

Agenda December 3rd 2018

Town of Arietta

- Call to Order
- Roll Call
- Approve minutes for the October 1st, 22nd and November 7th

- Resolutions

18-12-44 Establish Last Payroll 2018

18-12-45 Transfer of Funds

18-12-46 Automated Water Level Data Collection for Piseco Lake

Snowmobile Trails & Town Buildings and Grounds-**Knapp**

Internal Management / Insurance, - **Grier**

Recreation, Website & Chamber, -**C.Wilt**

Finance / Airport-**R.Wilt**

Lake / Dam / Invasive-**Rudes**

Highway Superintendent

Code / Zoning

- New Business
Motion to auction two Bombardier Skandic's a 2007 and a 2008
FYI-Planning Board letter attached for sending out with the tax bill for Board approval
- Old Business
- Financial statements
- Accept the Bills
- Public Comment
- Designation of next Meeting December 27th @5pm
- Motion to adjourn

TOWN OF ARIETTA

At a regular meeting of the Arietta Town Board at the Piseco Common School on 1722 State Route 8 in the Town of Arietta, Hamilton County, New York on:

December 3, 2018 at 6:00pm

Resolution # 18- 12 - 44

Subject: Establish Last Payroll 2018

Resolution Offered By: _____

WHEREAS: The Arietta Town Board will close the payroll for the year 2018, and

WHEREAS: the last date of payroll for 2018 bi-weekly General and Highway payroll will be at 12 midnight on Friday, December 21, 2018, and

THEREFORE, LET IT BE RESOLVED: the Town Board, Town of Arietta will start the first bi-weekly General and Highway payroll period of the year 2019 on Saturday, December 22, 2018.

Seconded by: _____ and put to a vote, which resulted as follows:

AYES:

Jacquelyn Grier _____
Sarah Rudes _____
Michael Knapp _____
Christy Wilt _____
Richard Wilt _____

NOES:

Jacquelyn Grier _____
Sarah Rudes _____
Michael Knapp _____
Christy Wilt _____
Richard Wilt _____

_____, Town Clerk Date _____ 2018

TOWN OF ARIETTA

At a regular meeting of the Arietta Town Board at the Piseco Common School, 1722 State Route 8 in the Town of Arietta, Hamilton County, New York on:

December 3, 2018 at 6:00pm

Resolution # 18-12-45

Subject: Transfer of Funds

Resolution Offered By: _____

WHEREAS: the Town of Arietta will give the Town Supervisor permission to make the following transfer of money:

General Fund

- \$ 300.00 to #A0-1355-100, Assessor Personnel Expense
from #A0-1990-400, Contingent Contractual Expense
- \$ 3,222.00 to #A0-5010-120, Superintendent of Highways Personnel Expense
from #A0-1990-400, Contingent Contractual Expense
- \$ 34.00 to #A0-1220-140, Supervisor Personnel Expense
from #A0-1990-400, Contingent Contractual Expense
- \$ 2,000.00 to #A0-5132-100, Garage Personnel Expense
from #A0-1990-400, Contingent Contractual Expense
- \$2,500.00 to #A0-7620-400, Adult Recreation Contractual Expense
from #A0-1990-400, Contingent Contractual Expense
- \$ 500.00 to #A0-8010-400, Zoning Contractual Expense
from #A0-1990-400, Contingent Contractual Expense

Highway Fund

- \$ 4,295.00.00 to #DA-5110-110, General Repairs Personnel Expense
from #DA-9060-800, Hospital & Medical Insurance Expense

THEREFORE, LET IT BE RESOLVED: that the Town Board, Town of Arietta does approve the above transfers of money.

Seconded by: _____ and put to a vote, which resulted as follows:

AYES:

NOES:

- Jacquelyn Grier _____
- Sarah Rudes _____
- Michael Knapp _____
- Christy Wilt _____
- Richard Wilt _____

- Jacquelyn Grier _____
- Sarah Rudes _____
- Michael Knapp _____
- Christy Wilt _____
- Richard Wilt _____

_____, Town Clerk Date _____, 2018

TOWN OF ARIETTA

At a regular meeting of the Arietta Town Board at the Piseco Common School on 1722 State Route 8 in the Town of Arietta, Hamilton County, New York on:

