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EXHIBIT "K"



**Town of Ramapo**  
Department of Public Works  
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COPIES TO:  
 PLANNING BOARD  
 CONSULTANT  
 BLDG. DEPT.  
 D.P.W.  
 TOWN ATTY  
 BCFOR  
*James Reels*  
DATE 7-14-10

CHRISTOPHER P. ST. LAWRENCE  
*Supervisor*

EDWARD P. DZURINKO  
*Director of Public Works*

July 12, 2010

**RECEIVED**

To: Alan Simon  
From: Ed Moran

JUL 14 2010

Re: Patrick Farm  
Tax Map Section 32.11, Block 1, Lots 2, 3, 4, 12, 13, 14, 15, 16, and  
Section 32.14, Block 2, Lot 3

TOWN OF RAMAPO  
BUILDING - PLANNING - ZONING

We are in receipt of and have reviewed a plan prepared by Leonard Jackson Associates for the above referenced project, which was last revised on May 24, 2010. Our comments are as follows:

**General Comments:**

- 1) Now that the project is past the EIS stage, official review comments should be received from the various utility agencies such as Columbia Gas and Orange and Rockland in regards to their easements, etc. Columbia Gas also requested full details in order for them to complete their review.
- 2) It appears a shade tree easement is shown, but it does not seem to be labeled.
- 3) Street lights must be installed along the public roadways. The location and spacing must be approved by Orange and Rockland.
- 4) Money in lieu of land is required prior to final approval.
- 5) An emergency action plan must be developed for any dam onsite.
- 6) The distance from centerline to designated street line should be shown at Route 202 and Route 306.
- 7) Who will be responsible for stream maintenance?
- 8) Comments must be received from NYSDOT prior to preliminary approval.
- 9) A more complete description of the easements should be included within the plan set. The easements are listed, but to whom they are granted is missing.

**NYSDEC & USACOE Related Comments:**

- 10) When were the various wetlands (both Federal and State) flagged and certified? The dates should be shown on the plans. According to the DEIS, the wetlands were certified back in June 2005. Therefore, a new certified delineation is necessary.
- 11) During a site visit, the presence of wetlands was apparent which are not shown on the plan. A wetlands specialist should be sent out for a current delineation. A wetlands delineation map should be created showing flagged points. This will then have to be certified by the appropriate agencies. More specifically, one of the larger areas that appears to have been missed is partially shown on the NWI map provided within the DEIS and on the town's NWI Thiells, NY map which shows it to be a PFOIE wetland.

- 12) The contention of the applicant and engineer for the applicant is that approval from the USACOE was granted in the form of a letter from Dr. Christopher Mallery. According to LJA, the work was authorized under nationwide general permits (NWP). After consulting with the USACOE in regards to both the letter from Dr. Mallery and NWP's, a JD is required for the project. Not only has the scope of work changed from 139 single family homes to 497 units, NWP's are only valid for 2 years. With every NWP, the USACOE requires a jurisdictional determination.
- 13) According to a letter submitted by Adam Peterson of the NYSDEC dated July 3, 2009, the DEC will require the placement of survey markers along the boundary of the 100 foot adjacent area (wetland buffer boundary) in conjunction with the placement of a permanent barrier (split rail fence, stone wall, or other equivalent structure). The survey markers and permanent structure appear to be appropriate for lots 43-49 and 53-55. These must be shown on the final site plan. Comments from the NYSDEC are required for this stage of the review.
- 14) Only 5 acres may be developed at one time unless a waiver is granted by the NYSDEC.
- 15) Permission will be needed for the location of the sanitary sewer line within the NYSDEC wetland buffer area. (Sheet 19)

**Floodplain Analysis Comments:**

- 16) A floodplain disturbance permit must be approved by the floodplain administrator at the Town of Ramapo.
- 17) A LOMR is needed for the new flood plain elevations.
- 18) How were the cross section elevations determined for the flood plain analysis? If completed using Rockland County topo, actual survey points should be taken in the field to verify the channels (top of bank, bottom of bank elevations) are correct.
- 19) Based on the flood plain limits, several of the road/stream crossings do not appear to be large enough to prevent the roadway from being inundated during the 100 year storm.

