

DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

DIVISION OF LAND RESOURCES

LAND QUALITY SECTION

~~AMENDED~~

P E R M I T

for the operation of a mining activity

In accordance with the provisions of G.S. 74-46 through 68,  
"The Mining Act of 1971," Mining Permit Regulation 15 NCAC  
5 B, and other applicable laws, rules and regulations

Permission is hereby granted to:

Wake Stone Corporation

Triangle Quarry

Wake County - Permit No. 92-10

for the operation of a

Crushed Stone Quarry

which shall provide that the usefulness, productivity and scenic  
values of all lands and waters affected by this mining operation  
will receive the greatest practical degree of protection and  
restoration.

In accordance with the application for this mining permit, which is hereby approved by the Department of Natural Resources and Community Development, hereinafter referred to as the Department, and in conformity with the approved Reclamation Plan attached to and incorporated as part of this permit, provisions must be made for the protection of the surrounding environment and for reclamation of the land and water affected by the permitted mining operation. This permit is expressly conditioned upon compliance with all the requirements of the approved Reclamation Plan. However, completed performance of the approved Reclamation Plan is a separable obligation, secured by the bond or other securities on file with the Department, and may survive the expiration, revocation or suspension of this permit.

This permit is not transferable by the permittee with the following exception: If another operator succeeds to the interest of the permittee in the permitted mining operation, by virtue of a sale, lease, assignment or otherwise, the Department may release the permittee from the duties imposed upon him by the conditions of his permit and by the Mining Act with reference to the permitted operation, and transfer the permit to the successor operator, provided that both operators have complied with the requirements of the Mining Act and that the successor operator agrees to assume the duties of the permittee with reference to reclamation of the affected land and posts a suitable bond or other security.

In the event that the Department determines that the permittee or permittee's successor is not complying with the Reclamation Plan or other terms and conditions of this permit, or is failing to achieve the purposes and requirements of the Mining Act, the Department may give the operator written notice of its intent to modify, revoke or suspend the permit, or its intent to modify the Reclamation Plan as incorporated in the permit. The operator shall have right to a hearing at a designated time and place on any proposed modification, revocation or suspension by the Department. Alternatively and in addition to the above, the Department may institute other enforcement procedures authorized by law.

#### Definitions

Wherever used or referred to in this permit, unless the context clearly indicates otherwise, terms shall have the same meaning as supplied by the Mining Act, N.C.G.S. 74-49.

#### Site Plan

The site plan referred to in this permit shall indicate the topographic site plan of the Wake Stone Corporation revised March 10, 1981, with the following exception:

The berm and associated disturbances located along the northern boundary shall not be constructed unless approved by the Department.

## Park

Whenever used or referred to in this permit, the term "park" shall mean the William B. Umstead State Park.

## Conditions

The permitted mining operation shall not violate standards of air quality, surface water quality, or ground water quality promulgated by the Environmental Management Commission.

This permit shall be effective from the date of its issuance until May 13, 1991 and shall be subject to the provisions of the Mining Act, N.C.G.S. 74-46, et. seq., and to the following conditions and limitations:

### 1. Wastewater Control

Any wastewater processing shall be in accordance with permit requirements and regulations promulgated by the Division of Environmental Management.

### 2. Dust Control

Any mining process producing air contaminant emissions shall be subject to the permitting requirements and regulations promulgated by the Division of Environmental Management. The operator will take whatever reasonable precautions necessary to prevent or minimize the fugitive dust from going offsite. Such measures include but are not limited to:

- A. The access road to the quarry, from the scale house to SR 1790, shall be paved. Wake Stone Corporation shall cooperate with the Department of Transportation in paving SR 1790 from the entrance to the quarry to the intersection with SR 1654.
- B. The provisions of the air quality permit #4386 shall be followed.
- C. A water wagon with sprays shall be used for wetting roads to prevent dust.
- D. Sprays shall be used throughout the plant at transfer points to control dust.
- E. Drill hole dust shall be controlled by wetting or other means.
- F. Dust control at the crushers and screens shall be maintained by the use of water sprays.
- G. A water spray shall be provided for highway haul trucks.
- H. Washed stone shall be stockpiled within the part of the designated plant area which is closest to the park.

