To: Guilderland Planning Board
From: Guilderland Conservation Advisory Council
Date: March 29, 2013
Re.: Wey – G I Road, Altamont, NY 12009

APPLICATION
Applicant(s): Aaron and Jodi Wey, 100 Main St., Altamont, NY 12009

Proposed Subdivision: A proposed two lot subdivision of 80.6 ± acres. Tax Records shows 77.7.

Location: The site is at the end of GI Road which is on the south side of Route 146 approximately 1.3 - 1.4 miles west of the intersection of Routes 146 and 158, on the outskirts of the Village of Altamont.

Zoning: RA-3

Site Inspection Summary:

Site Inspection Date: March 23, 2013

Meeting Attendees: March 18, 2013 - Presenter Steve Walrath; GCAC Members Stephen Albert, David Heller, Gordon McClelland, Stuart Reese, Steven Wickham and John Wemple (Chair).

Inspected by: Presenter Steve Walrath; GCAC Members Stephen Albert, David Heller, Stuart Reese, Steven Wickham and John Wemple (Chair). (March 23, 2013).

Conclusions: Since such a small portion near the front of the property is planned to be developed for two new houses on this 77.7 to 80 acre parcel of previously farmland, GCAC sees only a minimal amount of impact to the environment by this proposed subdivision provided (1) appropriate steps are followed for the septic systems under the guidance of the County Health Department, (2) a stromwater management plan be established, (3) wetland disturbance be kept to a minimum when the driveway is constructed for Lot # 1, and (4) that tree cutting be kept to a minimum to maintain the buffer provided by the existing trees which should minimize any visual impact created by the development of the property. It is GCAC's understanding that the actual size of Lot # 2 may increase once the wetland delineation is completed in order to have a suitable building envelope. In planning the development of this property, limitations of the Nunda silt loam and Burdett silt loam soils on the areas where the proposed dwellings will most likely be located should be noted under the soil portion of this report. Another point is that even though there is a fire hydrant near the end of GI Road adjacent to the site of the driveway for Lot # 2, Applicant should consult with the Fire District related to guidelines to be followed in construction of the driveways. It should be noted that, taking into consideration the amount of snow on the ground, GCAC did not see the need to walk more than the front acreage of the property since any development to take place is planned for that northern portion of the site. Furthermore, it does not appear to serve any purpose, other than tracking down small saplings appearing just above the surface of the snow in route to the southern portion of this land.

Submitted by: _____
John G. Wemple, Jr. - Chair

INSPECTION DETAILS

Applicant(s): Aaron and Jodi Wey
Address: GI Road, Altamont

Background: According to Presenter, Steve Walrath, this vacant land which was previously farmland,is under contract to purchase by the Applicants Aaron and Jodi Wey of 100 Main Street, Altamont. The plan of the Wey's, who are both veterinarians, is to subdivide the property to provide a lot at the northeast corner for Jodi's parents. This Lot # 2 would be about five acres or possibly a little larger with a plan to locate their house eastward of the wetland area. Lot # 1 would be for the Applicants who plan to build on the hill which is to the west of Lot # 2. There would be a common driveway at the end of GI Road with the driveway branching off to the west to Lot # 1.

Topography: Presenter described the property as having gentle slopes of 0-6% with some areas maybe being 10 %. He further noted a lower area, or valley area, which runs through much of the center section in a north west direction between the two hills which are located near the south east and south west corners of Lot @ 1. Top area of both these hills is at 420 feet AMSL according to the site drawings. Top of hill on which Applicants plan their own home is at about the same elevation. Elevation of the southwest corner, the lowest point on Lot # 1, is approximately 380ft AMSL. At time of site visit, at a point beyond the proposed building area for Lot # 2, GCAC observed a rather steep slope to the west toward the area through which the Town tax map indicates the Black Creek flows.

Vegetation/Trees: According to Presenter, the vegetation on property is mostly a young growth of trees of five to twenty years old and brush with some conifers or pines mixed in. At time of site visit GCAC observed a few pines as well as much of the trees being identified as maples and elm. To the west below the area of proposed building envelope for Lot # 2, there were also a number of pine. Whether or not these are actually on the Applicant's property or not was not determined, but a review of the aerial photo of the property indicates that they do not appear to be. It was also noted that there are many fairly large pine along the east border, but when asked about these trees, Presenter pointed out that theses trees are on adjacent property. While conducting the site visit, GCAC met up with a neighbor who was out walking his dog. This neighbor, Steve Risco, appeared to be familiar with the property and noted that the property had been open fields and that the many small trees and brush that exist now were not there in the past.

