



March 08, 2022

Ellen Price, P.G.
Martin Marietta Materials, Inc.
3019 Riverwatch Parkway
Augusta, Georgia 30907

RE: Approval of Application to Modify a Mine Operating Permit
Issuance of Modified Mine Operating Permit I-000802
Orangeburg Quarry, Orangeburg County

Dear Mrs. Price:

The S.C. Department of Health and Environmental Control (DHEC) has approved the application to modify a mine operating permit for the Orangeburg Quarry as of March 08, 2022. The purpose of this modification is to add approximately 998.7ac to the mine permit.

With the receipt of the reclamation bond and the approval of the application, this letter serves as official notification that the Mine Operating Permit for the Orangeburg Quarry is being issued as of the date of this letter, to be effective in fifteen (15) calendar days. The permit document and approved maps are enclosed.

Should there be any questions or if we may be of further assistance, please do not hesitate to contact the project manager, Jeremy E. Eddy, at 803-898-7609 or by e-mail at eddyje@dhec.sc.gov. Mr. Eddy is also the regional mine inspector for this site.

Sincerely,

Joseph M. Koon, Section Manager
Division of Mining and Solid Waste Management

cc Jeremy E Eddy – BLWM
Harold Young, hyoung@orangeburgcounty.org – Orangeburg County



MINE OPERATING PERMIT

PART I:

Orangeburg Quarry Martin Marietta Materials, Inc.

Martin Marietta Materials, Inc., a corporation, has been granted a Mine Operating Permit, Mine Permit Number I-000802, to operate the Orangeburg Quarry in accordance with the S.C. Mining Act (S.C. Code Sections 48-20-10 *et seq.*, 1976) and Regulations 89-10 *et seq.* The operator shall conduct this operation as represented in documents submitted to support the issuance of this permit.

A handwritten signature in blue ink that reads "Joe Koon".

JOSEPH M. KOON, MANAGER
MINING AND RECLAMATION SECTION
DIVISION OF MINING AND SOLID WASTE MANAGEMENT

PERMIT NUMBER: I-000802
ORIGINALLY ISSUED: March 30, 1989
MODIFIED: March 8, 2022

In accordance with Section 48-20-60 of the South Carolina Mining Act, this Mine Operating Permit will remain valid unless it terminates as set forth in R.89-270 or is revoked in accordance with Section 48-20-160 and R.89-280. The anticipated mining completion date is shown on the *Schedule for Conservation and Reclamation Practices* in the *Reclamation Plan*.

The approved *Permit Application*, *Reclamation Plan*, and all supplemental information referenced herein, are an integral part of this permit. *Land Entry Agreements and Mine Maps* as identified in Part II and Part IV, respectively, are also a part of this permit.

I-000802

Martin Marietta Materials, Inc.

Home Office Address: Martin Marietta Materials, Inc.
3019 Riverwatch Parkway
Augusta, GA 30907

Local Office Address: Martin Marietta Materials, Inc.
950 County Line Road
Cross, S.C. 29436

Address for Official Mail: Same as Home Office Address

Company personnel and title to be the contact for official business and correspondence [South Carolina Department of Health and Environmental Control (DHEC) should be notified in writing immediately of any change in contact, address, telephone or fax numbers]:

Ellen Price, P.G.	Telephone: 706-691-8785
Manager, Environmental Engineering	Email: Ellen.price@martinmarietta.com

LOCATION: The mine is located on the Sandridge and Cross, SC U.S.G.S. 7.5' Topographic Maps. The approximate geographic coordinates for the site are:

Latitude: 33.3491 Longitude: -80.2642

DESCRIBE LOCATION: The operation is located in Orangeburg County, approximately 5.5 mile(s) southeast of Eutawville, S.C. Specifically, the site is located 2.25 miles south of the intersection of Hwy 6 and Hwy S-8-59 (County Line Road).

Part II: MINE OPERATIONS

Martin Marietta Materials, Inc., also referred to as the operator, is permitted to mine limestone at the Orangeburg Quarry. The maximum depth to the pit floor will be 85 feet below ground surface (to an approximate elevation of ± 0 feet mean sea level) measured from the lowest ground surface elevation. Mining will take place on tracts of land leased by the referenced operator. These tracts of land are identified in the submitted *Land Entry Agreements* (LEAs).

MINE/PIT CHARACTERIZATION:

The limestone will be excavated, processed, and stockpiled on site. Ground clearing will be accomplished by heavy equipment (e.g., backhoe, excavator, bulldozer). Removed overburden will be backfilled in previously mined out pits. The exposed limestone will be drilled, explosives loaded, and blasted to fragment stone into manageable sizes to facilitate loading in the dredge and crushing by the primary crusher. Stone passing through the primary crusher will be transported to the processing plant by conveyor belt for further processing.

PROCESSING PLANT LOCATED ON MINE SITE:

The processing plant will consist of primary and secondary crushers, screens, conveyors, and loading and hauling machines. Waste screenings and other fines from crushing, washing, and screening the crushed stone will be stockpiled around the plant site or placed in previously mined out pits.

MINE DEWATERING:

Historically, mine dewatering was utilized to lower groundwater approximately forty-five feet below the top of limestone when excavating Pits 1, 2, 3, and 4. Groundwater was collected in a sump and pumped from the quarry to a recharge/settling basin outside the pit. As each pit was completed, it was allowed to fill with groundwater. As mining progressed toward the southern property line (Pit 4), a 19.6 acre recharge trench was constructed. The recharge system consisted of a 125 foot wide mined slot. This slot was mined wet (i.e. water levels were not lowered below the top of the limestone). This slot received runoff and discharge water from the quarry to maintain groundwater elevations above the top of the limestone along the southern property line.

Currently, and for all future mining operations, wet mining will be implemented along Land Use Areas 1 and 2, as designated in the mine map. These areas will be opened as one large open water pit. Overburden will be removed to expose the top of the limestone deposit. If necessary, groundwater will be pumped to expose the top of limestone; but the limestone will be mined wet. Groundwater may also be pumped during periods of significant rainfall. Groundwater discharge may be routed into previously mined pits or the recharge system to help maintain groundwater elevations at the property line at or above the overburden/limestone interface. Additionally, where feasible, stormwater runoff shall be diverted into the pits, collected, and discharged in the same manner as groundwater. Water discharged from the quarry to a receiving stream must be discharged through an outfall regulated by NPDES permits.

If an operator receives a complaint concerning adverse impacts to neighboring wells, the operator is to notify DHEC's Manager of the Mining and Reclamation Section, Columbia, SC, within 48 hours. After investigation, if DHEC determines dewatering activities at the mine are affecting a drinking water well or water supply well, the operator shall be responsible for repairing, deepening, or re-drilling such wells. Until that permanent water supply is re-established, the operator shall supply the owner with a temporary water supply (e.g., bottled water for drinking, provisions for laundry).

Active pumping and discharge of water shall cease if the dewatering discharge causes flooding conditions to property downstream of the mine site.