### 3. Buffer Zones

- C. The dotted line labelled as buffer along the northern boundary and along the eastern boundary is the permanent buffer as designated by the Mining Commission. (Site plan dated March 10, 1981).
- D. An undisturbed buffer of existing natural vegetation shall be maintained between the mining disturbance and <sup>two (2)</sup> Park property as indicated by the "10 year buffer" shown on the site plan dated March 10, 1981 <sup>with the exception of the installation of the vegetated berms as specified by the revised Site Plan dated February 14, 1988</sup> <sup>both Crabtree Creek and the Vantrod</sup>
- E. An undisturbed buffer zone of existing natural vegetation shall also be maintained between the top edge of the bank of Crabtree Creek and any mining disturbance within the 10 year permit area. The buffer zone shall be of sufficient width to prevent offsite sedimentation and to preserve the integrity of the natural watercourse. In any event, the buffer <sup>will</sup> meet U.S. Corps of Engineers requirements for Crabtree Creek Watershed.
- F. The only exceptions to these undisturbed buffers of natural vegetation are:
  - A. The construction of berms as approved by the Department for visual and noise screening.
  - B. The installation of drainage and sedimentation controls <sup>as approved by the Department</sup> to protect ~~the~~ Crabtree Creek.
  - G. ~~Such crossings as may be necessary in future years to accommodate the installation of utilities.~~
  - <sup>C.</sup> ~~D.~~ The construction of a water supply dam as shown on drawings submitted in a permit modification request dated September 30, 1986 <sup>approved by the Department.</sup>

### 4. Erosion and Sediment Control

- A. Adequate mechanical barriers including but not limited to diversions, earthen dikes, brush barriers, silt check dams, silt retarding structures, rip rap pits, or ditches shall be provided in the initial stages of any land disturbance to prevent sediment from discharging onto adjacent surface areas or into any lake or natural watercourse in proximity to the affected land.
- B. The existing lakes shall be used to trap sediment from initial mining disturbances. The spillways of the existing lakes shall be further stabilized as necessary to prevent erosion of the spillway from runoff from the affected lands. The embankments of the existing lakes shall be improved if necessary to insure the stability of the embankments.

- C. The angle for graded slopes and fills shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control measures, structure, or device. In any event, exposed slopes or any excavated channels, the erosion of which may cause offsite damage due to siltation, shall be planted or otherwise provided with ground cover, devices or structures sufficient to restrain such erosion.
- D. Drainage shall be provided either through or around any berms that would otherwise obstruct natural drainage.

5. Noise Abatement

All reasonable precautions shall be taken to minimize the impact of operational noise upon Umstead Park. Such measures shall include but not be limited to:

- A. Noise barriers between the park boundary and the crushers and screening towers to minimize noise levels at the park shall be provided from the outset of the operation. Noise barriers may be enclosures, walls, bins, structures, stockpiles, or natural terrain. In the event there is disagreement over the required noise control measures, the final design and ~~em~~placement of noise barriers shall be determined by qualified noise and engineering consultants mutually agreed upon by both parties.
- B. The plant shall be located at the lowest feasible elevation.
- C. The plant shall be designed so that the primary crusher can be relocated in the pit at the earliest possible date.
- D. The chutes used in processing shall be rubberized.
- E. Compressors with noise abatement enclosures (currently called whisperized compressors) shall be used with track drills to open the quarry. Once the quarry is opened, either hydraulic or down-in-the-hole drills shall be used to further reduce noise.
- F. Pit haul trucks shall be equipped to exhaust through the beds of the trucks to muffle engine noise.
- G. Conveyors rather than trucks shall be used for stockpiling material.
- H. The quarry and stone process operations shall be operated only on Monday through Friday and shall not be operated on the following recognized holidays: New Year's Day, Easter Monday, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day. A reasonable amount of hauling of processed

stone from the stockpile areas is permitted until 1:00 P.M. on Saturdays, but hauling shall not be done at any other time on weekends or on holidays without prior approval by the Department.

6. Processing Plant Location

- A. The processing and stockpiling facilities shall be located as indicated on the Wake Stone Corporation site plan dated March 10, 1981.
- B. The plant shall be located to place the processing and stockpiling facilities at the lowest possible elevation to reduce visibility and noise impact on the park.
- C. The location of the pit shall be such that, once the overburden is removed, the quarry excavating equipment (i.e. compressor and drill, shovels, and trucks) can be placed at an elevation lower than the surrounding natural ground in the initial phases of quarrying.

7. Prevention of Stagnant Pools

The affected land shall be graded so as to prevent collection of pools of water that are, or are likely to become, noxious or foul. Necessary structures such as drainage ditches or conduits shall be constructed or installed when required to prevent such conditions.

