

**RYE TOWNSHIP  
SUPERVISORS' MEETING  
September 14, 2012**

**PAGE 1 OF 4**

**PRESENT:** Chairman Robert Lightner, Vice-Chair Ken Quigley, Supervisor Ron Cree, Daisy Lightner, Secretary/ Treasurer, Nancy Sunday, Clerk, Brad Sloop, Road Foreman, Bill Wilson of Wilson Consulting Group and Mark Wilson of Wilson Consulting Group.

The meeting was held at the municipal building and called to order at 9:00 AM. Chairman Lightner convened the meeting with the pledge of allegiance to the flag. The meeting was tape recorded to aid with the preparation of minutes.

**CITIZEN PARTICIPATION:** No citizen participation was offered at this time.

**OTHER BUSINESS:** Chairman Lightner explained that the Township received a request to place an ad in the Veterans Day Program Booklet at a cost of \$40.00. Supervisor Quigley made a motion and Supervisor Cree seconded the motion to place a half page ad in the Veteran's Program booklet at a cost of \$40.00. Motion carried unanimously.

Chairman Lightner presented the Cove Hill Road Easement Agreement for final approval and signatures. The agreement was previously approved by Solicitor Wagner. Upon due consideration, Supervisor Quigley made a motion and Supervisor Cree seconded the motion to approve and sign the Easement Agreement involving the Cove Hill Road turnaround. Motion carried unanimously. Supervisor Quigley indicated he would take the paperwork to the County for recording.

**PERSONS TO BE HEARD:** Mark and Bill Wilson, of the Wilson Consulting Group were present at this **first project meeting** to discuss the proposed design for the full replacement of the **Pine Hill Road Bridge**. They provided copies of preliminary drawings and the Penn Dot Safety Review submission for review and discussion. The overall project need is to replace the existing structure, a steel I-beam superstructure atop concrete abutments, with a new structure that will be capable of all PA Legal Loads while remaining in context with the surrounding infrastructure.

Bill Wilson explained the preliminary design proposed as follows:

- ◆ 22 feet clear span Precast Single Cell Box Culvert with precast headwalls integral with Precast end sections
- ◆ Under clearance of approximately 4 ½ feet
- ◆ Replacement bridge is slightly wider
- ◆ No guide rail is proposed
- ◆ Opening for water flow through the culvert is increased 30% because of the larger span. The existing bridge has an 18 ft. clear span.

Mr. Wilson discussed a concern with the design proposed in that it does not meet the standard set by Penn Dot for a "Ten Year Storm". Penn Dot will grant release from this criterion if the conditions do not feasibly allow this to happen. Mr. Wilson showed where the 10-year storm was represented on the plans and explained that a "10-Year Storm" is a statistical storm with a 10% chance of this storm occurring in a given year. A 100 year storm has a 1% chance of occurring.

Chairman Lightner introduced Brad Sloop, the Township's Road Foreman, who expressed concerns with how quickly the creek overflows its banks onto the roadway at this section of Pine Hill Road. Heavy rainfall causes water to overtop the roadway. However, through the years it was noted that the water level recedes rather quickly.

Mr. Wilson explained that the existing bridge is considered by PA DEP and Penn Dot a "low flow" crossing which means that the bridge must handle low flows and normal flows and presents no problems, but it has limited capacity to handle a larger flow.

The size and inadequacy of the driveway pipe at 35 Pine Hill Road was discussed and concerns expressed that this inadequate driveway pipe may contribute to the rise of the water on to the roadway near the bridge.

Mr. Wilson agreed that the pipe appears to be undersized. However, he offered that the pipe is not the reason for the water overtopping the roadway. He offered that the driveway in question is located at the low point in the roadway. This roadway profile at this section of Pine Hill Road, (T-305), is very low and flat and located within the Floodplain. Mr. Wilson offered that if there was no pipe there and no bridge, the water would still overtop the roadway during heavy storm events. Enlarging the pipe under the driveway would not significantly change the course of the water flow and resolve the flooding issue.

Mr. Wilson explained that a new culvert in a 10-year storm event would perform better. However, water would still overtop the roadway. He reiterated as before that the shortcoming with this project is that we are not meeting the desired standards for a 10-year storm. Even with installing a 30% bigger structure, we still have almost 300 square feet of water surface in that area overtopping the roadway.

Mr. Wilson clarified the overall objective of this bridge replacement project is to replace the structurally deficient load posted bridge to increase the weight limit and allow the passing of legal loads. The design proposed will meet this objective. The proposed structure meets the project scope while offering an improvement to the hydraulic performance to the site. Providing a structure capable of passing the 10-year storm would require a longer span bridge. A longer span bridge would require an increase to the roadway profile, which would cost considerably more money. A 100 foot-long bridge would be required to allow for almost 300 square feet of area under this bridge. Chairman Lightner noted that this larger type project was not cost effective or feasible for the Township.