December 3, 2018 at 6:00pm

Resolution # 18- 12 - 46

Subject: **Automated Water Level Data Collection for Piseco Lake**

Resolution Offered By: _____

WHEREAS: the Arietta Town Board has received the Agreement from Schnabel Engineering of New York for the automated water level sensors for Piseco Lake to collect data regarding the timing and variability for water levels to calibrate Hydrologic and Hydraulic (H&H) models and support future work, and

WHEREAS: Schnabel will install two water level sensors (pressure probe style) and complete the work as outlined in the attached agreement for the amount of \$15,500.00?, and

THEREFORE, LET IT BE RESOLVED: the Town Board, Town of Arietta will enter into the agreement as outlined in the attachment with Schnabel Engineering of New York and authorize the supervisor to execute the agreement on behalf of the Town of Arietta.

Seconded by: _____ and put to a vote, which resulted as follows:

AYES:

Jacquelyn Grier _____
Sarah Rudes _____
Michael Knapp _____
Christy Wilt _____
Richard Wilt _____

NOES:

Jacquelyn Grier _____
Sarah Rudes _____
Michael Knapp _____
Christy Wilt _____
Richard Wilt _____

_____, Town Clerk Date _____ 2018

Dear Property Owner,

In anticipation of updating our sewer laws and initiating an inspection program, we are asking for your cooperation in completing a short survey about your septic system. We are only trying to gather data at this point and your answers will help our septic committee assess the impact that any modifications to the existing laws would have on: (a) the ability to maintain the quality of our recreational water bodies, (b) enhancing Town prevention and enforcement policies, and (c) potential costs to individual property owners and to the Town through administration of these initiatives.

This survey may be returned with your tax payment.

To the Best of your knowledge:

1. Do you currently have a septic system on site? (Yes / No? Vacant Land?)
2. Do you know what type of system you currently have?
3. Is your system currently working well? Please explain:
4. Do you know the age of your current system, when was it installed?
5. Do you know the last time the system was inspected? Dye test done?
6. Do you know when the last time the system was pumped?

Your Name: _____

Your Piseco Property Address : _____

Thank you for your response!



November 9, 2018

Richard A. Wilt
Supervisor
Town of Arietta
1722 State Route 8
P.O. Box 37
Piseco, NY 12139

**Subject: Calibrated H&H Model for the Piseco Lake Outlet Dam, Arietta, New York
(NYS ID: 156-0615) (Schnabel Reference 17C25004.00)**

Dear Mr. Wilt:

SCHNABEL ENGINEERING OF NEW YORK (Schnabel) is pleased to submit this proposal for additional engineering services for the Piseco Lake Outlet Dam located in Arietta, New York.

The Hydrologic and Hydraulic (H&H) models that were previously developed and documented in our report dated March 9, 2018, were event-based models developed to simulate how the watershed and lake respond to various magnitude storm events. These were intended to evaluate the dam's compliance with regulatory spillway capacity requirements and to gain a general understanding of the dam's influence on lake levels. The models were not calibrated due to a lack of detailed water surface elevation data at the lake and at the dam. While the modeling concluded that the presence of the dam did not significantly influence peak lake levels during a storm event, it did suggest that a more significant benefit of the dam is the ability to sustain higher lake levels during the drawdown following a storm event. This is a more complex hydrologic regime to simulate and requires the application of a continuous hydrologic model supported by detailed water level information at the lake and at the dam. This scope includes the development of a calibrated continuous-simulation H&H model, with the intent of creating a tool that is capable of demonstrating the relationship between water levels at the dam and lake under various environmental conditions and stop log configurations. To support this calibration process, we intend to collect water level data at the lake and at the dam, as detailed in a separate proposal dated November 8, 2018.

SCOPE OF WORK

Task 1: Development of the Calibrated H&H Model

Calibration of H&H model parameters is an important step in assuring that our model reasonably represents the long-term runoff behavior of the Piseco Lake watershed, and the response of Piseco Lake including the outlet channel and dam.

