \_\_\_\_\_ day of \_\_\_\_\_, 2020, before me, a Notary Public, the undersigned officer, personally appeared \_\_\_\_\_, who acknowledged \_\_\_\_\_ self to be the \_\_\_\_\_ of **CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS**, and that \_\_\_\_\_ he as such \_\_\_\_\_ being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the company by \_\_\_\_\_ self as \_\_\_\_\_.

In Witness Whereof, I hereunto set my hand and official seal.

\_\_\_\_\_  
Notary Public

COMMONWEALTH OF PENNSYLVANIA :  
 :  
COUNTY OF LANCASTER :

On this, the \_\_\_\_\_ day of \_\_\_\_\_, 2020, before me, a Notary Public, the undersigned officer, personally appeared \_\_\_\_\_, who acknowledged \_\_\_\_\_self to be the Supervisor of **CAERNARVON TOWNSHIP** (LANCASTER COUNTY), a second class township, and that \_\_\_he as such Supervisor being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the Township by \_\_\_\_\_self as Supervisor.

In Witness Whereof, I hereunto set my hand and official seal.

\_\_\_\_\_  
Notary Public

COMMONWEALTH OF PENNSYLVANIA :  
 :  
COUNTY OF LANCASTER :

On this, the \_\_\_\_\_ day of \_\_\_\_\_, 2020, before me, a Notary Public, the undersigned officer, personally appeared **PAUL Z. NOLT** and **IRENE NOLT**, known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within instrument, and acknowledged that they executed the same for the purpose therein contained.

In Witness Whereof, I hereunto set my hand and official seal.

Notary Public



155 E. Front Street (rear-carriage house)  
Lititz, PA 17543 P (717) 625-1930 F (717) 625-1931 [www.VisionEngineeringInc.net](http://www.VisionEngineeringInc.net)

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June 11, 2020

**Ivan K. Fisher**  
247 S. Poole Forge Road  
Narvon, PA 17555

RE: 247 S. Poole Forge Rd. **PAVING EXISTING DRIVEWAY WORK (not a regulated activity subject to Stormwater Ordinance).**

Dear Mr. Fisher:

We received your application for a stormwater management permit. Your application indicated that the work you are proposing is LIMITED to ONLY PAVING of existing Stone Driveway Surfaces (2,500 Square Yards) and did NOT show ANY NEW surfaces NOR any earth disturbance activities.

Please be advised that the work described (paving over existing stone driveway surfaces) with NO NEW IMPERVIOUS (pavement or stone) SURFACES is NOT considered a "REGULATED ACTIVITY". Therefore, If you work is limited to what is described in the application and above and you are NOT creating any NEW Impervious Surfaces with your work and you will NOT be altering the existing grading OR associated runoff patterns, then you do NOT need a stormwater permit and you can proceed with the work accordingly. Otherwise, if we have misunderstood the application documents, then please advise us accordingly.

If you would have any questions at all please feel free to contact us.

Sincerely,  
**Vision Engineering, Inc.**  
Caernarvon Township Engineer

A handwritten signature in black ink, appearing to read "John K. Roche", written over a large, stylized, circular flourish.

John K. Roche, P.E.  
President

cc: Caernarvon Township, Robin Royer & Project File



155 E. Front Street (rear-carriage house)

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**May 29, 2020**

**Lichty's Mennonite Church (owner)**

RD 2, BOX 167

East Earl, PA 17519

Aaron Horst (applicant)

270 Panorama Drive

Denver, PA 17517

RE: SMALL SW Project 1690 Union Grove Road, East Earl **PERMIT CAERN-020314 -Building Addition (24'x 32' = 768 SF), for a TOTAL NOT TO EXCEED OF 768 Square Feet of New Impervious for STORMWATER**

Dear Mr. Horst:

We have reviewed the above Application in accordance with the current Caernarvon Township SWM Ordinance (2014). Based on your project with **768 square feet (SF) of net impervious area**, an **infiltration volume of 64 Cubic Feet (CF) or 500 gallons** is required. Construct an infiltration facility (BMP) with a **void (storage) volume of 64 CF or 500 Gallons** or more to **receive the runoff from the proposed improvements (or other equivalent impervious area)**; examples/options as follows (select ONLY one BMP below):

1. Install a shallow **rain garden** with minimum dimensions of **22 feet long by 4. FEET wide** (or equivalent area) and a **depth of no more than six (6") inches**.  
**OR.**
2. Install a **Stone Trench/Bed** with minimum dimensions of **40 feet long by 2 feet wide by 24" deep** (or equivalent area) **no more than (2") deep**.

NOTE: BMP's shall be kept away from ROAD, driveways, property lines, septic tank, drain field, sand mound, **well**, building foundation and outside of easements and right-of-ways. If you meet the above conditions in implementing the improvements shown on your plan you can consider this letter as your **STORMWATER PERMIT** for the project and **are considered compliant**. Please also take note of the **enclosed brochure regarding your stormwater facilities (BMP's)**. Hopefully, this information gives you a better understanding of these improvements. Any questions at all please contact our office.

