RYE TOWNSHIP
SUPERVISORS' SPECIAL MEETING
Trout Lane Project
September 17, 2009

PRESENT: Chairman Robert Lightner, Vice-Chairman Ron Evans, and Supervisor Ken Quigley, Daisy Lightner, Secretary/Treasurer, Pete and Barbara Fitting, Brian Mader, Harry Blose, Douglas Hockenberry, Douglas and Carol Chattin, Michael Peck, John Walker, Jo-ellen Szekeres, Brennan Patterson, Michael and Kathy Shalonis and Tom Graupensperger of GTS Technologies.

The meeting was advertised in the Duncannon Record and proof of publication is on file. This special meeting was held at the municipal building. 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: Chairman Lightner welcomed everyone and thanked them for coming. With no comments at this time, Chairman Lightner turned the meeting over to Tom Graupensperger of GTS Technologies.

Tom Graupensperger of GTS Technologies began his presentation by providing the Board and all in attendance with copies of a Meeting Agenda, a Summary of Identified Issues, a Summary of Recommendations, two topo maps of Trout Lane showing the location of all homes and driveways, and a page of drawings detailing drainage/pavement rehabilitation.

Tom began his presentation by summarizing and expanding on the Scope of Work completed:

- Review of plans/As-Built Conditions
  Condition survey completed with photographs demonstrating "alligator" cracking, depressional areas on the surface of the pavement; rocks flowed out of ditch on to roadway leading to shoulder failure and sub-base failure and eventually pavement failure. The swale constructed on the west side should have been built on the east side and the east side should have been built on the west side.
- Survey Stake Drainage Easements
- Review In-field/During Event Runoff Conditions; review conditions onsite during a heavier rain event; summer appears to tax the storm drainage more than the spring events.
- Review Property Owner RFA's and Meet with Township and Property Owners
  Graupensperger noted that Trout Lane is 10 years old. Most pavements require some type of maintenance in 7-10 years. Graupensperger explained "Life Cycle Costing" as the method to determine the depth of pavement and base.
- Determine Existing Hydrology/Hydraulic Capacities
  Identified the sources of where water was coming from; high water tables; reviewed location of septic systems; reviewed the topography and the geology of the area to identify the ground water drainage
- Develop Alternative Treatments/Cost Estimates; treatments are designed for a ten (10) year event; pavements are designed.
- Attend Review Meeting and Provide Recommendations

Tom Graupensperger noted that the Township is in the process of revising its Subdivision Land Development Ordinance to ensure that future land developments are constructed in compliance with the approved design plans, which would include the developer being responsible for the construction of driveway entrances. GTS also reviewed additional data from Rettew, the Township engineering firm, E J Brenneman surface reclamation proposal with results of core borings and the observations of the Township road crew, who maintain Trout Lane throughout all the seasons of the year. Graupensperger noted that the upper corner of Trout Lane has a high water table with sub base is saturated and failed leading to pavement failure. Geotextile fabric is recommended for installation in the ditches at this upper corner.

The summary of the identified issues with drainage and pavement discussed follow:

DRAINAGE

- Insufficient sub-base drainage
  - Flipped Swale Size
  - Lot Alterations – Yard Grading Pinches
- Ditch Rock Undersized – R ¾ Used ➡ R 5/6 Required
- No Fabric, Bedding in Rock Ditches
  - Geotextile fabric and a new material called, Peeromat, which has an erosion resistance of an R-7 rock
- Swale #14 Moved
- Cross Pipe too Flat at Inlet 1-2
- More Impervious Area than Needed- Pavement is 27' wide vs. 20';
  cul-de-sacs are 90 feet in diameter
- Leaf Litter/Log Accumulations – Maintenance Required with a commercial leaf vacuum

PAVEMENT

- Sub base loss of Failure due to Saturation
- No Crown or Reverse Crown
- Pavement Failure resulting from Drainage Failure
- Driveway pipes too small and drives drain directly onto pavement –missing ditch/swale

A summary of the Recommendations discussed follows. The improvements are divided into Sections A, B, C, D, and E with the work proposed in each section as a phase of construction beginning with the upper corner of Trout Lane, which is denoted as Section A. The sections rank from A as the highest priority downward to E as the lowest priority. Portions of work listed in each section may be combined for better cost effectiveness such as completing the paving in Section A. 3 & B.7 at the same time for the best costing per ton of pavement materials.

DRAINAGE AND PAVEMENT IMPROVEMENTS

A. 1. Construct cross drain pipe/end sections
2. Reconstruct drainage and replace driveway pipes at 15, 17 and 19 Trout Lane, reconstruct check dams
3. Restore crown and repave 500 feet
   (Variable depth binder material which builds up the base topped with a Wearing Course is proposed for the entire length of Trout Lane with resurfacing completed in phases.)