Soil: Since Presenter was not familiar with the property, he was not aware of the types of soil at this time. GCAC's review of Sheet Numbers 10 and 17 of "Soil Survey of Albany County, New York" by James H. Brown (1992) shows that there are ten different soils on this property. Most of the western half of Lot # 1 has BuA soil with a small wedge of NuC at its northwest corner. The remainder of the lot, including a strip along the south portion and all of the area east of the BuA area has NuC soil. This latter soil makes up slightly less than half of the entire area of this lot.
Lot # 2 has a small area of BuA soil on the entry area just north of Lot 1. The remainder (a little less than half) of the entryway has NuC soil as does a large portion of the east side of this lot with the exception of an area of BuB soil which runs along part of the east boundary and then enters as a long finger which extends in a northwest direction to a point about 1,000 feet into the lot. A finger, of about the same size, of NuD soil, extends southward about 925 feet from the north boundary to the west of the fore mentioned NuC area. Just south near the northwest corner of the lot there is an area about 740 feet long and 350 feet at its widest point of NuB soil which is

joined by long area of In soil ranging in width from about 210 feet to 385 feet which extends in a south east direction to the south boundary. West of that area is another area of BuB soil which is initially broad and then tapers down in with from between about 100 and 265 feet. The lower southwest portion of lot 2 has a fairly large area triangular area of NuC soil which runs along approximately 840 feet of the southern border with the exception of a thumb shaped area of NuB about 350 ft. wide which juts in from the south. This NuC triangle runs about 1400 feet into the lot. To the west is a 1775 + foot long finger of NuD soil about 160 feet wide. West of that is a slightly wider finger of RhB soil which extends almost to the corner where there is a wedge of Ma soil. To the west of the RhB area along the western boundary where the Black Creek runs is an area of Wo soil. It should also be noted that at the northwest corner of the property, there is a very small wedge of VaB as well as a small area of Ae soil which meets the Wo soil. This Ae soil appears to take over as the defining soil through which the Black Creek flows for about the next ½ mile of its course toward the Bozen Kill. A brief description of these soils follows as well as some of the limitations of these soils.

Ae - Allis silt loam – This nearly level soil is moderately deep and poorly drained. The seasonal high water table in this soil is at a depth of less than 1 foot and is perched on the silty clay loam subsoil from November through June. The seasonal high water table limits rooting depth. Bedrock is 20 to 40 inches below the surface. Permeability is slow to very slow. Available water capacity is moderate, and runoff is slow. Most areas of this soil is brushland. The limitations of this soil on sites for dwellings with basements are the seasonal high water table and depth to bedrock. Installing subsurface drains around footings and foundations will lower the water table. Adding fill material to elevate the floor of dwellings without basements above the surrounding ground level and grading to divert surface water will also reduce wetness. The main limitations of this soil for local roads and streets are the seasonal high water table and low strength. Constructing roads on raised, fill material will reduce wetness and prevent the road damage that the seasonal high water table causes. Providing a suitable subsurface or base material will improve soil stability and strength. The main limitation affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the depth to bedrock. Specially designed systems will overcome the moderate depth to bedrock and the seasonal high water table. Drainage around the filter field and diversion of surface water from higher areas will reduce wetness. The hardness of the local bedrock will influence costs. Other soils that are deeper and better drained in the nearby higher landscape positions are better suited to this use.

BuA – Burdett silt loam, 0 to 3 percent slopes - This very deep soil is nearly level and somewhat poorly drained. Included in this soil in mapping are areas of the moderately well drained Nunds soils on hilltops. Also included are areas of the poorly drained and very poorly drained Ilion and Madalin soils in depressions and along drainageways. The seasonal high water table in the Burdett soil is perched on the clayey subsoil at a depth of ½ foot to 1 ½ feet from December to May in most years. Permeability is moderate in the surface and subsurface layers and slow in the subsoil and substratum. Available water capacity is high and surface runoff is slow. County soil survey notes that most of the acreage of this soil is used as hayland, pasture, or woodland. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Installing foundation drains and applying protective coatings to basement walls help prevent wet basements. Grading the land surface to divert runoff from the higher areas also helps reduce wetness. The main limitations for local roads and streets on this soil are the seasonal high water table and frost-action potential. When wet this soil is soft and causes the pavement to crack under heavy traffic. Constructing the road on raised fill material will reduce wetness and prevent the road damage that the seasonal high water table causes. Providing a coarse textured subgrade or base material and installing surface or subsurface drainage will

reduce the frost-action potential and enhance soil strength. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the slow percolation in the subsoil. A specially designed septic tank absorption field or an alternative system will properly filter effluent. An alternate system will include a drainage system around the filter field to lower the water table, diversion ditches to intercept water from the higher areas, and an enlarged trench below the distribution line to improve percolation.