Sincerely,

*Vision Engineering, Inc.*

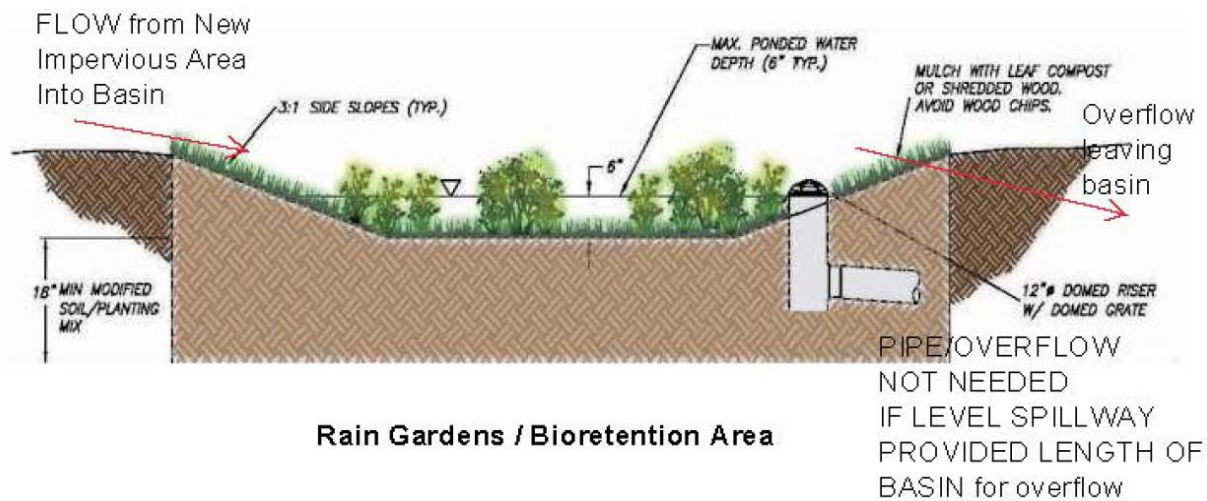
Caernarvon Township Engineer

A handwritten signature in black ink, appearing to read "John K. Roche", written over a horizontal line.

John K. Roche, P.E.

Enclosures BMP Manual (brochure) & SKETCH

cc: Caernarvon Township, Robin Royer & FILE



Stone Trench Details Below (see PERMIT)  
 Pipe is not necessary for trench placed alongside of driveway. Flow from driveway directed into Trench overland.

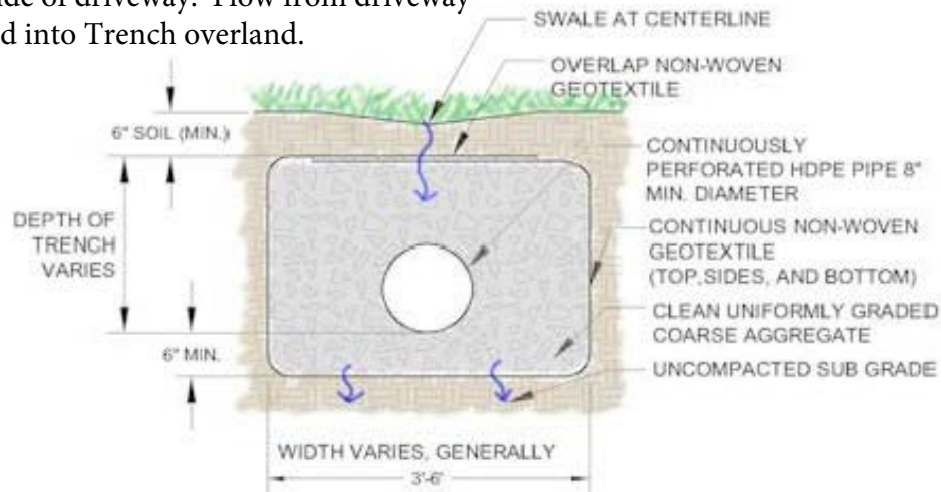


Figure 6.4-1

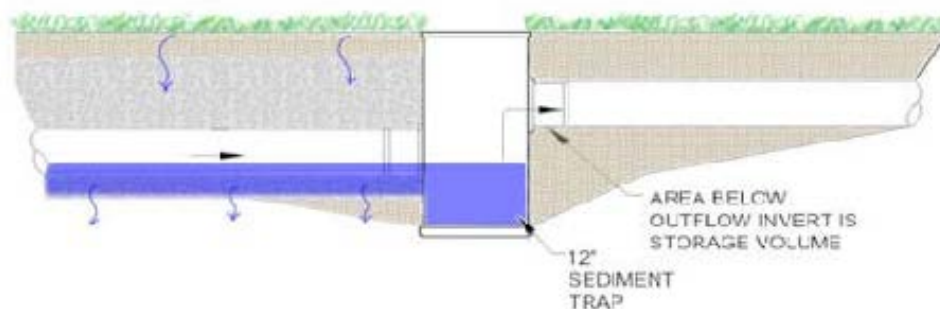


Figure 6.4-2





155 E. Front Street (rear-carriage house)

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**Benuel M. Smucker**

**June 8, 2020**

2049 Turkey Hill Road

Narvon, PA 17555

RE: SMALL SW Project 456 Lambert Road, **PERMIT CAERN-020315 -New Garage (32'x 56' = 1,792 SF) AND Driveway (750 Square Feet), for a TOTAL NOT TO EXCEED OF 2,542 Square Feet of New Impervious for STORMWATER**

Dear Mr. Smucker:

We have reviewed the above Application in accordance with the current Caernarvon Township SWM Ordinance (2014). Based on your project with **2,542 square feet (SF) of net impervious area, an infiltration volume of 215 Cubic Feet (CF) or 1,600 gallons** is required. Construct an infiltration facility (BMP) with a **void (storage) volume of 215 CF or 1,600 Gallons** or more to **receive the runoff from the proposed improvements (or other equivalent impervious area);** examples/options as follows (select ONLY one BMP below):

1. Install a shallow **rain garden** with minimum dimensions of **50 feet long by 7. FEET wide** (or equivalent area) and a **depth of no more than six (6") inches.**  
**OR.**
2. Install a **Stone Trench/Bed** with minimum dimensions of **25 feet long by 15 feet wide by 18" deep** (or equivalent area) **no more than (18") deep.**  
**OR.**
3. **Apply the Credits Associated with your recent Riparian Buffer Easement which provides for a FULL Credit for this Project and would require NO FURTHER BMP's for compliance.**

NOTE: BMP's shall be kept away from ROAD, driveways, property lines, septic tank, drain field, sand mound, **well**, building foundation and outside of easements and right-of-ways. If you meet the above conditions in implementing the improvements shown on your plan you can consider this letter as your **STORMWATER PERMIT** for the project and **are considered compliant.** Please also take note of the **enclosed brochure regarding your stormwater facilities (BMP's).** Hopefully, this information gives you a better understanding of these improvements. Any questions at all please contact our office.