We will utilize water surface elevation data collected during the 2019 season to develop and calibrate a continuous simulation hydrologic model using the USACE HEC-HMS software. The hydrologic loss methodology from the previous event-based modeling will be converted to the Soil Moisture Accounting or similar methodology. This allows for the computation of direct runoff, as well as tracking of rainfall infiltration to shallow and deep groundwater zones to simulate interflow and deep percolation losses from the hydrologic system. It also allows for simulation of evapotranspiration and infiltration capacity recovery as surface soils dry out following saturation from a storm event. This is a complex representation of the watershed hydrology and includes numerous variables that are best quantified through a detailed calibration process. We will utilize 5-minute precipitation data available from the Piseco Airport through the NYS Mesonet Database supplemented with water surface elevation data collected at the lake outlet (Route 8 Bridge) and at the dam (Route 10 Bridge) to support the calibration process. The outflow rating tables for rocky bend and the dam, which were previously developed for the uncalibrated model using the USACE HEC-RAS software, will be also be modified as necessary to further improve correlations between computed and observed water levels.

Note that the hydrologic regime of a large watershed involves many complex physical processes and the quality of a continuous simulation hydrologic model is highly dependent upon input data including precipitation and lake level data as well as the homogeneity of the watershed. We are hopeful that a single season of lake level data (with and without boards in) will be adequate to calibrate the continuous simulation hydrologic model; however, based on the model results, additional long-term data may be recommended to further refine the model.

Task 2: Evaluations Using the Calibrated H&H Model

The calibrated model will be used to illustrate the difference between water levels at the dam and at the lake for a "boards in" versus "boards out" condition. To perform this comparison, we will select a representative month of data with the boards in, and use the calibrated model to show the predicted water levels with the boards out. Similarly, we will select a representative month of data with the boards out, and use the calibrated model to show the predicted water levels with the boards in. We will also perform hypothetical simulations of the 2019 operating season (Memorial Day through end of October) with the boards always in and with the boards always out. We believe that these comparisons will help illustrate the influence on lake levels that the current dam provides and will help inform the Town for long-term decisions in regards to the dam. The model will also be an important tool for future evaluation of alternative configurations of a dam at the current location or for a relocated dam location (Optional Task 5).

Task 3: Report

A letter report will be prepared to discuss the data and methodologies utilized during the development of the calibrated H&H model, and the evaluations performed using that model. The report will also provide recommendations for further evaluations to support improvements at the dam.

**Town of Arietta
Calibrated H&H Model for the Piseco Lake Outlet Dam**

Task 4: Presentation to Town Board

We anticipate that we will attend a Town Board meeting to present the results of the calibrated model, and discuss potential follow-up evaluations. We have budgeted to prepare for and attend one meeting in Arietta, New York.

Task 5: Evaluation of Dam Improvement Alternatives (Optional)

The calibrated H&H model might be leveraged to address a number of questions about dam operations, and evaluate a number of dam improvement alternatives. We would recommend waiting until the calibrated H&H model is developed before selecting any specific evaluations, because our findings from Tasks 1 through 4 will likely improve our understanding of the dam and help us select the most beneficial follow-up evaluations.

For budgeting purposes, we would recommend budgeting between \$5,000 and \$18,000 for follow-up evaluations, which would be performed following Tasks 1 – 4. We would not proceed with Task 5 unless authorized by the Town.

PROJECT FEES

Schnabel is prepared to complete the scope of work for Tasks 1 – 4 for a lump sum fee of \$17,500, inclusive of all Professional Services, Fees, Expenses, and Travel. A breakdown of fees per task is provided below. Task 5, Evaluation of Alternatives, is included for the Town's budgetary purposes only.

Task	Schnabel Fee	Fee Type
1 – Development of Calibrated H&H Model	\$10,000	Lump Sum
2 – Evaluations Using the Calibrated H&H Model	\$3,500	Lump Sum
3 – Report	\$2,500	Lump Sum
4 – Presentation to Town Board	\$1,500	Lump Sum
Total for Tasks 1 – 4	\$17,500	Lump Sum
5 – <i>Evaluation of Alternatives (Budgetary Estimate)</i>	<i>\$5,000 – \$18,000</i>	<i>TBD</i>

EXCLUSIONS

Schnabel plans to perform a calibration process based on limited data from the 2019 season of operation. It is important to understand that the watershed, lake, outlet channel, and dam function as a complex environmental system, and any model-based simulation of this complex system requires inherent assumptions and simplifications that cannot perfectly represent the system under all hydrologic conditions. Our overall goal is to create a functional tool that provides a reasonable representation of this system under typical operating conditions that will allow for informed decision making on the future of the Piseco Lake Dam.

Note that successful completion of the scope of work is also dependent on the availability and quality of data provided by the water level recording gages as well as the rainfall data.

