

RE - ZONING OF QUARRY

1985

18/8 BOYDS H.D.

Council approves Boyds quarry zoning

by Ginny Earnshaw

After 15 years of controversy the Montgomery County Council yesterday approved amendments to the Boyds Master Plan that allow zoning for a quarry northeast of town.

The master plan sets the location for the mineral rights recovery of diabase stone at the Rockville Crushed Stone Co. property, and describes criteria for zoning and operating the quarry to assure keeping Boyds as a rural, residential community.

"This means we will have a quarry at Boyds by next year," Councilwoman Rose Crenca said at the conclusion of yesterday's marathon council session. Crenca, along with Council President Michael Gudis and Scott Fosler, were the minority who voted against approving the amendments.

Rockville Crushed Stone has filed a zoning petition with the planning board, and the first hearing will be held March 29.

The council's final vote late yesterday was 4-3, with Esther Gelman, David Scull, Neal Potter and William E. Hanna supporting language to accommo-

date changes recommended by the Boyds Civic Association in a meeting with Gelman last night.

The votes split 4-3 on almost all the changes, with Fosler, Crenca and Gudis, losing to the majority on language increasing restrictions on the quarry.

"It is easy for you who are going to vote no on every motion; for us who are trying to work it out it is hard," Gelman said in the midst of the six-hour argumentative, and often confusing, session, during which the disagreements many times seemed to hinge on semantics.

The key question that has always been before the council,

Fosler said, is whether there is a need for diabase stone that would justify disrupting the rural town of Boyds.

"It is confusing what tests they have established, and I don't accept the criteria for benefits versus impacts," Fosler said.

As adopted yesterday, the council must approve Rockville Crushed Stone's application for a mineral resource recovery zone before any quarry operations may occur.

Approval of the zoning will be given only if all transportation for the long and short term is by rail haul. Rockville Crushed Stone is negotiating a contract

with Chesapeake & Ohio Railroad on the rail haul, an attorney for the company said yesterday.

The hearing examiner must also find that county and regional benefits of the quarry outweigh impacts on the community, after controls are in effect. The determination will be made based on the availability of diabase (a stone that meets federal anti-skidding requirements), the cost of hauling, need for diabase in the county and region, demand for diabase for state and county roads, other factors demonstrating its economic benefits, the cost of rail haul and the impact of a quarry and its hauling traffic on Boyds.

Rockville Crushed Stone must demonstrate that the quarry can comply with county noise standards. Another stipulation is that air-conditioning at the Taylor Learning Center in Boyds is in operation and funded in the construction budget when the quarry starts operating.

There also will be no access road for trucks and no local access for delivery of stone to Germantown, Boyds and Galthersburg, requirements say.

Single historic district approved

by Ginny Earnshaw

In a surprise move, the Montgomery County Council yesterday voted unanimously to preserve the small, rural town of Boyds as one historic district in the Boyds master plan.

The action reversed findings of a council committee which last fall recommended separating Boyds into a historic district of Victorian houses at the north and

individual black-owned homesites at the south. The black homes would have been named historic resources, which do not get state tax breaks.

Black homeowners argued against the plan, saying that naming their homes separately was a return to "separate but equal" segregation in the county.

(Continued on page 70)



LORAIN DUFFIN stands before the house where she was born 80 years ago.

Single historic district approved

(Continued from page 3)

"I am surprised and tremendously pleased because I think this will unite the black and white communities and put past history behind us," said Merritt Ednie, minister of the Boyds Presbyterian Church, after three councilmembers changed their positions and supported the one district. "To separate the districts would have put us back 100 years."

"I am pleased they made it one

historic area. Even though it was not the intent of the council, the separation had racial overtones," said Jim Lawson, a black and the newly elected president of the Boyds Civic Association. He was one of about 150 Boyds residents who crowded the third floor hearing room to hear the decision.

The entire town of Boyds will be delineated in the Boyds master plan as a national historic register district, stretching from Barnesville

Road, to the lower sections of White Grounds Road, including the Boyds Negro School, and the old railroad platform and part of the commercial area along the railroad tracks at the north end of town.

The unanimous council vote is a victory for the Montgomery County Historic Preservation Commission and historic associations which fought against the planning board's recommendation to "avoid the burden of historic designation" for lots owned by Rockville-Crushed Stone along White Grounds Road in the center of town.

Boys residents charged, during committee hearings last fall, that the planning board's argument was a pretext to keep historic district restrictions from property owned by Rockville Crushed Stone Co. The residents feared the wanted to build a four-lane road through the town to the Boyds quarry.

"It is a wise man who knows when to advance and when to retreat, and I am prepared to retreat and vote for the motion," committee chairman William E. Hanna acknowledged. He said his change of heart came after he visited Egypt last month and was shocked by finding a hotel being built in the Sphinx and the city of Cairo enveloping the pyramids.

David Scull and Esther Gelman also switched their previous opposition to naming Boyds as one historic district.

Boyd's quarry issue is county's 'hot potato'

June 15, 1983
Gazette

by Pat Ettl

The county's "hot potato" shows no signs of cooling off even though it's now in its fifth year of airing.

This became evident Tuesday night at the first of two nights of public hearings before the Montgomery County Council on Rockville Crushed Stone's application to open a stone quarry at Boyds.

"Hot potato" was the term used to describe the

Boyd's quarry issue by former Planning Board chairman, Dr. Royce Hanson when he appeared before the council several years ago to discuss planning items.

A rundown of the names and affiliations of those testifying indicate that the battle for the most part is between citizens of Boyds, Germantown and the west Gaithersburg area who oppose the quarry, and Rockville Crushed Stone, the

road building industry, highway officials and representatives of Rockville's business and political and residential communities who favor the quarry.

Rockville Mayor John R. Freeland whose testimony was discussed at Rockville City Council's Monday night meeting, said his "interest is primarily a long-term interest." First, he said, the stone is needed to build

(See HOT, page 2)

Stone quarry public hearing

(Continued from page 1)

highways, and secondly, a quarry use ought to be established in the mineral resource area before subdivisions are allowed, which would then make it more difficult to consider a quarry.

Rockville Crushed Stone, who has operated a quarry business in Rockville for nearly 25 years, wants to quarry diabase rock on the 1,800 acres the company owns adjacent to the west-county town of Boyds.

William F. Abell, Jr., president of the Rockville Chamber of Commerce, echoed that group's earlier comments—these being that Rockville Crushed Stone is a good neighbor in Rockville and would be a good neighbor to Boyds.

Neither Freeland nor Abell delved into the truck traffic issue. The county council had indicated in previous discussions of the issue that it

was expected that one of Rockville's major interests would be to get some of the truck traffic out of the Rockville area. Rockville citizens who live in residential areas in the path of the truck traffic made it clear however, that it is the truck traffic to which they object. They want the stone quarry to operate in Boyds.

George Sayer, of Travilah, said between 900 and 1,200 trucks a day leave the Rockville plant on Travilah Road.

This is the traffic that Gaithersburg, Germantown, and Boyds citizens do not want on roads, which they claim are incapable of handling it.

A Boyds spokesman also claimed that the application cannot proceed because the law establishing the mineral resource recovery zone specifies that need has to be shown. Boyds residents say the stone is not needed. They also claim that the quarry would destroy

the historical and residential quality of their community.

Representatives from the state highway, road building contractors, and the construction industry said the stone is needed and also cited the stone's special skid resistant qualities. This is why diabase is required in many federally funded road projects, they said.

Representatives from Boyds Civic Association who are leading the fight against the quarry operation and Rockville Crushed Stone's legal and professional staff were each given an hour in which to present their case. Other testimony followed.

Also among those signed up to testify were Del. Judith Toth and State Sen. Larry Levitan.

The second session of the hearing will be Thursday night in the County Council Hearing Room, County Office Building, Rockville.

Boyd's quarry application

The attorney for Rockville Crushed Stone failed on Tuesday to get his client's application for a large quarry operation at Boyds reviewed by the Hearing Examiner prior to public hearings by the Montgomery County Council.

The hearings before the council will deal with the Boyds Master Plan. The hearings are scheduled for June 14 and 16.

Who

Amusements	69
Anderson	10
Ann Landers	50
Business	56
Churchill	65
Classifieds	91
Crime Solvers	5
Crossword	118
Editorials	8
Engagements and Weddings	52
Fashion	48

Career Opportuniti

Agenda No.:

MAR 18 1985

Agenda Date: March 21, 1985

MONTGOMERY COUNTY, MARYLAND

MONTGOMERY COUNTY PLANNING BOARD

The Maryland-National Capital Park and Planning Commission

March 7, 1985

TO: The County Council for Montgomery County, Maryland, sitting as the District Council for the Maryland-Washington Regional District in Montgomery County, Maryland

VIA: Montgomery County Planning Board

FROM: Technical Staff

SUBJECT: TECHNICAL STAFF REPORT

Montgomery County Zoning Amendment Application #G-316

APPLICANT: Rockville Crushed Stone, Inc.; Linowes & Blocher, Attorneys

OWNER: Same as Applicant

HEARING DATE: March 29, 1985; 9:30 A.M.

REQUESTED CHANGE: Rural, Rural Density Transfer and R-200 Zones to Mineral Resource Recovery Zone; 530+ Acres

LOCATION: Fronting on the West Side of White Grounds Road, 1400'+ South of MD 117 (Clopper Road), Boyds

MASTER PLAN: Boyds

Staff Recommendation: DEFERRAL or DENIAL of the MRR Zone for the following reasons:

1. The subject application does not satisfy all of the recommendations and guidelines of the Approved and Adopted Boyds Master Plan.
2. The subject application does not satisfy all of the standards and requirements of the Mineral Resource Recovery Zone.
3. Staff is unable to conclude at this time, that the requested MRR Zone would be compatible with the surrounding area.

DEFERRAL or DENIAL of the Development Plan for the reasons stated above.

I. SUMMARY

The subject site which is owned by Rockville Crushed Stone, Inc. (RCS) consists of 530+ acres of land located in the Boyds Master Plan area. The site is identified as being suitable for mineral resource extraction on the recently approved and adopted Master Plan.

The Development Plan for the subject application proposes that quarry operations proceed on the site in three different phases. The first phase involves the start-up construction including the access road; railroad siding and loading facilities; conveyors; storage areas for aggregate; on-site stormwater retention facilities and other environmental controls; storage and maintenance buildings; noise berms and visual buffers necessary for Phase I. The north quarry will be mined in Phase I.

Phase II involves expansion of the north quarry extraction operations. Related construction of permanent processing facilities, required additional stormwater management areas, berms, etc., will also occur in Phase II. Phase III involves extraction from the south quarry. Reclamation of the north quarry will commence during Phase III. The final phase of the quarry involves reclamation of the site for other uses such as large-lot residential development around two lakes.

The Boyds Master Plan contains important recommendations and guidelines that must be satisfied before the subject application can be approved. Staff concludes that several of the Master Plan conditions have not been satisfied and require further analysis before the application can be approved.

The Development Plan appears to satisfy most of the requirements of the Mineral Resource Recovery Zone and the development plan requirements of Division 59-D-1. Some requirements, however, have not been fully satisfied and additional analysis is necessary. Staff recommends, therefore, that certain changes be incorporated into the

Development Plan before it proceeds further. In regard to compatibility, staff cannot make a favorable finding until the Master Plan and development plan issues are resolved.

The applicants have insisted that the application proceed on its present schedule without delay. During January and February additional information and studies were submitted by the applicants to address specific Master Plan and zoning issues. These later submissions, together with the rather short review period allowed prior to the scheduled March 29th public hearing, have resulted in the large number of issues that remain to be resolved before staff can recommend approval of the rezoning.

The applicants have agreed to make several changes to their Plan in response to staff recommendations. Planning Department staff, as well as staff from the Department of Environmental Protection, are still reviewing several analyses recently submitted by the applicant. If staff is able to complete the review of outstanding issues prior to the Planning Board meeting, then a supplemental report will be prepared for Planning Board review and consideration.

The proposed Development Plan consists of numerous drawings and studies that have been submitted since January 3, 1985. Attachment #1 to this report is a list of the drawings that accompany the application. The Phase 1, 2, and 3 development proposals along with the reclamation plan have been reduced and attached to the back of this report for reference.

As of this date, the following Master Plan and MRR Zone issues must be resolved before staff can recommend approval of the Zoning Application and Development Plan.

1. Finding that County and region-wide benefits outweigh controlled community impacts -- RCS to prepare a summary report that directly addresses the 6 elements contained in the Master Plan with study findings.
2. Signed agreement with B&O regarding on-site rail siding.
3. Completion of Phase 3 Noise Analysis by DEP.
4. Completion of review of the proposed Construction Schedule and Program.

5. RCS must satisfy the lighting requirement for showing distribution characteristics of proposed lighting.
6. Completion of DEP review of the Well Water Monitoring Program.
7. Analysis of the 5 degree stipulation in the height requirement.
8. Widen on-site access road to 20 feet pavement width.
9. Satisfy DEP on dust control methods.
10. Satisfy the following Hydrologic and related site development issues:
 - a. more accurate delineation of 100 year floodplain
 - b. show 50' buffer from edge of floodplain
 - c. move uses and structures located within 50' buffer
 - d. no excavation over gas line
 - e. delineate exact overburden area shown on plans
 - f. "clear water" from proposed overburden area should be piped through the railroad embankment to the stream (Phase I)
 - g. In Phase III, an off-site diversion around the south quarry should be provided
11. Provide 2 feet of stabilized shoulder along both sides of White Grounds Road and other improvements as required by DOT.
12. Incorporate White Grounds Road improvements into the Construction Schedule and program and include both in the overall Development Plan program.
13. Add appropriate notations to plans as recommended in this report.

II. BACKGROUND

- A. Description of the Property: The subject site consists of 530± acres of land adjoining the south side of the B&O (Chessie System) railroad right-of-way, between White Grounds Road and Old Bucklodge Lane. The site has approximately 1,100 feet of frontage along White Grounds Road and approximately 950 feet of frontage on the east side of Bucklodge Road, in the northwest corner of the site. Access to the property is proposed via White Grounds Road on the southeast side of the site. The proposed private access road would extend approximately 2,000 feet through land classified in the RDT Zone, but owned by RCS, before entering the site.

The subject site is predominantly wooded with open fields and farmland located in the north-central and eastern portions of the property. Two streams cross the subject site. The north stream is located in the northwest corner of the site and flows to the south. The south stream extends through the central portion of the property, flowing toward the southeast. Both streams drain to the Little Seneca Creek.

- B. Intended Use and Approval Process: The RCS site is proposed to be used for the extraction of diabase rock in three development phases extending over a 30 year period. Extraction activities will involve two quarries with related processing plant, storage and rail loading facilities. A final phase of development on the site will involve reclamation of the land after quarry operations cease. Reclamation is proposed to include large residential lots and two lakes.

A development plan for all phases of the operation has been submitted for the site. The development plan must be approved as part of the zoning. A site plan, filed in conformance with the approved development plan, must be submitted for Planning Board review and approval.

At this time, staff is not certain that the site will be subject to the Subdivision Regulations contained in Chapter 50 of the County Code. The site includes several parcels, under one ownership, that may be exempt from the Subdivision Regulations.

C. Zoning History:

1. 1978 Comprehensive Zoning (G-119): Most of the site was classified in the Rural Zone. Small sections of the site, located along White Grounds Road were classified in the One-family Residential, R-200 Zone and the area near Bucklodge Lane was classified in the RDT Zone.

2. 1974 Comprehensive Zoning (F-925): The entire site was classified in the Rural Zone.
3. 1958 Comprehensive Zoning: Most of the site was classified in the R-200 (formerly R-R) Zone. A 7.5+ acre area of the site was classified in the Light-Industrial (I-1) Zone. This area was located in the northeast corner of the property, adjoining the railroad right-of-way.
4. Rezoning Application: On September 30, 1958, the District Council rezoned 43.6 acres of the site to the I-1 Zone. This area was located in the northwest portion of the property adjoining the railroad right-of-way.

D. Surrounding Area:

1. Description: The general area of this application can be described as including the southern and western portions of the Boyds Master Plan area. More specifically, the area extends from Little Seneca Creek on the east to the west side of Bucklodge Road (MD Route 117) on the west, and from the north side of the Barnesville Road (MD Route 117) on the north to the vicinity of the intersection of Bucklodge Lane and White Grounds Road on the south.
2. Uses: The land uses within the general area can be described as rural and consisting of farmland, woodland and scattered homes. The Community Center of Boyds includes a few commercial uses and detached homes. The land uses in the area are depicted on the Generalized Zoning and Land Use Map attached at the end of this report.