Sincerely,

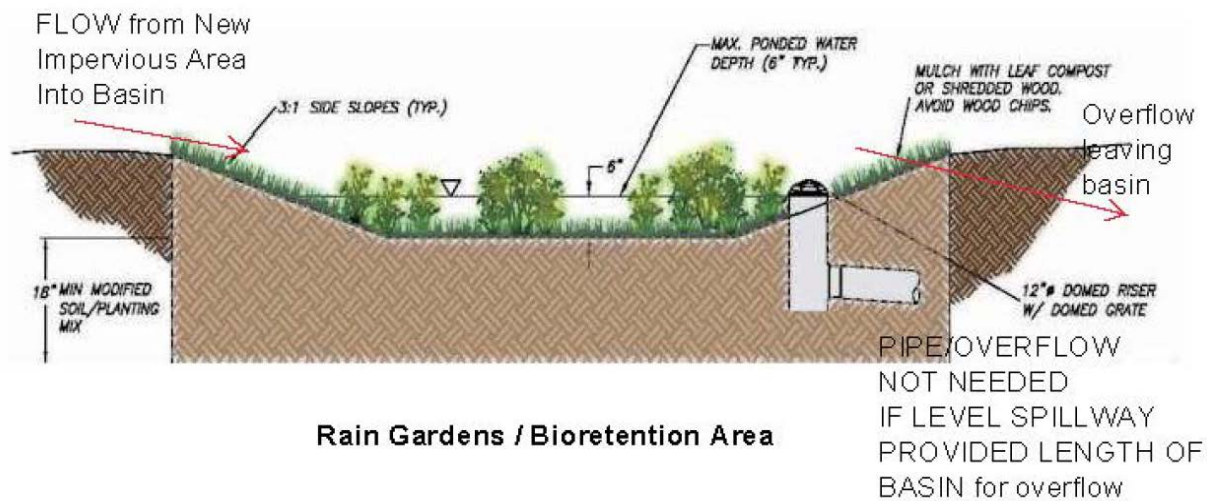
*Vision Engineering, Inc.*

Caernarvon Township Engineer

John K. Roche, P.E.

A handwritten signature in black ink, appearing to read "John K. Roche", is written over a large, loopy circular flourish.

Enclosures BMP Manual (brochure) & SKETCH



Stone Trench Details Below (see PERMIT)  
 Pipe is not necessary for trench placed alongside of driveway. Flow from driveway directed into Trench overland.

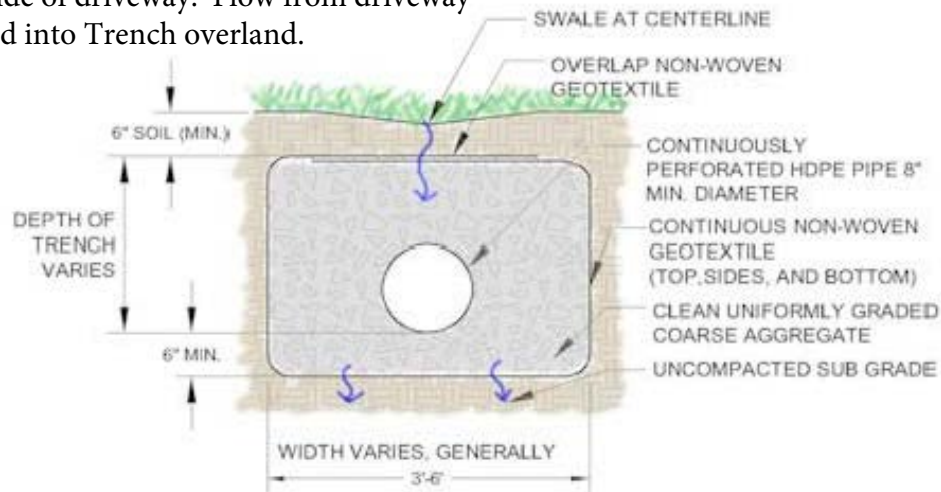


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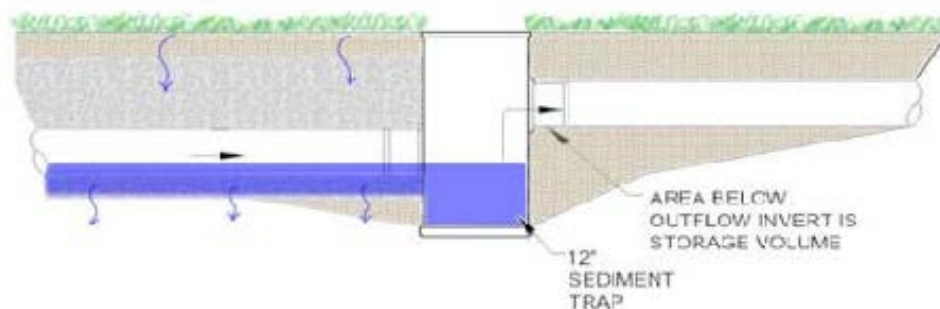


Figure 6.4-2



155 E. Front Street (rear-carriage house)

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**June 8, 2020**

**John Mark Beiler**

380 Hammertown Road

Narvon, PA 17555

RE: SMALL SW Project 380 Hammertown Road, **PERMIT CAERN-020316 - Building Addition (24'-8"x 28' = 691 SF) & DEMO/REMOVAL (400 Sq. Ft.), for a NET TOTAL NOT TO EXCEED OF 371 Square Feet of New Impervious for STORMWATER**