See Part X: *Additional Terms and Conditions #5 and #6.*

BLASTING:

Blasting is permitted at this site. Blasting activities shall be conducted in accordance with R.89-150.

Pursuant to R.89-150A., the operator shall conduct a pre-blast survey on inhabited structures within the new one-half mile arc created by the expansion of the blasting limit in Mod 18-2, prior to the commencement of any blasting activities in this area. The survey shall be completed by a third-party consultant and a copy of the report sent to DHEC, the operator, and the landowner. Upon review and approval, DHEC will then grant permission to begin blasting activities.

Pursuant to R.89-150J., the operator shall report any suspected incident of flyrock outside of the permitted area resulting from blasting operations. Pursuant to R.89-150E., the operator shall report if the peak particle velocity exceeds one (1.0) inch per second at the immediate location of any dwelling not owned by the operator (or where a waiver of damage has been submitted to DHEC). These incidents shall be reported to DHEC within 24 hours of the blast, and a written report shall be submitted to DHEC within five (5) business days.

Pursuant to R.89-150H., the operator shall maintain a minimum distance of 250 feet from contiguous property boundaries when conducting blasting. Additionally, pursuant to R.89-150I., the operator shall maintain a minimum distance as shown on the approved mine map between the nearest point of blasting and any structures not owned by the operator (at the time of the completed application date) or where a waiver of damage has been submitted to DHEC.

See Part X: *Additional Terms and Conditions #7.*

SIGNIFICANT CULTURAL OR HISTORICAL SITES:

Two reports, *Cultural Resources Reconnaissance Survey of Approximately 500 acres Near the Martin Marietta Quarry, Orangeburg County, South Carolina*, dated June 01, 2004, and *Archaeological and Historic Resources Survey, Orangeburg Quarry-Walworth Tract Cross, Orangeburg County, South Carolina* were reviewed by the State Historic Preservation Office. Several archaeological sites were identified in the latter report potentially eligible for listing in the National Register of Historic Places (NHRP); all of these sites are located outside the permit boundary. No significant cultural or historical sites have been identified within the permitted boundary. See Part X: *Additional Terms and Conditions #1* of this Mine Operating Permit.

One cemetery, Walworth Cemetery, was recorded in the survey. While it was not eligible for inclusion in the NRHP, it is protected by state law. This cemetery is located outside the permit boundary, protected by a 5,000ft buffer from any approved excavation or blasting activities.

VISUAL SCREEN:

To appropriately screen the operation from view, the operator shall maintain a minimum 100ft. undisturbed buffer between mining activity and all property lines. Additionally, the operator shall maintain a minimum 250ft. Red-Cockaded Woodpecker Habitat Buffer, as shown on the mine map. Habitat maintenance (e.g., thinning trees, removing brush) may be conducted in accordance with recommendations from U.S. Fish and Wildlife and S.C. Department of Natural Resources.

NOISE MONITORING AND CONTROL: The operator shall use Best Management Practices (BMPs) to minimize noise from the mine site. These noise BMPs shall include, at a minimum, proper maintenance of mufflers on equipment (trucks, trackhoes, pumps, etc.) and consideration of special buffering measures if planning to operate equipment during nighttime hours.

OTHER STATE OR FEDERAL PERMITS: The operator must obtain, maintain, and update, as appropriate, all necessary State and Federal permits in order to construct and operate the mine.

LAND ENTRY AGREEMENTS: The operator is required to furnish and maintain up-to-date *Land Entry Agreements* on all lands covered under this permit. Any change in ownership on any portion of land covered by this permit, the operator is responsible for furnishing the appropriate and completed *Land Entry Agreements* (Forms MR-600 or MR-700) to DHEC within 30 days of the change of ownership.

Land Owner(s) as Listed on *Land Entry Agreement(s)*:

Martin Marietta Material Real Estate, TMS #: 0363-00-02-007.000, 0363-00-02-015.000
0369-00-01-001.000, 0370-00-00-051.000
0377-00-00-020.000, 0377-00-00-021.000
0370-00-00-001.000 (a portion of)

Total acres of the contiguous tract(s) of land for which the permit is granted:

OWNED 0.0 LEASED 2,120.9 TOTAL 2,120.9

Part III: PERMITTED LAND

This permit allows the operator to conduct mining operations within the permitted land as defined through the *Land Entry Agreement* submitted as part of the application. Permitted land as defined by Section 48-20-40(18) is "the affected land in addition to (a) lands identified for future mining to become affected land; (b) and undisturbed or buffer area that is or may become adjacent to the affected land." Therefore, this permit grants the operator the right to conduct active mining operations within the specified affected land, delineate land for future mine areas as future reserves, and to establish undisturbed buffer zones to mitigate any adverse effects to the surrounding environment.

AFFECTED LAND: 1,802.4 acres of land are to be affected by Martin Marietta Materials, Inc. under the current mine plan; 1,802.4 of the affected acres are currently bonded. The affected acres are derived from the operator's response in the *Application for a Mine Operating Permit* and are shown on the approved mine map(s).

FUTURE RESERVES: 91.4 acres are identified as future reserves and are specified on the mine site map. Prior to the initiation of activity in future reserves, the operator shall submit detailed mine and reclamation plans to DHEC for approval.

BUFFER AREAS: 227.1 acres are identified as buffer area, setbacks, or areas that will not be disturbed beyond the pre-mine natural state. These buffer areas are identified on the mine site map. Acres designated as buffer areas are not bonded under the reclamation bond. Any activity within the buffer areas (e.g. removal of timber) shall require **prior** notification and approval by DHEC (see *Visual Screen* section above).

TOTAL PERMITTED AREA: 2,120.9 acres as submitted on the *Land Entry Agreement(s)*.

Part IV: MAPS

The mine site maps were prepared by Martin Marietta Materials, Inc. These maps are further identified with the following SCDHEC map numbers and are part of the operating permit:

SM-0802-1V5	Land Use Plan	Dated: September 28, 2020
SM-0802-2V5	Mining Plan	Dated: September 28, 2020

The reclamation maps were prepared by Martin Marietta Materials, Inc. These maps are further identified with the following SCDHEC map numbers and are part of the operating permit.

RM-0802-1V4	Reclamation Plan	Dated: September 28, 2020
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Part V: RECLAMATION BOND

The Reclamation Bond is based upon the total affected acres. Pursuant to Section 48-20-70 and R.89-200, the reclamation bond for this mining permit is set at \$2,240,700.00. The reclamation bond shall remain in force and continuous throughout the life of the mining operation and shall only be released, partially or in full, back to the operator after the operator has completed reclamation in accordance with the approved *Reclamation Plan* and the minimum standards in R.89-330.

Part VI: PROTECTION OF NATURAL RESOURCES

1. Describe the area of and around the mine site. Specify topography, surface water systems, wildlife habitats, residential houses, commercial properties, recreational areas, and/or public roads.