E. Master Plan Recommendations:

1. Land Use Plan: The subject site is identified as an area which may be suitable for mineral resource extraction.

2. Zoning Plan: The Rural Zone is recommended as a base zone for most of the quarry area. The Mineral Resource Recovery (MRR) Zone is recommended for the area prior to the commencement of any quarry operations.

F. Public Facilities:

1. Water and Sewer:

- a. Service Categories: W-6 and S-6.

Source: Environmental Planning Division, M-NCPPC.

- b. Water Service: Water mains do not abut the property; local service is inadequate; programs size water main extensions would be required to service the property. WSSC staff reports that there are no planned water mains in the CIP which will relieve inadequacies. The applicant is not requesting public water service.

- c. Sewer Service: The property is located in the Seneca Creek Basin, Little Seneca Creek subbasin; sewer lines do not abut the property; sewer extensions would not be required since the property is to be served by private water and septic systems.

Source (b and c): Flow Monitoring Section, WSSC.

2. Roads:

- a. Existing Road Conditions: White Grounds Road consists of a variable roadway (14-foot minimum) within a 30-foot right-of-way. Bucklodge Lane consists of a 15-foot roadway within a 40-foot maintenance right-of-way. Old Bucklodge Lane consists of a 14-foot roadway within a 30-foot right-of-way.

- b. Master Plan Proposal: White Grounds Road to be a Major (M-57), 120-foot right-of-way tapering to an 80-foot right-of-way about 2000 feet from the railroad. Bucklodge Lane and Old Bucklodge Lane to be Primary Residential Streets (70-foot right-of-way).
- c. Scheduled Improvements, If Any, (Including listing in the State DOT Highway Needs Inventory): Neither White Grounds Road or Old Bucklodge Lane are scheduled for improvement in the current County Capital Improvements Program, Fiscal Years 1982 to 1987. Bucklodge Road, (MD Route 117) is not scheduled for improvement in the State DOT Secondary Highway Construction Program. Fiscal Years 1981 to 1986, nor is it listed in the 1980 State DOT Highway Needs Inventory.

Source: Transportation Planning Division, M-NCPPC.

III. ANALYSIS

A. Master Plan Recommendations: The Boyds Master Plan was originally approved and adopted in 1978. An Amendment to the Boyds Plan was approved by the District Council on December 17, 1984 and adopted by the M-NCPPC on February 14, 1985. The recently approved Amendment to the Boyds Master Plan designates the subject property as being an area that may be suitable for mineral resource extraction in the future. A major objective of the Master Plan is that if a quarry application is approved then the operations should be compatible with the rural residential character of Boyds.

The Master Plan text identifies the following planning concerns which are intended "to delineate the scope and direction" of the review of the MRR Zone application.

1. Evaluation of Potential Benefits and Impacts of a Quarry Operation
2. Impacts Upon Surrounding Land Use
3. Siting of the Activity

4. Buffering and Community Protection
5. Transportation
6. Noise
7. Dust
8. Hydrologic Impact
9. Site Development Concerns

The Boyds Master Plan recommends that an application for rezoning to the MRR Zone be approved only when the operational and locational criteria contained in the Plan text are addressed. The operational and locational criteria listed below are based on the planning concerns contained in the Master Plan.

- 1) "All transportation of stone from the Boyds mineral resource extraction site shall be by rail only for the short-term and long-term.
- 2) "A finding that County and region-wide benefits outweigh controlled community impacts. This analyses would include an examination on the following: (1) the general availability of diabase or similar stone in the region; (2) the projected short-term and long-term cost of procuring the stone including hauling cost; (3) the need for the stone from a County-wide and region-wide perspective; (4) the demand for the use of diabase or similar stone in State and County road projects; (5) other relevant factors suitable for demonstrating the economic benefit for use of the stone and its need from a County-wide perspective; and (6) the impact of a quarry and haul traffic on Boyds and other affected areas.
- 3) "To ensure compatibility of mineral extraction activities and surrounding land uses, and to protect surrounding communities from potential negative impacts which may be associated with mineral extraction activities an application for the Mineral Resource Recovery Zone shall not be approved unless:
 - "A signed agreement has been reached with the B&O Railroad Company regarding on-site rail siding at Boyds.
 - "The applicant can demonstrate an ability to comply with County on-site noise standards.
 - "The air-conditioning of Taylor Learning Center is in operation or funded in the CIP for a time that would coincide with or precede quarry operations.

- "The Development Plan approved in connection with the Mineral Resource Recovery Zone requires:
 - "All stone mined at the quarry to be shipped by rail.
 - "A staging element coordinating construction with the availability of an appropriately zoned site for receipt of the rail-hauled stone.
 - "A detailed construction schedule and program, which will minimize the impact of construction on the site upon the Boyds community.
 - "All quarry operations be screened from adjoining land uses and roadways by natural topography, buffering and/or man-made earth berms.
 - "Berミング and extensive landscaping to screen private on-site access roads, compatible with the surrounding countryside.
 - "The crushing plant to be located in as low an area as possible.
 - "Lighting at the site not be intrusive to the community.
 - "A protected area extending at least 750 feet from the perimeter of the quarry site in which area the quarry operator would be responsible for maintaining the same well water yields and levels as existed prior to quarrying operations.
 - "A temporary quarry access road for the transport of construction material which by-passes the residential and commercial center of Boyds.
 - "That there be no access road for haul trucks and no local access for delivery of stone to Germantown, Boyds and Gaithersburg.
- 4) "The Department of Environmental Protection, pursuant to the Montgomery County Quarry Ordinance, should require a regular blasting schedule be established which is compatible with the hours of operation of the Taylor Learning Center.
- 5) "The Department of Environmental Protection should require the applicant to submit for Department of Environmental Protection approval a well-monitoring program to determine whether any problems with individual wells/septic fields are attributable to the operation of the quarry, and the Department should establish an environmental mediation system."

The Community Planning-North Division has examined the subject application, the Development Plan and accompanying analyses. In a memorandum dated February 19, 1985, the community plans staff addressed several of the Master Plan's planning concerns in light of the applicants proposed development. The Community Plans staff did not address the noise, dust or hydrological impacts because these issues are being examined by the Environmental Planning Division and staff from County and State agencies. The noise, dust and hydrologic impact are analyzed in the section that addresses the requirements of the MRR Zone and in the Environmental Impact Section of this report. The community planning staff's comments are as follows:

Siting of the Activity

"The Plan states 'the appropriate location for any future quarry is the northwest area of Boyds, abutting the rail line (see Land Use Plan map)'. The application conforms to this guideline.

Impacts Upon Surrounding Land Use

"The application states ultimately the quarry site will have to be rezoned from the MRR Zone to an appropriate low density residential minimum lot size. The applicant's Reclamation and Reuse Plan shows a minimum lot size of 4 acres with an average lot size of 12 acres. The minimum lot size in the rural zone is 5 acres.

"At the time of the future SMA, the Rural Cluster Zone may be a viable alternative to the Rural Zone, especially since a portion of the site will consist of two lakes. The purpose of the Rural Cluster Zone is to allow smaller lots than 5 acres to help protect scenic and environmentally sensitive areas. This objective would apply to the lake areas which will be created after the quarry site is reclaimed. If the Rural Cluster Zone is applied to the reclaimed quarry, then lots as small as 40,000 square feet would be permitted.

Transport of Construction Materials

"The Boyds Master Plan rejects any truck haul of stone from a quarry in Boyds.

"Obviously truck traffic will occur during construction. The Plan recommends a temporary access road with appropriate buffering for the transport of construction materials which by-passes the residential and commercial center of Boyds. The construction of a permanent access road for haul trucks . . . is not recommended.

"The proposed development plan shows the access road entrance well south of Boyds. It is approximately .6 miles south of Taylor Learning Center, thereby avoiding residential concentrations along White Grounds Road. This entrance location more than satisfies the Plan recommendation to by-pass the residential and commercial center of Boyds.

Site Development Concerns: Construction Noise and Lighting

"The Master Plan recommends a detailed construction schedule and program be part of the MRR Zone application to help assure construction impacts upon Boyds will be minimized. Major types of impacts would include on-site construction noise during early morning, late evening or week-end hours, and an extended construction period which prolongs impacts upon the community. The issue of the impact of trucks, carrying materials to and from the site, upon the community has been resolved by the location of the access road.

"We are awaiting more detailed information on the construction schedule before evaluating it in relation to the Master Plan."

(Note: The applicant submitted the proposed Construction Program and Schedule to staff on February 22, 1985. This schedule is now being reviewed by staff.)

Evaluation of Potential Benefits and Impacts of a Quarry Operation

"The Master Plan states that County and region-wide benefits from the quarry must be determined to 'exceed community impacts, controlled as required in this Plan' before the MRR Zone is approved.

"During the Master Plan process, Community Planning North staff reached several conclusions regarding the 'benefits' of a quarry at Boyds. . . These included:

- "1. The use of diabase on county and state roads would help reduce traffic accidents, the diabase at Boyds does meet Federal and State skid resistant standards; the closest source of skid resistant stone to Montgomery County is northern Virginia.
- "2. Dependence on non-local quarries will generally tend to increase the price of stone due to haul costs.
- "3. There is no local source of stone for the ready mix concrete industry.
- "4. Protection of the diabase deposit at Boyds is considered by the State Highway Administration and the Maryland Geological Survey to be of regional and state wide significance.

"In terms of the potential impacts from the quarry on the community, Community Planning North staff, during the Master Plan process, evaluated whether all rail haul from Boyds was feasible. Our findings . . . remain valid today:

- "1. In-county rail haul is economically feasible and stone prices would be less than out-of-county competitors although profits would be less than truck haul.
- "2. The factor most responsible for making rail haul within the County feasible is the reduction in rail tariff since 1981.
- "3. Rail/truck haul would require a \$5 million investment by RCS to develop a rail terminal site. It is unlikely that a commitment to this scale of investment, coupled with Chessie's preference for a long term hauling contract (5 years minimum), would be made by RCS if they did not believe in the economic feasibility of all-rail haul.

"The Master Plan requirement that all stone be shipped by rail, coupled with the Master Plan development and design criteria, has resulted in a MRR Zone application which will not significantly alter the rural residential character of Boyds. As the Master Plan states, 'it became clear . . . during the Plan process . . . that the biggest potential source of change to the rural residential character of Boyds would not be the quarry operation itself but the traffic and noise associated with trucks carrying stone to and from the quarry.' Since all stone from a quarry in Boyds will be shipped by rail, truck haul-related impacts are no longer a major factor. Noise impacts will consist mainly of on-site noise from crushing operations and blasting. Noise levels from these operations must conform to the County noise ordinance."

The Community Planning North Division provided the following comments concerning the Master Plan recommendation that air conditioning be provided at the Taylor Learning Center before the quarry is operational:

"Community Planning North staff has recommended that air conditioning Taylor Learning Center be added to the Montgomery County 6-year CIP. Regardless of who pays for the system -- the School Board or the applicant -- the Montgomery County School Board should recognize the need for air conditioning by adding it to the CIP."

With regard to the issue of potential benefits and community impacts of the quarry operation (Master Plan Condition #2 on page 36 of the Plan text), the applicant has submitted several studies as part of the subject application to demonstrate the benefits

that would result from approval of the Boyds Quarry. These studies include analyses of "Comparative Costs of Rail and Truck Transport of Aggregates from Boyds to Southlawn" (January 31, 1985); "Cost Savings in Montgomery County Resulting from Operation of the Proposed Boyds Quarry" (January 31, 1985); "Projected Aggregate Demand, Rockville Crushed Stone, Inc. Market Area" (as revised December 14, 1984); and an Analysis of "Reduced Truck Trips on Local, County and Regional Road Systems Resulting from Rail Shipment from the Proposed Boyds Quarry" (February 7, 1985); and finally, an "Analysis of Skid Resistance in Montgomery County" (February 4, 1985).

Staff has reviewed these studies and find that they address the availability of diabase stone; they compare the costs of procuring and transporting stone in the County; and they also examine the demand for diabase stone for road and building construction uses. The analyses conclude that approval of the quarry and rail haul of stone processed from Boyds Quarry would result in the following County benefits:

1. Reduction in truck trips on County roads because of rail haul.
2. Reduction in overall haul costs and truck fuel consumption resulting from the use of rail haul.
3. Reduction in truck traffic from the Travilah Quarry by as much as 50% without generating haul truck traffic at Boyds.
4. Use of a rail/truck system for the shipment of aggregates from the Boyds quarry would be economically feasible and fully competitive with an all truck haul system.
5. The costs of transporting aggregate that is suitable for all construction uses (i.e., portland cement, roads that satisfy Federal and State skid resistance standards, free of asbestos) from present quarries are substantially higher in Montgomery County than if supplied locally from the Boyds Quarry.

6. There is a significant wet pavement skidding problem in Maryland and in Montgomery County, in particular, that "could" be reduced with wider use of more skid resistant pavements.

Staff generally agrees with the major findings contained in the applicant's studies. More specifically, staff concludes that the applicants studies demonstrate that a rail/truck haul system from Boyds to the two sites that RCS has under contract in the Southlawn area are economically feasible. This is important because it establishes that the rail haul requirement for transporting aggregate from Boyds is a workable standard for the subject application.

With regard to the analyses concerned with demonstrating County and regionwide benefits resulting from reduced aggregate costs associated with quarry operations at Boyds, staff of the Development Review Division has several comments. The purpose of the cost analyses are to project the cost savings reasonably assumed to occur through reduced costs for aggregate delivered to consumers in Montgomery County from the nearby facilities at Boyds. This is compared to the alternate quarry locations presently operated in Virginia and other locations that are more distant from the County markets. Staff notes that any cost savings that can be documented would accrue over a long period of time such as that associated with the continuous operation of the quarry.

The cost savings outlined in the report "Cost Savings in Montgomery County Resulting from the Operation of the Proposed Boyds Quarry" are established based on certain current year and future year assumptions about differential costs of various aggregates resulting from longer haul distances from all the various alternative sources.

The shipment of aggregates from the Boyds quarry will involve rail haul to a terminal site on the B&O Railroad between Rockville and Gaithersburg, as noted earlier. The 1984 costs for a rail/truck transfer system were developed by the economic analysis entitled, "Comparative Costs of Rail and Truck Transport of Aggregates from Boyds to

Southlawn." Historical costs were also developed based on comparative contract costs per ton for aggregate products. Separate costs were generated for Portland Cement aggregate and for skid resistant pavement aggregate. Per ton differentials were enumerated and multiplied by gross market demands projected over the forecast period (20 years after the projected 1986 opening of the Boyds facility). This gross projected cost savings for each type of aggregate resulted from (1) the per ton cost differential multiplied by (2) the gross marketable tonnage multiplied by (3) the 20 year projection period.

The summary costs savings shown in the analysis are as follows:

	<u>High Estimate</u>	<u>Low Estimate</u>
Portland Cement Aggregate	\$53,295,000	\$24,493,000
Skid Resistant Diabase Rock	<u>43,332,000</u>	<u>33,806,000</u>
Total Cost Savings (20 year projection)	\$96,627,000	\$58,299,000

The difference between the high/low projected costs results from the study using different assumptions about inflation rates in point of origin, aggregate price, and various cost components of haul prices, either rail or truck. Staff concludes that this analysis could have been made more meaningful if the costs were stated in terms of constant dollars over the 20 year projection period, rather than in estimated current dollars through the year 2006. This would net out the effect of inflationary assumptions on future costs and would provide a more meaningful assessment of actual cost savings.

Staff also believes that conclusions cannot be made from this analysis of the specific costs savings and therefore benefits on the Boyds quarry facility based on the specific dollar figures provided by this study. Rather, the conclusion can be made that some cost savings very likely accrue from the shorter haul distances associated with the Boyds site versus longer haul distances from various alternative sites. These savings are likely to be \$926,000 the initial year of operation -- 1986 in constant 1983 dollars, based on reasonable

assumptions on comparable costs and assumed gross market tonnage in 1986. (The high and low figures stated in the report -- Tables 3, 4, 6, and 7 -- for 1986 reflect inflationary assumptions above the actual 1983 observed costs.)

It can further be concluded from the study results, that this initial cost savings in 1986 will increase annually based on gross tonnage delivered in the Montgomery County market. These annual savings are expected to add up to a significant benefit if estimated over a 20-year time horizon as assumed by this study.