8. Blasting

The following blasting conditions shall be observed by the operator to prevent hazard to persons and adjacent property from thrown rock or vibrations:

- A. In all blasting operations, except as hereinafter otherwise provided, the maximum peak particle velocity of any component of ground motion shall not exceed 1 inch per second at the immediate location of any building regularly occupied by human beings such as dwelling house, church, school, public building, or commercial or institutional building. A smaller peak particle velocity may be required to protect neighboring structures or equipment vulnerable to vibrations less than 1 inch/second peak particle velocity.
- B. Airblast overpressure shall not exceed 128 decibels linear (dBL)-"warning," 132 dBL "caution," and 135 dBL "maximum" as measured at the immediate location of any dwelling house, church, school, public building, or commercial or institutional building.



- C. The operator shall take all reasonable precautions to insure that flyrock is not thrown beyond areas where the access is temporarily or permanently guarded by the operator. Should flyrock occur beyond the guarded area, it shall be reported to the Department immediately. The Department will conduct a thorough investigation to determine the cause. Failure to take corrective measures to prevent flyrock and repeated instances of flyrock shall be considered a violation of the permit.
- D. Operator shall maintain records on each individual blast describing: the total number of holes; pattern of holes; depth of holes; total pounds of explosives; maximum pounds per delay interval; amount of stemming and burden for each hole; and blast location. Records shall be maintained at the permittee's mine office and copies shall be provided to the Department upon request.

#### 9. Visual Screening

- C. The operation shall be situated to optimize natural screening of the operation from public view from Interstate 40 and the Park property. The visual screening plan shall include maintaining undisturbed buffer areas of natural vegetation as shown on the site plan dated March 10, 1981. Additionally, a vegetated earthen berm shall be constructed east of the processing plant and stock-pile area as shown on the revised site plan. Visual screening such as vegetated earthen berms and/or evergreen trees shall be placed as necessary to supplement natural screening.

#### Construction of Berms

- A. A vegetated earthen berm shall be constructed between the Wake Stone Corporation plant and the western boundary of the Park as shown on Wake Stone Corporation's site plan dated March 10, 1981 *and February 14, 1991.*
- B. Berm dimensions shall be no less than indicated on Wake Stone Corporation's site plan *dated March 10, 1981, and may be higher and longer than shown.* *and February 14, 1991*
- C. The side slopes of <sup>all</sup> the berm ~~shall~~ shall be graded to a ~~stable grade~~ <sup>or</sup> 2 horizontal to 1 vertical grade or flatter and revegetated on the sides and top with grasses and evergreen trees. The toe of the berm shall not encroach on the park property boundary and shall be at least 50 feet from the boundary. The alignment of the berm may vary from the approved site plan as is necessary to provide the 50 feet of undisturbed land between the park boundary and the toe of the berm and assuring an acceptable angle ~~of repose~~ for the slope of the berm.
- D. Other berms may be required as mining progresses to reduce the noise and visual impact upon the park.

10. Highwall Barrier

A physical barrier consisting of a fence or boulder barriers, etc. shall be maintained around the perimeter of any quarry highwall.

11. Annual Report

An Annual Reclamation Report shall be submitted on a form supplied by the Department on February 1 of each year until reclamation is completed and approved.

12. Surety Bond

The security which was posted pursuant to N.C.G.S. 74-54 in the form of \$25,000.00 Blanket Bond is sufficient to cover the crushed stone operation as indicated on the approved application. This security must remain in force for this permit to be valid. The total affected land shall not exceed the bonded acreage.



### APPROVED RECLAMATION PLAN

The Mining Permit incorporates this Reclamation Plan, the performance of which is a condition on the continuing validity of that Mining Permit. Additionally, the Reclamation Plan is a separable obligation of the permittee, which continues beyond the term of the Mining Permit.

The approved plan provides:

#### Minimum Standards As Provided By G. S. 74-53

1. The final slopes in all excavations in soil, sand, gravel and other unconsolidated materials shall be at such an angle as to minimize the possibility of slides and be consistent with the future use of the land.
2. Provisions for safety to persons and to adjoining property must be provided in all excavations in rock.
3. All overburden and spoil shall be left in a configuration which is in accordance with accepted conservation practices and which is suitable for the proposed subsequent use of the land.
4. No small pools of water shall be allowed to collect or remain on the mined area that are, or are likely to become noxious, odious or foul.
5. The revegetation plan shall conform to accepted and recommended agronomic and reforestation practices as established by the N.C. Agricultural Experiment Station and the N.C. Forest Service.
6. Permittee shall conduct reclamation activities pursuant to the Reclamation Plan herein incorporated. These activities shall be conducted according to the time schedule included in the plan, which shall to the extent feasible provide reclamation simultaneous with mining operations and in any event, initiation of reclamation at the earliest practicable time after completion or termination of mining on any segment of the permit area and shall be completed within two years after completion or termination of mining.