Dear Mr. Beiler:

We have reviewed the above Application in accordance with the current Caernarvon Township SWM Ordinance (2014). Based on your project with **371 square feet (SF) of net impervious area**, an **infiltration volume of 31 Cubic Feet (CF) or 250 gallons** is required. Construct an infiltration facility (BMP) with a **void (storage) volume of 31 CF or 250 Gallons** or more to **receive the runoff from the proposed improvements (or other equivalent impervious area)**; examples/options as follows (select ONLY one BMP below):

1. Install a shallow **rain garden** with minimum dimensions of **16 feet long by 2 FEET wide** (or equivalent area) and a **depth of no more than six (6") inches**.  
**OR**
2. Install a **Stone Trench/Bed** with minimum dimensions of **26 feet long by 2 feet wide by 18" deep** (or equivalent area) **no more than (18") deep**.  
**OR**
3. **Install Rain Barrels/Cistern with a volume of 250 Gallons or more.**

NOTE: BMP's shall be kept away from ROAD, driveways, property lines, septic tank, drain field, sand mound, **well**, building foundation and outside of easements and right-of-ways. If you meet the above conditions in implementing the improvements shown on your plan you can consider this letter as your **STORMWATER PERMIT** for the project and **are considered compliant**. Please also take note of the **enclosed brochure regarding your stormwater facilities (BMP's)**. Hopefully, this information gives you a better understanding of these improvements. Any questions at all please contact our office.

Sincerely,

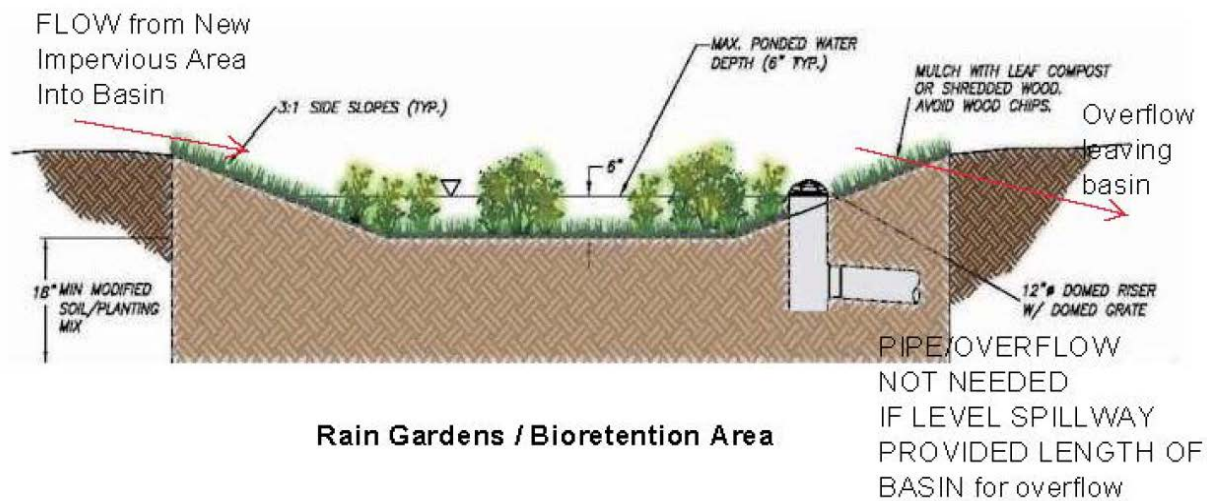
*Vision Engineering, Inc.*

Caernarvon Township Engineer

John K. Roche, P.E.

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Enclosures BMP Manual (brochure) & SKETCH



Stone Trench Details Below (see PERMIT)  
 Pipe is not necessary for trench placed alongside of driveway. Flow from driveway directed into Trench overland.

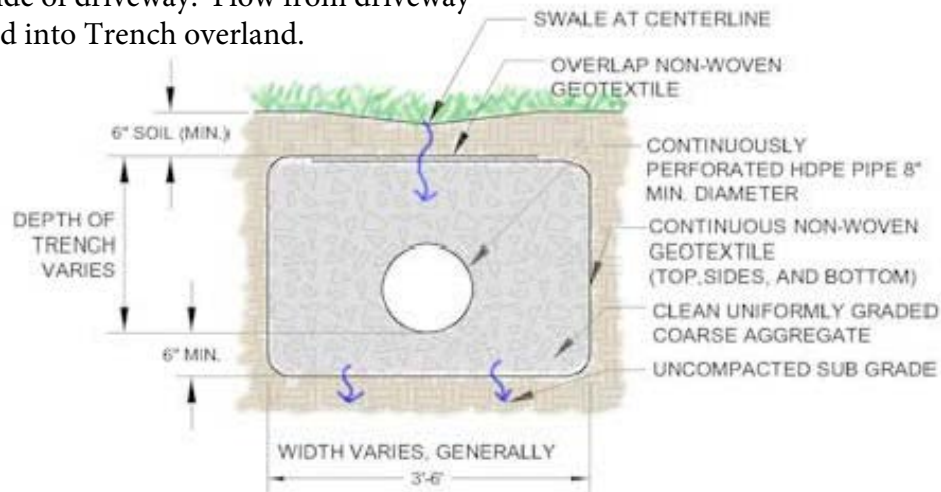


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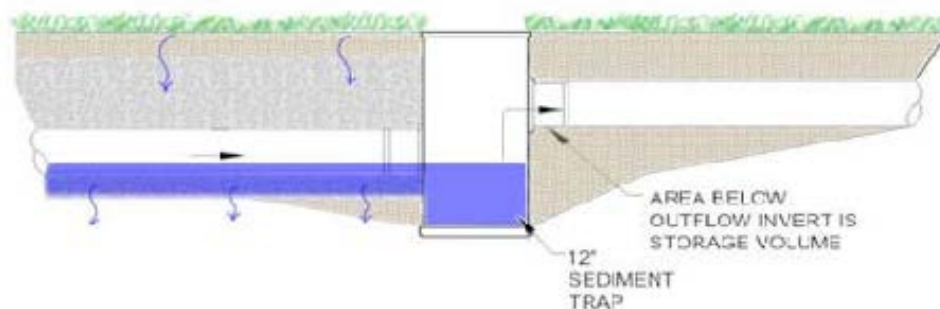