In analyzing the County and regionwide benefits of operating Boyd's Quarry, staff also examined the State Highway Administration's Position Statement Report on the Boyd's Quarry, dated February, 1983. The summary of this report concludes that the State Highway Administration supports the "establishment of a high quality diabase stone quarry" in the area of Boyds for the following reasons:

1) "The Boyds quarry would be an acceptable supplement to the only other Montgomery County stone quarry at Travilah as a source of aggregate for projects in the Administration's Construction and Maintenance Program.

2) "The Boyds quarry would be the only aggregate source in Montgomery County to be competitive with sources outside the State for furnishing specification material to meet the Administration's needs for aggregate for Portland cement concrete and for bituminous roadway surfacing.

"The source is expected to generate increased industry in the ready mix concrete field with economic benefits to the State and to the County. Currently, this industry is economically restricted by the unavailability of acceptable aggregate from local sources.

3) "A significant cost advantage will be realized by the State and County on projects scheduled for construction under the State Highway Administration Program.

4) "The need for higher quality road surfaces for the safety and convenience to the public is being emphasized. The ability to meet this objective is becoming more difficult under the present limitations in funding and the increased tax structure. The opportunity to effect economic savings by using potential material available in the State enhances the tax dollar and should be considered of paramount importance.

5) "The alternative option by the State Highway Administration, if the Boyds source is not available for construction aggregate, will be to continue with the necessity to import aggregates and to accept the resultant economic loss to the State."

In addition, staff reviewed a letter submitted to the County Council by Mr. M. S. Caltrider, former State Highway Administrator, concerning the need for a more local source of quality aggregate. Major points in the letter demonstrating the need for the Boyd's diabase stone are as follows:

"A very hard skid resistant aggregate is critical in the design of bituminous concrete mix for highway surface courses. The type of material that meets our state requirements is becoming more difficult to come by as each year passes. This type of stone is in critical short supply and since approximately 20% of our highway area would be supplied by this facility, the new location at Boyds would be of great benefit on an economic basis to the State Highway Administration. It certainly is evident that besides quick availability, the location in Montgomery County would make it unnecessary to import stone from outside the state, thereby keeping our dollars in Maryland.

"At the present time the State Highway Administration is resurfacing the Capitol Beltway between Georgia Avenue in Montgomery County and the Potomac River in Prince Georges County. The surface course for this resurfacing is now being imported from Virginia at great additional expense to the taxpayer simply because the existing Travilah quarry cannot produce stone hard enough to resist polishing and wear. Within the next several years equally important highway work will actually take place on I-270 and the remaining portion of the Capitol Beltway in Montgomery County. These projects will be underway within the next two years and will have a total construction value of over Two Hundred Million Dollars. The portion of this construction value that would be spent out of state to import high quality stone would be a fairly large portion of the total. Loss in revenue and jobs could be substantial.

"Technical reports indicate that the type of stone found at the proposed Boyds quarry can only be found in three other counties in the State of Maryland. These counties are Baltimore, Hartford, and Cecil Counties. Economically, these sources are not feasible for use in our area of the State.

"When one considers the huge volumes of traffic now being serviced by the state and local highway systems in Montgomery County, safety and environmental impact become extremely important. For example, the use of hard stone with sharp angular definition can substantially reduce skidding, hydroplaning and yet give a motorist a greater feeling of security in periods of inclement weather. Also, the State Highway Administration has made field measurements of noise before and after the use of what is called the open-graded mix. Reduction of noise levels have been substantial in the range of 2-

5 decibels. This is extremely important in the up-coming plans to mitigate noise impacts along I-495 Capitol Beltway and I-270. These noise reductions of this type can only be accommodated if adequate hardness stone is available. The current source of stone at Travilah cannot meet this requirement."

Staff generally concludes that the studies undertaken by the applicant and the State Highway Administration demonstrate that there are specific County and region-wide benefits associated with the operation of the Boyd's Quarry. Staff is concerned, however, that the applicant has not presented the studies in a format that facilitates a comparison of the data and findings with the Master Plan's six elements for analyzing the potential benefits (pages 30 and 31 of the Plan text). The reviewer is forced to extrapolate the data and findings from the various studies in an attempt to determine conformance with the Master Plan. Assimilation of the data into a more cohesive study document that specifically addresses the Master Plan elements would allow better understanding of the applicants' findings that operation of the quarry now would result in measurable County and regionwide benefits.

With regard to the possible community impacts, the Master Plan contains numerous recommendations and guidelines designed to both minimize the impacts of quarry operations and ensure compatibility of the quarry with the community of Boyds. Many of the guidelines contained in the Plan are also requirements of the MRR Zone. Those guidelines which are required by the zone are addressed in more detail in the next section of the report entitled "Requirements of the MRR Zone." The following discussion focuses particular attention on Conditions 1, 3, 4 and 5 as outlined on pages 36-38 of the Master Plan text.

Condition #1

- RCS proposes to transport all stone extracted from the subject site by rail only for the short-term and long-term. At staff's request, a note to this effect is being placed on the Development Plan.

Condition #3

- RCS reports that the Chessie System is presently reviewing the plans for the on-site rail siding and loading facilities. A signed agreement is expected before the March 29th public hearing.
- The applicants noise analysis for Phases I and II demonstrate that County noise standards can be met for the first two stages of the operation. RCS submitted the noise analysis for Phase III of the quarry operation to staff on February 28, 1985. Staff review of this study was not complete in time for this report; therefore, staff cannot conclude at this time that the County noise standards have been met for Phase III operations.
- RCS has agreed to add a note to the Development Plan stating that Phase I quarry development shall not proceed until air conditioning of the Taylor Learning Center is completed.
- All stone mined at the quarry will be transported from the site by rail.
- The applicants proposed development plan anticipates transport of stone to one of two I-1 zoned sites now under contract in the Southlawn area of Rockville.
- The applicant submitted a detailed construction schedule and program to staff on February 22, 1985. Staff is still reviewing the schedule and has no position on the proposal at this time.
- Screening is a requirement of the MRR Zone that is addressed in more detail in the next section of this report concerned with "Requirements of the MRR Zone." Staff notes that extensive screening is proposed that should be sufficient to adequately screen the quarry operation from surrounding areas.
- Berming and landscaping also appear to be adequate. A specific landscaping plan will be required as part of the site plan review procedures.

- The crushing plant is proposed to be placed in as low an area as possible with berms proposed in the early part of Phase I to provide noise abatement.
- Lighting is addressed in the applicants lighting plan for all three phases. The Urban Design staff recommends that additional analysis is necessary concerning light distribution techniques, as required by the MRR Zone.
- A 750-foot protected area from the runoff of the proposed quarry has been delineated as part of the proposed well water monitoring program that is presently being reviewed by the Department of Environmental Protection.
- An access road bypassing the residential and commercial center of Boyds is proposed on the applicant's plan to accommodate construction traffic.
- No access road for haul trucks and no local access road for delivery of stone to Germantown, Boyds and Gaithersburg are proposed on the Development Plan.

Condition #4

- RCS has agreed to add a note to the Development Plan stating that a regular blasting schedule will be established in accordance with restrictions proposed by the DEP and Montgomery County School Board staff.

Condition #5

- RCS submitted a well-monitoring program for DEP review and approval on February 13, 1985. The staff at DEP are still reviewing the program and have not yet reached an agreement with RCS. This program is discussed further in the next section of this report and in the Environmental Impact Section.

The Boyds Master Plan contains the following statement pertaining to asbestos on page 33 of the Plan text:

"...While asbestos has rarely been found in diabase stone, specific studies would need to be verified at the time of zoning."

The applicants have submitted excerpts from two documents that address the asbestos issue. The first is the verbatim testimony of Dr. Kenneth N. Weaver, Director of the Maryland Geological Survey, before the Montgomery County Council at the February 8, 1978 public hearing on the original Boyds Master Plan. The second document is a report entitled "The Geology of Howard and Montgomery Counties," which is referred to in the following statements by Dr. Weaver that appear in the public hearing transcript:

"A good deal of controversy has arisen regarding the presence of asbestos -- of the asbestos mineral chrysotile in the serpentinite quarry by Rockville Crushed Stone. Whereas Chrysotile is likely to be found as a minor constituent in virtually all serpentinites, it is not generally associated with diabase.

"In the scientific report entitled The Geology of Howard and Montgomery Counties, published by the Maryland Geological Survey, Dr. George Fisher found that the Boyds diabase contained the typical minerals of diabase. And I won't go -- bother to go through those minerals for the sake of time.

"Chrysotile was not noted in his microscopic examination and none of the minerals reported are asbestos form in character.

"In summary, we conclude that the Boyds diabase represents a unique deposit of high quality stone in Montgomery County. There are few rock formations in Maryland which are as uniformly high quality aggregate stone as the diabase and virtually none in Montgomery County.

"And the asbestos mineral, chrysotile, generally present in serpentinite, has not been noted in the diabase."

The applicants also report that in "The Geology of Howard and Montgomery Counties" report, the examination of diabase included an examination of the Boyds diabase sill.

On page 25 of the Master Plan text, a statement is made that "Preliminary analysis of actual rock samples from the Boyds deposit by the U.S. Geological Survey and the Bureau of Mines indicate that it is free of asbestos minerals." Staff believes that this provides additional documentation that the Boyds diabase deposit is free of asbestos.

Staff believes that the two documents referenced above are sufficient to conclude that asbestos is not present in the diabase on the subject property.

From the above discussion, it can be seen that several Master Plan conditions have not been fully satisfied yet. Staff is therefore unable, at this time, to conclude that the applicants proposed development is in conformance with the Master Plan and will minimize controlled community impacts as required.

B. Requirements of the MRR Zone: The Mineral Resource Recovery Zone was added to the Zoning Ordinance by the District Council on December 16, 1980. The subject application is the first request for MRR zoning in the County. After reviewing the application material, including the Development Plan and supporting studies, staff concludes that the application generally complies with most of the specific requirements of the MRR Zone as contained in Section 59-C-12 of the Zoning Ordinance. Where in the staff's opinion compliance with the requirements of the zone have not been fully achieved, modifications to the Development Plan or to the applicants studies are recommended.

Section 59-C-12.1 Intent and Purpose. Compliance with the purpose clause of the MRR Zones is accomplished by the submission of a development plan and supporting analyses which demonstrate that the goals and objectives of the zone are satisfied and that the various requirements of the zone are met. In the staff's opinion, the subject application generally satisfies the purpose clause of the MRR Zone. The applicant's Development Plan provides for the orderly extraction, processing and utilization of a significant diabase deposit. The Development Plan contains a reclamation plan which proposes ultimate restoration of the area to an environmentally stable condition.

The MRR Zone establishes regulations and performance standards for the extraction, processing, utilization and transport of mineral resources in a manner that ensures maximum protection to surrounding properties and the physical environment. In the staff's opinion, the applicants proposed plan generally provides proper siting of extraction

activities and structures; sufficient buffers, setbacks and visual screening. Additional work by the applicant, however, appears to be necessary to demonstrate that the height limitation of the zone is met, that the proposed access routing (White Grounds Road) is safe for the quarry related traffic that is anticipated, and that noise, air quality and water control measures are adequate to protect surrounding uses and the physical environment.

In the staff's opinion, the studies submitted by RCS as part of the application, and the study prepared by the Maryland Department of Transportation demonstrate that the Boyds diabase deposit is a valuable mineral resource that is appropriate for classification in the MRR Zone. If further analysis by the applicants can satisfy the concerns raised by staff in this report, then staff would conclude that the application fully satisfies the purposes of the zone.

Section 12.2 Where Applicable. The subject site is identified as being suitable for mineral resource extraction on the recently Approved and Adopted Amendment to the Boyds Master Plan. In addition, geologic evidence submitted as part of the Master Plan procedure and as part of the subject application demonstrate that a commercially valuable diabase deposit exists on the site.

Section 12.3 Land Uses. All of the following uses proposed on the Development Plan are permitted uses in MRR Zone.

- Stone crushing, mixing, washing and screening plants
- Railroad yards and facilities for the rail transport of commodities permitted in this zone
- Business offices operated in conjunction with uses permitted in this zone
- Stone or rock quarries
- Agricultural uses

Section 12.4 Minimum Area. The subject property includes 530 acres of land. The Development Plan proposes sufficient land for buffers and setbacks to protect surrounding properties and to allow for the orderly extraction of a commercially valuable stone deposit.

Section 12.5 Development Standards. Section 12.51 contains the development standards for uses not directly related to mineral resource development. The subject application does not propose such uses, so this section is not applicable. Section 12.52 contains the development standards for uses directly related to mineral resource extraction, processing and utilization activities.

Subsection (a). The application proposes the 530 acre site will be maintained as one tract which satisfies the 10 acre minimum lot size requirement. Staff notes, however, that the site consists of several tracts of land that are recorded by separate deeds.

Subsection (b). The applicants report that approximately 56,400 square feet of the site will be covered by building and stationary equipment. This is less than 1% of the site area. The zone specifies that not more than 10% of the net area of a lot may be covered by buildings.

Subsection (c). The zone requires that all quarry operations must be set back from zone boundaries and lot lines in amounts sufficient to achieve the performance standards of the zone. Staff concludes that the setbacks from the boundaries of the zone are sufficient to satisfy this requirement.

Subsection (d). The site has frontage on Bucklodge Road and White Grounds Road. The access to the site will be provided from White Grounds Road via a private road that crosses RCS property not included in the subject application. The proposed access road, which connects the site to a public road, satisfies the access requirement of the MRR Zone.

Subsection (e). Building Height Limit. No building or structure in the MRR Zone shall exceed a height of 90 feet above the natural grade upon which the building or structure is located. The Development Plan satisfies this aspect of the height limit in that the tallest structure proposed on the site will be 65 feet in height. A second height standard of this section provides that no buildings or structures may extend or project more than 5 degrees above the elevation of any zone boundary. Between the two standards identified in this section, the one that results in lesser height is the applicable standard in any given situation. The applicants have stated that the line of site from zone boundaries to all buildings and structures will be within 5 degrees of horizontal. Staff is concerned, however, that the applicant should demonstrate that this requirement is actually achieved with the development shown on the Development Plan. Staff recommends, therefore, that the applicants provide an appropriate analysis showing that this requirement is satisfied.

Subsection (f). Open Space and Green Area. The MRR Zone requires that not less than 25 percent of the net lot area be maintained in open space. The Development Plan proposes to maintain approximately 72% of the site as open space.

Subsection (g). Exclusions from setback limitations. The following uses shown on the Development Plan are permitted within setback areas.

- 10' wide crushed stone perimeter patrol road,
- Identification, directional and safety warning signs, access road
- 6' high security fence,
- Berms and acoustical screens
- Rail spur connection to the main rail line

Section 12.6 Special Regulations.

Subsection (a) Paving of Access Roads. All access roads providing the principal means of ingress and egress between a mineral resource site and the public road system

shall be 20 feet wide and of a pavement type approved by the Montgomery County Department of Environmental Protection. The applicants Plan, as submitted, proposes only an 18-foot wide access road. The applicants have agreed to widen the road to 20 feet in accordance with this requirement of the zone.

Subsection (b) Fencing. The applicants propose to enclose all quarry activities within a 6-foot high chain link fence. In addition, the rail spur entrance will have a gate 6 feet in height with a railroad lock. The access road entrance to the site will be secured by locked gates when the facility is closed. These measures satisfy the 6-foot high fencing requirements of the zone.

Subsection (c) Signs. Identification signs are limited to one sign at each point of access from a public road. Such signs may not exceed 50 square feet in area, nor exceed 10 feet in height. Occupational safety and warning signs shall be permitted within the site and may not exceed 10 square feet in size unless required by safety regulations or other applicable standards. The applicants state that their signs will satisfy the above requirements. The applicants also state that information concerning the design and location of signs for the site will be submitted as part of the site plan review process. Staff agrees with this statement.

Subsection (d) Parking. The applicants state that parking will be provided in accordance with the parking requirements of Article 59-E. The Development Plan shows a parking area in the vicinity of the maintenance shop but the number and location of spaces are not shown. RCS should be aware that at the time of site plan review, a parking facility plan will be required including a parking area landscape plan. The applicants state in their Addendum Report that they will provide parking in accordance with the following schedule which exceeds the number of spaces required in Article 59-E.

	<u>Maximum Employees</u>	<u>Required Employee Spaces¹</u>	<u>Company Vehicle Spaces</u>	<u>Visitor Spaces</u>	<u>Total Required</u>	<u>Total Provided</u>
Phase 1	43	29	10	5	44	60
Phase 2 & 3	115	77	15	8	100	120

¹ @ Standard of one space / 1½ employees.

Subsection (e) Lighting. This section requires that an exterior lighting plan must be included with the development Plan that indicates the height, number and types of fixtures and a diagram showing their distribution. The Urban Design Division reports in a memorandum dated March 1, 1985 that the Lighting Plans do not include a description of the light distribution characteristics as required by this subsection.

