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**DRAFT SCOPE OF ISSUES  
FOR A  
DRAFT ENVIRONMENTAL IMPACT STATEMENT  
DOLOMITE PRODUCTS CO., INC.  
LEROY QUARRY MODIFICATION AND  
MUD CREEK RE-ALIGNMENT**

**MLR #80019  
PERMIT #8-1836-00001/00001**

**LEAD AGENCY**

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## 1.0 INTRODUCTION

Scoping is a fundamental step in building an Environmental Impact Statement (EIS). Determining the scope of an EIS involves asking questions that will help evaluate and identify a proposal's impact on the environment.

As part of the scoping process, agencies, those with specialized expertise, and the general public are asked to comment on areas to be covered in the EIS, including issues, concerns and alternatives to reduce adverse impacts. Scoping is not about whether a project is good or bad, but rather what an EIS should consider. The aim of this Draft Scoping Document is to promote comments during the scoping process.

The scoping process will lead to the proposed project's Draft EIS and Final EIS, both of which will evaluate and identify environmental impacts.



*View of the LeRoy Quarry; modification area is between quarry and rail line at lower photo.*

The following draft scope of issues has been prepared as part of the State Environmental Quality Review Act (SEQR) process. The draft scope will provide information for public scoping. A final scope will subsequently be developed to provide a framework for the preparation of a Draft Environmental Impact Statement (DEIS).

When scoping occurs, the applicant is required to prepare a draft scope of issues which must contain the following items.

- A brief description of the proposed action;
- Potentially significant adverse impacts identified both in the positive declaration and as a result of consultation with the other involved agencies and the public, including an identification of those particular aspects of the environmental setting that may be impacted;
- Extent and quality of information needed for the preparer to adequately address each impact, including an identification of relevant existing information and required new information, including the required methodology (ies) for obtaining new information;
- Initial identification of mitigation measures;
- Reasonable alternatives to be considered.

“The primary goals of scoping are to focus the EIS on potentially significant adverse impacts and to eliminate consideration of those impacts that are irrelevant or nonsignificant. Scoping is not required” [6 NYCRR § 617.8(a)]; an agency and public scoping meeting is optional pursuant to the citation.

## **2.0 PROJECT OBJECTIVE**

- 2.1** Dolomite Products Co., Inc. (Dolomite) has operated a stone quarry at the LeRoy site for decades. It now proposes to expand operations into additional reserve land which will necessitate the relocation of an intermittent stream/drainage swale.

The importance of mining in the state is declared by the New York State legislature in the New York State Mined Land Reclamation Law § 23-2703:

