To: Guilderland Planning Board

From: Guilderland Conservation Advisory Council

Date: November 7, 2014

Re.: Bernard and Sandra Roddy, 4129 Western Turnpike, Altamont, NY 12009

APPLICATION

Applicant(s): Bernard and Sandra Roddy, 4129 Western Turnpike, Altamont, NY 12009

Proposed Subdivision: A proposed two lot subdivision of 92.5 acres.

Location: Property is located on the north side of the Western Turnpike approximately 0.9 mile west of Route 158 in the northwestern portion of the Town..

Zoning: RA-3.

Site Inspection Summary:

Site Inspection Date: November 1, 2014.

Meeting Attendees: (November 1, 2014) Presenter Fred Metzger, Jr.; GCAC Members Gordon McClelland, Stuart Reese, Gustavo Santos and John Wemple, Chair. Also present was presenter's assistant Andrew Foeller.

Inspected by: Presenter Fred Metzger, Jr.; GCAC Members Gordon McClelland, Stuart Reese, Gustavo Santos and John Wemple, Chair. Also present was presenter's assistant Andrew Foeller.

Conclusions: Provided that the Applicants are able to located an appropriate water source and include in their plans the construct an approved septic system, GCAC feels that development of Lot 2 of this subdivision will not adversely effect the area. While it has been noted that culverts under the roadway to carry off drainage from Lot 2 have been installed, the final plan should also include an appropriate stormwater management plan.

Submitted by: _____

John G. Wemple, Jr. - Chair

INSPECTION DETAILS

Applicant(s): Bernard and Sandra Roddy

Address: 4129 Western Turnpike, Altamont, NY 12009

Background: According to Presenter, Applicants' relatives owned land on both sides of Route 20 and in 2011 Applicants bought the present acreage on the north side. Presenter described the property as R3 non conservation which had been farmland. Plan is to have two lot subdivision with the resulting smaller lot going to Applicant's sister. This lot will be designated as Lot 2. In the future the main lot may be subdivide again with a lot slightly larger than Lot going to Applicant's mother. On the east side of the property there will be a 20 foot wide strip from the southeast corner of Lot 2 to Route 20 which will serve as a driveway to Lot 2. In actuality, there will be a 40 foot wide easement for use of the stone roadway which runs along the west side of Lot 2 and will serve four lots along the roadway, including the future lot planned for Applicant's mother. The area apparently planned to be developed has already been cleared of trees and a driveway to it has been partly completed.

Topography: Presenter described the terrain of the property as gently sloping. In walking Lot 2, GCAC noted that the lot is elevated above the roadway on the west. From this roadway, the proposed Lot 2 rises about ten to fifteen feet toward the east and southeast to an area which is relatively flat. While GCAC kept its inspection primarily to the open area of Lot 2 and some of the wooded area surrounding it, it was noted that it appeared that the east side of the wooded area may slope downward toward the southeast. As to the total acreage of the property, a review of US Department of the Interior Geological Survey maps of the Altamont and Voorheesvile quadrangles (photorevised 1980) show that the elevation of the rear northwest area near the boundary line is between 320 and 330 feet Above Mean Sea Level (AMSL). It should be noted that the elevation to the northwest of the property is at a higher elevation with a slope downward to the east from 360 feet to 340 feet before reaching the edge of the applicant's property. Elevation drops to 300 feet AMSL around the area of the midpoint of the creek as it flows across the property. Forward of the creek area the property rises to 320 feet with an apparent continuing rise toward the highway and also a rise toward the southeast corner where the elevation appears to be over 340 feet AMSL. The area of the proposed new Lot 2 rises from the driveway which runs close to the northwest side where the elevation is between 310 and 320 feet AMSL. From there, the elevation rises toward the southeast to 340 feet AMSL at a the southeast corner of Lot 2. Off to the east , the land beyond the boundary of the Applicants' acreage the land drops off to lower elevations.

Vegetation/Trees: Presenter noted that Lot 2 is lightly wooded and that some trees have been cleared but that the area cleared is less than an acre. GCAC concentrated its visit to this cleared area, which appears to be the area which will be developed. The cleared area appears to be on the northwest part of the Lot. To the rear of this area there are a few birch trees. And brush. To the west, south and east are numerous pine trees. The wooded area on the east portion of the Lot has white pine, poplar and maple. It was noted that on Lot 2 there are a few large pine trees but in general most of the trees are small or mid size in diameter. Brush is rather heavy on the south west portion and along the area adjacent to the roadway.