#### RECLAMATION CONDITIONS

1. Provided further, and subject to the Reclamation Schedule, the reclamation shall be to restore the affected lands to a condition suitable for wildlife and recreation.
  2. Specifications for reclamation shall be as follows:
    - A. The process plant area shall be graded and smoothed.
    - B. Any sideslopes in unconsolidated material shall be graded to a 2 horizontal to 1 vertical grade or flatter.
-

- C. Suitable benches shall be left in the rock excavation to provide support where rock weakness could lead to collapse of high walls.
- D. Overburden shall be used for site grading or berm construction at approved locations.
- E. Settling ponds shall be drained and stabilized to prevent erosion.
- F. Oil, grease, scrap metal, wood and other debris shall be removed from the surface and delivered to scrap dealers or landfilled in an approved manner.
- G. Any diverted or re-established drainage channels shall be restored to a stable condition.
- H. The affected land shall be graded to prevent the collection of noxious or foul water.

### 3. Revegetation Plan

All <sup>disturbed</sup> ~~reclaimed~~ areas in unconsolidated material shall be <sup>permanently</sup> re-vegetated utilizing the following provisions:

Site Preparation: <sup>land surface shall</sup> The ground will be graded and/or shaped <sup>to create grades applicable to the</sup> ~~and/or shaped~~ <sup>subsequent</sup> where necessary ~~keeping in mind the ultimate use of the site,~~ but in no case will any slope greater than 26 degrees in unconsolidated material be left. <sup>or</sup> Loose rock, woody material, and other obstruction that ~~will~~ <sup>will</sup> interfere with the establishment of vegetation planned for the site ~~will~~ be removed and/or buried. Surface runoff ~~that might concentrate to cause undesirable erosion~~ will be controlled by terraces or diversions ~~diverting water to~~ <sup>to allow discharge through protected</sup> ~~protect~~ outlets.

Lime and Fertilizer: <sup>lime</sup> Liming and <sup>shall be applied</sup> ~~or~~ fertilizer ~~will be conducted~~ <sup>in accordance with soil test results, and as required for vegetation planned for the site.</sup> <sup>either</sup> <sup>or properly disposed of as</sup> <sup>or at a rate of 1,000 lbs./ac. of 10-20-20 fertilizer.</sup> <sup>2000 lbs./ac. of lime and</sup>

Seedbed Preparation: Lime and fertilizer ~~will~~ <sup>shall</sup> be mixed with the soil to a depth of 3 to 4 inches where conventional equipment can be used. On slopes steeper than about 2:1, soils ~~will~~ <sup>shall</sup> be grooved or scarified along the contour to provide for retention of seeds and nutrients on the slope until germination and growth is started. On steep slopes not accessible to <sup>seedling equipment,</sup> ~~machinery,~~ seed and nutrients ~~will~~ be applied by hand. <sup>and mulch shall</sup>

*Revegetation: See the Revegetation Species section attached!*

Revegetation:

Vegetation: Sericea Lespedeza and/or Weeping lovegrass will be established on the site to provide ground cover and erosion control. When using Sericea Lespedeza, scarified seed will be applied when reclamation is conducted during spring months and unscarified seed will be used during the fall.

Application will be in a uniform manner either by machine or hand at the rate of 50 pounds of lovegrass, Lespedeza, or combination per acre. Seed will be covered to a depth of 1/8 to 1/4 inch and the soil then firmed with a cultipacker or similar equipment. Mulch consisting of dry, unchopped small grain straw or similar type material will be spread evenly over the surface at the rate of 1 to 2 tons per acre or until about 75 percent of the soil is hidden. Loblolly pine seedlings will be planted at selected sites to provide a view screen to provide revegetation. Spacing will be about 4' X 4' for revegetation purposes.

*X* Maintenance: Plant replacement and other maintenance that may be required to establish vegetative cover appropriate to the reclamation plan for this site will be carried out until vegetation is properly established. *Shall*

#### 4. Reclamation Schedule

Some reclamation activities, particularly those relating to control of erosion, will be conducted simultaneously with mining activities. Diversion channels or terraces that may be required to control surface runoff on the property will be established and revegetated as soon as they are constructed. Portions of berms will be revegetated as completed. Final reclamation activities will be initiated at the earliest practicable time after completion or termination of mining on any segment of the permit area, and in all instances reclamation activities will be completed within two years after completion or termination of mining.