Figure 6.4-2





155 E. Front Street (rear-carriage house)

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---

**June 8, 2020**

**Stephen King**

2111 Telegraph Road

Honey Brook, PA 19344

RE: SMALL SW Project 1056 Elwood Street, **PERMIT CAERN-020317 - NEW Home Addition (12' x 30' = 360 SF) & Added Drive/parking area (20'x20' =400 Sq. Ft.), for a NET TOTAL NOT TO EXCEED OF 760 Square Feet of New Impervious for STORMWATER**

Dear Mr. King:

We have reviewed the above Application in accordance with the current Caernarvon Township SWM Ordinance (2014). Based on your project with **760 square feet (SF) of net impervious area**, an **infiltration volume of 64 Cubic Feet (CF) or 475 gallons** is required. Construct an infiltration facility (BMP) with a **void (storage) volume of 64 CF or 475 Gallons** or more to **receive the runoff from the proposed improvements (or other equivalent impervious area)**; examples/options as follows (select ONLY one BMP below):

1. Install a shallow **rain garden** with minimum dimensions of **30 feet long by 2.5 FEET wide** (or equivalent area) and a **depth of no more than six (6") inches**.  
**OR.**
2. Install a **Stone Trench/Bed** with minimum dimensions of **27 feet long by 4 feet wide by 18" deep** (or equivalent area) **no more than (18") deep**.

NOTE: BMP's shall be kept away from ROAD, driveways, property lines, septic tank, drain field, sand mound, **well**, building foundation and outside of easements and right-of-ways. If you meet the above conditions in implementing the improvements shown on your plan you can consider this letter as your **STORMWATER PERMIT** for the project and **are considered compliant**. Please also take note of the **enclosed brochure regarding your stormwater facilities (BMP's)**. Hopefully, this information gives you a better understanding of these improvements. Any questions at all please contact our office.

Sincerely,

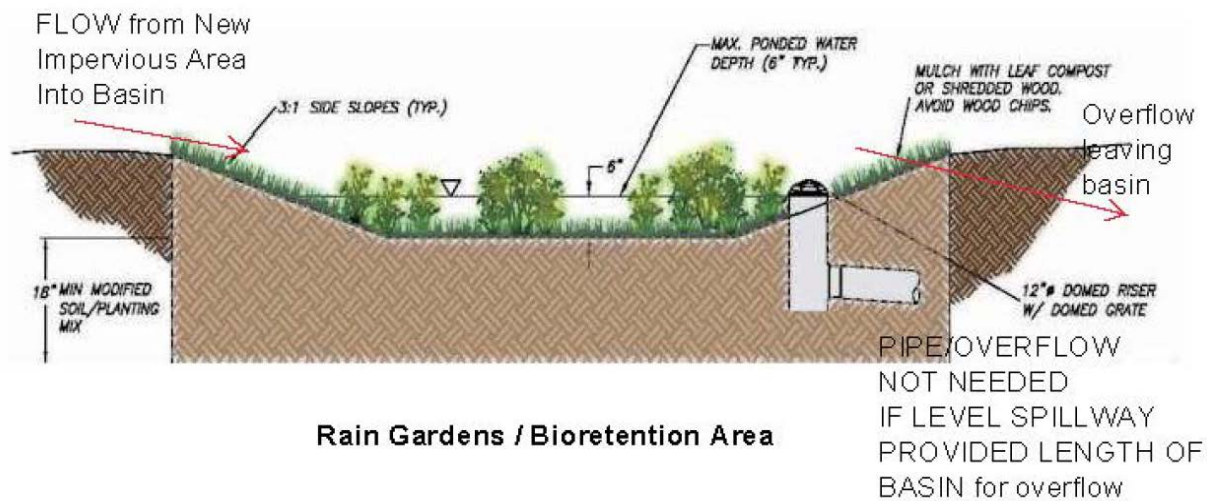
*Vision Engineering, Inc.*

Caernarvon Township Engineer

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John K. Roche, P.E.

Enclosures BMP Manual (brochure) & SKETCH



Stone Trench Details Below (see PERMIT)  
 Pipe is not necessary for trench placed alongside of driveway. Flow from driveway directed into Trench overland.