Prior to mining activities, this site's land use type was undeveloped and agricultural; the immediate area around this site is mostly undeveloped and agricultural with some residences to the south and northeast; Berkeley Quarry (I-000098) lies to east. The topography of this area is slightly variable (i.e., mostly flat), with surface elevation ranging from 85 - 90 ft. MSL. Onsite surface drainage enters Eightfoot Ditch and flows west; isolated, non-jurisdictional wetlands are scattered across the west side of the property. Common wildlife typical to this area can be found in and around this site; the red-cockaded woodpecker is a threatened or endangered species believed to inhabit this area. Please see Part X: *Additional Terms and Conditions #8* for additional information related to the protection of this species.

2. Methods used to prevent physical hazards to persons and to any neighboring dwelling, house, school, church, hospital, commercial or industrial building, or public road.

A gate shall be installed at the entrance to the mine site and kept locked during inactive periods. *Warning* and/or *Danger* signs shall be posted around the perimeter of the property.

Operator shall use BMPs to prevent accumulation of sediment/soil on public roads carried by trucks and other vehicles exiting the mine site; any accumulations shall be removed by the operator on a daily basis or more frequently if needed. To reduce the potential of trackout on public roads, the operator shall construct a paved road that extends the width of the haul road and stretches a minimum of one hundred (100) feet in length.

The operator shall establish a protected area or establish procedures to minimize fuel spillage or incidental spillage of other petroleum products during storage, refueling of equipment or in the performance of routine maintenance on equipment. Contaminated materials resulting from contact with petroleum products shall be removed from the site and disposed of properly to prevent contamination to ground and surface water resources.

3. Methods used to prevent an adverse effect on the purposes of a publicly owned park, forest, or recreation area.

There are no publicly owned parks, forests, or recreation areas near this mine site.

4. Measures taken to insure against substantial deposits of sediment in stream beds or lakes.

The operator shall comply with the NPDES General Permit for Non-metallic Mineral Mining and Stormwater Pollution Prevention plan developed for the mine.

5. Measures taken to insure against landslides or unstable mine walls.

To maintain stable mine walls, the unconsolidated saprolite shall be sloped to a stable configuration no steeper than 2H:1V during active mining. Per the Mine Safety Health Administration (MSHA) requirements, the hard rock pit walls shall be benched to maintain stability and provide safety. For final reclamation, unconsolidated material shall be sloped no steeper than 3H:1V and vegetated.

6. Measures taken to insure against acid water generation at the mine site that may result in pollution on adjacent property.

Acid water is not anticipated to be generated from the oxidation of existing minerals currently found on this site.

7. Measures taken to minimize or eliminate fugitive dust emissions from the permitted area.

The mine operator will use appropriate measures (e.g. water truck, dust suppressants) to control fugitive dust created by moving equipment along haul roads. The operator, where feasible, shall establish vegetation in non-active mine areas barren of vegetation to stabilize the soil and reduce potential for wind erosion and dust emissions.

Part VII: STANDARD CONDITIONS OF MINE OPERATING PERMIT

1) SURVEY MONUMENTS: In accordance to R.89-130, the operator shall install and maintain the two required permanent survey monuments, or control points, within the permitted area as shown on the mine site map. At the discretion of DHEC, the operator may be required to mark the area to be affected with flagging or other appropriate measures.

2) RIGHT OF ENTRY: Pursuant to Section 48-20-130 and R.89-240, the operator shall grant DHEC and/or duly appointed representatives access to the permitted area for inspection to determine whether the operator has complied with the reclamation plan, the requirements of this chapter, rules and regulations promulgated hereunder, and any terms and conditions of this permit.

3) RECORDS RETENTION: All records are to be maintained through additional terms and conditions of this permit or by regulations. Records shall be kept on site or at the office identified for receipt of official mail and open for inspection during normal business hours. The records shall be maintained for a minimum of three (3) years or as specified by DHEC. The operator shall furnish copies of the records upon request to DHEC.

4) PERMIT MODIFICATIONS: Pursuant to Section 48-20-80, the operator may modify the permit and/or *Reclamation Plan* upon approval by DHEC. Requests for permit and/or *Reclamation Plan* modifications may be made to DHEC on Form MR-1300. The operator shall submit any requested supporting data for consideration during DHEC's evaluation of the modification request. If a modification request is determined to be substantial by DHEC, the modification request will be public noticed pursuant to R.89-100 and a modification fee will be required as specified in R.89-340. If DHEC determines activities proposed under the *Reclamation Plan* and other terms and conditions of the permit are failing to achieve the purpose and requirements of the S.C. Mining Act and Regulations, DHEC shall notify the operator of its intentions to modify the permit and/or *Reclamation Plan* pursuant to Section 48-20-150.

5) TRANSFER OF PERMIT: Pursuant to Section 48-20-70, this permit may be transferred to another responsible party. The transfer of the permit must be conducted in accordance with R.89-230. The transferor of the permit will remain liable for all reclamation obligations until all required documents, plans, and the replacement reclamation bond have been submitted and approved by DHEC. The transfer will be considered complete when all parties have received notification by certified letters of the approval of the transfer by DHEC.

6) DURATION OF MINE OPERATING PERMIT: In accordance with Section 48-20-60, this Mine Operating Permit will remain valid unless this permit terminates as set forth in R.89-270 or is revoked in accordance with Section 48-20-160 and R.89-280. The proposed anticipated mining completion date is shown on the *Schedule for Conservation and Reclamation Practices* in the *Reclamation Plan*.

Pursuant to R.89-80(B), the operator shall conduct reclamation simultaneously with mining whenever feasible. Reclamation shall be initiated at the earliest practicable time, but no later than 180 days following termination of mining of any segment of the mine, and shall be completed within two years after completion or termination of mining on any segment of the mine.

Part VIII: ENFORCEMENT ACTIONS

Pursuant to Section 48-20-30 of the S.C. Mining Act, "DHEC has ultimate authority, subject to the appeal provisions of this chapter, over all mining, as defined in this chapter, and the provisions of the chapter regulating and controlling such activity." This allows DHEC to assist, cooperate with, or supersede other State agencies in

taking enforcement action on violations of the State Regulations or violations of the S.C. Mining Act to ensure the purposes of this Act are enforced.

COMPLIANCE: The operator shall comply at all times with all conditions of this mine operating permit. Non-compliance with this mining permit, statute, or regulations could lead to permit revocation and bond forfeiture pursuant to Sections 48-20-160 and 48-20-170 or other enforcement action allowed by law.

Compliance with the Mine Operating Permit requires the operator to conduct the mining operation as described in the approved *Application for a Mine Operating Permit*. Variance from the *Application for a Mine Operating Permit*, this permit, statute or regulation, without first receiving DHEC approval, shall be deemed non-compliance with the permit.

An operator or official representative of the mine operator who willfully violates the provisions of the S.C. Mining Act, rules and regulations, or willfully misrepresents any fact in any action taken pursuant to this chapter or willfully gives false information in any application or report required by this chapter shall be deemed guilty of a misdemeanor and, upon conviction, shall be fined not less than one hundred dollars nor more than one thousand dollars for each offense. Each day of continued violation after written notification shall be considered a separate offense.

The operator is responsible for all mining activity on the permitted mine site.