**General Grading & Drainage Plan Comments:**

- 20) Drywells and other infiltration practices cannot be located on areas with natural slopes greater than 15%.
- 21) Stationing should be shown on both the grading sheets and the utility sheets.
- 22) As per the Superintendent of Highways Anthony Sharon's letter dated April 20, 2009, fences are to be installed around all of the ponds and are to be keyed the same to prevent dumping and wind-blown objects from entering the ponds. In addition, as part of the agreement to maintain the ponds, the Highway Department has requested funding for equipment necessary.
- 23) A permanent access point and access road must be constructed for all the ponds.
- 24) The design of the private driveway/cul-de-sac adjacent to lots 1, 2, and 3 creates potential snow removal problems. The walls along the high side of the street should be set back farther from the edge of pavement. (Sheet 13; part 1 of 9)
- 25) The design of the private driveway must meet NYS Fire Code specifications with regard to fire truck turnarounds. The ability of a truck to maneuver the turning radii must be demonstrated. (Sheet 13; part 1 of 9)
- 26) The 100 year flood plains should be shown on the grading and drainage plans. The culverts should be large enough to convey a storm of that size. Some of the culverts do not appear large (wide) enough. (Sheet 13-21)
- 27) Drainage structures should not be located within the 100 year floodplain. HW #10 within lot 79, and HW 10A within Tax Lot 32.07-1-11 should be relocated slightly. (Sheet 14-15)

- 28) Will WQ Basin #2 be maintained by the Patrick Farm Condominiums? The easements are shown, but to whom they are granted is not listed. (Sheet 14; part 2 of 9)
- 29) The right-of-way needs to be adjusted along Road C from Route 202 to the bus stop. 10 feet of right-of-way is needed on either side of the roadway. (Sheet 15; part 3 of 9)
- 30) The bus stop should be farther from the intersection with the parking lot entrance to the multi-family housing. (Sheet 15; part 3 of 9)
- 31) Are the utility towers on lots 77 and 87 remaining? Who owns the towers? If they are to stay, easements will be needed. It appears there may be an existing transmission easement over lots 77 and 78, but it isn't shown. (Sheet 15; part 3 of 9)
- 32) I am under the assumption Old Haverstraw Road is to be removed. With the existing access to the lot being removed and a new access being constructed from Road D over lot 89 (the multi-family development portion), an easement must be shown. The driveway depiction over the top of the parking lot driveway is somewhat confusing. (Sheet 15; part 3 of 9)
- 33) The driveway should be relocated outside of the path of the sanitary sewer manhole. If repair work is ever needed, access to the lot would be completely blocked. (Sheet 15; part 3 of 9)
- 34) Fences must be installed around all of the WQ basins. A proper access driveway at least 12 feet in width must also be provided which allows entry to all points of the basins. (Sheet 13-21)
- 35) The sight distance must be shown at the intersection of Road C and Route 202 and the intersection of Road F and Route 306. (Sheet 15 & 20)
- 36) Work cannot occur within the 100 year flood plain. The wall along lot 74 cannot extend that deeply into the lot. The wall should be offset from the edge of the flood plain. (Sheet 16; part 4 of 9)
- 37) The town does not wish to maintain a staircase partially within the town right-of-way. Regardless of its location, the staircase should be removed from the plans. (Sheet 18; part 6 of 9)
- 38) What is the purpose of the proposed roadways/trails which are shown throughout the property? For example, the trail which runs from the previously mentioned staircase, around WQ Basin #4, and out to Road B. If walkways/paths are to remain, easements would be needed as well as some form of maintenance agreement.
- 39) Where the gas line crosses Road A, approximately 3 feet of fill is being added to the existing gas line elevation. This will most likely push the amount of cover over the 48" maximum set forth in the Columbia Gas Transmission guidelines. (Sheet 18; part 6 of 9)
- 40) Catch basin 3-13A should be relocated outside of the path of the gas main. (Sheet 18; part 6 of 9)
- 41) The dwelling footprints on Lots 45 and 46 must be located outside of the gas transmission easement. No portion of the footings should be located within the easement. (Sheet 19; part 7 of 9)
- 42) The right-of-way needs to be adjusted along Road F from Route 306 to approximately the northern boundary of lot 56. Ten feet of right-of-way is needed on either side of the roadway. (Sheet 20; part 8 of 9)

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**General Utility Plan Comments:**

- 43) Cleanouts are needed for the sanitary sewer house connections just before entering the road right-of-way.
- 44) Stationing should be shown on both the grading sheets and the utility sheets.
- 45) All sanitary sewer stream crossings should be ductile iron pipe or encased in concrete.
- 46) Wherever possible, 90 degree angles along sanitary sewer pipe should be avoided.
- 47) The culverts should be shown on the drainage and sewer profiles.
- 48) The house connections should be shown on the sewer profile sheets.