BuB – Burdett silt loam, 3 to 8 percent slopes - This gently sloping soil is very deep and somewhat poorly drained. The seasonal high water table in this Burdett soil is perched on the clayey subsoil at a depth of ½ foot to 1 ½ feet from December to May in most years. Permeability is moderate in the surface and subsurface layers and slow in the subsoil and substratum. Available water capacity is high. Surface runoff is medium. County soil survey notes that most of the acreage of this soil is used as hayland, pasture, or woodland. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Installing foundation drains and applying protective coatings to basement walls help prevent wet basements. Land grading and properly placed diversions will remove surface water. The main limitations for local roads and streets on this soil are the seasonal high water table and frost-action potential. This soil is soft when wet and causes the pavement to crack under heavy traffic. Constructing roads on raised fill material will reduce wetness and prevent the road damage that the seasonal high water table causes. Providing a coarse textured subgrade or base material and providing surface or subsurface drainage will reduce the frost-action potential and enhance soil strength. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the slow percolation in the subsoil. A specially designed septic tank absorption field or an alternative system will properly filter effluent. An alternate system will include a drainage system around the filter field to lower the water table, diversion ditches to intercept water from the higher areas, and an enlarged trench below the distribution line to improve percolation.

In – Ilion silt loam - This nearly level soil is very deep and poorly drained. The seasonal high water table in this Ilion soil is perched at a depth of less than 1 foot from November to May. Depth to bedrock is more than 60 inches. Permeability is moderate or moderately slow in the surface layer and is slow or very slow in the subsoil. Available water capacity is high. Surface runoff is very slow. County soil survey notes that most of the acreage is used as woodland or brushland. The seasonal high water table or ponding is the main limitation of this soil on sites for dwellings with basements. Foundation drains, subsurface drainage systems, and protective coatings for basement walls help overcome these limitations. Grading to move surface water away from dwellings and diverting runoff from the higher areas also reduce wetness. The main limitations of this soil for local roads and streets are the seasonal high water table, ponding, and the frost-action potential. Wetness softens this soil most of the year and causes the pavement to crack under heavy traffic. A coarse textured subgrade or base material and surface or subsurface drainage away from the road site lower the water and reduce frost action. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table, ponding, and slow percolation in the subsoil. Other nearby soils are better suited to this use. A specially designed septic tank absorption field or an alternative system will properly filter effluent. A drainage system around the filter field and diversions to intercept water from the nearby higher areas will reduce wetness.

Ma – Madalin silt loam – This nearly level soil is very deep and poorly and very poorly drained. It is in depressions on plains and near hillsides. Areas of this soil are long and narrow or irregularly shaped and range from 5 to 80 acres in size. Slopes range from 0 to 3 percent. The seasonal high water table of this Madalin soil is at a depth of less than ½ foot between November

and June. Depth to bedrock is more than 60 inches. Permeability is moderately slow in the surface layer, slow in the subsoil, and very slow in the substratum. The available water capacity is high. This soil is poorly suited to cultivated crops. The seasonal high water table is a limitation. Closely spaced subsurface drains in combination with open ditch drainage lower the water table, Drainage outlets are generally difficult to establish because of the basinlike topography of this soil. A conservation tillage system, cover crops, and tillage at the proper moisture content help maintain soil tilth and organic matter content. This soil is moderately suited to pasture. Rotation grazing, proper stocking rates, and restricted grazing during wet periods help keep the pasture in good condition. The main limitation of this soil for dwellings with basements is the seasonal high water table. Diversions placed above the building site, foundation drains, and a protective coating on basement walls help prevent wet basements. The main limitations of this soil for local roads and streets are the seasonal high water table, the low strength, and the frost-action potential. Constructing roads on raised fill material and installing drainage systems will increase soil strength. Providing grained subgrade or base material to frost depth will reduce frost action. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and slow percolation. Adjacent soils that are higher on the landscape are better suited to this use. Septic systems on the higher areas of this Madalin soil and on areas of better drained included soils will adequately filter effluent. A drainage system around the absorption field and diversions to intercept runoff from the higher areas will reduce wetness. Enlarging the absorption field or the trench below the distribution lines will improve percolation.