CLOSING

We look forward to continuing to collaborate with the Town of Arietta on this important project. Acceptance of this proposal can be confirmed by signing below. You may transmit your acceptance of this agreement electronically with the understanding that the signature on the electronic document will be considered an original signature.

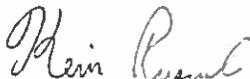
If you have any questions or need additional information, please feel free to contact David Railsback at 518-387-3144 or Kevin Ruswick at 518-348-8577.

Sincerely,

SCHNABEL ENGINEERING OF NEW YORK



David M. Railsback, PE
Project Engineer



Kevin J. Ruswick, PE, CFM
Senior Associate, Project Manager

DMR:KJR:scc

cc: G. Daviero, PhD, PE

The terms and conditions of this proposal, including our agreement dated June 26, 2017, are:

ACCEPTED BY: _____ TOWN OF ARIETTA _____

SIGNATURE: _____

PRINTED NAME: _____

TITLE: _____ DATE: _____



November 8, 2018

Richard A. Wilt
Supervisor
Town of Arietta
1722 State Route 8
P.O. Box 37
Piseco, NY 12139

**Subject: Automated Water Level Data Collection for Piseco Lake and Dam, Arietta, NY
(NYS ID: 156-0615) (Schnabel Reference 17C25004.00)**

Dear Mr. Wilt:

SCHNABEL ENGINEERING OF NEW YORK (Schnabel) is pleased to submit this proposal to install automated water level sensors for Piseco Lake and the Piseco Lake Outlet Dam located in Arietta, New York. The goal of the data collection program is to gain insight into timing and variability of water levels at the dam and lake, and ultimately use the data to calibrate Hydrologic and Hydraulic (H&H) models and support future work.

SCOPE OF WORK

TASK 1: PROCURE AND INSTALL WATER LEVEL SENSORS

Following the approach outlined during our meeting on October 24, 2018, Schnabel will install two water level sensors (pressure probe style) and associated hardware in the spring of 2019 at two locations in Piseco, New York:

- Location 1 – Piseco Lake at the Route 8 Bridge
- Location 2 – Piseco Lake Outlet Dam at the Route 10 Bridge

These water level sensors will be affixed to the bridge abutments. Following installation, the instruments will be calibrated based on water levels read from the staff gages previously installed at each location. Schnabel will perform up to two site visits under Task 1 in order to install the equipment and confirm that the sensors are operating as expected.

Following installation of the water level sensors, Schnabel will turn over data retrieval responsibilities to the Town. The Town's activities are anticipated to include the following:

Town of Arietta
Automated Water Level Data Collection for Piseco Lake and Dam

- Visit the two water level sensors on a monthly basis (or more frequently if possible) to retrieve data and send to Schnabel for review and processing.
- During data retrieval, make note of the water levels displayed on the staff gages, and send that information to Schnabel to support data verification. This should be supplemented with digital images.

TASK 2: ADDITIONAL EQUIPMENT

Based on feedback from our meeting on October 24, Schnabel will procure one extra water level sensor and deliver it to the Town, so that the Town has the equipment on hand in case a replacement is necessary. We will also procure a computer tablet to facilitate data collection by the Town.

TASK 3: WINTER EQUIPMENT REMOVAL (OPTIONAL / TBD)

If deemed necessary, Schnabel will visit the site to retrieve the water level sensors before winter, likely in November or December of 2019. It may also be possible to leave the equipment installed for the winter, although this will depend on the equipment and installation details, as well as anticipated ice conditions at the site. The decision to leave or retrieve the water level sensors will be made at a later date. The Town may also elect to retrieve the equipment themselves (without Schnabel's assistance) to further reduce project cost.

TASK 4: PRELIMINARY DATA REVIEW

As data is collected during the 2019 season, Schnabel will perform preliminary reviews of that data to ascertain quality and completeness of the data sets.

TASK 5: 2019 MEETINGS AND SITE VISITS

To support ongoing engineering activities related to the dam, we anticipate that we will attend Town Board Meetings on an as-needed basis. We have budgeted to prepare for and attend one meeting in 2019.

PROJECT FEES

Schnabel is prepared to complete the scope of work described above for a fee of \$15,500, inclusive of all Professional Services, Fees, Expenses, and Travel. A breakdown of fees per task is provided below.

