



MECKLENBURG COUNTY
Land Use and Environmental Services Agency

May 15, 2007

Mr. Solomon Fortune
Charlotte-Mecklenburg Planning Commission
600 East Fourth Street
Charlotte, North Carolina 28202

Re: Rezoning Petition 2007-096
Approximately 10.35 acres located on the south side of Crosshaven
Drive, east of Snug Harbor Road

Dear Mr. Fortune:

Representatives of the Air Quality (MCAQ), Groundwater & Wastewater Services (MCGWS), Solid Waste (MCSW), Storm Water Services (MCSWS), and Water Quality (MCWQ) Programs of the Mecklenburg County Land Use and Environmental Services Agency (LUESA) have reviewed the above referenced rezoning petition. In order for the Mecklenburg County LUESA to support this rezoning, the following recommendations should be implemented and appear as notes or modifications on site plans:

Air Quality

Development of this site may require submission of an asbestos Notification of Demolition and Renovation to MCAQ due to possible demolition or renovation of an existing structure. A letter of notification and the required forms will be mailed directly to the petitioner by MCAQ.

Groundwater & Wastewater Services

No Comment.

Solid Waste

Mecklenburg County Solid Waste requests the petitioner submit a Solid Waste Management Plan prior to initiating demolition and/or construction activities to include, at a minimum, the procedures that will be used to recycle all clean wood, metal, and concrete generated during demolition and construction activities. The Plan shall specify that monthly reporting of all tonnage disposed and recycled will be made to the Mecklenburg County Solid Waste Program. The report shall include the identification and location of facilities receiving disposed or recycled materials.

Mecklenburg County is committed to reduction of construction/demolition waste. Technical assistance is available at no charge to those companies willing to partner with the County in this effort. Please contact Diane Davis at (704) 432-0399 for more information regarding the County's technical assistance services.

Storm Water

No Comment.

Water Quality

The Mecklenburg County Water Quality Program cannot support the rezoning of the subject property unless the comments and/or ordinances are implemented and appear on any revised site plans as notes and/or schematics.

This rezoning is part of the Palisades development rezoned as Petition Number 2001-16(c) by Rhein Interest of Charlotte, LLC. It was approved by the Mecklenburg County Board of County Commissioners on December 11, 2001. This new Palisades rezoning should be held to the same standard as the original Palisades rezoning. The original comments are as follows.

This Petition proposes the development of a master planned community containing a mixture of residential, office, retail, and open space uses. This concept has been developed to further the objectives of the adopted Westside Strategic Plan. It incorporates the development of needed transportation infrastructure to serve the proposed development as well as other existing and future development in the area. It has been designed taking into account the difficult topography common to this part of the county and has incorporated open space elements to protect environmentally sensitive areas. It contains extensive provisions in direct response to concerns about water quality in Lake Wylie and additional restrictions on development that will significantly reduce the impact of the proposed development over what the present standards would permit. It will provide for a variety of residential types and densities, with higher densities focused in the Town Center and lower densities transitioning to the existing community fabric. The following section contains specific additional standards relating to the development of the site within the Lake Wylie watershed area that have been reviewed and approved by the Mecklenburg County Department of Environmental Protection (MCDEP) on 12/07/01.

1. The Proposed development is within the Critical Area as defined in Mecklenburg County's Lower Lake Wylie Watershed Protection Ordinance.
2. The proposed development shall utilize CMUD pump stations. If pump stations are required in close proximity to the lake, they shall be equipped with the following protection devices: on-site generator with weekly automatic exerciser, audible and visible high water alarms, high water auto dialer, power surge protection and lightning protection and 24-hour storage capacity.
3. The proposed development shall implement the following erosion control measures in addition to those required by current ordinances: inlet protection, double silt fences, two stage sediment basins with outlet wiers sized for a 50-year

storm event, single family lot erosion control measures, sediment basins and other sediment reduction devices left in operation until construction activities with the development are completed and stabilizes (basin storage may be reduced based on the remaining disturbed acreage), development and implementation of an erosion control maintenance plan to be strictly enforced by the project developer.

4. Reasonable efforts shall be made to limit the size of developed areas denuded within each sub-basin area at any one time. The project developer shall phase the grading and land disturbing activities within the residential portion of the development in a manner not to exceed fifty (50) acres of denuded area within any sub-basin. The golf course and parkway construction shall be excluded from this requirement. Stabilization shall occur as soon as feasible.

