

To: Guilderland Planning Board
From: Guilderland Conservation Advisory Council
Date: October 5, 2012
Re.: Frederick Crouse, NYS Route 156, Altamont

APPLICATION

Applicant(s): Frederick Crouse, 181 Brandle Rd., Altamont, NY 12009

Proposed Subdivision: A proposed two lot subdivision of 117± acres.

Location: The portion of the acreage proposed for new lot for development is on the south west side of Route 156 (Altamont-Voorheesville Road) approximately ½ mile south of the intersection of that road and Route 146 just south of the Altamont Village line.

Zoning: RA-5.

Site Inspection Summary:

Site Inspection Dates: Sept. 26, 2012,

Meeting Attendees: September 17, 2012 – Presenter - licensed land surveyor Stephen P. Walrath; GCAC Members David Heller, Stuart Reese and John Wemple(Chair).

Inspected by: September 26, 2012 – Owner Frederick Crouse; GCAC Members Stuart Reese and John Wemple (Chair).

Conclusions: As noted elsewhere in the report, GCAC concentrated its review of the site to Lot 1 since it is isolated from Lot 2 and the fact that Lot 2 already has a dwelling on it. From a brief contact with the Applicant, at the time of the 9/26 site visit, it is GCAC's understanding that he does not plan any further development and plans to have the rest of the acreage forever wild. Due to the steep slopes on the rear portion of Lot 1, GCAC feels that development on that portion of Lot 1 may be very difficult but could be doable if all necessary precautions are taken related to the limitations of the soils on the slopes. At time of 9/26 site visit, GCAC did find an area on the slope about 100 to 200 feet beyond the boundary with the Dowling and LeClair properties which appears to have a slight enough slope where possibly a residence could be built. This may also prove true for an area to the rear of the Kelly's which is to the south of where GCAC inspected. Getting up and down the steep slope may pose a problem which may also call for construction of a large culvert for the driveway and path leading to the residence. In the Soil section of this report, some of the limitations related to the soils are noted which should be considered along with special engineering advice before a decision is made in the choice as to where the residence is to be built. If a residence is to be built on the 185.4 ft. open area along Route 156, GCAC does not see any significant environmental issues provided proper drainage and stormwater management measures are incorporated in the final plan. A final note is that the site inspection would have been made much easier and may have covered more of the sloped area of Lot 1 if the Presenter had kept the 9/26 appointment to meet up with GCAC members. Without him being present, GCAC was at a loss to know the easiest route to take to access the areas for possible development. Nevertheless, GCAC feels that this report is inclusive enough to make the conclusions as noted above.

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

INSPECTION DETAILS

Applicant(s): Frederick Crouse

Address: Rt. 156, Altamont, NY 12009

Background: According to the Presenter, Stephen Walrath, the property has been in the Crouse family for many years. Applicant lives on Brandle Road which would be on Lot # 2 of the planned two lot subdivision. Lot # 1 would be on the west side of Route 156 (Altamont Voorheesville Road) most of which is behind the existing houses on that portion of Route 156. Plan is to sell everything on the west side of Route 156. Prospective buyer for Lot 1 is a couple from Colonie. Exact location where they would build is indefinite but they reportedly are considering an area in the south eastern portion of the lot up the hill from the existing houses where they would in turn have a nice view; although the Presenter noted other possible locations on the sizable building envelope one of which could be in the area of the larger of the two portions which border on Route 156. He noted a couple other sites north of the first one mentioned. Presenter didn't know when the buyer would develop Lot 1 and noted it might not be for a year or two and that the buyer could be looking to further subdivide this 21+ acre lot in the future. On the day of the 9/26 site visit, the owner stated his plan is to have the rest of the property forever wild. Having reviewed the Town Tax Map prior to the September 17th presentation, GCAC questioned the Presenter at that meeting regarding the width of the two areas that border the west side of Route 156. The tax map shows one as about 90 feet wide and the other as 50 feet wide. The Presenter claims his drawing is correct with the widths of 100 feet and 185.4 feet and that the depth of the lot to the north of this wider portion is also in error.