Part IX: REPORTS

1) ANNUAL RECLAMATION REPORTS: The operator shall comply with Section 48-20-120 and Regulation 89-210 and submit an *Annual Reclamation Report* on Form MR-1100 as supplied by DHEC. The form for the report will be sent by regular mail to the operator to the mailing address shown on the previous year's *Annual Reclamation Report*. The operator should receive the report form from DHEC by July 1 of each year; however, the operator is ultimately responsible for obtaining the *Annual Reclamation Report* form and is not excused from penalty fees for failure to submit the report on time.

The Annual Operating Fee is a part of the *Annual Reclamation Report*. Failure to submit a complete *Annual Reclamation Report* and fee, in accordance with Section 48-20-120 and R.89-340, will result in a late penalty payment. The *Annual Reclamation Report* and Annual Operating Fee are required if there is any permitted land not fully reclaimed and released by DHEC by June 30 of each year.

2) SPECIAL REPORTS: DHEC may at any time request information, data, or explanations from the operator as to conditions relating to the permitted mine site. Such requests from DHEC shall be made in writing to the operator with an appropriate time frame stated for the submittal of the requested information to DHEC. The operator must produce the information requested within the timeframe specified by DHEC.

Part X: ADDITIONAL TERMS AND CONDITIONS

1. If archaeological materials are encountered prior to or during the construction of mine facilities or during mining, the S.C. Department of Archives and History and DHEC should be notified immediately. Archaeological materials consist of any items, fifty years or older, which were made or used by humans. These items include, but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, oyster shell, worked wood, bone and stone, metal and glass objects, human skeletal remains, and concentrations of charcoal and stones below the ground surface. These materials may be present on the ground surface and/or under the surface of the ground.

2. Temporary or permanent placement of refuse and debris (e.g., concrete, brick, asphalt) from off-site locations is prohibited without approval by DHEC. Topsoil fill approved by DHEC may be brought in from off-site sources only for the purposes of mine land reclamation.

3. In the future, if determined to be necessary by DHEC, an appropriate fence will be installed around the affected area.
4. A revised mine map, reclamation map, and reclamation schedule must be submitted and approved by DHEC prior to initiating any mining activity in Future Reserves.
5. Seventeen (17) groundwater monitoring wells are operational as of the approval of Mod 18-2, as delineated on the mine map. If, in the future, DHEC determines additional monitoring wells should be installed, the operator shall comply with DHEC's request.

The monitoring wells shall be installed by a certified well driller in accordance with R.61-71: *Well Standards and Regulations*. The surveyed elevation of the measuring point, relative to an established benchmark, must be submitted with the driller/geologist's log for each well.

Groundwater monitoring wells shall be measured monthly. Groundwater elevations shall be normalized to mean sea level, and hydrographs plotted for each monitoring well. This data shall be submitted quarterly to the Division of Mining and Solid Waste Management by the 28th of the first month of the next quarter. The report should include a record of daily precipitation measurements, with monthly rainfall totals.

6. Unless a waiver by adjacent landowner(s) is obtained, the operator shall maintain groundwater elevations at the property line at or above the top of the upper-strata of limestone. The monitoring wells listed in the following table are to be used to determine compliance with this term & condition. The compliance elevations of any additional wells, as required by DHEC, shall be established by a professional geologist via geologist logs and geophysical logs.

Well Number	Compliance Elevation (ft MSL)
LW-04	57.90
LW-06	61.76
LW-10	63.57
LW-11	68.29
OB-05	68.30
OB-06	69.10

7. Prior to blasting in the area added in Mod 18-2, the operator shall conduct a pre-blast survey on any structure within the new half-mile arc that was not afforded the opportunity during previous pre-blast surveys.
8. The protection and management of the Red-Cockaded Woodpecker habitat, as shown on the mine map, shall be done in coordination with the U.S. Fish and Wildlife Service and S.C. Department of Natural Resources.

APPENDIX A

MODIFICATIONS TO MINE PERMIT I-000802

NUMBER	APPROVAL DATE	DESCRIPTION OF MODIFICATION (PA= Permitted Acreage; AA= Affected Acreage; FR= Reserves Acreage, B= Buffer Acreage)
Issued	3/30/89	Permit issued to Southern Aggregates Co.; PA= 258 ac., AA=175.0 ac.
89-1	5/22/89	Transfer ~25 ac from recharge trench to pit
90-1	1/23/90	Increase buffer by 348.9 ac
92-1	7/17/92	Transfer 348.9 ac from buffer to AA
92-2	7/17/92	Conversion to Life-of-Mine
Transfer	11/28/95	Transfer permit from Southern Aggregates Co. to Martin Marietta, Inc.
04-1	9/23/11	Increase PA by 465.1 ac; PA = 1073.3 ac, AA = 370.3 ac, FR = 575.6 ac; B = 127.4 ac
07-1	9/23/11	Reduction in the blasting setbacks along property lines and implementation of wet mining operation.
12-1	8/27/13	Incr PA by 30.6 ac, adjust acreages based on Mod 12-1 maps; PA= 1103.9 ac, AA-603.7 ac, FR= 403.7 ac; B= 96.5 ac
18-1	1/16/18	PA = 1,103.9ac; AA = 623.7ac; FR = 403.7ac; B = 76.5ac Reallocated 20ac from B to AA since operator owns adjacent land.
19-1	6/4/19	PA = 1,108.6ac; AA = 628.4ac; FR = 403.7ac; B = 76.5ac Added 4.7ac to PA and AA to allow on-going operations pending Mod 18-2
21-1	1/26/21	PA = 1,122.2ac; AA = 642.0ac; FR = 403.7ac; B = 76.5ac Added 13.6ac to PA and AA to allow on-going operations pending Mod 18-2
18-2	3/08/22	PA = 2,120.9ac; AA = 1,802.4ac, FR = 91.4ac, B = 227.1ac Added 998.7ac to permit area; red-cockaded woodpecker habitat established.

Land Use Legend		
1	Active Permitted Pit	458.4 Acres
2	Proposed Pit Expansion	791.6 Acres
3	Berms	27.5 Acres
4	Plant & Stockpile Area	109.5 Acres
5	Office & Entrance Area	9.3 Acres
6	Shop, Equipment Storage & Parking Area	20.9 Acres
7	Mined Out Areas	385.2 Acres
	Total Affected Area	1802.4 Acres
8	Buffer	227.1 Acres
9	Future Reserves	91.4 Acres
	Total Permitted Area	2120.9 Acres

MAP LEGEND	
PROPERTY LINE	
PERMIT BOUNDARY	
2013 PERMIT BOUNDARY	
LAND USE BOUNDARY	
LIMIT OF BLASTING	
BUFFER	
UNPERMITTED MMM PROPERTY	
NON-JURISDICTIONAL WETLANDS	
ARCHEOLOGICAL SITES	
GROUNDWATER MONITORING WELL	
SILT FENCE	
INDEX CONTOUR	
INTERMEDIATE CONTOUR	
LAND USE AREA #	
RCW CAVITY TREE	