Soil: A review of Sheets Number 3 and 10 of "Soil Survey of Albany County, New York" (1992) by James H. Brown indicates that there are thirteen different soils on the property. At the rear north corner there is a very small area of RhA soil. South of this and running along most of the northeast and northwest borders there is a strip, about 100 to 200 feet wide of HuC soil. Jutting into this along the northwest border are two relatively small areas of SuB and SuA soil.

South of this HuC area is an area of Fx soil through which the Indian House Creek flows. This Fx area is between 240 and 500 feet wide. South of this Fx area is an area which runs diagonally across the property from the lower portion of the south west border toward the northeast corner of ScB soil. This area is between 360 and 600 feet wide for the first 2/3 of the way and then decreases to about 140 feet in width as it turns to the east and meets the tip of a finger of LoD soil which extends about 140 feet into the property from the east along the east side of the border. It should be noted that there is also a portion of a finger of ElB soil along the south west side of the property which extends into this same ScB area. It should be further noted that on the soil map there are a couple symbols indicating a rock outcrop which may include sandstone and shale just south of the creek about 400 feet from the east border. Also along the inward border of most of the wider portion of this ScB area are symbols indicating a short steep slope. There are also symbols for a gravelly spot at the center of this same area between 500 and 600 feet from the west border. Along the front southwest border, which is to the rear of the neighboring lot, a triangular shaped area of ScA soil extends about 300+ feet into the property. To the east of this there is a long strip of Ra soil which covers most of the front portion of the lot along the Route 20 boundary line extending northeastward and gradually decreasing in width to a point bout 1700 feet back from the front property line. To the east of the upper part of this area is an area of Ae soil and to the south of that is a large area of HnB soil which covers most of the remaining front south east portion of the property except for the end of two fingers of HnA soil which extends into it from the south west and south east, the latter of which is along the lower east boundary line and extends about 200 feet into the lot. The former finger is about 200 feet wide and extends northeast about 800 feet into the lot. The area of the

proposed Lot 2 is on Hornell Silt Loam. A close review of the soil survey map indicates the entire lot has HnB soil with the exception of the end of a finger of HnA which is about 200 feet wide a extending from east of the center of this lot northeastward to a point at about the center of this portion of the lot.
Using the same soil survey reference book, a brief description of these soils and some of their limitations follows.
RhA – Rhinebeck silty clay loam, 0 to 3 percent slopes. -This nearly level soil is very deep and somewhat poorly drained. The seasonal high water table in this Rhinebeck soil is at a depth of ½ foot to 1 ½ feet. Depth to bedrock is more than 60 inches. Permeability is moderately slow in the surface and subsurface layers and slow below. The available water capacity is moderate, and runoff is slow. The county soil survey noted 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, the 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, especially when wet, has low bearing capacity. Excavations and cutbacks will cave or slough. SuA - Sudbury fine sandy loam, 0 to 3 percent slopes – This nearly level soil is very deep and moderately well drained. The seasonal high water table in this soil is at a depth of 1 ½ to 3 feet from December to April. Depth to bedrock is more than 60 inches. Permeability is moderately rapid in the surface layer and the upper part of the subsoil and moderate to rapid below. The available water capacity is very low, 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 will divert runoff and seepage and reduce

wetness. Adequately sealing the foundation and grading to remove runoff will also reduce wetness. Cutbacks in excavated areas are subject to sloughing and caving. The main limitations of this soil for local roads and streets are the seasonal high water table and the frost-action potential. Constructing roads on raised fill with coarse textured subgrade will reduce wetness and the frost-action potential. In excavated areas cutbacks are subject to caving and sloughing. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and poor filtering capacity. The soil is a poor filter of effluent. Consequently, ground water contamination is a hazard. However, a specially designed septic tank absorption field or an alternative system will properly filter effluent. Other nearby soils may be better suited to this use.
SuB - Sudbury fine sandy loam, 3 to 8 percent slopes – This gently sloping soil is very deep and moderately well drained. The seasonal high water table in this soil is at a depth of 1 ½ to 3 feet from December to April. Depth to bedrock is more than 60 inches. Permeability is moderately rapid in the surface layer and the upper part of the subsoil and moderate to rapid below. The available water capacity is moderate, 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 will divert runoff and seepage and reduce wetness. Adequately sealing the foundation and grading to remove runoff will also reduce wetness. In excavated areas cutbacks are subject to sloughing and caving. The main limitations of this soil on sites for local roads and streets are the seasonal high water table and the frost-action potential. Constructing roads on raised fill with coarse textured subgrade will reduce wetness and the frost-action potential. In excavated areas cutbacks are subject to caving and sloughing. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and poor filter. The soil is a poor filter of effluent. Consequently, ground water contamination is a hazard. However, a specially designed septic tank absorption field or other alternative system will properly filter effluent.
HuC – Hudson silt loam, 8 to 15 percent slopes – This strongly slopping soil is very deep and moderately well drained. The seasonal high water table in this soil is perched above the clayey subsoil at a depth of 1 ½ to 2 feet between November and April. Depth to bedrock is more than 60 inches. Permeability is moderate or moderately slow in the surface and subsurface layers and slow or very slow below. The available water capacity is high. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Landscaping around the building and using diversion ditches above it help remove excess surface water. Foundation drains and protective coatings on basement walls help prevent wet basements. Erosion is a hazard during construction. Maintaining vegetative cover adjacent to the construction site and diverting runoff help control erosion during construction. The main limitations of this soil for local roads and streets are the frost-action potential and low strength. Coarse textured subgrade or base material to frost depth and adequate drainage in areas of the wetter included soils reduce frost action and increase soil strength. Mulching and seeding of graded roadbanks help control erosion. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the season high water table and slow percolation. A drainage system around the filter field and diversions to intercept runoff from higher areas will lower the water table. Enlarging the trench below the distribution lines will improve the