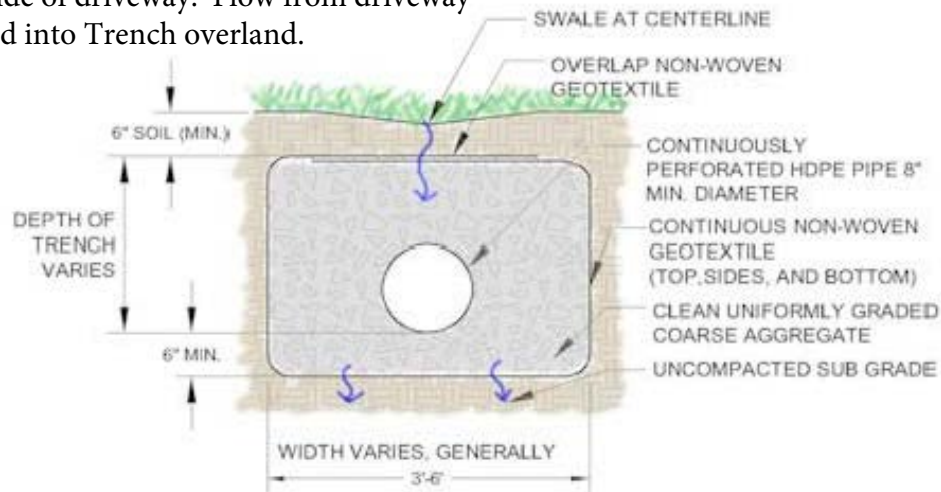


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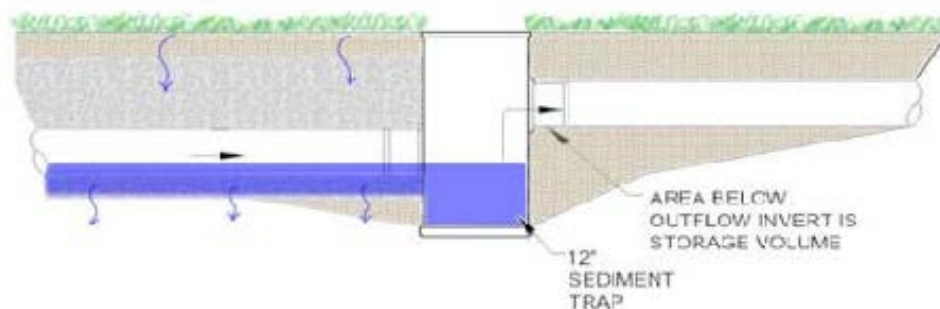


Figure 6.4-2



155 E. Front Street (rear-carriage house)

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---

June 8, 2020

Jason Correll

1110 Logan Lane

Narvon, PA 17555

RE: SMALL SW Project 1110 Logan Lane, **PERMIT CAERN-020318 - NEW Pole Barn (36' x 40' = 1,440 SF) With Lean To (10' x 40' = 400 SF) & New Drive (30'x24' + 20'x12'=960 Sq. Ft.), for a NET TOTAL NOT TO EXCEED OF 2,800 Square Feet of New Impervious for STORMWATER**

Dear Mr. Correll:

We have reviewed the above Application in accordance with the current Caernarvon Township SWM Ordinance (2014). Based on your project with **2,800 square feet (SF) of net impervious area**, an **infiltration volume of 234 Cubic Feet (CF) or 1,750 gallons** is required. Construct an infiltration facility (BMP) with a **void (storage) volume of 234 CF or 1,750 Gallons** or more to **receive the runoff from the proposed improvements (or other equivalent impervious area)**; examples/options as follows (select ONLY one BMP below):

1. Install a shallow **rain garden** with minimum dimensions of **60 feet long by 6 FEET wide** (or equivalent area) and a **depth of no more than six (6") inches**.  
**OR.**
2. Install a **Stone Trench/Bed** with minimum dimensions of **100 feet long by 4 feet wide by 18" deep** (or equivalent area) **no more than (18") deep**.

NOTE: BMP's shall be kept away from ROAD, driveways, property lines, septic tank, drain field, sand mound, **well**, building foundation and outside of easements and right-of-ways. If you meet the above conditions in implementing the improvements shown on your plan you can consider this letter as your **STORMWATER PERMIT** for the project and **are considered compliant**. Please also take note of the **enclosed brochure regarding your stormwater facilities (BMP's)**. Hopefully, this information gives you a better understanding of these improvements. Any questions at all please contact our office.

Sincerely,

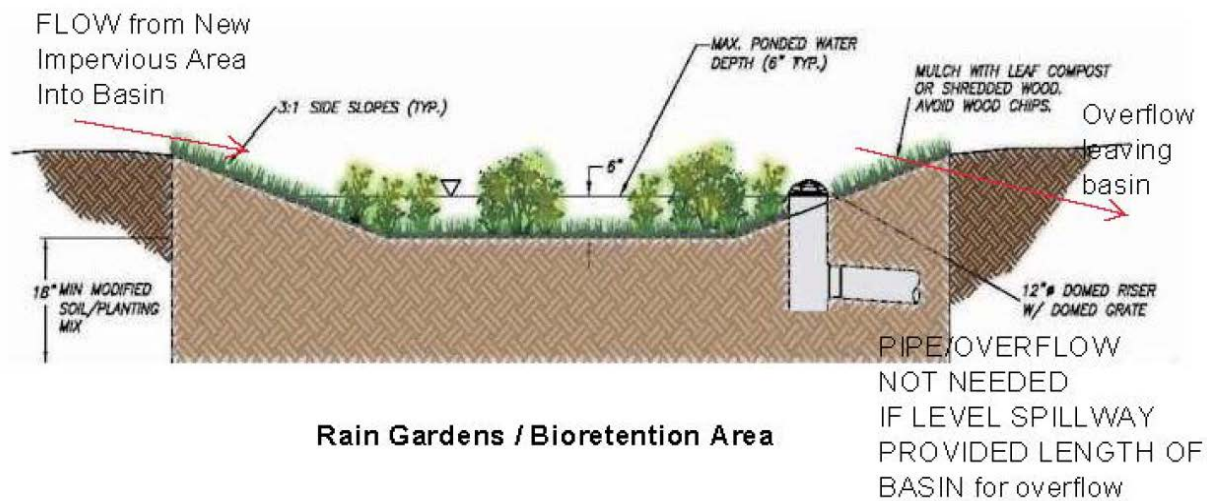
*Vision Engineering, Inc.*

Caernarvon Township Engineer

John K. Roche, P.E.

A handwritten signature in black ink, appearing to read "John K. Roche", with a large, stylized loop at the beginning.

Enclosures BMP Manual (brochure) & SKETCH



Stone Trench Details Below (see PERMIT)  
 Pipe is not necessary for trench placed alongside of driveway. Flow from driveway directed into Trench overland.