The Urban Design staff notes that the Zoning Ordinance does not provide any guidance as to what acceptable lighting distribution characteristics are. In an effort to provide some guidance, the Urban Design Division recommends the following:

"It is probable that many of the lights will be hidden from view, as they are adjacent to and not higher than the facility they illuminate; these lights will likely be no more intrusive than the objects which have been analyzed by the computer model. Nevertheless, it is not possible to say this with certainty.

"It is also probable that any visible lights will be considerably further from any improved properties viewing them than other lights on adjacent properties.

"Except for the fact that the quarry lights are much brighter than average surrounding lights, it is not easy to find them intrinsically objectionable. Their impact should be weighed with respect to their brightness, viewing distance, and hours of use.

"It is possible to quantify their impact with the computer model, but it may not be necessary, depending upon the results of the simpler analysis suggested directly above.

"In any event, cut-off luminaires should be employed to direct the light from the bulb downward, rather than outward."

Subsection (f) Hours of Operations. All excavation and processing of mineral resource materials must be conducted in accordance with applicable local, state and federal laws and regulations. The applicants state that their operations will conform to the requirements of Chapter 38 of the County Code which is the County Quarry Ordinance. Section 38-19 of the Quarry Ordinance is concerned with hours of operation and it reads as follows:

Operating hours for actual excavating, mining or processing shall be restricted to between 7:00 A.M. and 7:00 P.M. on weekdays; except, that after such hours, operations may be permitted in locations on the premises not less than three hundred feet from any property not owned or leased by the licensee. No blasting shall be permitted between the hours of 6:00 P.M. and 7:00 A.M. No operation shall be permitted on Sundays except for repairs or during periods of national or other emergency upon prior determination by the director of the department of environmental protection. (Mont. Co. Code 1965, § 98-19; 1972. M.C., ch. 16, § 5.)

In the staff's opinion, the hours of operation requirements of Chapter 38 are appropriate for the subject property.

Subsection (g) Land Reclamation and Restoration. This section requires that land reclamation and restoration plans shall comply with the requirements contained in the Natural Resources Article, Section 7-6A, of the Annotated Code for the State of Maryland, for surface mining licenses and permits. In addition, reclamation and restoration plans must be filed as part of the Development Plan.

The applicants have included a reclamation and restoration plan with the Development Plan, as required by this subsection. The State Department of Natural Resources Water Resources Administration has reviewed the subject application and provided the following comments concerning the reclamation plan:

"A review of the studies and drawings has shown that the applicant has planned the proposed operation in detail. The Surface Mining Division is extremely concerned for public safety during and after the extraction of the stone.

"The applicant has detailed a structural fence but in addition a "living fence" consisting of multiflora rose, firethorn pyracantha, privet, autumn olive, bristly locust, holly and cranberry bush should be established around the quarries several years prior to final reclamation therefore ensuring a deterrent to trespassing after operations have ceased.

"Another safety concern should be the establishment of a safety bench at the proposed water surface so as to prevent deep water immersion of a trespasser. The bench should be a minimum of 25 feet in width and should gently slope into the water. This type of bench should be planned into the operation and established as mining progresses along the final highwalls."

The applicants have indicated that they intend to construct a "living fence" as recommended by the Water Resources staff. A note to this effect should be added to the development Plan, but details concerning the type of plantings can be submitted as part of the Landscape Plan required at the time of site plan review.

For the most part, the Development Plan more than satisfies the minimum 25-foot wide bench requirement at the edge of the future lake sites. In a couple of places, however, the bench is less than 25 feet wide. These areas must be expanded in accord with the State's recommendation.

Subsection (h) Drilling, Blasting and Storing Explosives. The Ordinance requires that the use and storage of explosives shall comply with the requirements of the County Fire Prevention Code (Chapter 22), the Quarry Ordinance (Chapter 38), and the requirements of the State Fire Marshall. RCS has submitted a study entitled, "A Review of Blasting and Blasting Vibration Effects at the Proposed Boyds Quarry" as part of this application. This study examines the potential effects of the drilling, blasting and explosives storage proposed on the site and recommends measures to comply with the regulations.

Staff of DEP has reviewed this study and submitted the following comments and recommendations in a memorandum dated February 27, 1985:

"I have read the Vibrattech Engineers Incorporated report, "A Review of Blasting and Blasting Vibration Effects at the Proposed Boyd's Quarry" dated March 26, 1981. Rockville Crushed Stone is also capable of satisfying the maximum permissible sound levels due to blasting noise and the maximum permissible seismic levels on adjacent residential property due to blasting contained in Chapter 38, "Quarries," Montgomery County Code 1972, as amended, for the planned rock quarry in Boyds, Maryland. This can be accomplished through limitations in explosive charge per detonation, the use of suitable time delays per detonation, the provision of proper stemming and suitable geometrical distribution of blasting holes per detonation. The proximity of the blasting materials magazines to the gas pipeline shown on page 18 of the Vibrattech Engineers Incorporated report, 'A Review of Blasting and Blasting Vibration Effects at the Proposed Boyds Quarry' dated March 26, 1981, may cause fracture of the gas pipeline if a high order detonation occurs in a magazine. A relocation of the magazines is recommended. Before proceeding with blasting operations a test plan for determining the strains on the gas pipe line from nearby detonation of explosive charges should be developed, approved, and executed. A report should be written advising all parties concerned of the limiting distances and explosive charge weights which can be safely detonated near the gas pipeline."

Staff notes that the Development Plan shows the explosives magazines at a different location than the written analyses assumed. The DEP staff concludes that the new location of the magazines satisfies their concern.

Subsection (i) Safety. The Zoning Ordinance requires the applicant to demonstrate that all County, State and Federal safety regulations to protect employees and adjacent residents are satisfied. The applicants have submitted a report entitled, "Safety and Health Considerations for the Protection of Employees and Adjacent Residents - Proposed Boyds Quarry." Staff believes that this study adequately addresses the safety issue.

Subsection (j) Performance Standards. The following performance standards are in addition to the other standards of the zone enumerated above, and are applicable to all applications for the MRR Zone.

(1) Siting. The siting of mineral resource activities on land in the MRR Zone shall be located so as to minimize visual, auditory or other sensory intrusions on surrounding land. The siting of the mineral resource activities shall take into account the limitations

associated with the nature and location of the mineral deposit, the nature and location of surrounding uses, access requirements, local topography and other conditions which bear on the resource extraction and utilization.

The applicants report in their addendum report that the siting of the activities shown on the Development Plan are based on the analyses of the other performance standards which include visual effects, noise, vibration, dust and hydrologic effects. These standards are presented below.

(2) Visual Effects. This standard involves a line of sight analysis from adjoining residential properties to facilities in the proposed quarry area. The Ordinance requires that line of sight between these areas be interrupted as much as practicable so that the visual intrusion on surrounding occupied properties, not owned by RCS, can be minimized.

The Development Plan must include line-of-sight and cross-section studies demonstrating how lines-of-sight are to be interrupted. The applicants have submitted a detailed study responding to this requirement. The study, entitled "Visual Analysis - Proposed Quarry - Rockville Crushed Stone, Inc." utilizes a computer scanning technique for digital cartographic modeling and line-of-sight evaluations of all three phases of the quarry operation.

The visual analysis has been reviewed in detail by the Urban Design Division. They provided the following comments and conclusions in their March 1, 1985 memorandum:

"I have reviewed the applicant's visual analysis report and find that it is quite rigorously executed and technically sound. Some possibility of inaccuracy exists, however. The methodology is dependent upon the entry of an accurate data base into the computer model. This is easy enough to do, except for data concerning vegetation. Each of the 9000 data points (cells) was examined via stereoscopic pairs of photos of the cells, and the vegetation visually observed was recorded in the model. This process cannot exclude the possibility of human error, but the likelihood that the error would significantly affect the findings is very remote. A second source of inaccuracy is the fact that the vegetation which was recorded is continually growing and dying. Again, the likelihood of problems arising from this are remote.

"The report states that under the RCS development plan as proposed, 26 residences (13%) would have some view of the core area (quarry, crushers, screenhouse, stockpiles, and/or rail-loading facility). If additional screening were installed, this number would be reduced to 11 residences (5%). If the most visible element, the rail-loading facility, is moved 150' eastward and screening/berming added, the number of affected residences is further reduced to four. Finally, if the height of the rail-loading facility were reduced from 60' to 45', no residences would view the facility.

"The report further concludes that the non-core facilities, mainly the road and rail spur, while visible from surrounding areas, do not constitute a visual intrusion on those areas because they would appear the same as existing roads and rail lines adjacent to many of the homes in the study area now.

"The report's methodology only identifies locations from which the RCS facility is visible. It does not attempt to make value judgements about the aesthetic impact of the facility, which is a function of its design and, more importantly, the distance from which it is viewed. This is worthy of discussion here because decisions will have to be made whether or not the visual impact is severe enough to require RCS to add screening, move the rail-loading facility, or reduce the height.

"As proposed, the RCS facility (core elements) are visible from 26 residences between .3 and 1.7 miles away. Adding screening eliminates the North Quarry itself from view and limits views of the screenhouse and stockpiles to one each at distances of 1.5 and 1.7 miles respectively. Only five of the nine views of the rail-loader would be from a distance of less than a mile.

"More importantly, if the rail-loader were reduced in height from 60 to 45 feet, the number of residences viewing it would reduce from nine to two. This shows that the other seven can only see the top 15 feet. The topic for deliberation, therefore, is whether or not an object only 15 feet tall, when viewed from a mile away, could be reasonably called visually intrusive. At this distance it is hard to determine color, let alone discern any identifying detail at all. Staff therefore concludes that the visual impact mitigation measures proposed by RCS, such as additional screening and moving and shortening the rail-loading facility, are more than adequate to preclude negative visual impact on surrounding property."

With regard to the building height requirement of Section 59-C-12.52(e) that buildings and structures may not extend or project more than 5 degrees above the elevation of any zone boundary, staff recommends that the analysis required to satisfy the height standard be made an integral part of the applicants visual impact analysis.

(3) Noise. This standard requires noise attenuation devices to be utilized on the site in order to achieve compliance with the noise control standards of the Maryland State

Department of Health and Mental Hygiene and Chapter 31B of the County Code (Noise Control Ordinance), whichever is stricter. The Development Plan must also include analyses demonstrating that any noise generated by mineral extraction activities will be attenuated by on-site controls and controls located in the transmission path in order to achieve compliance with all applicable noise control laws and regulations.

The applicants have submitted noise analyses for all three phases of the quarry operation. The analysis for Phase 3 was only recently submitted and staff has not completed a review of this latter phase. DEP staff has completed their review of Phases 1 and 2 noise analyses and have provided the following comments in their February 27th memorandum concerned with noise issues.

I have read the Staiano Engineering, Inc. report titled, "Rockville Crushed Stone, Inc. Boyds Quarry Predicted Sound Levels Background Report" by Michael A. Staiano dated January 31, 1985. This report supports the position that Rockville Crushed Stone, Inc. has the capability of satisfying the maximum permissible property line noise levels on adjacent residential property contained in Chapter 31B, "Noise Control," Montgomery County Code 1972, as amended, for the planned rock quarry located in Boyds, Maryland. This conclusion was reached after conducting random checks on the receiving noise level calculations and evaluations of noise control actions cited by Mr. Staiano. No field verifications of equipment sound levels were made. The above statements apply only to the Phases I and II which were analyzed by Mr. Staiano. These statements are valid for zero wind conditions or for no thermal inversion of the atmosphere.

The DEP staff has also indicated in their memorandum that in order to be assured that the Noise Control Ordinance will not be violated during simultaneous construction for Phase II and operation of Phase I, a separate noise analysis will be required by DEP prior to the start of construction of Phase II. The same type of analysis will also be requested for simultaneous Phase II and Phase III activities. The DEP staff does not believe that this latter analysis should be submitted as part of the subject zoning application because they conclude that if needed, modifications in construction equipment, the staging of

construction, or the selection of low-noise construction equipment will result in compliance with the Noise Control Ordinance.

The Environmental Planning Division has also examined the applicants noise analyses and their comments are summarized in the Environmental Impact section of this report. Staff concludes that until the review of the Phase III noise analysis is completed, a finding that the noise regulations are satisfied cannot be made.

(4) Vibration. The standards require that the operation and activities in the MRR Zone shall comply with the requirements of Chapter 38 of the Montgomery County Code (Quarry Ordinance) and State regulations pertaining to vibration. The DEP staff evaluated the applicants study entitled "A Review of Blasting and Blasting Vibration Effects at the Proposed Boyds Quarry." This study was previously described in the discussion of the "Drilling, Blasting and Storing Explosives" standards of Section 59-C-12.6(h). Staff concludes that the requirements of Chapter 38 can be met under the proposed Development Plan. Staff notes, however, that prior to permit approval, further analysis of blasting vibration effects on the gas line must occur.

(5) Dust. The Zoning Ordinance requires that the operation of the quarry must satisfy all applicable federal, state and county regulations for air pollution control. Dust must be controlled so that there are no visible emissions present at the boundary of the MRR Zone. The Development Plan must include a description of control measures and operating conditions which will be utilized to control dust on site.

The applicants have submitted an analysis entitled "Air Pollution - Legal Requirements and Control Techniques, Proposed Boyds Quarry" to demonstrate that their proposed operations will conform to regulation and laws pertaining to air pollution. This study was also reviewed by DEP and their findings and recommendations are contained in a memorandum prepared by Eric Mendelsohn, Environmental Protection Manager, dated February 27, 1985:

"Ms. Whelan's memorandum to me provides the essential conclusion that Rockville Crushed Stone will be using existing technology for dust control at Boyds with the equipment they will be using for quarry purposes.

"The exact equipment and its final configuration for submission to the State Air Management Admission at the time a permit to construction be sought has not been addressed. Specific control equipment by model, date of manufacture, manufacturer and technical specifications have not been provided. This information will be needed for the permit application.

"Perhaps what is needed now is a listing of the existing equipment at the Travilah Quarry with the control efficiency for stone dust included. Specific equipment and efficiencies for proposed equipment at Boyds should be stated in some detail before the hearing scheduled for March 29, 1985.

"The dust control program for the various quarry construction phases should include a review of two to three other options for control in addition to water. Alternatively the applicant may wish to consider interruption of grading during high winds."

Staff concludes that additional analysis by RCS is necessary to satisfy the concerns identified by DEP. A positive finding concerning dust control, therefore, cannot be made at this time.

(6) Hydrologic Effects. The Zoning Ordinance requires that within the Mineral Resource Recovery Zone, operations must comply with all federal, state and local laws regulating water appropriated and/or discharged from the site, stormwater management and erosion and sedimentation control. The zone also requires that the Development Plan must examine the possible hydrological effects upon existing or proposed bodies of water and ground water including wells.

The Development Plan that is submitted with the application must include a description of the controls which will be utilized to assure compliance with water quality, erosion control, sedimentation control, stormwater management and other applicable hydrologic controls.

The Ordinance also provides that where stream monitoring by DEP discloses that there is a 50 percent or greater increase in turbidity because of a quarry operation (Over

50% of the mean of the previous 12 routine measurements) the Director of DEP may require the quarry operation to institute additional on-site controls.

RCS has examined the effects of the quarry operation on the subject site in three analyses that have been submitted as part of the application. Effects on ground water, including wells, is examined in a study entitled "Geological and Hydrological Investigation of the Proposed Diabase Quarry." The effects of and restrictions on the use of surface stream flow (high flow skimming and storage) are analyzed in a study entitled "Analysis of Low Flows and Water Storage Requirements." Stormwater management plans, including soil erosion and sediment control measures, are included in the Development Plan drawings (Exhibit 12, 13 and 14).

The applicants also submitted a proposed Ground Water Monitoring Program in response to recommendations contained in the Boyds Master Plan. This study, which is discussed in the Master Plan section of this report, is intended to assure the continued integrity of the wells located in the protected area extending 750 feet from the rim of the quarries.

Staff from DEP evaluated the studies submitted by the applicants and reviewed the proposed stormwater management plans. In a memorandum dated February 12, 1985, the DEP stormwater management staff recommended that the following changes be made to the stormwater management plans.

1. Maintain a 50-foot buffer from the 100 year floodplain on the South Branch.
2. Delineate the exact overburden area shown on the plans.
3. No excavation should be allowed over the existing gas line.
4. "Clean water" from the proposed overburden area should be piped through the railroad embankment to the stream in Phase I.
5. In Phase III development, an off-site diversion around the south quarry should be provided.