percolation of effluent. Fx – Fluvaquents-Udifluvents complex, frequently flooded This soil unit consists of very deep, nearly level, very poorly drained to moderately well drained loamy soils formed in recent alluvial deposits on flood plains. These soils are subject to frequent flooding and are commonly wet. Bedrock is generally at a depth of more than 5 feet. Permeability, the available water capacity, organic matter content, and soil reaction vary with the composition of alluvium. County soil survey notes that most of the acreage is used as woodland or pasture or is idle. These soils are not suited to urban uses because of periodic flooding and prolonged wetness.

ScB - Scio silt loam, 3 to 8 percent slopes. This gently sloping soil is very deep and moderately will drained. The seasonal high water table 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 subsoil. The available water capacity is very high, and runoff is medium. Main limitation for dwellings with basements is the seasonal high water table. Installing foundation drains with adequate outlets will lower the water table. Erosion is a hazard during construction. Excavations and cutbacks cave or slough easily. Main limitation for local roads and streets is the frost-action potential. Constructing roads with coarse textured fill material and installing surface and subsurface drainage reduces the frost-action potential. Erosion is a hazard during construction. Cutbacks cave or slough. The main limitation affecting the use of this soil as a site for septic tank absorption fields is the seasonal high water table. Installing drainage around the field and intercepting runoff from the higher areas will reduce wetness. 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. Ra - Raynham very fine sandy loam - The seasonal high water table is at a depth of ½ foot to 2 feet from November to May. Depth to bedrock is more than 60 inches. Main limitation on sites for dwellings with basements is the seasonal high water table. Foundation drains and intercepter drains upslope from construction sites divert runoff and help prevent the damage that the seasonal high water table causes. Soil is better suited for dwellings without basements. Main limitations affecting local roads and streets are the seasonal high water table and frost action potential. Constructing roads on coarse textured fill material will reduce the frost action potential. Raising the level of the fill 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. ScA - Scio silt loam, 0 to 3 percent slopes. This nearly level soil is very deep and moderately well drained. Seasonal high water level 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 subsoil. The available water capacity is very high, and runoff is slow. Main limitation for dwellings with basements is the seasonal high water table. Installing foundation drains with adequate outlets will lower the water table. Erosion is a hazard during construction. Excavations and cutbacks cave or slough easily. Main limitation for local roads and streets is the frost action potential. Constructing roads with coarse textured fill material and installing surface and subsurface drainage reduces the frost-action potential. Cutbacks cave or slough. The main limitation affecting the use of this soil as a site for septic tank absorption fields is the seasonal high water

table. Installing drainage around the field and intercepting runoff from the higher areas will reduce wetness. ElB – Elmridge fine sandy loam, 3 to 8 percent slopes -This gently sloping soil is very deep and moderately well drained. The substratum extends to a depth of 60 inches or more. The seasonal high water table is at a depth of 1 2/3 to 3 feet perched above the clayey substratum between November and May. Depth to bedrock is more than 60 inches. The main limitation on sites for dwellings with basements is the seasonal high water table. Foundation drains installed above the slowly permeable substratum will lower the seasonal high water table. Protective coatings on basement walls will prevent wet basements. The main limitations of this soil for local roads and streets are low