Task	Fee	Fee Type
1 – Procure and Install Water Level Sensors	\$6,500	Lump Sum
2 – Extra Water Level Sensor & Tablet	\$1,500	Lump Sum
3 – Winter Equipment Removal (Optional / TBD)	\$3,000	Lump Sum
4 – Preliminary Data Review	\$3,000	Lump Sum
5 – Town Board Meeting	\$1,500	Lump Sum
Total for Tasks 1 – 5	\$15,500	

**Town of Arietta
Automated Water Level Data Collection for Piseco Lake and Dam**

EXCLUSIONS

In order to perform data collection in a cost-effective manner, we have assumed that Schnabel will not provide field support beyond our initial installation of water level sensors and a follow-up site visit to confirm that the sensors are operating as expected. If necessary, we can provide additional assistance beyond that which is outlined in this proposal. Following written authorization from the Town, additional efforts would be billed on a Time and Materials basis using our standard rates, which are attached.

Field data collection in a dynamic river environment involves inherent risk, such as equipment damage and equipment failure, and we therefore cannot guarantee the quality or continuity of the data.

CLOSING

We look forward to continuing to collaborate with the Town of Arietta on this important project. Acceptance of this proposal can be confirmed by signing below. You may transmit your acceptance of this agreement electronically with the understanding that the signature on the electronic document will be considered an original signature.

If you have any questions or need additional information, please feel free to contact David Railsback at 518-387-3144 or Kevin Ruswick at 518-348-8577.

Sincerely,

SCHNABEL ENGINEERING OF NEW YORK



David M. Railsback, PE
Project Engineer



Kevin J. Ruswick, PE, CFM
Senior Associate

DMR:KJR:scc

Attachments:

- (1) Schedule of Personnel Fees (1 Sheet)

cc: G. Daviero, PhD, PE

The terms and conditions of this proposal, including our agreement dated June 26, 2017, are:

ACCEPTED BY: _____ TOWN OF ARIETTA _____

SIGNATURE: _____

PRINTED NAME: _____

TITLE: _____ DATE: _____



SCHEDULE OF PERSONNEL FEES – ALBANY (CLIFTON PARK), NEW YORK
Effective until December 31, 2018

Senior Consultant	\$260.00/hr
Principal	\$250.00/hr
Senior Associate / Hydraulic Expert	\$230.00/hr
Associate	\$200.00/hr
Senior Engineer / Scientist / Technologist	\$175.00/hr
Project Engineer / Scientist / Technologist / GIS Specialist	\$155.00/hr
Senior Staff Engineer / Scientist / Technologist	\$135.00/hr
Staff Engineer / Scientist / Technologist	\$115.00/hr
Senior Technician / CADD Technician	\$98.00/hr
Associate Technician / Technician / Engineering Interns	\$90.00/hr
Administrative	\$82.00/hr
Clerical	\$75.00/hr

NOTES:

1. Where forms of agreement for services contain "pay when paid" terms, and the payment override term is in excess of sixty (60) days, the hourly rates presented herein shall be increased by five percent (5%) for each additional 30 days, or portion thereof, that the payment override term exceeds 60 days. Total project budgets presented will also be increased by this increment.
2. Engineering fees will be based upon the actual hours (to nearest 0.3 hr) charged for personnel times the appropriate hourly rate. A two hour minimum will apply for staff engineer and technician services in the field, except for soil sample or concrete cylinder pickup.
3. Travel by auto to and from jobs is based on the IRS prevailing rate. Travel by auto, air or rail, and lodging and meal expense for engineering personnel in the field will be billed at cost plus a 15% handling fee.
4. Subcontracts for subsurface investigations, bulldozers, surveys, etc., and other services and expenses obtained on the client's behalf are marked up 15% to cover the cost of handling, insurance, and overhead.
5. Typing, reproduction, computer expense, and other miscellaneous expenses are usually estimated by a lump sum or percentage of total fees in addition to the above hourly rates.
6. Overtime for senior staff, staff and technician level personnel is time for work on Saturday, Sunday, and national holidays, time in excess of 8 hours per day and time between the hours of 7:00 P.M. and 7:00 A.M. A surcharge of 1.5 times the above hourly rates is added for overtime.
7. Time spent during depositions, hearings, and in court is charged at 1½ times the regular hourly rate.
8. These fees are subject to change on January 1, 2019.