*See #5*

#### 5. Donation to State

This provision is pursuant to Wake Stone Corporation's offer to donate the quarry site to the State as part of its reclamation plan.

The term, "quarry site," shall include the entire pit as it exists after quarrying has been completed, a strip extending at least 50 feet back from the top of the slope of the pit on all sides and a reasonable area to connect the pit and surrounding strip to the Park, constituting a total area of at least 75 acres.

During the option period, Wake Stone Corporation shall have the right to encumber all of its remaining property from time to time by mortgage, deed of trust or other security agreement then in common use for the purpose of securing one or more bona fide obligations of Wake Stone Corporation, such as the payment of money or the providing of any goods or services. The option to the State shall be subordinate to each such encumbrance in the same manner and to the same extent as if such option had been recorded after the recordation of each such encumbrance.

The right of the State to exercise its option shall be subject to:

- A. Wake Stone Corporation not being prohibited by the U.S. Government, State of North Carolina, Wake County, any municipality having jurisdiction, or by any court from removing Wake Stone Corporation's property all quarryable stone which is outside the buffer zone referred to in condition 3, page 4. The requirements by the State that Wake Stone Corporation comply with laws and rules and regulations generally applicable to stone quarries shall not be deemed a prohibition of quarrying for the purpose of the option agreement.
- B. The operation of a quarry on Wake Stone Corporation's property for a minimum period of five years.

The conveyance of the quarry site, if approved by the State, shall be by deed containing the usual covenants of warranty and conveying the quarry site free and clear of all encumbrances except those existing at the time of Wake Stone Corporation's purchase, ad valorem taxes at the time of conveyance (which shall be prorated), and such drainage and utility easements as shall have been installed in connection with the development of the property.

The option may include such other terms as are mutually acceptable to the State and Wake Stone Corporation.

The method by which the quarry site may be donated to the State is as follows: Upon acquisition of the land by Wake Stone Corporation (by the exercise of its options to purchase), Wake Stone Corporation will grant to the State an option which, if exercised by the State, will require that Wake Stone Corporation convey a fee simple title to the quarry site to the State. The State shall have no obligation to exercise its option to accept a conveyance of the quarry site.



The terms and conditions of the option shall be as follows:

- A. When all quarryable stone has been removed from all of the land belonging to or under the control of Wake Stone Corporation during the period of its quarrying operations and which lies between the Park and Interstate Highway 40, it shall be the duty of Wake Stone Corporation to notify the State of this fact. Upon receipt of such notice, the State shall have six months within which it may elect to have Wake Stone Corporation convey the quarry site to the State. If the State elects to have Wake Stone Corporation convey the quarry site to the State, it shall notify Wake Stone Corporation of such election within said six month period. All notices shall be by certified mail and return receipt requested. If the State fails to make an election within said six month period or shall elect not to accept a conveyance of the quarry site, the option shall thereupon terminate and Wake Stone Corporation shall have no further obligation to convey the quarry site to the State.
- B. If all quarryable stone is not removed, the right of the State to acquire the quarry site shall accrue at the end of 50 years from the date quarrying commences or 10 years after quarrying operations have ceased without having been resumed, whichever is **sooner**, and notices shall be exchanged at that time in the same manner and with the same time limitations as set forth in paragraph A above.
- C. Until the option has expired Wake Stone Corporation will not encumber by mortgage or deed of trust of any of the area designated "BUFFER AREA" on Wake Stone Corporation's site plan dated February 17, 1981, revised March 10, 1981, except for purchase money security interests.

The terms and conditions relating to the donation are placed herein to prescribe generally the boundaries of the Wake Stone Corporation offer. The acceptance by the State is subject to approval by the Department of Administration and the Council of State and the ascertaining that the offer is in accord with the laws of the State and lawfully adopted rules and regulations. Further, the Department's analysis of the condition of the land to be transferred will be in accordance with the criteria identified in the "Principles Governing the Establishment Extension and Development of State Parks, State Recreation Areas and State Natural Areas."

Permit issued this the 15<sup>th</sup> day of April, 1986.

By: Stephen G. Conrad

Stephen G. Conrad, Director  
Division of Land Resources  
By Authority of the Secretary  
Of the Department of Natural Resources and Community Development