strength and frost-action potential.
HnB – Hornell silt loam, 3 to 8 percent slopes. -This gently sloping soil is moderately deep and somewhat poorly drained. The seasonal high water table in this soil is perched above the clayey subsoil at a depth of 6 to 18 inches from December to May. Depth to bedrock is 20 to 40 inches. It restricts rooting depth. Permeability is moderate in the surface layer and slow or very slow in the subsoil. The available water capacity is moderate. The main limitation of this soil on sites 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 and low strength. Constructing roads on raised fill material and installing drainage reduce wetness. Coarse textured subgrade or base material helps improve soil strength. The main limitations affecting use of this soil as a site for septic tank absorption fields are the seasonal high water table, the depth to bedrock, and the slow percolation. According to the soil survey reference book sited, a specially designed septic tank absorption field, including drainage around the site, will adequately filter effluent. HnA – Hornell silt loam, 0 to 3 percent slopes. This nearly level soil is moderately deep and somewhat poorly drained. The seasonal high water table in this soil is perched above the clayey subsoil at a depth of 6 to 18 inches from May to December. Depth to bedrock is 20 to 40 inches. It restricts rooting depth. Permeability is moderate in the surface layer and slow or very slow in the subsoil. The available water capacity is moderate. The main limitation of this soil on sites 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 and low strength. Constructing roads on raised fill material and installing drainage reduce wetness. Coarse textured subgrade or base material helps improve soil strength. The main limitations affecting use of this soil as a site for septic tank absorption fields are the seasonal high water table, the depth to bedrock, and the slow percolation. A specially designed septic tank absorption field, including drainage around the site, will properly filter effluent. LoD - Lordstown channery silt loam, 15 to 25 percent slopes . This moderately steep soil is moderately deep and well drained. It is on bedrock controlled hillsides. Depth to bedrock in this soil is 20 to 40 inches. The rooting depth is mainly 20 to 30 inches. Permeability is moderate. The available water capacity is moderate. Runoff is rapid. Northern red oak, sugar maple, white ash, beech, and hemlock are common on this soil. The main limitations of this soil on sites for dwellings with basements are the depth to bedrock and the slope. The main limitation of this soil for local roads and streets is the slope. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the depth to bedrock and the slope. This nearly level soil is very deep and somewhat poorly drained. Seasonal high water table is ½ foot to 1 ½ feet below the surface from January to May. Depth to bedrock is more than 60 inches. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. For local roads and streets limitation is the seasonal high water table.

Drainage/Wetlands: On the rear portion of the property a Indian House Creek crosses the lot in a west to east direction on its course to the Normanskill as the latter travels southeastward toward the Watervliet Reservoir. US Geological Survey map of the area also show a watercourse from a source about 600 feet south of the property on the south side of Route 20 flowing northward adjacent to and then under the driveway to the Indian House Creek. There appears to be no wetlands on Lot 2 although the Presenter did note that there may be wetland on the rear of the property.. GCAC did note that there is a drainage ditch on the southwest side of Lot 2 which ends near one of the culverts which have been laid under the roadway running along the west side of the Lot. The natural drainage of the Lot, which is elevated and fairly flat, is toward the north and northwest toward the Indian House Creek and the feeder stream that runs along the west side of Lot 2. The Creek enters the Normanskill which in turn becomes the main source for the Watervliet Reservoir. No wetlands were observed on Lot 2 at time of site visit. There are culverts under the roadway on have been constructed in such a way to direct drain off from Lot 2 toward the stream which runs parallel to the roadway on its way to the back part of the property. At time of site visit, this stream was not moving.

Septic/Wells: While it was speculated that the Applicant may have a problem finding water, it turned out that a well has been drilled on the Lot and is apparently productive according to the Presenter who noted that they are waiting for response related to the quality of the water. At time of site visit GCAC noted the location of the well on the northwestern portion of the Lot on the cleared area of the Lot. It should be further noted that Presenter has corrected the answer from yes to no to question number 10 on the short environmental assessment form. Applicant and developer will need to work closely with the County Department of Health to make sure the location of planned septic system is appropriately located to avoid any possible contamination of the stream which leads to the Creek at the rear of the property.

Visual Impact: Presenter feels that there will be no visual impact due to the amount of wooded area between the area to be developed and Route 20. At time of site visit, GCAC noted the natural barrier created by the woods and also the elevation which appears to but it out of site from the Helderberghs.

Endangered Species: None known to the Presenter and none observed on the Lot 2 by GCAC at time of November 1st site visit.

Historical Considerations: None known to the Presenter and none observed on Lot 2 by GCAC at time of site visit.

Submitted by: _____

John G. Wemple, Jr. - Chair