5. The impervious area calculations for determining compliance with the 50% maximum impervious area allowed under the high density option shall be computed utilizing 8 sub-watersheds within the proposed development as approved by MCDEP. BMP's shall be required for all watersheds that exceed 20% impervious cover. However, open space on the property labeled, as "Lake Wylie Baptist Church" on the site plan, will not be used in determining impervious area calculations for any other portion of the site. Impervious area calculations for the Lake Wylie Baptist Church property will be determined solely with respect to the built-upon area and open space located or to be located on the church property.

6. The golf course shall develop a maintenance plan which minimizes the use of herbicides and fertilizers in order to reduce negative impacts to surface waters. The maintenance plan shall be provided to MCDEP prior to operation of the golf course. The maintenance plan shall include the following:

Buffer Zones:

- a) The proposed golf course within the development shall maintain a 100' undisturbed buffer from the lake in all locations and shall comply with all Watershed and S.W.I.M. Stream Buffer requirements.
- b) No fertilizers or pesticides are to be applied in any of the buffer zones.
- c) The golf course storm drainage shall be designed such that there are no direct discharges of storm water into the lake or SWIM/ Watershed streams.

Irrigation Management Plan:

- d) An irrigation plan shall be developed to ensure that irrigation runoff from managed turf grass to surface waters is prevented and to reduce subsurface losses of nutrients and pesticides. This plan shall be based on a water budget, weather conditions and soil moisture data obtained from on-site instrumentation.
- e) Water Quality Management Zones shall be established by the golf course based on turf, plant type and soils, with specific strategies developed for each zone.

Nutrient Management Plan:

- f) A nutrient management plan must be developed to limit nutrient applications to levels equal to or less than turf grass and vegetation

nutrient uptake in order to minimize nutrient transportation via surface runoff, subsurface interflow, or deep percolation.

g) Slow release fertilizers are to be used predominately to reduce nitrogen loss below the root zone. Occasional spot application of liquid fertilizers shall be allowed.

h) Fertilizer applications are to be commensurate with turf grass growth requirements based on species and cultivar, climate, soil conditions, and chemical formulation.

i) Water Quality Management Zones shall be established by the golf course based on soils, turf and plant cover goals, and level of use in order to plan fertilizer and irrigation applications.

j) Nutrient applications are not to exceed turf and plant uptake requirements during any growing season.

k) Chemical applications are not to occur on bare soils, except during establishment of turf grass on the golf course.

l) Fertilizers are to be incorporated into the soil/turf wherever possible to reduce exposure to runoff and enhance adsorption.

m) Nutrient uptake shall be maximized through the selection of realistic turf grass goals, selection of application rates to meet goals, and the use of soil and tissue tests to direct application rates.

n) The potential for off-site transport of nutrients must be assessed prior to application and measures must be taken to prevent negative water quality impacts.

Integrated Pest Management (IPM)

o) An IPM Plan shall be developed to minimize toxic chemical transport via surface water runoff, subsurface interflow, or deep percolation.

p) The IPM Plan shall be integrated with irrigation and nutrient management plans.

q) Action thresholds shall be developed and implemented below which no applications are used in order to reduce pesticide use.

r) Pest specific products are to be used which are less toxic, less mobile, and less persistent.

s) Water Quality Management Zones shall be established by the golf course based on soils, turf and plant cover goals, and level of use in order to plan pesticide applications.

t) Spot specific treatment shall be used wherever possible to avoid broadcast treatments.

u) Pesticides should be incorporated into the soil/ turf wherever possible to reduce exposure to runoff and enhance adsorption.

v) Application of toxic chemicals shall be prohibited in sensitive zones such as wetlands.

w) The potential for off-site transport of pesticides shall be assessed prior to application and measures must be taken to prevent negative water quality impacts.

7. The project developer shall perform the ambient and storm water quality monitoring necessary to establish base line measurements in the eight (8) affected coves for the following parameters: temperature, pH, conductivity, secchi depth,

total phosphorus, total nitrogen, orthophosphorus, TKN, NH₃, NO₃, NO₂, total suspended solids, turbidity, chlorophyll a, fecal coliform, pesticides, herbicides, and dissolved oxygen. MCDEP must evaluate and approve all monitoring site locations in each sub-basin as well as monitoring protocols. MCDEP will also evaluate hydrologic conditions and channel stability at the site. This base line data will be used in the development of the water quality model discussed in 11 below. Ongoing monitoring will be performed by the developer as discussed in number 11 below to assess and evaluate compliance with water quality targets established by MCDEP.

8. The project developer shall provide to MCDEP measurements of sediment levels in the coves identified for each sub-basin at a maximum of 90 days prior to initiation of land disturbing activities and annually thereafter until no later than one year after construction activities have been completed in each of the subbasins. MCDEP shall work with the developer in the selection of monitoring site locations and the development of required monitoring protocols.