APPROVED BY
SOUTH CAROLINA DEPARTMENT OF HEALTH
AND ENVIRONMENTAL CONTROL
DIVISION OF MINING & SOLID WASTE MGT

BY: *Joe Horn*
TITLE: SM-0802-1V5
DATE APPROVED: March 08, 2022
PERMIT NUMBER: L-000802

Property lines are from property survey prepared by Ashley Land Surveying, Inc. dated 04/10/2017
Aerial Photographs taken 2013 & 2018

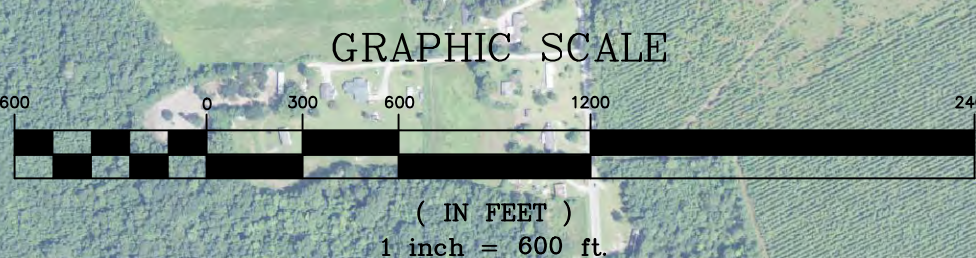
NORTH
COPYRIGHT 2017 BY MARTIN MARIETTA MATERIALS, INC. ALL RIGHTS RESERVED.



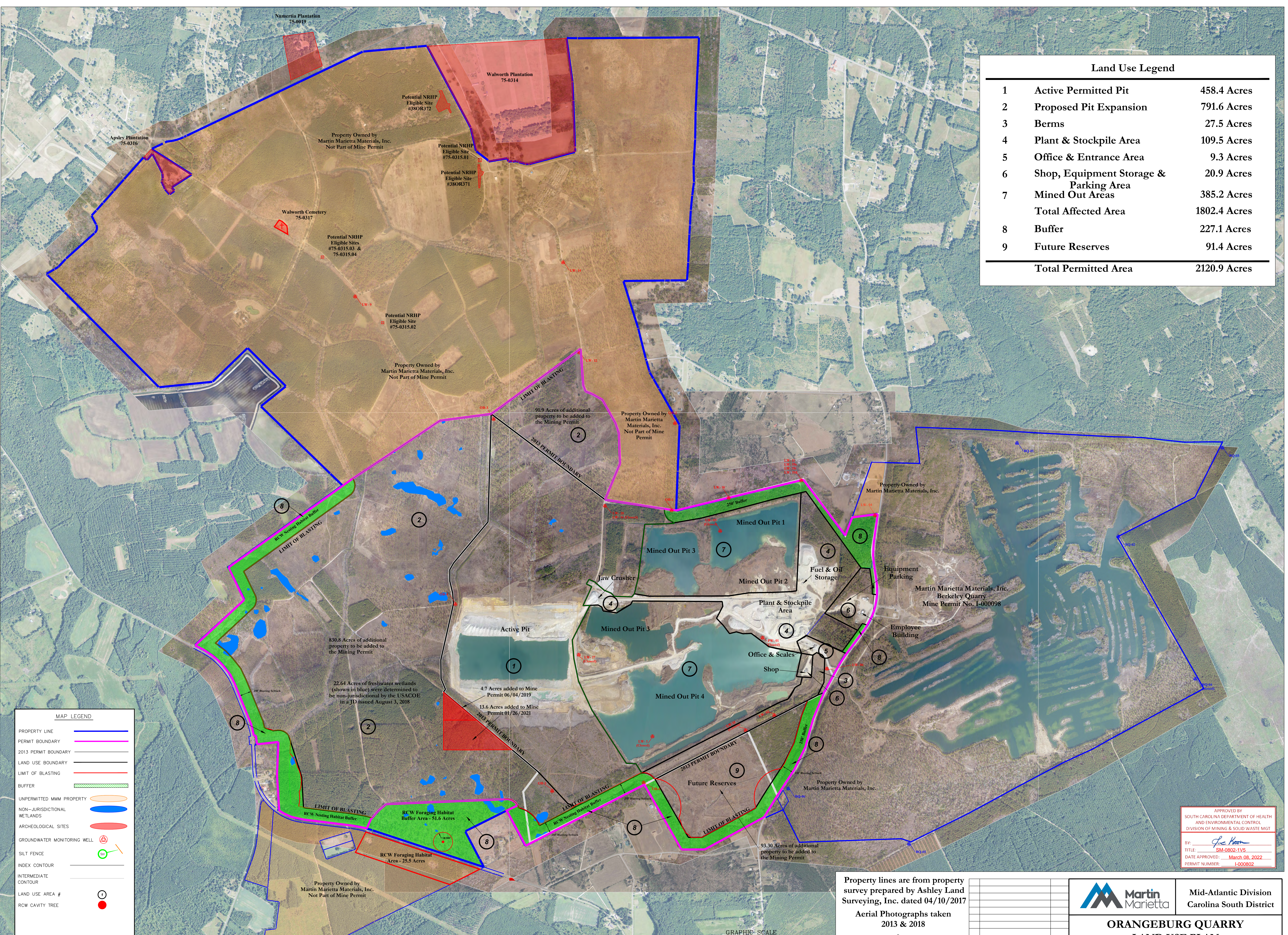
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Carolina South District