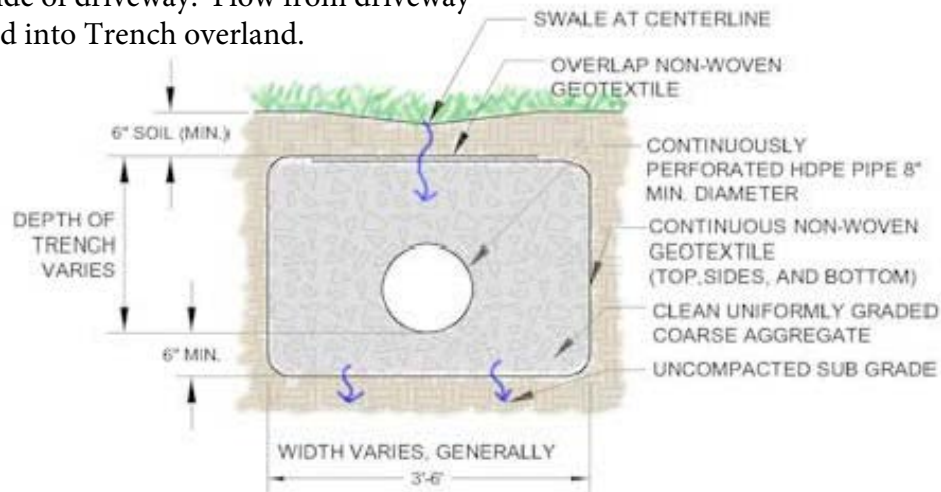


Figure 6.4-1

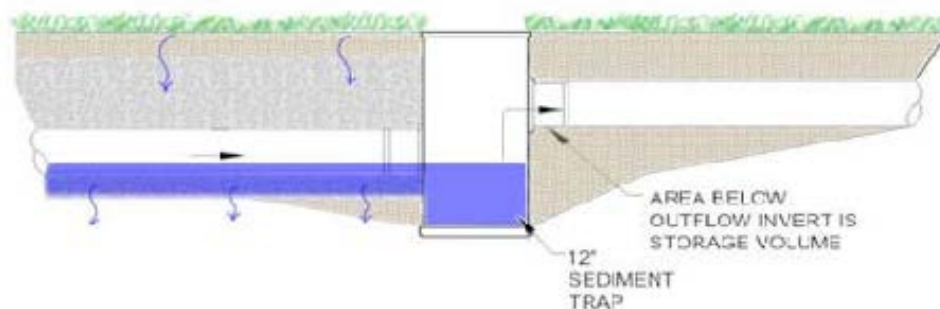


Figure 6.4-2





155 E. Front Street (rear-carriage house)

Lititz, PA 17543 P (717) 625-1930 F (717) 625-1931 [www.VisionEngineeringInc.net](http://www.VisionEngineeringInc.net)

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**John Parsons**

**June 18, 2020**

2455 Hammertown Road

Narvon, PA 17555

RE: SMALL SW Project 2455 Hammertown Road, **PERMIT CAERN-020319 - NEW Deck (12' x 14' = 168 SF) AND REMOVE EXISTING PATIO/STEPS/SLAB (161 Sq. Ft.), (80% Credit Applied for Removal) for a NET TOTAL NOT TO EXCEED OF 40 Square Feet of New Impervious for STORMWATER**

Dear Mr. Parsons:

We have reviewed the above Application in accordance with the current CTSWMO (2014). Based on your project with **40 square feet (SF) of impervious area**, an **infiltration volume of 4 Cubic Feet (CF) or 25 gallons** is required. Construct an infiltration facility (BMP) with the above **volumes** or more to **receive the runoff from the proposed improvements (or other equivalent impervious area)**; examples/options as follows (select ONLY one BMP below):

1. Install a shallow **rain garden** with minimum dimensions of **4 feet long by 1. FEET wide** (or equivalent area) and a **depth of no more than six (6") inches**.  
**OR**
2. Install a **Stone Trench/Bed** with minimum dimensions of **4 feet long by 2 feet wide by 18" deep** (or equivalent area) **no more than (18") deep**.  
**OR**
3. **Install a Rain Barrel with 25 gallons or more of storage and connect to an existing roof leader (downspout) of your home.**

NOTE: BMP's shall be kept away from ROAD, driveways, property lines, septic tank, drain field, sand mound, **well**, building foundation and outside of easements and right-of-ways. If you meet the above conditions in implementing the improvements shown on your plan you can consider this letter as your **STORMWATER PERMIT** for the project and **are considered compliant**. Please also take note of the **enclosed brochure regarding your stormwater facilities (BMP's)**. Hopefully, this information gives you a better understanding of these improvements. Any questions at all please contact our office.

Sincerely,

*Vision Engineering, Inc.*

Caernarvon Township Engineer

John K. Roche, P.E.

Enclosures BMP Manual (brochure) & SKETCH

## Description

Cisterns, Rain Barrels, Vertical Storage, and similar devices have been used for centuries to capture storm water from the roofs of buildings, and in many parts of the world these systems serve as a primary water supply source. The reuse of stormwater for potable needs is not advised without water treatment, although many homes in the U.S. were storing water in cisterns for reuse as little as a century ago. These systems can reduce potable water needs for uses such as irrigation and fire protection while also reducing stormwater discharges.

Storage/reuse techniques range from small, residential systems such as Rain Barrels that are maintained by the homeowner to supplement garden needs, to large, “vertical storage” units that can provide firefighting needs. Storage/reuse techniques are useful in urban areas where there is little physical space to manage storm water.