NuB - Nunda silt loam, 3 to 8 percent slopes– This gently sloping soil is very deep and moderately well drained. The seasonal high water table is at a depth of 18 to 24 inches from March to May. Depth to bedrock is more than 60 inches. Permeability is moderate in the surface layer and in the upper part of the subsoil and slow to very slow below. The available water capacity is high, and runoff is medium. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Foundation drains and interceptor drains upslope from construction sites divert runoff and lower the water table. The main limitation of this soil for local roads and streets is the frost-action potential. Constructing roads on coarse textured fill material provides drainage away from the roadway. The main limitation affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the slow percolation in the subsoil and substratum. Installing a drainage system around the absorption field and diversions to intercept runoff from the higher areas will reduce wetness. Enlarging the absorption field or the trench below the distribution lines will improve percolation.

NuC – Nunda silt loam, 8 to 15 percent slopes– This strongly sloping soil is very deep and moderately well drained. The seasonal high water table is at a depth of 18 to 24 inches from March to May. Depth to bedrock is more than 60 inches. Permeability is moderate in the surface layer and in the upper part of the subsoil and slow or very slow below. The available water capacity is high, and runoff is medium or rapid. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Foundation drains and interceptor drains upslope from construction sites divert runoff and reduce wetness. Erosion is a hazard during construction. Maintaining the vegetative cover adjacent to the site and diverting runoff from the higher areas help control erosion. The main limitation of this soil for local roads and streets is the frost-action potential. Constructing roads on coarse textured fill material provides drainage away from the roadway. Erosion is a hazard if these sloping soils are left unprotected. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the slow percolation in the subsoil and substratum. A drainage system around the absorption field and diversions to intercept runoff from the higher areas will

reduce wetness. Enlarging the absorption field or the trench below the distribution lines will improve percolation.

NuD – Nunda silt loam, 15 to 25 percent slopes. - This moderately steep soil is very deep and moderately well drained. The seasonal high water table in this Nunda soil is at a depth of 1 ½ to 2 feet from March to May. Depth to bedrock is more than 60 inches. Permeability is moderate in the surface layer and in the upper part of the subsoil and slow or very slow below. The available water capacity is high, and runoff is rapid. The main limitations of this soil on sites for dwellings with basements are the seasonal high water table and slope. Foundation drains and interceptor drains upslope from construction sites divert runoff and reduce wetness. Cutting and filling in construction benches and grading help overcome the slope limitation. Erosion is a severe hazard during construction. Maintaining the vegetative cover adjacent to the site, diverting runoff from the higher areas, and mulching help control erosion. The main limitations of this soil for local roads and streets are the slope and the frost-action potential. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table, the slow percolation, and the slope. Installing a drainage system around the absorption fields and diversions to intercept runoff from the higher areas will reduce wetness. Enlarging the absorption field or the trench below the distribution lines will improve percolation. Installing distribution lines on the contour with drop boxes or other structures will ensure even distribution of effluent.

RhB – Rhinebeck silty clay loam, 3 to 8 percent slopes. – This gently sloping soil is very deep and somewhat poorly drained. The seasonal high water table in this Rhinebeck soil is at a depth of 6 to 18 inches from January to May. Depth to bedrock is more than 60 inches. The seasonal high water table limits the rooting depth. Permeability is moderately slow in the surface layer and subsurface layer and slow below. The available water capacity is moderate, and runoff is slow. The County survey notes that most of the acreage is used as cropland, hayland, or pasture. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Foundation drains and interceptor drains upslope from construction sites will divert runoff and help prevent wet basements. The main limitations of this soil for local roads and streets are the seasonal high water table, low strength, and the frost-action potential. Constructing roads on raised, coarse textured fill material will reduce the frost-action potential and improve soil strength. Raising the level of fill material will reduce wetness. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and slow percolation. Installing a drainage system around the absorption field and intercepting runoff from the higher areas will reduce wetness. Enlarging the absorption field or the trenches below the distribution lines will improve percolation. This soil has a low bearing capacity, especially when it is wet. Excavations and cutbacks will cave or slough.