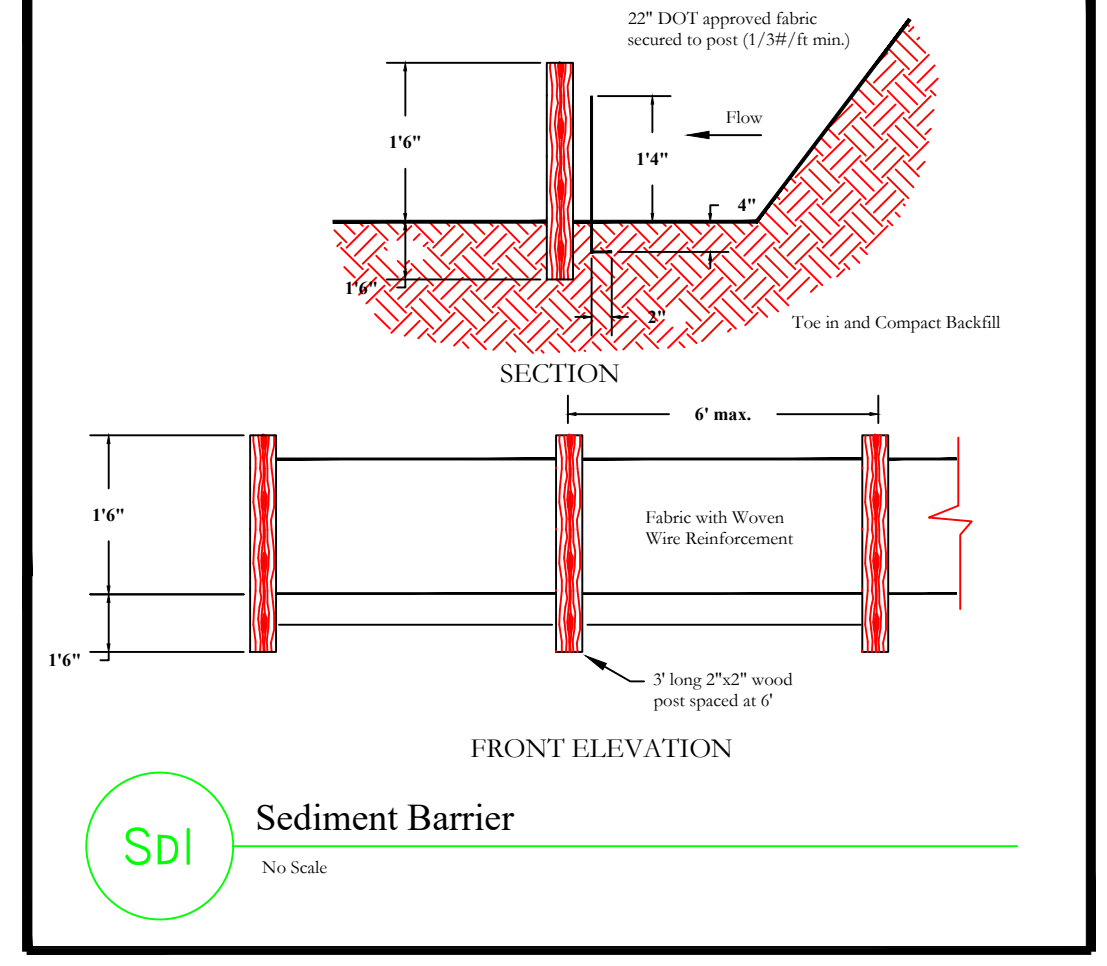
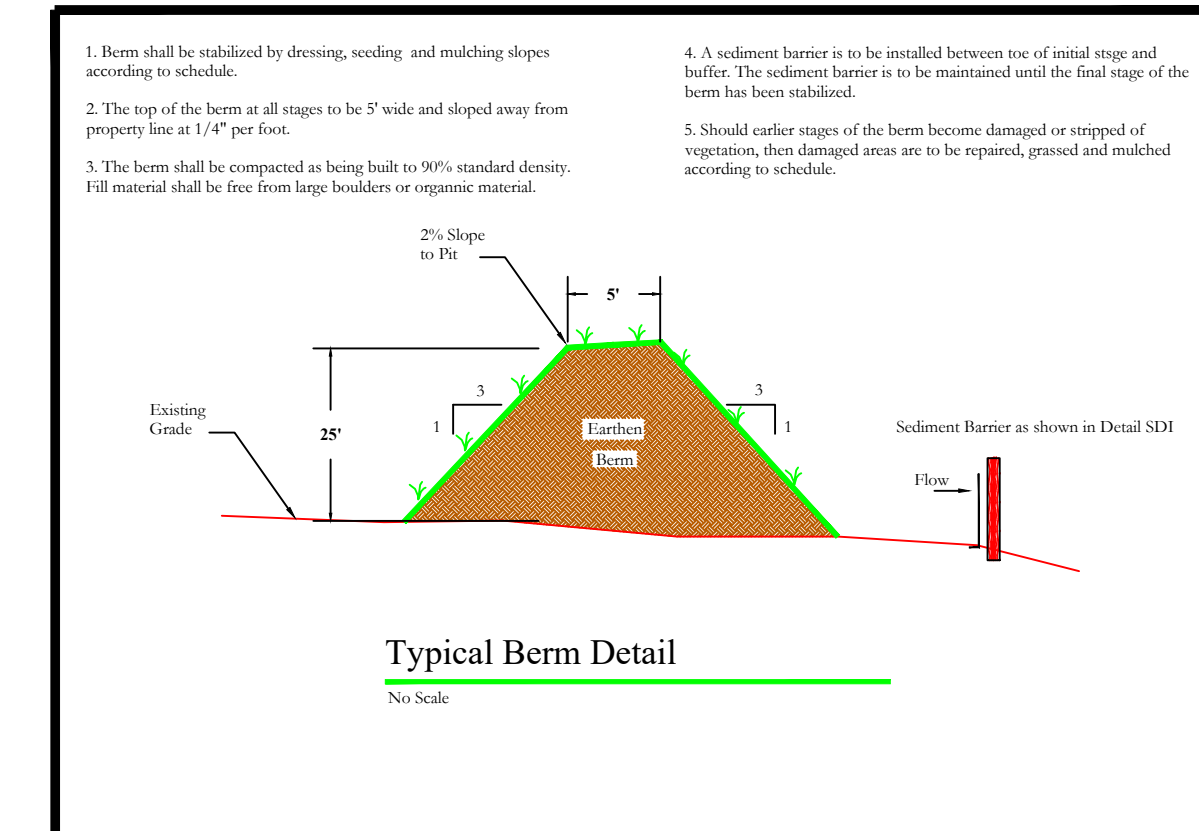
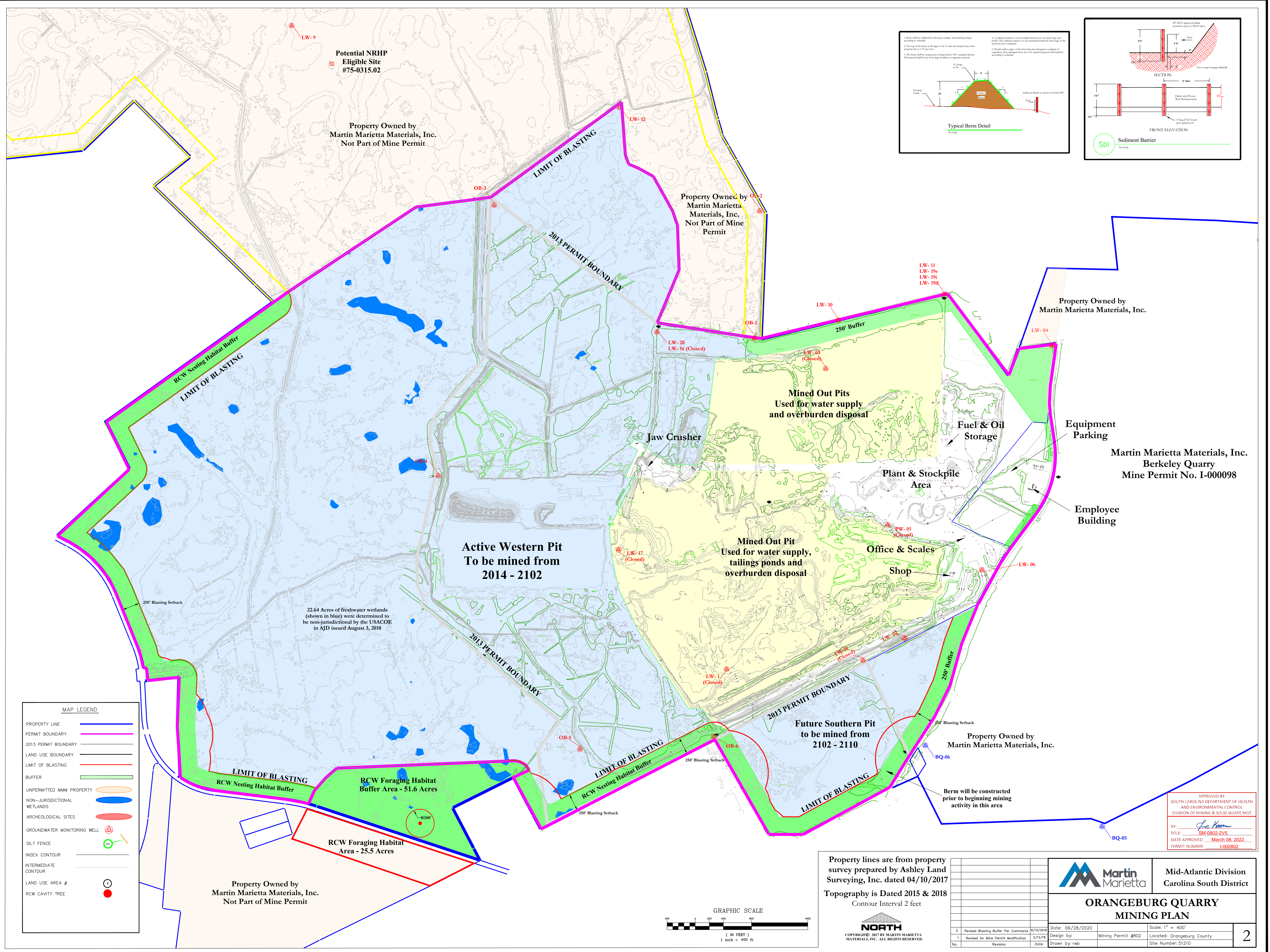
**ORANGEBURG QUARRY
LAND USE PLAN**