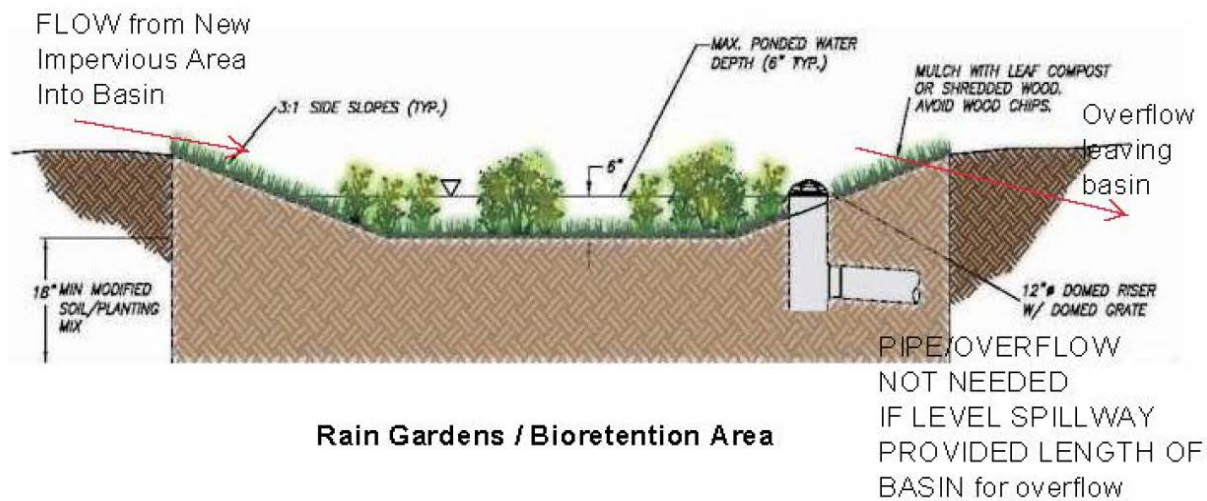
## Variations

**Cisterns** – large, underground or surface containers designed to hold large volumes of water (500 gallons or more). Cisterns may be comprised of fiberglass, concrete, plastic, brick or other materials.



**Rain barrels** – barrel (or large container) that collect drainage from roof leaders and store water until needed for irrigation.





Stone Trench Details Below (see PERMIT)  
 Pipe is not necessary for trench placed alongside of driveway. Flow from driveway directed into Trench overland.

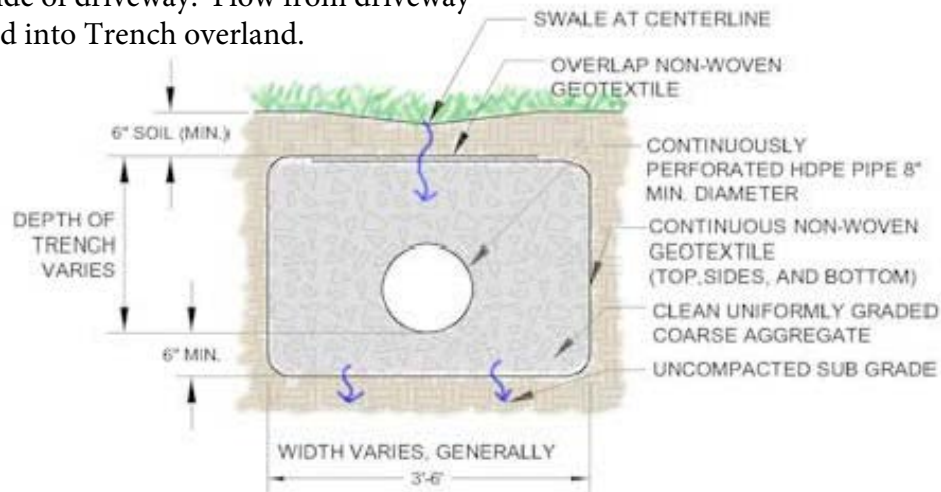


Figure 6.4-1

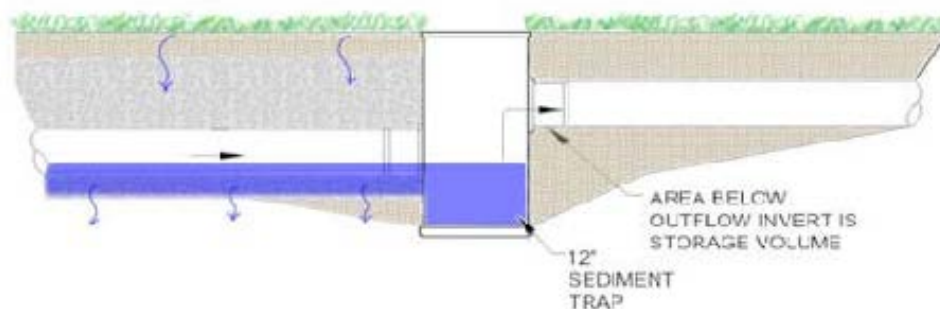


Figure 6.4-2



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June 24, 2020

**William Deihm**

2747 Valley View Road  
Morgantown, PA 19543

RE: WORK WITHOUT PERMITS AT 2747 Valley View Rd. (#050-34716-0-0000)  
& PRIOR VIOLATION LETTER (dated 2/25/20) FOLLOWUP

Dear Mr. Deihm:

We are contacting you to request an update for any progress you are having with this matter. The last time we spoke (February), you explained that you were working with Diehm & Sons in developing a plan to address the subject stormwater violation.

We do understand that there has been a hiatus due to the recent pandemic situation. However, with the clearing of the restrictions we are reaching out to you for an update on your progress/schedule with this matter.

If you could please notify us of your plans and timing (in writing) to comply with these requirements or alternatively to further abate this work (removal of work and restoration of disturbed areas) so that your property is in compliance with this Ordinance.

We have appreciated your good faith efforts and communication to date. However, since you were issued a formal Notice of Violation we would like to provide the Board with an update to your project at their upcoming meeting (7/6/20) so that they are fully aware of your plans. Any questions at all, please contact our office.

Sincerely,

*Vision Engineering, Inc.*

Caernarvon Township Engineer

A handwritten signature in black ink, appearing to read "John K. Roche", written over a large, loopy, circular flourish.

John K. Roche, P.E.

cc: Caernarvon Township, & FILE