9. The project developer shall employ an enforcement officer to monitor compliance with erosion control, buffer and watershed protection requirements as well as the requirements specified as part of the rezoning approval. The enforcement officer shall be empowered to take the actions necessary to ensure the prompt correction of all problems detected.

10. The project developer shall require all on-site contractors and sub-contractors to take approved MCDEP training program, i.e., EnviroSense, to include information concerning specific water quality concerns and the measures necessary to prevent water quality problems.

11. The developer shall complete a watershed management plan for the entire project by sub-basin using a water quality model as the primary tool in the development of the plan. The water quality model to be used for the development must be approved by MCDEP and all water quality targets will be set by MCDEP after baseline data has been collected and the model has been run. The goal of the watershed management plan and MCDEP water quality targets will be to ensure compliance with all applicable water quality standards and MCDEP action levels as well as conformance with designated uses established in the North Carolina Administrative Code. In addition, the plan and targets will ensure that all downstream waters are suitable for aquatic life propagation and maintenance of biological integrity and wildlife. The plan will contain designs for the structural and nonstructural best management practices (BMPs) based on best available technology for use within the development to ensure that all water quality goals are achieved and that concentrations of pollutants do not exceed MCDEP water quality targets. Where practical, the developer will also incorporate into the watershed management plan the development principles for reducing impervious cover contained in the Center for Watershed Protection publication (August 1998) entitled "Better Site Design for Changing Development Practices in Your Community." The watershed management plan and water quality targets must be approved by MCDEP prior to the developer receiving any grading permits for the

project and all site development must be performed in strict accordance with this plan. MCDEP shall have the authority to approve innovative erosion control and BMP devices proposed by the developer in order to meet established water quality targets. The project developer will establish an organization for the common maintenance of all BMPs. The developer will perform water quality monitoring for the parameters specified in #7 above in each sub-basin at a minimum of twice a year throughout project construction and up to three (3) years following completion for the purpose of determining the effectiveness of the watershed management plan and water quality model at protecting water quality. Water quality monitoring reports will be submitted to MCDEP for review and approval within four (4) weeks following the completion of biannual monitoring activities. If monitoring data indicates that watershed management plans are not effective at achieving established water quality targets and goals, then the watershed management plans will be revised as approved by MCDEP to protect water quality conditions in the coves and ensure compliance with all established water quality targets and goals.

12. The project developer shall be required to utilize a NCDOT approved "ditch type" street section through-out the development in areas where street patterns are connecting to existing "ditch type" streets and roadways within the development without residential or commercial driveway access. Sidewalks shall be required on one side of "ditch type" streets with the other side to be utilized for equestrian and hiking trails. All natural trails/paths adjacent to streets will be covered with a stabilizing ground cover to prevent erosion, such as mulch. Any of the foregoing provisions that depart from standard development regulations must be approved under the Innovative Development provisions of the Mecklenburg County Zoning Ordinance.

13. The project developer shall evaluate the downstream offsite drainage system and control the stormwater runoff from the site during and after construction to prevent associated damage to downstream properties.

14. A 100 linear foot Watershed Buffer shall be maintained throughout the development in all locations adjacent to the lake's edge. In those areas where the Watershed Ordinance would require a buffer greater than 100 feet, then the larger buffer requirement will control.

15. The project developer shall re-vegetate the 100 linear foot Watershed Buffer in two locations as indicated on a map per MCDEP recommendations.

16. Energy dissipation devices at all storm water outfalls will be sufficient to prevent erosion within the buffer.

17. The developer proposes the use of low-pressure sewer systems at various locations on the project. These systems require smaller lift stations on individual lots. These individual lift stations shall be maintained under a common written agreement with a contractor who can respond to service calls within twenty-four

(24) hours. Each lift station shall be equipped with audible and visual alarms and the maintenance provider's name and phone number prominently displayed.

Please contact the staff members who conducted the reviews if you have any questions.

The reviews were conducted by, Leslie Rhodes

(Leslie.Rhodes@mecklenburgcountync.gov) with MCAQ, Jack Stutts

(Jack.Stutts@mecklenburgcountync.gov) with GWS, Joe Hack

(Joe.Hack@mecklenburgcountync.gov) with MCSW, Bill Tingle

(Bill.Tingle@mecklenburgcountync.gov) with MCSWS, and Rusty Rozzelle

(Rusty.Rozzelle@mecklenburgcountync.gov) with the MCWQ.

Respectfully,

Heidi Pruess

Environmental Policy Administrator