B. 4. Extend relocated Swale #14 with level spreader and restore drainage back to the drainage hollow
5. Reconstruct drainage
6. Restore and redress drainage
7. Restore crown, Repave 750', cul-de-sac retention

C. 8. Install underdrain, rehabilitate rock ditch drainage
9. Restore crown, repave 500 feet
D.10. Redress drainage with a gradall
11. Construct cul-de-sac retention approximately 30' wide with 20 ' wide low growing vegetation
12. Restore crown, repave 550 feet
E. 13. Redress drainage
14. Restore crown, Repave 625 feet

Discussion ensued with the following comments from residents in attendance:

Michael Shalonis of 10 Trout Lane asked how far the six (6") inch underdrain pipe would extend out from the existing, unopened future R-O-W at the upper cul-de-sac. Shalonis noted that he now receives runoff from the adjoining Radabaugh property in his back yard and was concerned with adding the more drainage run off, especially during thunderstorms.

Tom Graupensperger explained that additional runoff would not be created. The pipe is only six (6) inches in diameter with water seeping out at a slow rate. Graupensperger continued explaining that the underdrain pipe does not pick up surface water and flows, but ground water. The improvements made in the upper section, such as the re-installation of check dams, will also improve the amount of runoff reaching the lower properties.

Douglas Hockenberry of 14 Trout Lane said he had to install a French drain by his residence and asked about the effect of the inlet proposed to drain from 19 Trout Lane onto his property at 14 Trout Lane.

Tom Graupensperger explained that Hockenberry's home is above the cross drain and would not see any effects. The run off would be directed into the rock lined ditch.

Supervisor Lightner mentioned the concern with location of electric lines that run near the proposed construction. Tom Graupensperger indicated PA One Call did mark utility lines and work near the lines would be hand work completed carefully with a shovel. Some times a pneumatic air drill is used to blow and vacuum the dirt from the area so the utility lines are not disturbed.

Supervisor Lightner asked if the sections of the sub base of Trout Lane would need to be completely replaced and which driveway pipes would need replacing. Graupensperger indicated the sub base could be salvaged at this point. Driveway pipes at 15, 17, and 19 Trout Lane are in need of replacement as follows with an 18" squash pipe at 15 Trout Lane, a 24" squash pipe at 17 and 19 Trout Lane.

Supervisor Quigley indicated that the Township Board is not setting a precedent for replacement of individual driveway pipes throughout the Township.

Gary Blose of 23 Trout Lane expressed liability and safety concerns with traveling Trout Lane if the bioretention basins are installed in the cul-de-sacs during icy conditions. Blose also expressed concern that the bioretention cul-de-sac would hinder his truck with a trailer access into his current driveway.

Tom Graupensperger suggested extending the driveway entrance of 23 Trout Lane into the future R-O-W for better access. The bioretention cul-de-sacs are designed to Penn Dot standards and AASHTO standards to eliminate the impervious area. Graupensperger noted all of the improvements recommended are designed with the safety of the traveler in mind. The resurfacing of Trout Lane along with the other improvements will eliminate much of the water running down the roadway from the reverse crown creating the icy conditions.

Brian Mader of 110 Tower Road questioned if the bioretention cul-de-sacs would hinder the accessibility for logging trucks onto his mountain property through the future 50' R-O-W located on Trout Lane between Lot 41 and Lot 42. Mader also expressed concern with safety for the road employees driving and plowing down Trout Lane and around the bioretention areas during winter snow and ice removals.

Tom Graupensperger offered that a logging truck could access in and out of the R-O-W through the lower portion of the cul-de-sac.

Chairman Lightner asked how much is gained by use of the bioretention cul-de-sacs.

Tom Graupensperger indicated that cost wise nothing is gained and no major savings of run off is achieved. The benefits of the bioretention cul-de-sac are mainly traffic calming and esthetic purposes. Graupensperger said his job is to provide the recommendations, but the final decision is up to the Board and the property owners

Discussion ensued. Upon due consideration, the

Gary Blose of 23 Trout Lane indicated that he plans to do some improvements to his driveway. Blose also indicated that a 110 electric line also runs down along his driveway to his mailbox. Graupensperger requested the Secretary make note of this line in the minutes.

Chairman Lightner and Supervisor Quigley advised Mr. Blose not to complete any further improvements on his driveway until the Township has completed the improvements in that area.

John Walker of 13 Trout Lane asked if there is a tentative time line for the beginning and completion of the improvements.

Graupensperger indicated that the improvements could span over a 3-5 years to spread the cost with Section A. as the highest priority.

Chairman Lightner indicated that since part of the funds for this project was budgeted this year, he would like to begin work later this fall. It was his hope that by this time next year Sections A and C would be completed.

Gary Blose of 23 Trout Lane asked the Board if the bioretention cul-de-sacs were still under consideration.

Chairman Lightner spoke on behalf of the Board and offered that due to the opposition and concerns expressed tonight, the bioretention basins would not be constructed within the two cul-de-sacs on Trout Lane.

Mike Peck of 19 Trout Lane asked if residents would be notified when construction was beginning near their driveways and residences. The Board indicated that they would be notifying residents when construction begins which would involve or hinder access to their property.

ADJOURNMENT OF THE MEETING: With no further business before the Board, Supervisor Evans made a motion and Supervisor Quigley seconded to adjourn the special meeting at 9:30 pm. Motion carried unanimously.

Respectfully submitted,

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Daisy Lightner
Secretary/Treasurer