Topography: A review of the contour lines on the site drawing shows that Lot #1 is on an area that has a relatively steep slope on most of the acreage. At the time of the 9/26/12 site visit, it was noted that the front portion of the two open areas that border on Route 156 are relatively flat. Of these two areas, it was difficult to see very far back into the southern most area due to the thickness of the vegetation. The second one is very flat and appears to be slightly lower than the adjacent properties. Thus, if this area along Route 156, which the surveyor claims to be 185.4 feet wide, opposed to 50 feet on the tax map, is the site of the possible residence, there most likely will be a need for some fill in order to bring the surface up to approximately that of the adjacent neighboring lots. There is a drainage ditch along the front of both of these areas. GCAC walked across this second area to what appeared to be the remains of a logging road which we followed up a very steep incline to the wooded area which appears to cover the rest of the acreage on Lot 1.

As shown on the contour lines for Lot #1, this portion of the acreage rises from an elevation of about 440 feet Above Mean Sea Level (AMSL) along Route 156 to approximately 600' to 620' AMSL at the rear. Because the relatively steep slope of Lot 1 was of concern, the contour lines on the site drawing of that lot were utilized by GCAC to calculate the angle of the slope and the percent of slope of this lot. The percent slope was determined by dividing the elevation change by the distance between the respective contour lines. Determining the angle of the slope was then accomplished by using the arctangent function on an online scientific calculator (the arctangent function to this value [slope] was then obtained by hitting the "inv" button and then the "tan" button resulting in the slope angle). This resulting angle was the angle between that horizontal plane and the surface of the hill. Overall elevation rise from front of the lot to the rear was computed for the portion near the south end of the lot to be 8.56° with a slope of 15.1%; at the first open lot along Rt. 156 to the rear – 9.1° angle with a slope of 16.16%; at the second open lot along Rt. 156 to the rear – 9.92° with a slope of 17.49%; and near the north end – 12.07° with a slope of 21.38%. A possible building site to the rear of R and M Kelly and between contour lines 480 and 540 has an angle of 14.036° and a 25% slope. Between contour lines 500 and 560, the

angle is 11.31° and the slope is 20%. Another area about 240 feet behind the Kelly's between contour lines 520 and 540 there is a possible site with an angle of 7.89° and a slope of 13.85. It was noted at the 9/26th site visit that the area abutting Rt. 156 was virtually flat which could be the result of past grading when the road was made for possible logging. It should be further noted that the Applicant (Frederick Crouse), who met up with GCAC at the time of the 9/26 site visit, made note of the ravines on both sides of the upper portion of Lot 1. These ravines could very well be where the watercourses are as noted on the tax map.

Vegetation/Trees: According to the Presenter, the acreage which had been a farm, is heavily wooded with some brushland. At time of site visit, GCAC also note that Lot 1 is heavily wooded. Presenter further noted that some of the land has been logged and that trees include small poplars, a mix of hardwoods, beach, birch, hemlocks and maples. Some evergreens were also noted by GCAC. Open area along Rt. 156 has low standing vegetation on much of the area as well as some cattails in the south portion of the drainage ditch that parallels the roadway. In the wooded area on the slope a few fern were observed on the site visit.

Soil: The soil on Lot 1 was described by the Presenter as a type of clay. He also noted that the soil in back of the existing house(s) where the prospective buyer may want to build is gravelly loam.

Based on a review of the soil information on Sheet Number 17 of "Soil Survey of Albany County, New York" -1992 – James H. Brown and a soil map from the USDA Natural Resources Conservation Services website, it appears that there are fifteen different soils on the total acreage as listed below. Only the first five are described in this report, including some of their limitations, since it is these five soils that are on the acreage for proposed development (lot # 1) which is isolated on the west side of Route 156. The existing residence at 181 Brandle Road on lot # 2 is approximately 2000 to 2400 feet distance from Lot # 1 and has been standing there for over 180 years. Soil on that part of the acreage is ScA and VaB.

The rear (west) portion of Lot 1 has NaC soil except for a small area at the northwest corner which has NuD soil which is the type soil on most of the area on this lot other than a small area of RhB along Route 156 and a L shaped area of NuE the upper leg of it being about 200 feet wide and lower part of the L runs along most of the south side of Lot 1 and to the rear of or through the neighboring lots along Route 156. There may also be a very small area at the southeast corner where there is BuB soil.