The Environmental Planning Division supports these recommendations and the applicants have indicated that they will amend their plans to incorporate the above recommendations. The Environmental planning staff's analysis of the hydrologic effects are discussed in the Environmental Impact Section of this report.

Staff concludes that the applicants Development Plan adequately addresses most of the hydrologic effects of the quarry as required by the Zoning Ordinance. Staff notes that details concerning the proposed well water monitoring program have not been completed. Completion of this program is essential before a finding can be made that the application fully satisfies the requirements for hydrologic effects.

Section 12.7 Submission Requirements. In addition to satisfying the Development Plan Requirements of Division 59-D-1, additional submission requirements are applicable as follows:

Subsection (a): The applicants have submitted analyses that demonstrate that there is geologic and economic evidence of the existence of a commercially valuable mineral resource deposit on the site. These analyses include "Geological and Hydrological Investigation of the Proposed Diabase Quarry" and "Projected Aggregate Demand; Rockville Crushed Stone, Inc., Market Area."

Subsection (b): Numerous analyses have been prepared by RCS indicating measures and site designs for complying with the special regulations and performance standards of the Zone. These studies have already been identified and highlighted earlier in this section of the report.

Subsection (c): Traffic engineering studies and analyses demonstrating the effects of any proposed mineral resource activity on present and projected levels of service, adequacy of the present and planned road system, road safety conditions, bridge capacity and other factors related to traffic flow and safety. The applicants have submitted a traffic study for the project and have submitted an engineering study for improvements to

White Grounds Road that are necessary to accommodate truck traffic generated to serve the quarry operation. These studies are discussed in the Traffic Impact section of this report.

Subsection (d): The applicants have submitted a detailed development program stating the sequence in which all mineral resource development and related activities are to be developed and reclaimed. This development program is described on pages 16-21 of the applicants Addendum report. Staff recommends that the proposed construction program which is required by the Master Plan be incorporated into the development program.

Subsection (e): The applicants have submitted a plan for the reclamation and ultimate reuse of all lands included in the subject application as required in the Special Regulations Section (59-C-12.6(g)).

C. The Development Plan. A Development Plan has been submitted with the subject application in conformance with the requirements of the MRR Zone. This Plan has been prepared in accord with the requirements for Development Plans as contained in Division 59-D-1 of the Zoning Ordinance. The applicants Addendum Report addresses the Development Plan in light of the specific requirements of Division 59-D-1 (pages 14-21).

Staff finds that the Development Plan satisfies the requirements for the contents of a Development Plan as enumerated in Section 59-D-1.3. The only exception involves the delineation of the Boyds Historic District as shown on Exhibit 6. The boundary needs to be revised to reflect the boundaries recently approved by the County Council.

In a memorandum dated February 26, 1985, the Historic Preservation Commission made the following recommendations concerning the subject application:

- "1) The area within the boundaries of the recently approved Boyds Historic District along White Grounds Road should not be included in the rezoned area but remain in its present zone;

- "2) The Gum Spring area should not be improved, it and the rest of the land in the historic district should be left as undisturbed as possible until such time as an Historic Area Work Permit is issued for any grading, excavating, or altering of the area;
- "3) Both visual and noise buffering should be required between the quarry operation and all surrounding historic sites. A copy of the proposed buffering was not forwarded to the HPC so no specific comments could be made."

Staff notes that the area included in the subject application that lies within the historic district boundary is proposed to remain as an open space/buffer. No quarry activities are proposed to be located on this area of the site. If rezoned to the MRR Zone, no development or alteration to this area could occur without first amending the Development Plan. Staff believes that rezoning this area to the MRR Zone and showing the land as a buffer or open space area provides more protection for the historic district than leaving the land in the R-200 Zone.

With regard to the need for visual and noise buffering, the land in question provides a visual buffer in its present state and noise analyses indicate that noise attenuation in this area will be accomplished by the RCS Plans at least during Phases I and II.

The Boyds Master Plan recommends the development of a local park in near the center of Boyds at the intersection of Barnesville Road, Clopper Road and White Grounds Road. The park is recommended to be 11 acres in size to serve the approximately 2,000 people living in the Lower Seneca Basin Planning Area. The proposed site for the park is located on RCS owned land that is not part of the subject application. The applicants, however, are proposing to dedicate the 11 acre area to M-NCPPC as part of the subject application.

The Parks Department has requested that if the rezoning is approved then the Park should be dedicated as soon thereafter as possible so that the park can be developed in a

timely fashion. In addition, the Parks Department notes that an access easement will also be necessary to provide road access to the park.

Staff recommends that action on the proposed Development Plan be deferred along with the rest of the application, until all of the problems identified in this report are resolved.

D. Compatibility. The overall compatibility of the various components of the proposed quarry operation with surrounding uses has been examined to determine the impact that the proposed rezoning would have on the Boyds area. The development standards of the MRR Zone, including the special regulations and performance standards, as well as the requirements for development plan and site plan approval are designed to minimize the impacts that a quarry operation could have on nearby non-quarry uses.

In addition, the Master Plan conditions and guidelines are intended to protect the surrounding rural community from harmful effects that could otherwise result from the approval of MRR zoning on the subject site. For example, the all rail-haul requirement recommended in the Master Plan is intended to protect Boyds and other communities along MD Route 117 from the significant traffic impacts that would have resulted from truck haul.

Since staff is not in a position based on evidence submitted as of this date to find that the subject application is in accord with the Master Plan and satisfies all of the requirements of the MRR Zone, staff cannot determine that the subject application is compatible with surrounding uses. Once the Master Plan and zoning issues are satisfactorily resolved, then staff will be in a position to make a positive finding regarding compatibility.

In the staff's opinion, adherence to the Master Plan recommendations and guidelines; adherence to the requirements of the MRR Zone and compliance with the Development Plan and site Plan regulations, as well as County, State and Federal permit regulations,

will ensure that quarry operations on the subject property will be compatible with the existing and planned rural character of Boyds.

E. Traffic Impact. The subject application and Development Plan have been reviewed by the Transportation Planning Division. The transportation planning staff reported the following findings in a memorandum dated February 25, 1985:

- "1. The exhibits submitted in support of the application indicate that a typical section of the access road is to provide 18 feet of pavement. The text of the Mineral Resource Recovery Zone notes that all access roads constituting the principal means of ingress and egress are to be twenty (20) feet wide and of a pavement type approved by the Montgomery County Department of Environmental Protection. Accordingly, the access road should be built to this standard.
- "2. The traffic study submitted in support of the application notes that trucks leaving the site 'will be prohibited from turning left onto White grounds Road.' Thus, no delivery trucks or contractor's vehicles will pass through the Boyds community. Positive enforcement of this prohibition, including directional signs and a guard at the entrance would be desirable.
- "3. The application states that the applicant proposes to widen the pavement of 'White Grounds Road from the access road, south to MD 28, to a minimum of 18 feet.' White grounds Road currently has a variable width pavement; the Master Plan of Highways proposes a realignment of White Grounds Road (M-57) from MD 121 to a point north of the intersection of White Grounds Road and Bucklodge Road, but this project is not currently programmed in the CIP. In many areas, the pavement width is currently inadequate, and although upgrading to a minimum of twenty (20) feet of pavement would be desirable, the Montgomery County Department of Transportation has already reviewed the planned improvements, and has determined that upgrading to eighteen (18) feet is acceptable to them. After reviewing the plan sheets for the upgrading of White Grounds Road, Transportation staff believe widening to eighteen (18) feet of pavement is acceptable, provided that the two (2) feet of shoulder on both sides of pavement is stone stabilized.
- "4. Vehicles accessing the site to and from the south must traverse a one lane bridge (16.3 feet wide) just south of the intersection of White Grounds Road and Schaeffer Road. Although it would be desirable to widen this bridge to two lanes, staff believe the current bridge is minimally acceptable because of low traffic volumes, widened pavement on the approaches to the bridge, and improved guardrail on the bridge itself.

- "5. The current speed limit should be reviewed by the Montgomery County Department of Transportation, and a determination should be made by that department as to whether a lower speed limit would be appropriate for this road.
- "6. The applicant's traffic study is acceptable with respect to trip generation. Total PM peak hour trips by the year 2000 is estimated at 127 vehicles, which includes four delivery trucks. The analysis of projected traffic conditions had the following results:

Projected Levels of Service (LOS)/Critical Lane Volumes (CLV)

<u>Location</u>	<u>AM</u>	<u>PM</u>
White Grounds Rd/MD 117	LOS A/CLV 241	LOS A/CLV 329
White Grounds Rd/MD 28	LOS A/CLV 318	LOS A/CLV 331

"As the above table indicates, levels of service are expected to be satisfactory."

The County Department of Transportation has reviewed the applicants proposed plans for improving White Grounds Road and made the following recommendations to the applicant in a letter dated January 10, 1985:

- "All guardrail should include turned down and sections on both sides.
- "The 700' section north of Schaeffer Road needs to be extended 200+ feet north.
- "All other guardrail locations should be staked in the field and inspected by DOT prior to construction.
- "Sufficient shoulder must be provided to support guardrail parts. Detail need on plans.
- "End sections need to be added to each end of existing guardrail at the existing bridge near Schaeffer Road.
- "Provide a typical section of the relocated ditch work showing stabilization within the realigned areas of the ditch.
- "Provide a detail of the widened pavement indicating 4" of bituminous concrete base and 2" of bituminous concrete surface."

The recommendation by the Transportation Planning staff that the application provide 2 feet of stabilized shoulder on each side of White Grounds Road is in addition to the recommendations made by the County DOT. Staff recommends that the applicants plan for improving White Grounds Road be amended to incorporate all of the above recommendations including the 2 feet of stabilized shoulder on each side of the road. In addition, the plan sheets for White Grounds Road should be incorporated into the Development Plan as an element of the Construction Program which is recommended to be made part of the required development program.

F. Environmental Impact. The Environmental Planning Division has reviewed the subject application, Development Plan, stormwater management plan and accompanying analyses in order to determine the effects of the proposed quarry operation on the physical environment. Staff has examined the quarry from the perspectives of noise, dust, vibration and hydrologic effects. Staff has been guided by the recommendations contained in the Boyds Master Plan, the requirements of the MRR Zone and the requirements for development plan approval. In a memorandum dated March 5, 1985, the environmental Planning staff recommends that the application be deferred until all unresolved environmental issues are satisfactorily resolved.

The Environmental Planning staff reports the following findings concerning the environmental performance standards contained in the MRR Zone:

Noise

"Analysis by DEP indicates that sufficient information has been provided to make a finding of compliance with noise standards in Phase I and Phase II. Data for Phase III noise analysis has not been submitted and thus no finding is possible at this time.

Vibration and Dust

"Analysis by DEP indicates ability to comply with applicable vibration standards. DEP has recommended in a memo of February 27, 1985 that information on type of equipment and removal efficiencies should be provided before a finding can be made on control of dust.

Hydrologic Effects

"a) Groundwater Depletion of Wells and Monitoring of Water Quality

- "Both DEP (at zoning and permit stage) and State Department of Natural Resources (at time of permit) have and/or will review potential for problems in this area.
- "Applicant shall establish water quality monitoring stations on "North Stream" and "South Stream" downstream and outside of the Mineral Resource Recovery Zone to ensure that State water quality standards are being met. Applicant shall provide DEP with monitoring results on regular basis.

"b) Stormwater Management/Water Quality

- "The Development Plan for all phases shall be revised to show a 50' buffer (i.e., non-disturbance) area from the 100-year ultimate floodplain. This setback shall exclude necessary stanchions for the conveyor systems, as well as the perpendicular road crossing. Since the 12/84 development plan shows several encroachments into the buffer from the approximate floodplain limit, some with major implications on the overall development plan (i.e., the location of the water storage pond), staff recommends a more detailed definition of the 100 year ultimate floodplain prior to development plan approval.
- "Discharge from washing of machinery, truck, etc., shall be adequately treated.

"c) Sediment and Erosion Control

- "In accord with the recommendations of DEP, the Sediment and Erosion Control Concept Plan shall be revised such that a temporary diversion berm and sediment basin around and near the possible overburden spoil area are outside of the 50-foot undisturbed buffer around the 100-year ultimate floodplain. The proposed water storage pond shall be moved or shifted such that it is outside the 50-foot buffer.
- "Sediment basins shall be oversized so that in the event of diversion(s) failure, most of sediment laden runoff will still end up in the sediment basins.
- "Site Plan shall show a phasing plan.

With regard to an overall recommendation, the Environmental Planning Division notes in their March 5th memorandum that with the number of unresolved issues,

particularly in the area of Phase III noise analyses, dust and hydrologic effects, staff cannot recommend that the appropriate findings of conformance be made at this time.

Before presenting the technical discussion on the environmental issues, several points of clarification should be made. First, it should be understood that the County DEP is the responsible enforcement agency for many of the performance standards contained in the zone. While the Environmental Planning staff's review is intended to provide an overview of issues, DEP's detailed technical review and analyses are essential to make findings in those areas where their responsibilities exist.

A second point of clarification made by the Environmental Planning staff involves the degree of detail that is necessary to make a finding. At the zoning stage, staff does not believe that a permit-level degree of detail is necessary; however, the conceptual explanations must be complete enough to make a finding that mitigation measures prepared can demonstrate an ability to satisfy the standards at some later point in the development process (i.e. subdivision, site plan or permit). Stated differently, major technical deficiencies or differences must be resolved at the zoning stage, but minor technical details can be addressed later and still make a finding related to zoning.

The following represents the Environmental Planning Divisions technical comments on the issues of noise, vibration, dust, and hydrologic effects resulting from the proposed quarry operation:

Noise

"The Zoning Ordinance addresses the need to achieve compliance with state and County property line (on-site) noise standards, and this discussion will focus on this issue. The off-site noise issues have been substantially resolved with the requirement for the all-rail haul alternative, thereby eliminating the major off-site haul route truck noise problems. This proposal does include one more train passby on the main line of the Chessie system, but since this would be a relative short train (35 cars) travelling during daytime hours, the impact is judged to be minimal.

"Compliance with on-site noise standards involves a detailed evaluation of all noise sources that will be generated during the quarry operation at each of three phases of development of the quarry. Each component of the major noise issues will now be discussed.

- Issue: Annoyance of Impulse Noises

"The Montgomery County Noise Ordinance (Chapter 31B of the County Code) recognizes the increased annoyance of impulse noise by reducing the property line standard by 5 dBA for such noise events. The major impulse noise on-site is the train coupling operations. Preliminary DEP studies find ability to comply with the more stringent short-term impulse noise standard.

- Issue: Cumulative Effects of all Noises

"The noise consultant for Rockville Crushed Stone (RCS) has examined similar existing quarrying equipment and evaluated the peak noise levels for each source. Noise levels for each source are included in Attachment One and describe monitored A-weighted peak levels as well as octave band analysis. These peak noise levels were added together in a worst-case scenario at each of 16 receptor locations to determine compliance with the 55 dBA property line limit. Where exceedances occurred, equipment quieting and/or barriers (in this case, berms) were evaluated. Sound-effect and distance deterioration factors were also examined. While the combined effects of these measures will, by analysis, show the ability to meet the property line standards, a noise analysis is to be performed at the site to verify through on-site testing the combined effects of these sources. The details of this test(s) will be determined as part of the ongoing development process and must be resolved before permits are granted.

- Issue: Construction Noise

"This issue is now less critical with the deletion of the major haul route proposal crossing White Grounds Road close to many residences. However, the extent and duration of construction activities on the site calls for a plan for minimizing the annoyance created by the construction and start-up operations. This plan is being prepared by the applicant and should include at least proposals for the hours of construction operations and construction staging, focusing on the earliest development of noise abatement measures.

- Issue: Phase III Noise Levels

"Computations have been prepared for the Phase III "South Quarry" operations. Although this phase is 25 years down the line, the Zoning Ordinance necessitates findings concerning the performance standards at the zoning stage. DEP review will be available as soon as their schedule permits.

- Issue: Blasting Noise/Taylor Learning Center

"The Master Plan Amendment directed that "DEP . . . require that a regular blasting schedule be established which is compatible with the hours of operation of Taylor Learning Center." The applicant agrees to this directive and must comply before the quarry permit is approved. The condition requiring air conditioning of the Taylor Center will result in improvement in air quality and noise levels.

"Noise from blasting is the same standard for all quarries. The sound pressure level must not exceed 130 decibels (unweighted) in reference to 2×10^5 pascals, at fast instrument response, and is measured "at the property line of the nearest non-abandoned building which is neither owned nor leased by the quarry owner or operator, or public road, whichever is nearer." The above standard is close to the Occupational Safety and Health Administration (OSHA) standard of 140 dBC.