VaB – Valois gravelly loam, 3 to 8 percent slopes – This gently slopping soil is very deep and well drained. It is on low-lying, gently rolling till plains. The seasonal high water table in this soil is at a depth of more than 6 feet. Depth to bedrock is more than 60 inches. Permeability is moderate in the surface layer and subsoil and moderate to moderately rapid in the substratum. The available water capacity is moderate, and runoff is medium. This soil is well suited to cultivated crops. It is among the best suited soils in the county for food and fiber production. Rock fragments are a slight limitation to cultivation. Erosion is a slight hazard. This soil has no limitations on sites for dwellings with basements. The main limitation of this soil for local roads and streets is the frost-action potential. Constructing roads on coarse textured, raised fill material will reduce the frost-action potential. The main limitation affecting the use of this soil as a site for septic tank absorption fields is slow percolation. Enlarging the absorption field or the trenches below the distribution lines will improve percolation.

Wo - Wayland silt loam. This nearly level soil is very deep and poorly drained. It is in depressions on flood plains along major streams. Slopes range from 0 to 3 percent. The seasonal high water table in this soil is at a depth of less than ½ foot from November to June. The soil is subject to frequent flooding for brief periods from November to June. Depth to bedrock is more than 60 inches. The available water capacity is high, and runoff is very slow or ponded. The main limitations of this soil on sites for dwellings with basements are flooding and the seasonal high water table. Alternate sites on the nearby higher soils will avoid the risk of water damage and are better suited to this use. The main limitations for local roads and streets are flooding, low strength, and seasonal high water table. Constructing roads on course textured fill material helps to prevent road damage. Building roads around the flood plain will reduce construction costs. The main limitations affecting the use of this soil as a site for septic tank absorption fields are flooding, slow permeability, and the seasonal high water table. In some areas flooding from adjacent streams will gouge out the distribution lines. Flooding and the seasonal high water table will cause most systems on this soil to malfunction. Alternate sites on soils that are higher on the landscape and that are not subject to flooding are better suited to this use.

Drainage/Wetlands: As can be seen on the site drawings and was noted by the Presenter, there is a small wetland area near the northeast corner of the property, primarily on Lot # 2; and a large wetland area along the western border. The soil survey map reviewed by GCAC further notes a wet spot on the adjacent property to the east not far from the south east corner of Lot # 2 as well as a wet spot about 500 feet south of the northern most point of Lot # 1 near the western border. Drainage, according to the Presenter, is to the west and to the north and also down the middle to the north. Black Creek runs along the western border of the property as it heads north to meet the Bozen Kill which in turn enters into the Watervliet Reservoir. At time of site visit, GCAC observed some cattails along the initial or front portion of the east side of the area marked as wetland on Lot #1 of the aerial photo of the site. GCAC further observed numerous wet spots which appeared to be drainage courses across the property. When the driveway is constructed leading to Lot # 2, possible culvert may be necessary where it crosses the wetland area.

Septic/Wells: According to Presenter, plan is to have septic on site. He further noted that he is applying for municipal water from the Village of Altamont. After the property has a wetland delineation completed, it will be necessary to develop an appropriate plan for the location of the proposed septic tank absorption fields in such a manner to avoid possible contamination of the watercourses leading to the Black Creek.

Visual Impact: Presenter noted that he doesn't foresee any visual impact of having two houses on this eighty acre site. It was observed that the site of both dwellings will most likely be in open areas which could be observed from the Helderberg Escarpment. It this is so, care should be taken when choosing the color of the dwellings so that they blend in to their natural surroundings. It was observed that just north of the northern property line there is a row of deciduous trees along a portion of this area near the end of GI Road which, if left standing, should act as a visual barrier and will block off much view of the planned development.

Endangered Species: Presenter noted that there is none known at this time. He said he doesn't think there are any but he's checking on the bat situation with the conservation people on the method for identifying them. Because of snow on the ground and wintery weather conditions, no endangered species were observed by GCAC at time of March 23rd site visit.

Historical Considerations: Presenter noted that there is none known at this time. He does not know of any cemetery on the property. Nothing of historical significance observed by GCAC on the portion of the property walked at time of 3/23 site visit.

Submitted by: _____
John G. Wemple, Jr. - Chair