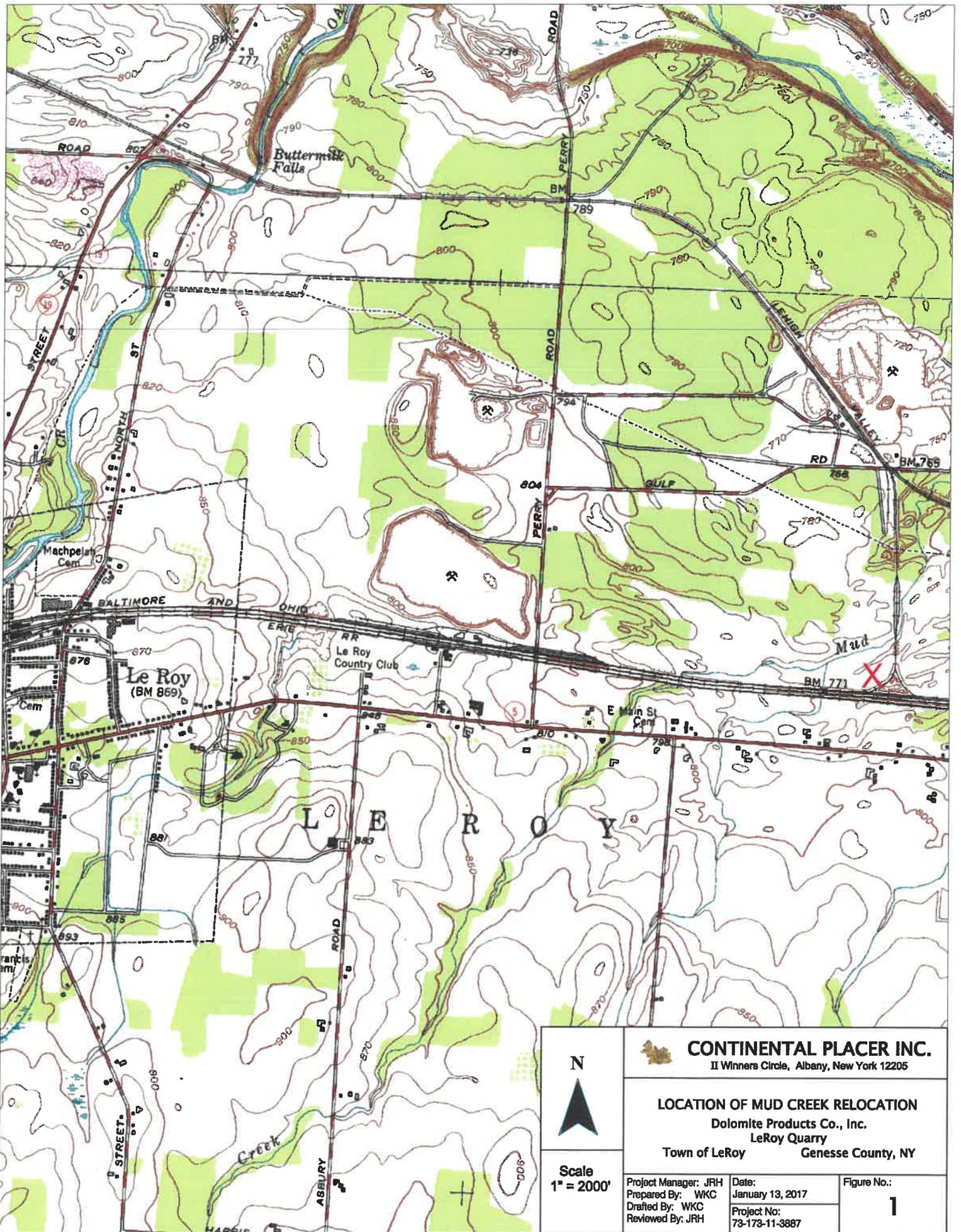
**“The legislature hereby declares that it is the policy of this state to foster and encourage the development of an economically sound and stable mining industry, and the orderly development of domestic mineral resources and reserves necessary to assure satisfaction of economic needs compatible with sound environmental management practices. The legislature further declares it to be the policy of this state to provide for the management and planning for the use of these non-renewable natural resources and to provide, in conjunction with such mining operations, for reclamation of affected lands; to encourage productive use including but not restricted to the planting of forests, the planting of crops for harvest, the seeding of grass and legumes for grazing purposes, the protection and enhancement of wildlife and aquatic resources, the establishment of recreational, home, commercial, and industrial sites; to provide for the conservation, development, utilization, management and appropriate use of all the natural resources of such areas for compatible multiple purposes; to prevent pollution; to protect and perpetuate the taxable value of property; to protect the health, safety and general welfare of the people, as well as the natural beauty and aesthetic values in the affected areas of the state.”**

### **2.2 Description of Proposed Action**

Dolomite has applied to the New York State Department of Environmental Conservation (DEC) for a mined land use plan/mining permit modification dated January 20, 2015. The modification would allow mining of 29± acres of reserve land on owned property contiguous to the currently permitted life-of-mine area. The 29 acre area contains an intermittent stream/drainage swale known as Mud Creek; Dolomite proposes to relocate a section of Mud Creek off the 29 acres to allow mining.

The following Location Map, Figure 1, shows the location of the proposed action.

The project is a continuation of the existing mining operation; daily operations will continue as they historically have done. Overburden will be removed and placed in a visual/noise berm along the south side of the 29 acres which will act as a noise barrier. The exposed rock will be drilled and blasted and hauled to the existing processing plant. Finished aggregate product will be sold and trucked from the facility via the existing entrance road onto Gulf Road. Upon cessation of mining, the existing permitted quarry and the modified 29 acres will fill with water to form a singular lake. The reclamation objective will be consistent with the permitted plan, to create a recreational water body and wildlife habitat, and potential water reserve (see Reclamation Plan Map in appendix).