"These are only overviews of the major issues and are not intended to include all detailed technical issues. However, these technical details have been considered in the DEP review and have been addressed through several meetings and communications with the applicant. DEP has made a preliminary finding that the information submitted on noise is sufficient to show the ability to meet the noise-related performance standards."

Vibration

"The standard of 1 inch per second peak particle velocity (equivalent to 130 decibel sound pressure level) is being applied under the vibration standard of the quarry ordinance for all new quarries in the County. The old standard (2 inches/sec.) for peak particle velocity still applies to quarries licensed and operating prior to January 1, 1981. The ordinance specifies that the measurements for vibration should be taken at the nearest non-abandoned building neither owned nor leased by the quarry owner or operator. Other standards apply when vibration measuring and recording instruments are not available. The maximum weight of explosives per blasting shot is given on the basis of distance from the receptor. Two inches per second (2 inches/sec.) peak particle velocity is determined to be a safe level (damage-free). Thus, the County's requirement of 1 inch/sec. maximum will provide for an even greater margin of safety. In addition to this local standard, the state's general requirement, that there be no perceptible sensation of vibration beyond a quarry's property line, will require stringent control of blasting. These standards provide a safe vibration level for residents in the vicinity.

"DEP has made a finding concerning the ability to meet the vibration standard. DEP, however, does cite the need for further analysis of the blasting vibration effects on the gas line. This information must be provided before any permits are issued."

Dust

"The major source of potential problems with dust have been significantly reduced with the elimination of the truck haul alternative. The State of Maryland, Department of Natural Resources (DNR) regulations governing surface mining and Department of Health and Mental Hygiene (DHMH) regulations to control air pollution have sections pertaining to dust control from stationary sources within the site. Also, local ordinances prohibit visible emissions at ground level beyond the property line of a source.

"During the master plan amendment process, there was concern among residents that health standards might be violated and that local residents and school children with special health problems would be affected by dust from the quarry, especially if there were any possibility of its containing significant quantities of asbestos fibers. However, the regulations are specific about controlling dust and the chances of obtaining a significant amount of asbestos from the quarried diabase rock are negligible.

"It does not appear that airborne dust from quarry operation will present a hazard to the Boyds community, since it will be controlled to such an extent that only very small amounts (if any) may leave the site. DEP forwarded comments on February 27, 1985 requesting information on type of equipment and removal efficiencies should be provided before a finding can be made on control of dust."

Hydrologic Effects

- Hydrogeology:

"Boyds citizens are concerned that the quarrying might impact Little Seneca Lake, private well water supplies and local streams. The Boyds Master Plan Amendment took note of this concern in drawing guidelines for quarrying operation in Boyds. On page 34 of the master plan, it is stated, 'It is essential that any quarry proposal which might be submitted address the problem /possible water flows between the new lake and quarry/ and furnish conclusive evidence that a quarry would not have an adverse hydrologic impact on the area.'

"Staff has reviewed a number of reports in connection with the proposed quarry operation. First, the issue of whether the proposed quarry will impact Little Seneca Lake is addressed in a report entitled, 'Project Development on Little Seneca Lake, 1980 prepared by Black and Veatch for WSSC. According to Black and Veatch, there would be no adverse impact on the lake. On page V-16 of the report the following assessment is given. 'Prior to influencing the proposed reservoir, the quarry operation would first have to produce a significant drop in groundwater level at a distance of several thousand feet from the quarry. There is a remote chance of this occurrence. Even if this event did occur and gravity flow between the reservoir and base of the quarry resulted, the consequences would be insignificant.'

"A similar conclusion was reached by Dunn Geoscience Corporation, consultants to Rockville Crushed Stone, Inc., the applicant. In their 'Preliminary Environmental Assessment of the Proposed Boyds Quarry,' they reported that alteration of the water table adjacent to the lake and quarry will not extend more than few hundred feet.

"Second, the concern that private well water supplies will be impacted is addressed in a report by Richard Langill, geological consultant to the applicant. From the report, 'Geological and Hydrological Investigations of the Proposed Diabase Quarry in Montgomery County, Maryland, 1981,' the quarry will be mined to a depth of 300 feet. Mining to this depth will depress the groundwater table. But this depression is not expected to extend more than 150 feet from the edge of the quarry since the diabase rock is very dense and has much lower transmissibility than the surrounding rocks. The report noted that there is an altered/mixed zone of diabase and schist where transmissibilities are higher than in the diabase. Excavation of this zone to a depth of 70 feet around the quarry would cause a higher rate of inflow to the pit and depress the water table for a distance of about 370 feet to 470 feet from rim of the quarry. The closest private wells to the applicant's property are approximately 600 feet from the proposed excavation, which is well beyond the area determined to be affected by depression of the water table. However, as a further assurance of a continued supply of portable water to adjacent landowners and absence of measurable impact on well yields, the Boyds Master Plan Amendment requires the applicant to submit to County Department of Environmental Protection (DEP) for approval, a well monitoring program to determine whether any problems with individual wells can be attributed to the operation of the quarry. The applicant has since submitted the program which is being reviewed by DEP staff.

"The operation of the quarry will cause slight decrease in stream flow through removal of a portion of recharge area. But then, according to Richard Langill, the decreased stream flow will be compensated by discharge of water accumulating in the pit.

"Based on above technical evidence, it can be concluded that the proposed Boyds quarry would not have adverse hydrological impact on the area."

- Stormwater Management/Sediment and Erosion Control

"The proposed Boyds quarry development plan includes a conceptual plan of measures which will be utilized for stormwater management, sediment and erosion controls. The concept plan attempts to minimize the amount of sediment entering the on-site streams. Sediment basins will trap sediment in storm flows from the developed areas. The basins will be periodically cleaned. Inflow into the quarry will be pumped into the sediment basins before discharging into on-site streams and daily process water will be drained back to a water supply storage pond for reuse via an intermediate settling pond.

"While acknowledging that the concept plan is acceptable, staff in consultation with DEP is of the opinion that some further modification and revision to the plan are essential. The 100-year ultimate floodplain of the "South Stream" is shown as approximate. A more accurate delineation is needed. In order to protect the on-site streams from sediment, and floodplain from unwarranted encroachment and grading, staff recommends an undisturbed buffer of 50 feet from the edge of the 100-year floodplain. This in effect means that the sediment and erosion control concept plan should be revised to show that a temporary diversion berm and temporary sediment basin around and near the possible overburden spoil area, and the proposed water storage pond are outside of the 50-foot undisturbed buffer area. The 50-foot buffer or setback excludes road crossings and conveyor support. These encroachments, if necessary, will be reviewed at site plan.

"To ensure that most of the sediment-laden runoff enters the sediment basins should diversions fail, oversizing of sediment basins is recommended.

"As a measure to protect on-site streams from pollution, staff recommends that discharge from washing of machinery, truck etc., should be adequately treated. Staff further recommend that the applicant establish water quality monitoring stations on "North Stream" and "South Stream" downstream and outside of the Mineral Resource Recovery Zone to ensure that State water quality standards are being met. Applicant would have to provide DEP with monitoring results on a regular basis."

G. Comments from the Department of State Planning: The Maryland Department of State Planning, in cooperation with other State agencies, has reviewed the subject application and submitted the following comments in a letter dated February 15, 1985:

"The Department of State Planning is familiar with the proposal by Rockville Crushed Stone to establish a stone quarry in Boyds. During the recent Boyds Plan Amendment Process, State Planning coordinated its review of the Plan with other State agencies. As a result, State Planning, the Maryland Geological Survey (Department of Natural Resources), and the State Highway Administration (Department of Transportation) testified before the Planning Board and District Council in support of an amendment to the Boyds Master Plan that would delineate an area suitable for quarrying.

"State Planning has reviewed the various reports and plans submitted by the applicant in connection with Zoning Application No. G-316. The development plans for the property and the technical reports dealing with quarry operation, aggregate demand, and environmental effects reflect the development and operational conditions imposed by the County (Resolution No. 10-864) for the purpose of minimizing the impacts of a quarry on the surrounding neighborhood. The applicant's reports include appropriate references to State agencies, programs, and regulations in the areas of air quality, stormwater, and sediment control.

"In general, the proposed quarry at Boyds is compatible with State Development Policy and appears to be designed consistent with State programs and regulations. The elimination of haul trucks from the quarry's operational phase as well as the relocation of the quarry access road and limitations on turning movements will help minimize impacts of the quarry on the Boyds community.

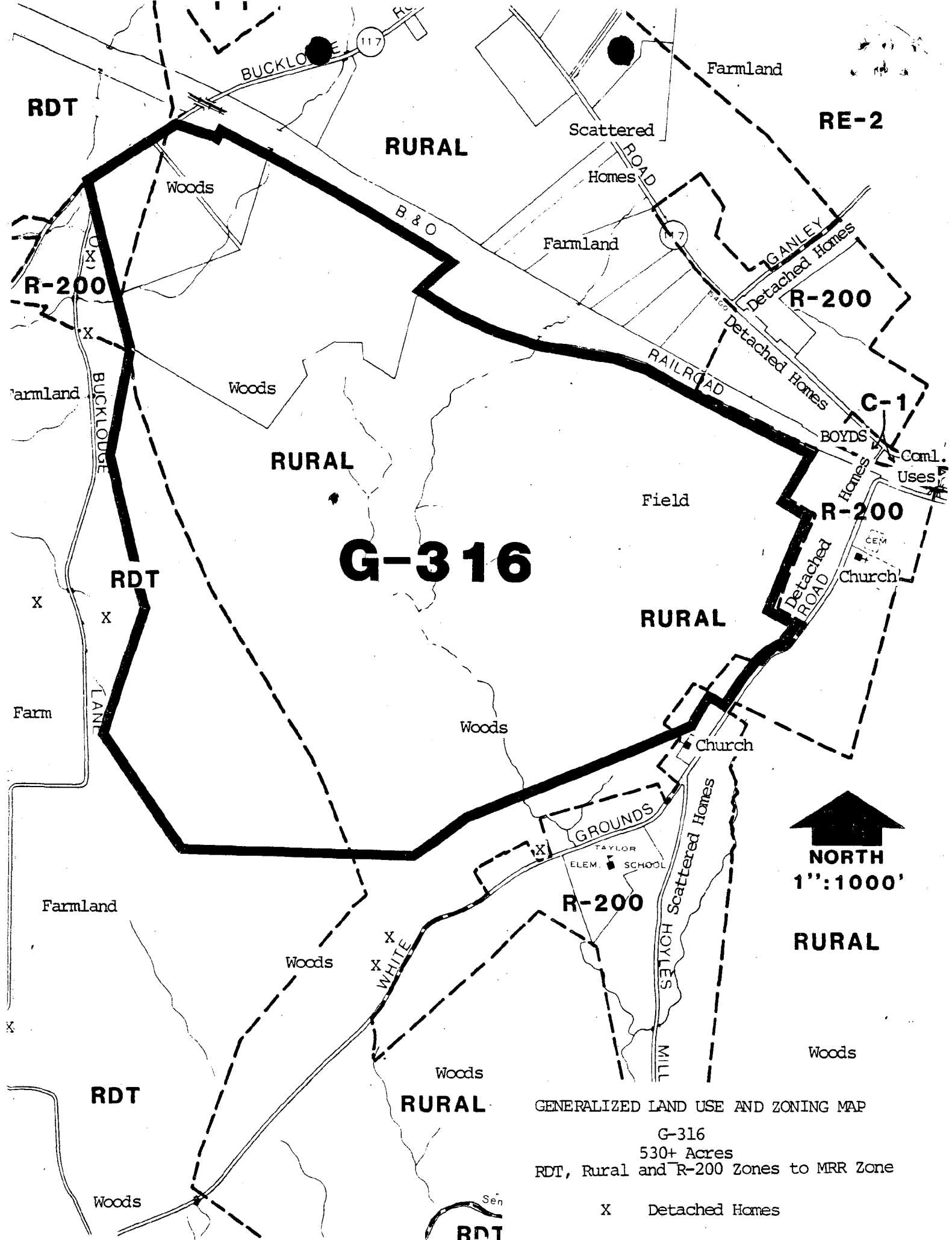
"The only specific comment we have relates to the proposed reclamation of the site, which among other things, involves turning the quarry pits into lakes which would serve as an amenity for future residential development. To ensure that the water quality of the lakes is not adversely affected by nutrients and other stormwater pollutants from the surrounding land, special best management practices should be employed to filter or otherwise cleanse runoff during the period when the quarry pits are allowed to accumulate water."

Staff notes that special best management practices will be required for the quarry site at the time of site plan review.

Attachment #1

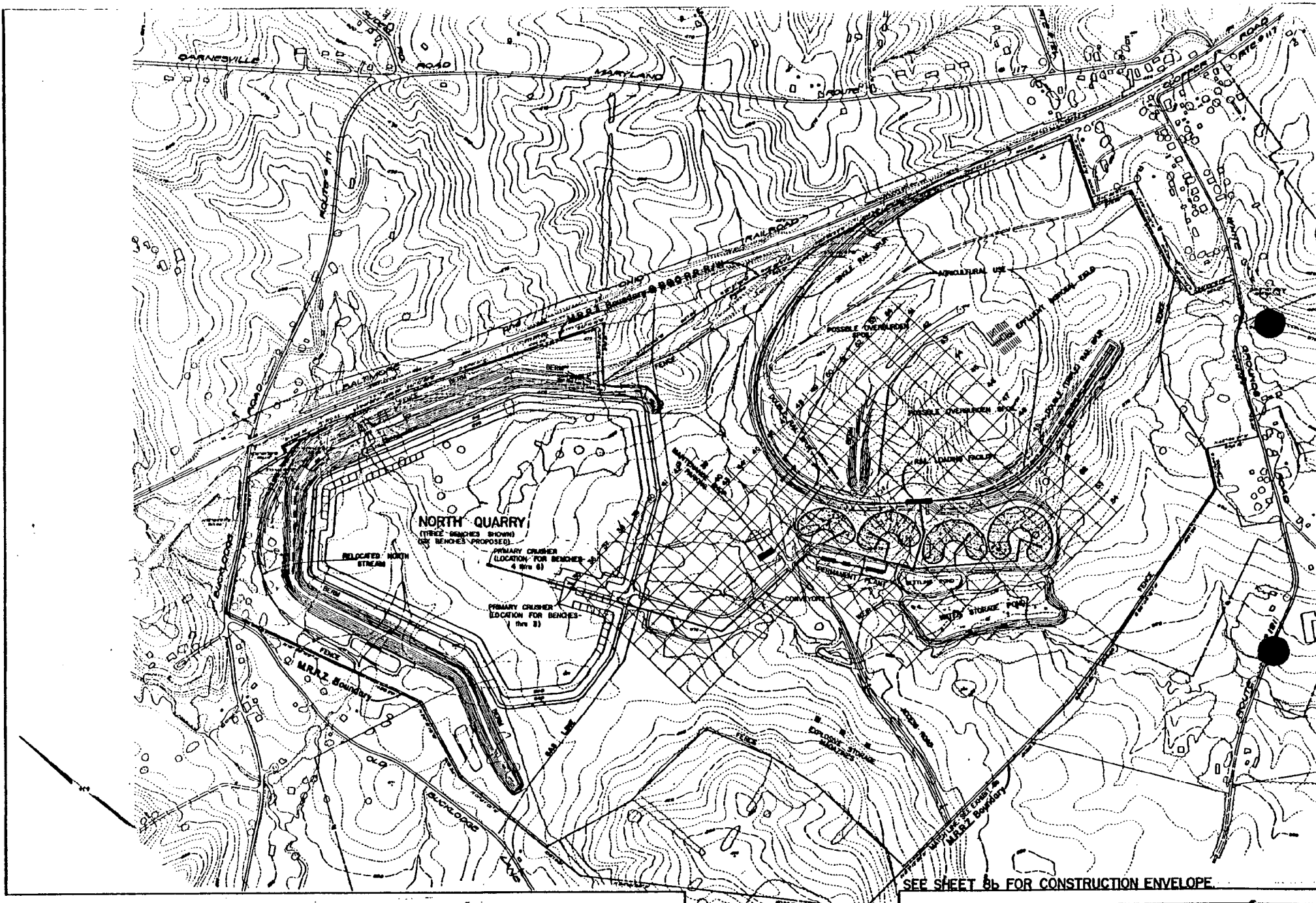
LIST OF DRAWINGS THAT COMPRISE
THE DEVELOPMENT PLAN FOR G-316

1. Exhibit #1 Topography of the site and adjacent land is shown at a scale of 1" = 200' with 5 foot contour intervals.
2. Exhibit #2 Slopes of 15% or more.
3. Exhibit #3 Soil characteristics of the site and surrounding land, as mapped by the Montgomery County Soil Survey.
4. Exhibit #4 Major vegetative growth for the site and surrounding area of approximately 7½ square miles.
5. Exhibit #5 Bodies of water and watercourses, including the proposed Little Seneca Lake.
6. Exhibit #6 Historic buildings and structures in the vicinity of the site, and ages where known.
7. Exhibit #7 The relationship of the site to surrounding areas and the land use of adjacent and surrounding properties.
8. Exhibit #8 a & b Proposed Development Plan for Phase 1.
9. Exhibit #9 Proposed Development Plan for Phase 2.
10. Exhibit #10 Proposed Development Plan for Phase 3.
11. Exhibit #11 Reclamation and Reuse Plan.
12. Exhibit #12a & b Concept Plan: Sediment Control and Stormwater Management for Phase 1.
13. Exhibit #13 Concept Plan: Sediment Control and Stormwater Management for Phase 2.
14. Exhibit #14 Concept Plan: Sediment Control and Stormwater Management for Phase 3.
15. Exhibit #15 a & b Proposed Lighting Plan for Phase 1.
16. Exhibit #16 Proposed Lighting Plan for Phase 2.
17. Exhibit #17 Proposed Lighting Plan for Phase 3.