Date: 09/28/2020
Design by: Mining Permit #802
Drawn by: rwb
Scale: 1" = 600'
Located: Orangeburg County
Site Number: S1210



Buffer area will be managed by a forestry company



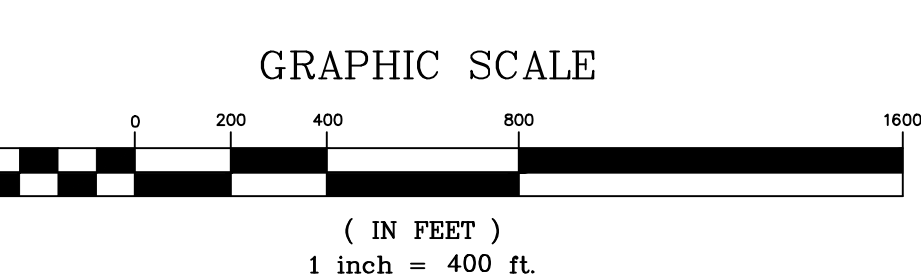


MAP LEGEND

- PROPERTY LINE
- PERMIT BOUNDARY
- 2013 PERMIT BOUNDARY
- LAND USE BOUNDARY
- LIMIT OF BLASTING
- BUFFER
- UNPERMITTED MMM PROPERTY
- NON-JURISDICTIONAL WETLANDS
- ARCHEOLOGICAL SITES
- GROUNDWATER MONITORING WELL
- SILT FENCE
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- LAND USE AREA #
- RCW CAVITY TREE

22.64 Acres of freshwater wetlands (shown in blue) were determined to be non-jurisdictional by the USACOE in AJD issued August 3, 2018

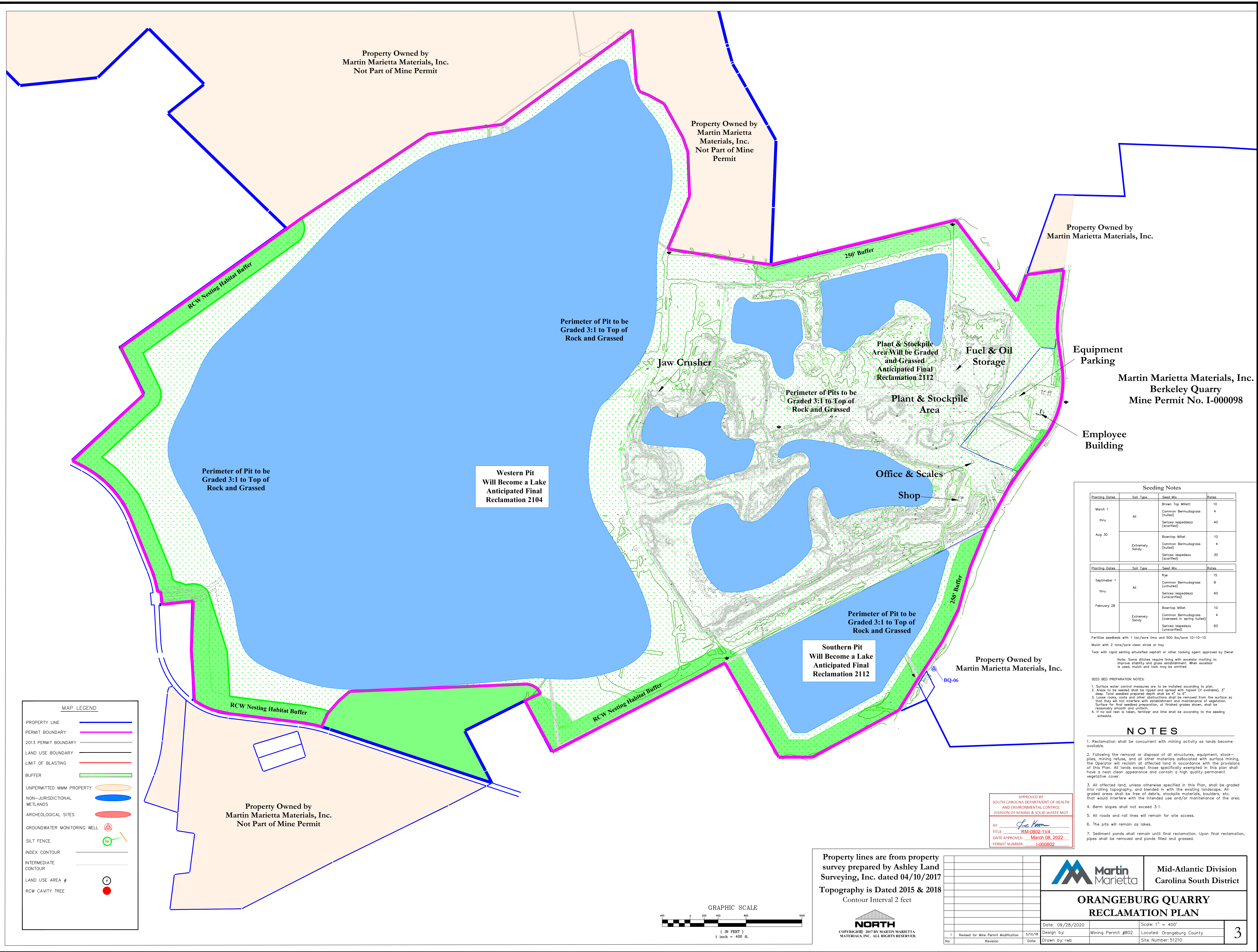
Property Owned by Martin Marietta Materials, Inc. Not Part of Mine Permit