 <b>N</b>	 <b>CONTINENTAL PLACER INC.</b> 11 Winners Circle, Albany, New York 12205	
	<b>LOCATION OF MUD CREEK RELOCATION</b> Dolomite Products Co., Inc. LeRoy Quarry Town of LeRoy      Genesee County, NY	
<b>Scale</b> 1" = 2000'	Project Manager: JRH Prepared By: WKC Drafted By: WKC Reviewed By: JRH	Date: January 13, 2017 Project No: 73-173-11-3887
		Figure No.: <b>1</b>



*Photo of Mud “Creek” channel, an intermittent stream/drainage swale.*

In regard to the relocation of Mud Creek, a portion will be relocated, approximately 2515± feet in length, between the 29 acre excavation area and Dolomite’s southern property line as shown on the appended Mining Plan Map. The new channel will be basically a “slot cut” blasted into the underlying bedrock. The appended relocation plan details the structure of the relocation. Timing of the relocation would likely be within two years of receiving the modification permit.

### 3.0 PROJECT NEED

SEQRA requires that an EIS for a proposed action specify the purpose and need for the project [ECL Part 617.14 (f)(1)].

The LeRoy Quarry has been serving Western New York with an economical source of high quality construction aggregates for decades. Stone reserves at the quarry, however, are limited. Additional mining areas will ensure that the community will have economical aggregates in the future.

The volume of aggregate production in the U.S. and locally in New York is well documented; however, the qualitative values of the aggregate industry are not often appreciated by the general public. The National Stone, Sand & Gravel Association (NSSGA) has addressed this issue by commissioning studies to analyze the industry.

Some of their findings are:

- For every dollar of output in the aggregates industry, an additional \$1.58 is generated in the U.S. economy.
- For each one million dollars in output produced by the industry, 19.5 jobs are created.
- The aggregates industry contributed \$14.59 billion in direct output to the U.S economy in 2002. When indirect benefits are added to the direct output the industry contributes \$37.6 billion to the GDP and supports 284,090 jobs in all sectors of the economy with personal earnings totaling \$10.74 billion.
- Over the past 30 years, there has been a 30% increase in the nation's population, a 64% increase in the number of licensed drivers, an 87% increase in the number of licensed vehicles and a 125% increase in the number of vehicle miles traveled, but only a 6% increase in highway capacity.
- For every \$1 billion spent on highway construction, 42,100 jobs are generated annually.
- According to FHWA, \$83 billion is needed annually to maintain and improve the highway system. In 2002, \$31.8 billion was approved for highways.
- 94% of asphalt and 80% of concrete is made up of aggregates.
- 90% of aggregates are used within 50 miles of their place of extraction.
- During the past 60 years, per capita consumption of aggregates has increased from 3.5 tons per year to over 10 metric tons annually – *that is just over 22,000 lbs. for every man, woman and child in America each year!*
- Production of aggregates in the U.S. went from about 351 million metric tons in 1940 to approximately 2.78 billion tons in 2001.
- Every state, virtually every Congressional District and 70% of the nation's counties are home to an aggregate operation.
- An estimated 38,000 tons of aggregates are necessary to construct one mile lane of interstate highway.
- Construction of an average modern home requires 400 tons of aggregates.
- 15,000 tons of aggregates are required for the construction of an average sized school or hospital.

The loss of a local aggregate source also exacts a financial burden upon the community. When aggregate is not available locally it is brought in from more distant sources. This increases the cost per ton for aggregate, consumes more fuel, increases traffic and places more wear on the roadway system. A worst case scenario would be that after the LeRoy Quarry is depleted of stone reserves, the mine would cease as a business, resulting in a loss of taxes and jobs and increased public and private infrastructure costs.