NaC – Nassau channery silt loam, rolling – This rolling soil is a shallow and somewhat excessively drained. It is on bedrock-controlled ridges and hills. Depth to bedrock in this Nassau soil is 10 to 20 inches. It limits the rooting depth. Permeability is moderate. The available water capacity is very low. The main limitation of this soil on sites for dwellings with basements is the depth to bedrock. Areas of included soils and nearby soils that are deeper to bedrock are better suited to this use. However, in many places typical construction equipment can excavate the shale bedrock. Erosion is a hazard during construction. Maintaining the vegetative cover adjacent to the site and diverting runoff above the site help control erosion. The main limitation of this soil for local roads and streets is the depth to bedrock. The main limitation affecting the use of this soil as a site for septic tank absorption fields is the depth to bedrock. Adding soil material suitable for an absorption field is needed. The deeper included or other nearby soils are better suited to this use.

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.

NuE - Nunda silt loam, 25 to 35 percent slopes - This 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. 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 the slope. These limitations make construction operations difficult. The main limitations of this soil for local roads and streets are the slope and the frost-action potential. Coarse textured fill material will reduce frost heave. The slope makes locating roads difficult. Erosion is a severe hazard. 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. Other nearby soils that are less sloping are better suited to this use. Finding suitable sites and installation are difficult on this soil.

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.

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.

RhB – Rhinebeck silty clay loam, 3 to 8 percent slopes.

Ae - Allis silt loam

VaB - Valois gravelly loam, 3 to 8 percent slopes

ScA - Scio silt loam, 0 to 3 percent slopes

MbB - Manlius channery silt loam, 3 to 8 percent slopes

Ma – Madalin silt loam

In – Ilion silt loam

HnB – Hornell silt loam, 3 to 8 percent slopes.

RhA– Rhinebeck silty clay loam, 0 to 3 percent slopes.

ChA - Chenango gravelly silt loam, loamy substratum, 0 to 3 percent slopes

BuA– Burdett silt loam, 0 to 3 percent slopes.

Drainage/Wetlands: Presenter noted that there is a wetland area near the east border of Lot #2. Town Tax map shows a stream or watercourse running from area of the northwest portion of Lot 1 eastward to Lot 2 apparently under the railway tracts and under Brandle and then heading north to the wetland area. Tax map also shows another watercourse which crosses the southwest tip of Lot 1 as it heads east and along its course meets a stream or watercourse that is connected to the southern end of the wetlands. GCAC observed an apparent stream bed about three to four feet deep and six to eight feet wide running in a south east direction about 50 to 100 feet west of the boundary markers for the rear of the Dowling and LeClair lands. As noted above, the Applicant brought to GCAC's attention that there is a ravine on both sides of Lot 1. The bottom part of the ravine on the north side of Lot 1 is apparently what GCAC observed along the side of a neighbor's property near the point where the Altamont boundary line crosses Route 156. Due to the slope of the acreage on Lot 1, the natural drainage would be to the east and northeast with watercourses emptying into the Black Creek which empties into the Bozen Kill and then into the Watervliet Reservoir. There is drainage ditch along Rt. 156. An apparent culvert exists at the front of the small open lot where there appears to be the remains of a driveway over it. Lot 2 will need a culvert for a driveway if this lot is utilized in the development of Lot 2.

Septic/Wells: Presenter stated it was indefinite at time of the presentation what the plan for water and sewer will be. Application indicates either well or septic system or hookups to existing Town water and sewer. Due to the nature of the soils on the slopes the limitations related to these soils should be noted in the soil section of this report.

Visual Impact: Other than neighbors seeing one more house, the visual impact of building a residence on Lot 1 should be minimal. Presenter pointed out if the site for building is on the slope, it would not be visible from a higher elevation.

Endangered Species: According to the Presenter, there are no Indiana bats or Karner Blue butterflies. No endangered species were observed by GCAC at time of 9/26 site visit.

Historical Considerations: According to Presenter, there are no Indian or Revolutionary War artifacts and no cemetery on the property. Nothing of historical significance observed by GCAC other than the Crouse's residence on Brandle Road which, according to record from Assessor's office, was built in 1829.

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