- 49) Wherever the force main crosses a stream, it should not change grade.
- 50) The force main is proposed to connect to a new gravity line to be installed along Prosperity Drive. Who will be the ultimate owner of the new 15" gravity line on Prosperity Drive? Having two entities maintain separate sanitary sewer facilities on a public street is not practical. The existing county line should be redesigned and increased in size in order to handle the increased flow from the Patrick Farm force main.
- 51) The town now requires a minimum of 0.45% slope on sanitary sewer mains. This allows for a slight amount of human error during the installation of the pipe. Please adjust the grade of any pipe shown with a lesser slope. (Sheet 22-30)
- 52) SMH #7 is missing from the plan. (Sheet 22; part 1 of 9)
- 53) Dead end pipe runs along sanitary sewer mains (e.g. between SMH #65 & 66) must have a minimum slope of 1%. (Sheet 22-30)
- 54) The manhole information for SMH #41 is cut off by the Key Map. (Sheet 23; part 2 of 9)
- 55) Please provide a 25 foot wide sanitary sewer easement for the lines which run from Road B through the condominium portion of the project. (Sheet 23; part 2 of 9)
- 56) Every attempt should be made to avoid 90 degree angles on sanitary sewer pipes such as at SMH #15. Shift SMH #15 farther northeast to create a better flow hydraulically. (Sheet 23; part 2 of 9)
- 57) Sewer manhole #14 is incorrectly labeled as a DMH.
- 58) Please provide a 25 foot wide sanitary sewer easement for the lines which run from Road C to Road D through the condominium portion of the project. (Sheet 24; part 3 of 9)
- 59) The sanitary sewer manhole located on lot 35 must be relocated outside of the 100' year floodplain. (Sheet 27; part 6 of 9)
- 60) SMH #57B is incorrectly labeled as a drop manhole. (Sheet 27; part 6 of 9)
- 61) What is the reasoning behind the trajectory of the sewer pipe between SMH #34 and SMH #35B? (Sheet 27; part 6 of 9)

#### **Sanitary Sewer Profiles (1 of 11)**

- 62) Sanitary sewer house connections must be shown on the profiles. (Sheet 57-67)
- 63) Drop manholes seem to be used throughout the development without warrant. In cases of extreme depth, at a minimum attempt slightly better than minimum slope along the pipe runs. In the majority of the cases however, the depth is reasonable and the drop manholes can be eliminated. Using minimum slope along a sewer main is a last resort. For example, there's no reason a constant slope cannot be maintained from SMH #29 to SMH #30A which would eliminate the need for a drop at SMH #30. This would allow for an improved hydraulic flow. (Sheet 57-67)
- 64) The continuation sheet numbers within the profiles appear to be incorrect. For example, sheet 57 states "Continuation see sheet #55" however the sheet number listed is incorrect. This is true for the entire profile section of the plans. (Sheet 57-67)
- 65) We understand the need for a drop manhole at SMH #103, however, please increase the slope of the incoming pipe slightly so it's above minimum pitch. (Sheet 63)

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#### **Detail Sheet Comments**

- 66) The curb caps should be type N to reduce the possibility of large debris from entering the drainage system.
- 67) Concrete sidewalk must be 4,500 psi; the detail should be corrected.
- 68) Please remove the words "Rockland County Sewer District No. 1" from the details.

#### **Drainage Report and SWPPP Comments:**

- 69) A SWPPP and NOI must be filed with and accepted by the Town of Ramapo and NYSDEC.

- 70) The applicant must retain the services of an engineer for scheduled inspections of all erosion control measures. Inspection reports must be submitted to the town. The applicant is responsible for following rules/regulations set forth in the SWPPP. As per the NYSDEC, "in light of the sensitive nature of the watercourses on the site, it would be in the best interests of the project sponsor to be especially diligent in the design and implementation of adequate erosion and sediment controls during construction on the project site."
- 71) Has the ESA Boundary Delineation and Report been submitted to the Rockland County Sewer District No. 1? The Town would like a copy of the report and the EPA's approval.
- 72) According to the Rockland County Drainage Agency letter of July 30, 2009, the New York State Stormwater Management Design Manual states the "Stormwater wetlands shall not be located within jurisdictional waters, including wetlands." If the existing pond onsite is considered a jurisdictional water by the NYSDEC, which requires it to be regulated as a class B stream, that would violate the NYSSMDM. Prior to preliminary approval, the NYSDEC should approve the proposal.
- 73) Stormwater Pond buffers of 25 feet which extend from the maximum water surface elevation within the ponds are required as per section 6.1 of the NYSSMDM.
- 74) Groundwater elevations and percolation rates are needed. When test holes are dug and percolation rates determined, the Town of Ramapo DPW must be notified and a representative will be sent out to witness the tests.
- 75) 3 feet of separation is required between the bottom of infiltration trenches and groundwater as per section 6.3 of the NYSSMDM.
- 76) The infiltration systems must be shown to completely de-water the water quality volume within 48 hours after the storm event according to section 6.3 of the NYSSMDM.
- 77) The perimeter of any pond four feet or greater in depth must be surrounded by two benches; safety bench & aquatic bench, as per Section 6.1 of the NYSSMDM.
- 78) As per Section 6.1.1 of the NYSSMDM, evaluate the site to determine the Hazard Class and to determine what design elements are required to ensure dam safety.
- 79) According to the HEC-1 output report, the maximum water surface elevation for the farm pond during the 100 year storm is 449.00 which would flow over the banks on the northeastern end. In addition, it would flood the pond and potentially Road B2.

File: Patrick Farm