Property lines are from property survey prepared by Ashley Land Surveying, Inc. dated 04/10/2017
 Topography is Dated 2015 & 2018
 Contour Interval 2 feet



		Mid-Atlantic Division Carolina South District	
ORANGEBURG QUARRY MINING PLAN			
2 Revised Blasting Buffer Per Comments 1 Revised for Mine Permit Modification	8/15/2018 2/12/18	Date: 09/28/2020 Design by: Mining Permit #802 Drawn by: rwb	Scale: 1" = 400' Located: Orangeburg County Site Number: 51210
APPROVED BY: <i>[Signature]</i> SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL DIVISION OF MINING & SOLID WASTE MGT. TITLE: SM-0802-2V5 DATE APPROVED: March 08, 2022 PERMIT NUMBER: 1-000802			2



Property Owned by Martin Marietta Materials, Inc. Not Part of Mine Permit

Property Owned by Martin Marietta Materials, Inc. Not Part of Mine Permit

Property Owned by Martin Marietta Materials, Inc.

Martin Marietta Materials, Inc. Berkeley Quarry Mine Permit No. I-000098

Perimeter of Pit to be Graded 3:1 to Top of Rock and Grassed

Western Pit Will Become a Lake Anticipated Final Reclamation 2104

Perimeter of Pit to be Graded 3:1 to Top of Rock and Grassed

Jaw Crusher

Perimeter of Pits to be Graded 3:1 to Top of Rock and Grassed

Plant & Stockpile Area Will be Graded and Grassed Anticipated Final Reclamation 2112

Fuel & Oil Storage

Equipment Parking

Office & Scales Shop

Plant & Stockpile Area

Perimeter of Pit to be Graded 3:1 to Top of Rock and Grassed

Southern Pit Will Become a Lake Anticipated Final Reclamation 2112

Property Owned by Martin Marietta Materials, Inc.

Employee Building

Seeding Notes			
Planting Dates	Soil Type	Seed Mix	Rates
March 1	All	Brown Top Millet	10
thru		Common Bermudagrass (hulled)	4
Aug 30	Extremely Sandy	Sericea lepedeza (scarified)	40
		Bowling Green	10
September 1	All	Common Bermudagrass (hulled)	8
		Sericea lepedeza (unscarified)	60
February 28	Extremely Sandy	Bowling Green	10
		Common Bermudagrass (covered in seeding hulled)	4
		Sericea lepedeza (unscarified)	60

Fertilize seedbeds with 1 ton/acre lime and 500 lbs/acre 10-10-10
 Mulch with 2 tons/acre clean straw or hay
 Tack with rapid setting emulsified asphalt or other tacking agent approved by Owner
 Note: Some ditches require lining with excelsior matting to improve stability and grass establishment. When excelsior is used, mulch and tack may be omitted.

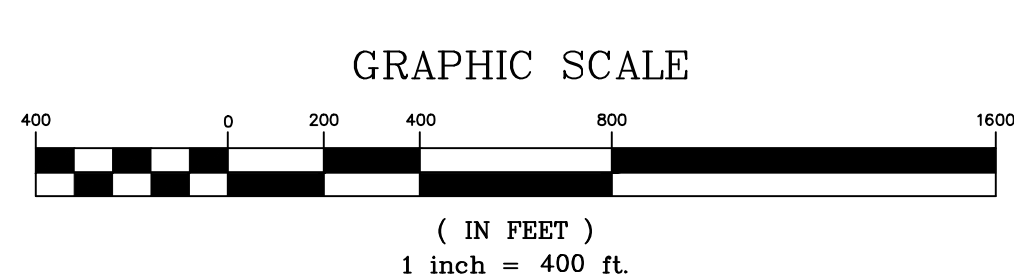
SEED BED PREPARATION NOTES:
 1. Surface water control measures are to be installed according to plan.
 2. Areas to be seeded shall be ripped and spread with, topsoil (if available), 3" deep. Total seeded prepared depth shall be 4" to 8".
 3. Loose rocks, roots and other obstructions shall be removed from the surface so that they will not interfere with establishment and maintenance of vegetation. Surface for final seedbed preparation, at finished grades shown, shall be reasonably smooth and uniform.
 4. If no soil test is taken, fertilizer and lime shall be according to the seeding schedule.

NOTES

- Reclamation shall be concurrent with mining activity as lands become available.
- Following the removal or disposal of all structures, equipment, stockpiles, mining refuse, and all other materials associated with surface mining, the Operator will reclaim all affected land in accordance with the provisions of this Plan. All lands except those specifically exempted in this plan shall have a neat clean appearance and contain a high quality permanent vegetative cover.
- All affected land, unless otherwise specified in this Plan, shall be graded into rolling topography, and blended in with the existing landscape. All graded areas shall be free of debris, stockpile materials, boulders, etc. that would interfere with the intended use and/or maintenance of the area.
- Berm slopes shall not exceed 3:1.
- All roads and rail lines will remain for site access.
- The pits will remain as lakes.
- Sediment ponds shall remain until final reclamation. Upon final reclamation, pipes shall be removed and ponds filled and grassed.

APPROVED BY
 SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
 DIVISION OF MINING & SOLID WASTE MGT
 BY: *Joe Kern*
 TITLE: RM-0802-1V4
 DATE APPROVED: March 08, 2022
 PERMIT NUMBER: I-000098

MAP LEGEND	
PROPERTY LINE	Blue line
PERMIT BOUNDARY	Magenta line
2013 PERMIT BOUNDARY	Black line
LAND USE BOUNDARY	Black line
LIMIT OF BLASTING	Red line
BUFFER	Green hatched area
UNPERMITTED MMM PROPERTY	Orange hatched area
NON-JURISDICTIONAL WETLANDS	Blue hatched area
ARCHEOLOGICAL SITES	Red oval
GROUNDWATER MONITORING WELL	Circle with 'A'
SILT FENCE	Green line with 'S'
INDEX CONTOUR	Black line
INTERMEDIATE CONTOUR	Grey line
LAND USE AREA #	Circle with number
RCW CAVITY TREE	Red circle



Property lines are from property survey prepared by Ashley Land Surveying, Inc. dated 04/10/2017
 Topography is Dated 2015 & 2018
 Contour Interval 2 feet

NORTH
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		Mid-Atlantic Division Carolina South District	
ORANGEBURG QUARRY RECLAMATION PLAN			
Date: 09/28/2020	Scale: 1" = 400'	3	
Design by: Mining Permit #802	Located: Orangeburg County		
1 Revised for Mine Permit Modification 3/13/20	Date: Drawn by: rwb	Site Number: 51210	