Mr. Wilson suggested two other options for slightly better hydraulic performance:

1. A 24' foot span X 5'3" Rise, Skew = 90° degrees  
(This may increase the current from 1.8 year storm to about a 3 year storm.)
2. A 22' foot span x 5'3", Rise, Skew = 78° degrees  
(This would increase the current 1.8 year storm to about a 2.5 year storm.)
3. A 22' foot span x 5'3" Rise, Skew = 90° degrees

Costs from Terre Hill Concrete estimated that a 22' foot Span would cost \$2,200 a linear foot for the culvert box. A 24' foot Span would be \$2,400 per linear foot. Additional excavating costs would also be incurred. The water would still overtop the roadway, just not as quickly.

Mr. Wilson explained how the water would be diverted temporarily during construction by building a bypass and diverting the flow of the water around the site. The larger the span of the culvert box, the more cumbersome the project becomes. This is another reason Wilson Consulting is recommending the 22 foot span culvert box.

After completing a preliminary hydraulic analysis and a rating of diminishing returns, Wilson Consulting recommended the 22' foot Span x 5'3" x 32' box culvert with (2) 8' long Monolithic P/C end sections as the best option financially and otherwise. Even with the larger span, the hydraulic performance only improved marginally.

Chairman Lightner asked if the resident at 35 Pine Hill Road would have access to their property from their driveway during construction. It was noted that there is another way into property. Mr. Wilson stated that any detours must be on public roadways.

The time frame for construction was discussed. Chairman Lightner asked how long the replacement project would take from start to finish and how long Pine Hill Road would be closed. Mr. Wilson estimated that the project would take approximately three months to complete. Since Pine Hill Road is a collector road between Townships and Counties, concerns with closing the roadway for such a long time were expressed. Conflicts with the school bus route along Pine Hill Road were also discussed.

Mr. Wilson noted that the length of time to complete the project could be stipulated in the contract. However, this will increase the costs. Mr. Wilson felt that it would take at least a couple of weeks to get the water diverted to flow around the site. Rainfall during construction, which causes additional delays, would also need to be taken into account.

Mr. Wilson asked what the Board recommended as the best timeframe to schedule the project. The Board recommended starting the project after school ends in June and completion of the project before the new school year begins near the end of August. Mr. Wilson offered that the construction timeframe would dictate the schedule for the bid advertisement for the project early in the year and include information for the start date and completion date in the bid packet. Both parties agreed that the project would be bid as a summer project with a start date in June after school ends and completion date in August before school starts to avoid conflicts with the buses.

Mark Wilson offered that a detour plan is required. The Township's input is necessary to designate the detour and coordinate with other affected townships and possibly Penn Dot. He requested a map designating the route. Chairman Lightner offered that residents on Pine Hill Road will have to travel north across the mountain and connect to State Route 34 to travel towards Shermans Dale or State Route 74 to Duncannon.

The issue of guide rail was discussed by Supervisor Ken Quigley. Wilson proposes the elimination of guide rails because:

- ◆ Minimizes obstructions in overtopping flood waters, thereby improving hydraulic performance
- ◆ Reduces construction cost- Guide rail costs are estimated at an additional \$29,000.

- ◆ Reduces future maintenance cost and debris potential
- ◆ Minimizes impacts to existing roadside drainage
- ◆ Improves sight distance for the driveway at the northwest quadrant
- ◆ Simplifies fabrication, detailing and construction
- ◆ Fits the context of the approach roadway

Mark Wilson indicated that Penn Dot would be contacted to schedule a safety review, usually on Wednesdays. He explained that environmental concerns must be met and R-O-W plans also reviewed before beginning this project. There is no known accident history at this site.

Following discussion and review of the project and plans presented, the Board of Supervisors agreed with the preliminary design proposed by Wilson Consulting Group for the pre-cast 22 foot culvert without guide rail on Pine Hill Road, (T-305).

Wilson Consulting Group requested a copy of the meeting minutes when completed.

Budget workshops are scheduled for early October. The Board requested an estimate for the 2013 budget for the Township's 20% portion of ongoing costs. Mr. Wilson indicated he would send Secretary/Treasurer, Daisy Lightner, an email with cost projections for next year.

**APPROVAL AND PAYMENT OF THE BILLS:** The Secretary/Treasurer provided a September 14, 2012 expense check register and submitted the following checks for approval and payment:

General Fund Checks #s 13657-13673 in the amount of \$6, 333.32. No checks void.

Payroll checks #s 6288-6295 in the amount of \$4,002.85. No payroll checks void.

Supervisor Cree made a motion and Supervisor Quigley seconded to approve the accounts payable expense checks with the exception of check #13661. Motion carried unanimously.

Supervisor Cree made a motion and Supervisor Quigley seconded to approve the payroll checks presented. Motion carried unanimously.

Supervisor Quigley made a motion and Supervisor Cree seconded to approve the payment of Check #13661 issued to Daisy Lightner for mileage. Motion carried with Chairman Lightner abstaining from the motion because Daisy is his spouse.

Bill and Mark Wilson thanked the Board and left the meeting at this time. The meeting recessed to Executive Session to discuss personnel issues.

**ADJOURNMENT OF THE MEETING:** Chairman Lightner reconvened the meeting at 10:44 a.m. offering that personnel issues were discussed. There being no further business before the Board, Supervisor Cree made a motion and Supervisor Quigley seconded to adjourn the meeting at 10:44 am. Motion carried unanimously.

Respectfully submitted,

---

Nancy Sunday, Clerk