GENERALIZED LAND USE AND ZONING MAP
 G-316
 530+ Acres
 RDT, Rural and R-200 Zones to MRR Zone
 X Detached Homes

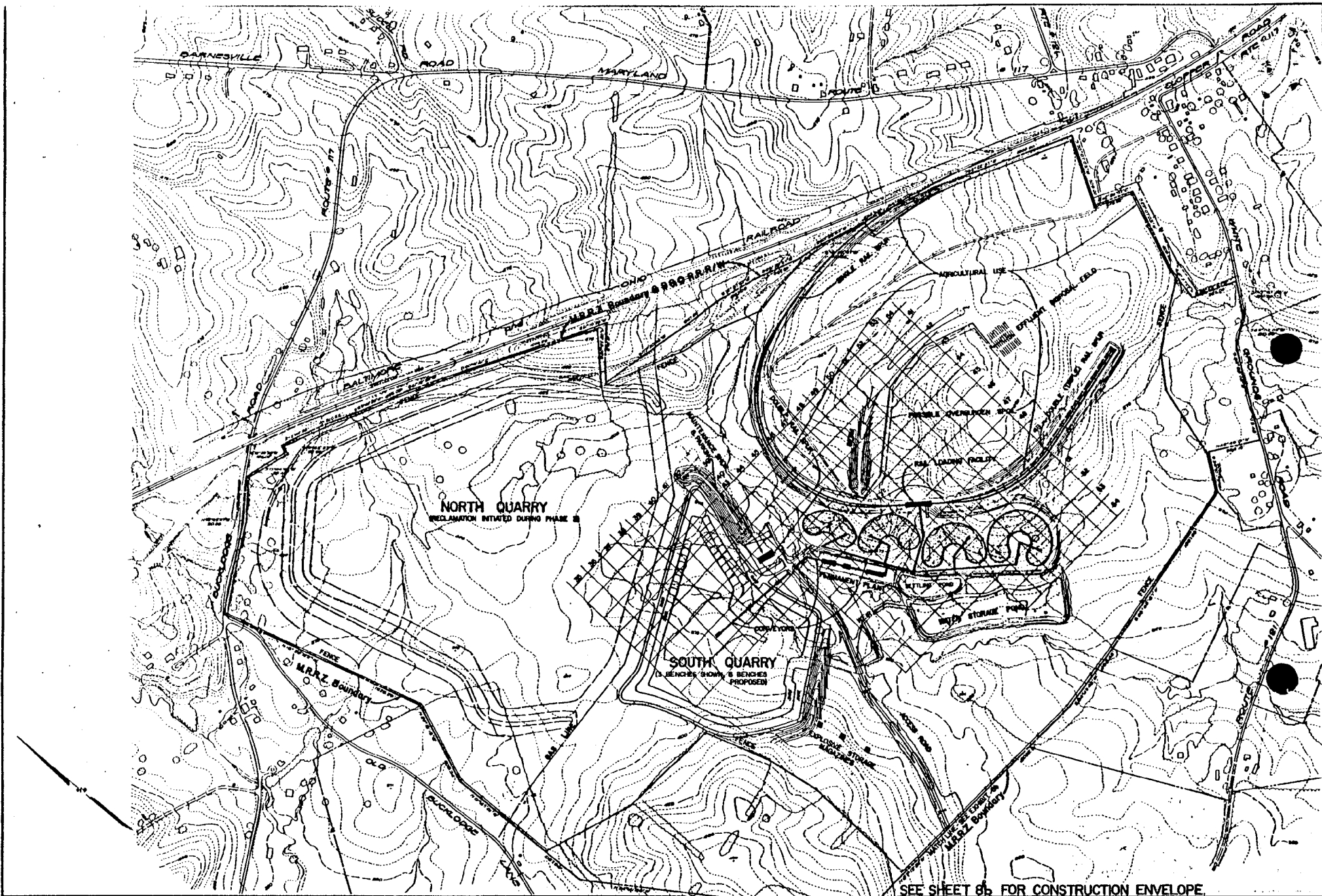




PROPOSED DEVELOPMENT PLAN
PHASE 2
BOYDS QUARRY - ROCKVILLE CRUSHED STONE, INC.

PREPARED BY:
RODGERS & ASSOCIATES, Inc.
 BOX 1532
 ROCKVILLE, MARYLAND 20850
 PHONE: 301-948-4700

EXHIBIT 9
 REVISED:
 DECEMBER, 1984
 SCALE: 1"=200'
 465



PROPOSED DEVELOPMENT PLAN
PHASE 3
BOYDS QUARRY - ROCKVILLE CRUSHED STONE, INC.

PREPARED BY:
RODGERS & ASSOCIATES, Inc.
 BOX 1532
 ROCKVILLE, MARYLAND 20850
 PHONE: 301-948-4700

EXHIBIT 10
 REVISED
 DECEMBER, 1984
 SCALE: 1"=200'
 465-A

Horseld —
lrene —

COMPARISON OF EFFECTS OF TRAVILAH AND BOYDS QUARRIES

The Montgomery County Planning Board has recommended against an amendment of the Boyds Master Plan that would have allowed zoning for a new crushed stone quarry southwest of the community of Boyds, in upper Montgomery County. If the Montgomery County Council agrees with that recommendation, the existing Travilah Quarry will have to continue to supply all crushed stone produced in Montgomery County.

Since 1958, the rate of production at the Travilah Quarry has increased from 670,000 tons per year to approximately 2,500,000 tons per year. During that time, the number of average daily truck trips generated by the Travilah Quarry has increased from 220 to 900.

If the Boyds Quarry is not approved, it is projected that production at the Travilah Quarry will continue to increase, as it has in the past, with sales exceeding 3,000,000 tons per year by the mid-1980s, and more than 4,000,000 tons annually within the next twenty years. As this growth in production occurs, the number of truck trips on Travilah Road and Route 28 will increase to over 1,000 per day within the next several years, and will exceed 1,350 per day within twenty years.

If, on the other hand, the Boyds Quarry were operated in addition to the Travilah Quarry, stone production and truck traffic from the Travilah facility will be reduced to less than half that otherwise required to serve the market over the next twenty years. Conversely, disapproval of the Boyds Quarry by the County Council will result in a 50% increase in production at Travilah, with the concurrent 50% increase in truck traffic, to supply the growing demands.

The impact of this decision will be concentrated on the communities of Travilah, Glen Hills, the Rockville neighborhoods located west of I-270 (along the Route 28 haul route)

and communities extending along Route 28, westward through Darnestown, that depend on Route 28 for access.

The following tables compare some of the aspects of a single quarry, at Travilah, supplying all County production requirements, versus the reduced effects if two quarries were operating to supply growing production demands.

I. CRUSHED STONE PRODUCTION AT TRAVILAH QUARRY

<u>Year</u>	<u>Assumption</u>	<u>With Boyds in Operation</u>	<u>Without Boyds</u>
1980	{ Boyds opens prior to 1984, rail haul to DC	2.75 mil.tons	2.75 mil.tons
1984		3.02 "	3.08 "
1988		2.64 "	3.36 "
1992	{ Rail haul to Pr. Geo. Co. feasible after 1992	2.84 "	3.53 "
1996		1.86 "	3.80 "
2000		1.96 "	4.07 "

II. TRUCK TRIPS GENERATED AT TRAVILAH QUARRY

<u>Year</u>	<u>With Boyds in Operation</u>	<u>Without Boyds</u>
1980	916 ADT ¹	916 ADT
1984	1006 "	1026 "
1988	880 "	1120 "
1992	946 "	1176 "
1996	620 "	1266 "
2000	652 "	1356 "

1. Average Daily Trips

III. PROJECTED TRUCK TRIPS FROM PROPOSED BOYDS QUARRY

<u>Year</u>	<u>Boys ADT</u>	<u>% of Travilah ADTs Without Boys</u>
1984	334	33%
1988	384	34%
1992	396	34%
1996	422	33%
2000	444	33%

IV. RESIDENTIAL DENSITIES OF SURROUNDING AREAS (Dwelling Units)

	<u>Distance from Quarry</u>		
	<u>½ mile</u>	<u>1 mile</u>	<u>2 miles</u>
<u>Existing dwellings</u>			
Boys	48	174	321
Travilah	252	817	5,110
<u>Potential dwellings¹</u>			
Boys	595	1,565	5,571
Travilah	2,379	5,850	16,959

1. Computation based on Master Plan proposed zoning; does not include proposed density increases in Gaithersburg Vicinity Master Plan

V. CURRENT TRAFFIC ON HAUL ROUTES

(8 hour daytime counts, including AM and PM peak hours)

	<u>Travilah Haul Route</u>	<u>Boyds Haul Route</u>	
	Rte. 28 between Travilah Rd. & Shady Grove Rd.	Rte. 117 just west of Quice Orchard Rd.	Rte. 117 west of Rte. 121
Total vehicles	10,976	6,268	1,494
Heavy trucks and buses	1,175	303	205
School buses	143	NA ¹	43 ²
% Trucks and buses	11%	5%	14%

1. Data not available

2. Count made on White Grounds Road north of Taylor School

VI. TOTAL TRUCK MILES REQUIRED FOR AGGREGATE TRANSPORT WITHIN MONTGOMERY COUNTY (based on 1981 consumption level)

	<u>Truck Miles Per Year</u>
Only Travilah Quarry operating	6,330,000
Both Travilah and Boyds operating	3,980,000
Reduction in total truck miles/year	2,350,000

Note: reduction results from shorter haul distances from Boyds for aggregates now imported (Portland cement and skid resistant paving aggregates), and from use of rail transport from Boyds Quarry.

VII. OTHER COMPARISONS

	<u>Travilah Quarry</u>	<u>Proposed Boyds Quarry</u>
Area of quarry pit	163 ac.	108 ac.
Area retained in buffer	74 ac.	382 ac.
Quarry setback to nearest residential property line	75'	500'
Crushing/screening plant setback to nearest residential property line	280'	1,500'
Tonnage to be rail hauled		
1988	0	1.54 million
2000	0	3.39 million
% of production to be rail hauled		
1988	0%	57%
2000	0%	72%
Length of private haul road before entering public road	310'	5,300'
Setback between quarry/plant facilities and nearest public road		
north	300'	570'
east	200'	2,600'
south	100'	2,200'
west	200'	600'
Stone suitable for Portland cement concrete manufacture	no	yes
Stone suitable for road base	yes	yes
Stone meets Federal and State standards for skid resistant highway surfaces	no	yes

MEMORANDUM

lru

June 14, 1983

TO: Charles W. Gilchrist, County Executive
FROM: E. James Sayer, Acting Chief, Budgets Division
Office of Management & Budget
SUBJECT: Boyds Master Plan

ESG

Background

The Boyds Master Plan was adopted in May, 1978. The plan did not recommend a quarry but listed the following three events which would be the basis for reconsidering the quarry issue at a future date:

1. Completion by Montgomery County Government of a study to determine the need for resource materials of this type (completed January 1982).
2. Adoption of a Mineral Resource Recovery Zone (adopted December 1980).
3. Submission of a zoning application for a quarry operation (submitted May, 1981).

At the initial public hearing on the Boyds Master Plan in 1978, the prior Executive took the position that the main issue which should be addressed in the Boyds Master Plan is that of a quarry in Boyds. The Council agreed and set forth the three requirements outlined above.

The findings by the Planning Commission are as follows:

"Based on these studies, this Final Draft Plan does not recommend a site suitable for quarrying. The Planning Board believes the potential negative effects upon Boyds and Germantown in terms of traffic, noise, safety and other community impacts outweigh potential county and regional benefits at this time. Although the technology may exist to address community impacts, the Planning Board questions whether enough funds and personnel are available to adequately monitor and enforce these technological solutions. A failure of any of the technological safeguards would have a severe impact on the community. This possibility is a major concern of the Planning Board."

"This Final Draft Plan does envision that at some future date the benefits of a quarry may outweigh community impacts. For this reason, the Plan recommends against preemptive uses on the diabase deposit."

Charles W. Gilchrist
June 14, 1983
Page Two

"The plan recognizes that the existence of diabase in the Boyds area represents a continuing possibility for pressure to develop a quarry. However, the plan specifically recommends against any reconsideration of the quarry issue until such time as Clopper Road and/or MD 118 are programmed by the State or County for improvement to Master Plan Standards."

The plan states that: "One of the key decisions that would be made as part of the planning process would be whether a compelling or overriding need exists County and region-wide for the diabase stone....To reconsider this issue without substantial change in the need and the transportation issues would be a disservice to the communities of Boyds and Germantown."

The Planning Commission did not specifically designate zoning for the quarry area but recommended that the "County Council hear comments on two zoning alternatives for the diabase deposit to help prevent pre-emption of diabase extraction by residential development. These zoning alternatives are Rural Cluster and Rural Density Transfer".

The 1978 Master Plan recommended that if sewerage service was not petitioned for or extended along White Ground Road the residential land use recommended in the plan should be re-examined. The Plan does not address this issue.

The Final Draft Plan:

1. Recommends rezoning approximately 125 acres from RURAL to RE-2 to create a more logical land use transition from the Clarksburg Planning Area to the Boyds Planning Area. (See "A" on map.)
2. Recommends rezoning two 5-acre parcels on the western edge of the Boyds village center from R-200 to RE-1 as a more appropriate transition from commercial development to rural uses. (See "B" on map.)
3. Recommends relocating 20 acres of I-1 so that acreage abuts the railroad and is sufficiently buffered from existing residences (See "C" on map.)
4. Endorses the designation of a historic district in Boyds but recommends the boundaries be determined separately, as a separate amendment to the County Master Plan for Historic Preservation. (See Proposed National Register District map.)

Issues

I have attended many of the meetings and hearings held by the Planning Commission and would summarize the comments of those opposed; Boyds and Germantown citizens and groups, and those for; Rockville Crushed Stone, State DOT, concrete companies, Mayor and City of Rockville, as follows:

Charles W. Gilchrist
June 14, 1983
Page Three

Those opposed believe that the quarry would destroy Boyds as it is known today and that the truck traffic along Clopper Road from the quarry to the interchange at Quince Orchard Road would create hazards, especially with school buses, and truck noises would be detrimental to neighborhoods they pass through.

Those for site economic benefits, safety factors associated with the harder stone and lessened overall County impact (I have attached page 39 from the Boyds Draft Master Plan which is the Commission's summary of the issues).

For the most part the facts regarding the amount of stone which would be mined, the economic impact and truck trips were not disputed based upon additional facts, although there were generalized attempts to dispute them. While I have not checked all of the figures presented by Rockville Crushed Stone, I have checked a number of them and found them to be reasonable and not biased in a direction benefited to them.

I believe the following statements have been well supported by the facts:

- o There is sufficient stone in the Washington Metropolitan Area to meet the needs for at least 50 years.
- o Stone and Gravel deposits are lost more through urbanization than by being mined out.
- o The diabase is a "better" stone than the serpentinite at Hunting Hill. It has better skid resistant qualities and can be used in concrete whereas serpentinite cannot. Because of the poorer quality of serpentinite, one million tons of stone is imported into Montgomery County annually.
- o Overall truck mileage in the County will be less with Boyds open than with only Hunting Hill open
- o The use of skid resistant stone on road surfaces will reduce accidents and save lives; however, there is skid resistant stone in Virginia which could be used, but is not except on FHWA jobs, because of additional costs. Neither the State nor the County is requiring skid resistant stone for surface courses at the present time.
- o The quarry operations will not impact the Boyds community to any noticable degree but truck hauling will.
- o Operation of a quarry in Boyds would create 80 additional jobs when opened and this figure would increase to 100 by the year 2000.

Charles W. Gilchrist
June 14, 1983
Page Four

- o The incidences of trucks traveling with school buses would be reduced by opening Boyds due to the greater number of school buses traveling the Hunting Hill Quarry truck route.
- o Savings to stone users, including the County, would be \$2 million increasing to \$4 million in 2000 if the quarry is opened in Boyds.

Summary

The issue is: should we impact more people to a lesser degree or continue to impact the same people to a greater degree while at the same time foregoing economic and safety benefits.

Recommendation

The Planning Commission's position that recognizes the existence of the diabase in Boyds and the possibility that at some future date the benefits of the quarry may outweigh the community impacts is not logical. The benefits exist now, they are economical and safety, and the impacts increase as the number of residences increase. If a quarry is to be approved at any time, it should be now. The Executive has three options: 1) say nothing; 2) support the Planning Commission's position; and 3) support the quarry. From a technical and planning point of view there is no reason not to support the quarry.

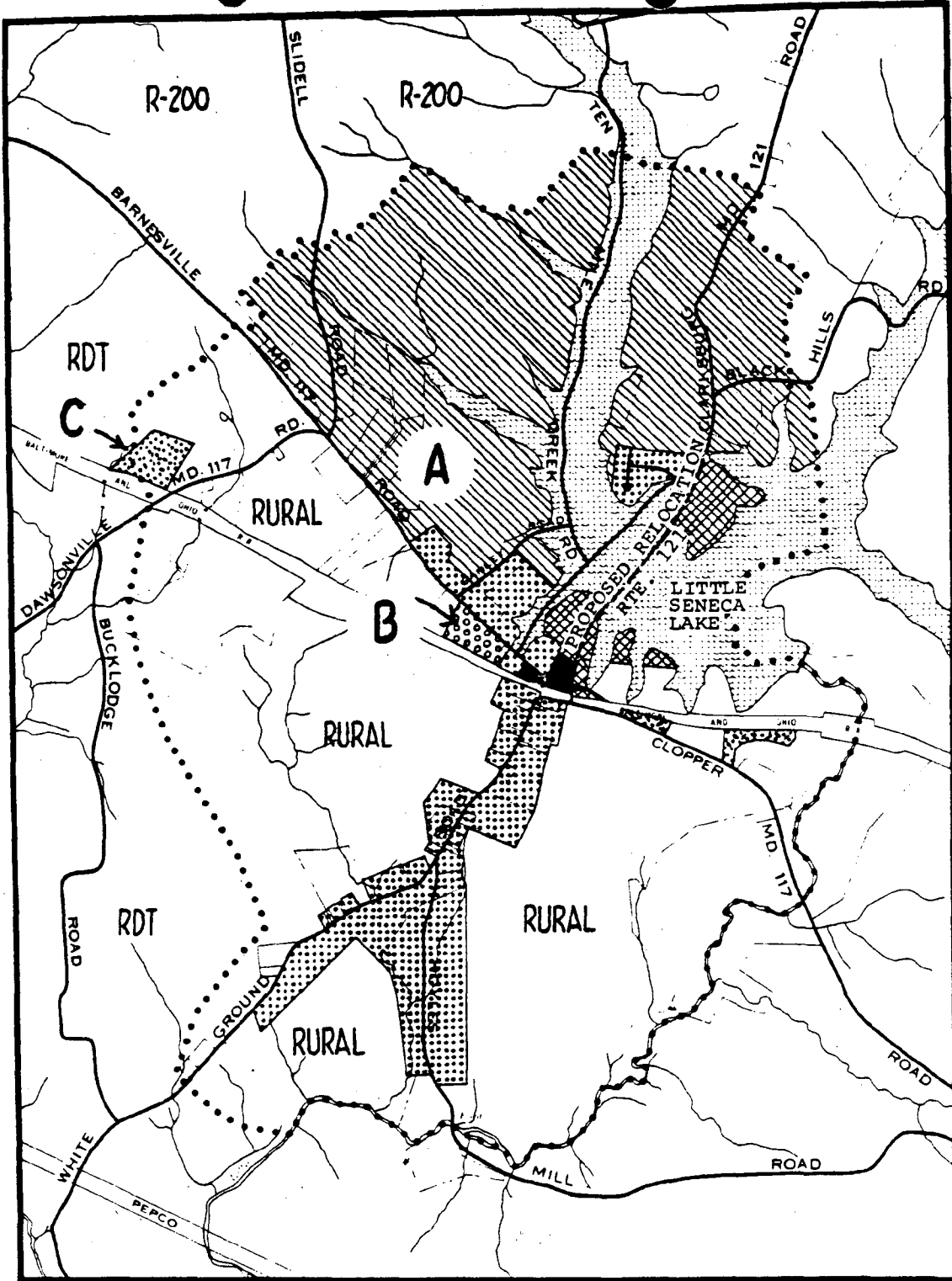
EJS:rk/1819A

To evaluate need, the Planning Board considered the benefits to the County and region from opening a quarry and weighed these benefits against the local impacts upon Boyds and Germantown. The following types of County and regional benefits were considered:

- Availability of a local source of stone would generally tend to decrease the price of stone due to lower haul costs;
- Unlike the serpentine at Travilah, diabase is asbestos free;
- The Boyds diabase deposit would provide a local source of stone for the ready mix concrete industry;
- There is presently no County source;
- Diabase is of a heavier and higher quality than serpentine;
- The Boyds diabase deposit meets skid-resistant standards for highways and would increase the state-wide supply of such stone (see Locations of Aggregate Sources map);
- Mining the diabase of Boyds would help reduce truck trips through Rockville from Travilah.

The Planning Board weighed these benefits against the following community impacts:

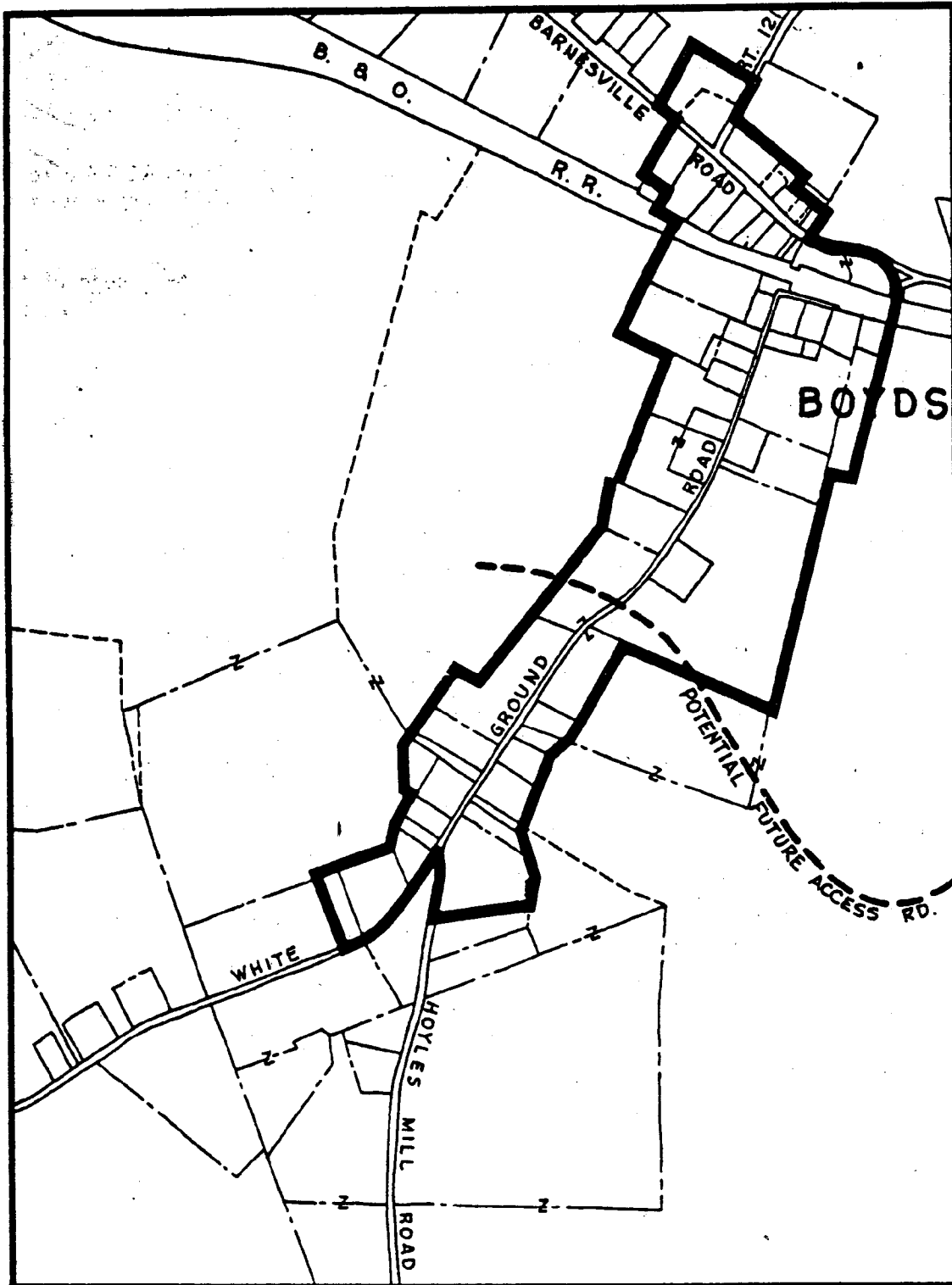
- The perceived and real impacts on the rural character of Boyds;
- Increased noise in Boyds due to the quarry operation;
- Increased noise at Taylor Learning Center and Boyds Day Care Center;
- Increased noise along the haul route;
- A change in the character of noise along the haul route from auto-dominated to truck-dominated during certain hours of the day;
- The combined effects of the quarry operation and Little Seneca Lake operation upon Germantown and Boyds;
- Potential safety issues;
- The potential pressure to process diabase nearby to reduce haul costs;
- The potential pressure to build roads in Germantown more quickly than the Germantown Master Plan recommends;
- The psychological effect of a quarry on the residents of Boyds; and
- The costs and problems of enforcement at a time when the technology and budget constraints make enforcement difficult.



RDT (RURAL DENSITY TRANSFER)	R-200 (ONE-FAMILY DETACHED, LARGE LOT)	NORTH
RURAL ZONE	T-S (TOWN SECTOR)	
RE-2 (RESIDENTIAL ESTATE, 2AC.)	C-1 (LOCAL COMMERCIAL)	
RE-1 (RESIDENTIAL ESTATE, 1AC.)	I-1 (LIGHT INDUSTRIAL)	

FINAL DRAFT
 AMENDMENT TO THE
BOYDS MASTER PLAN
 MONTGOMERY COUNTY, MARYLAND

**PROPOSED ZONING
 CHANGES**



PROPOSED NATIONAL REGISTER HISTORIC DISTRICT
 NOMINATED BY THE BOYDS/CLARKSBURG/GERMANTOWN HISTORICAL SOCIETY

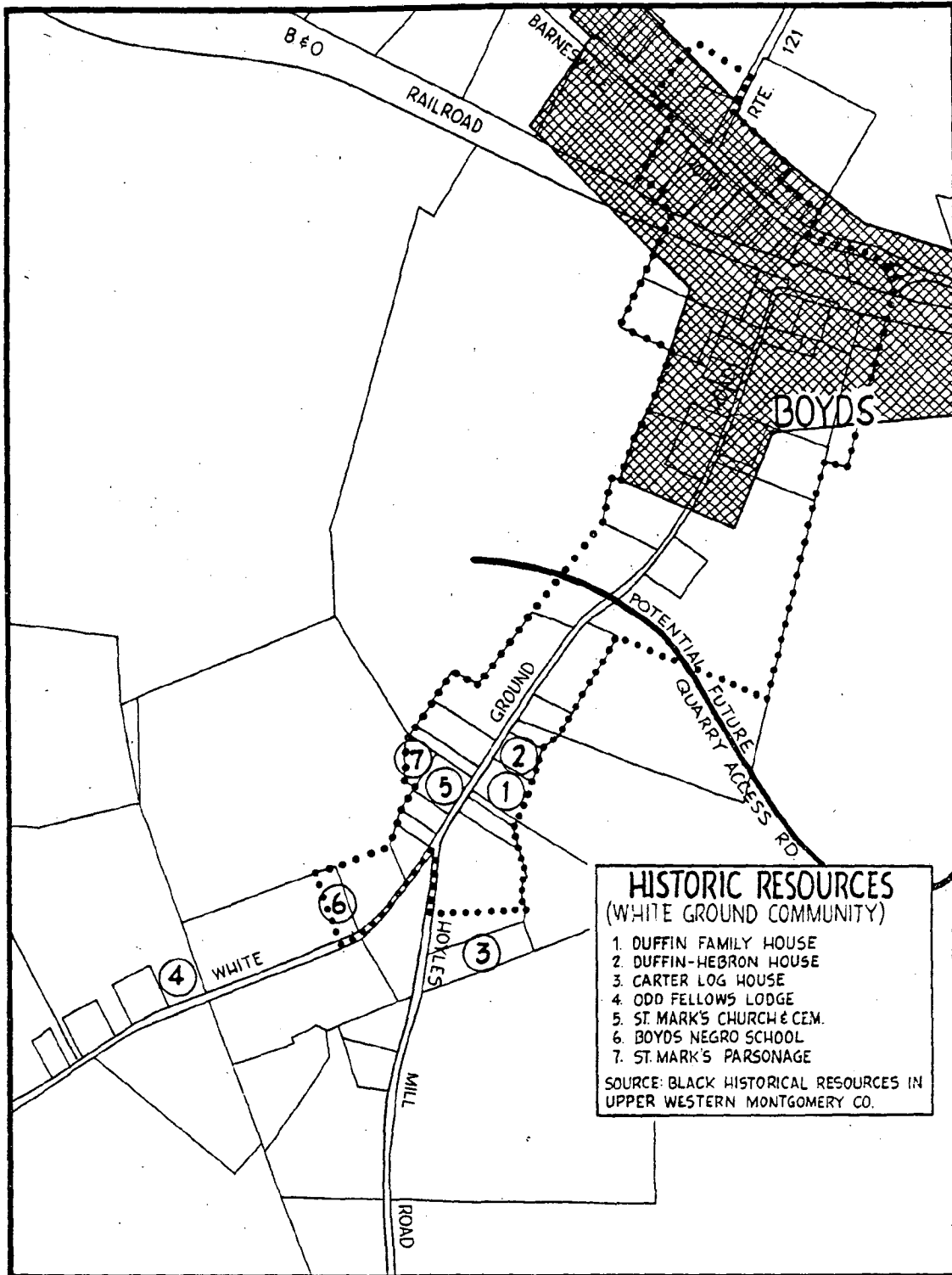


SOURCE: MARYLAND HISTORICAL TRUST



FINAL DRAFT
 AMENDMENT TO THE
BOYDS MASTER PLAN
 MONTGOMERY COUNTY, MARYLAND

3





- HISTORIC RESOURCES**
(WHITE GROUND COMMUNITY)
1. DUFFIN FAMILY HOUSE
 2. DUFFIN-HEBRON HOUSE
 3. CARTER LOG HOUSE
 4. ODD FELLOWS LODGE
 5. ST. MARK'S CHURCH & CEM.
 6. BOYDS NEGRO SCHOOL
 7. ST. MARK'S PARSONAGE
- SOURCE: BLACK HISTORIC RESOURCES IN UPPER WESTERN MONTGOMERY CO.

 BOYDS HISTORIC DISTRICT AS SHOWN IN LOCATIONAL ATLAS & INDEX OF HISTORIC SITES IN MONT. CO.
 PROPOSED NATIONAL REGISTER DISTRICT - NOMINATED BY THE BOYDS/ CLARKSBURG/GERMANTOWN HISTORICAL SOCIETY
 SOURCE: MARYLAND HISTORICAL TRUST



FINAL DRAFT
 AMENDMENT TO THE
BOYDS MASTER PLAN
 MONTGOMERY COUNTY, MARYLAND

HISTORIC RESOURCES MAP