A recent study titled “The Economic Impact of New York State Mining and Construction Materials Industry” (MCMI) has been conducted by The Center for Government Research (CGR). The study’s findings, in part, are:

**“Total NYS Sales of the MCMI Totaled Between \$3.3 to \$3.5 Billion Dollars”**

<b>Economic Impact of the MCMI</b>			
	<b>Direct</b>	<b>Spillover</b>	<b>Total</b>
<b>Labor Income (millions of dollars)</b>			
<b>High Estimate</b>	<b>\$833.6</b>	<b>\$482.4</b>	<b>\$1,316.0</b>
<b>Low Estimate</b>	<b>\$765.1</b>	<b>\$442.8</b>	<b>\$1,207.9</b>
<b>Jobs (thousands of jobs)</b>			
<b>High Estimate</b>	<b>17.5</b>	<b>12.9</b>	<b>30.4</b>
<b>Low Estimate</b>	<b>16.1</b>	<b>11.9</b>	<b>28.0</b>

- The MCMI was responsible for generating \$1.2 to \$1.3 billion in wages and 28,000 to 30,000 jobs in New York State, both direct and spillover.
- The MCMI industry contributes to the fiscal health of the state and localities through sales tax, personal income tax, motor fuel tax, corporate franchise tax and Mined Land Reclamation Law fees. The total fiscal contribution of the industry is estimated at \$87-101 million annually. There are additional taxes and fees paid by industry participants that we did not attempt to estimate.

***“Illustration: Impact of Closing Mines on Construction Costs***

Despite the fact that the mining and construction materials industry brings significant economic benefits to the state and localities, mining operations are not always welcomed by individual communities. Local governments often enact restrictive zoning that have the effect of excluding or severely limiting mining. As a consequence, new or expanded mines are difficult to permit yet existing mine reserves are being depleted at a faster rate than new reserves are being brought into production. Much of the material mined is of relatively low value, yet is expensive to transport. Transportation costs, therefore, comprise a relatively large share of the cost of the delivered material. Closure of the mines has the effect of increasing the final delivered cost as the material will necessarily be transported a greater distance.

To reflect this, CGR estimates the effect of reducing the number of mines in the state. This report illustrates the potential impact on transportation costs from the loss of mines with close proximity to construction sites. While the illustration does not begin to address the cost impact on all construction projects in NYS, it provides a starting point for consideration and discussion.

Our hypothetical scenario estimates that if the number of mines were reduced by one-half, transportation costs associated with NYS Thruway construction sites could rise as much as 59%, or \$2.2 million, in one year.

These conclusions are applicable to the entire industry. Continued shrinkage of the industry will drive up the cost of new construction and highway reconstruction. Our data did not permit a more detailed analysis by region, but clearly the impact would be more pronounced downstate.”

<b>Annual Cost Implications of Increasing Transportation Distance</b>				
	<i>Cost of Fuel Per Gallon</i>	<i>All Mines Included</i>	<i>One-Quarter Mines Taken Away</i>	<i>One-half Mines Taken Away</i>
<b>Average Distance from Exit to Nearest Mines (miles)</b>		13.5	19.1	21.4
<b>Cost of Transporting Aggregate for Thruway Projects (millions of dollars)</b>	\$2	\$3.4		\$5.3
<b>Cost of Transporting Aggregate for Thruway Projects (millions of dollars)</b>	\$3	\$3.6		\$5.7
<b>Cost of Transporting Aggregate for Thruway Projects (millions of dollars)</b>	\$4	\$3.9		\$6.1
<b>Percentage Change in Cost (from all mines included)</b>			42%	59%

## 4.0 OVERVIEW OF DECISION-MAKING PROCESS

SEQRA allows for an open, public process with multiple opportunities for review and comment on the potential impacts affecting the environment.

The actions required for the proposed project include:

- NYSDEC Mining Permit Modification
- U.S. Army Corps of Engineers, Section 404 – Clean Water Act
- NYSDEC 401 Water Quality Certification
- FEMA Letter of map Change

Based upon studies presented in the Draft and Final EIS's, the NYSDEC will decide whether to approve, approve with conditions or deny Dolomite's application. Their decisions will be based upon the adequacy of the studies performed to address the project's environmental impacts and mitigation measures proposed, taking into account the public's concerns. This process often involves a public hearing. The lead agency determines whether to conduct a public hearing upon considering the following:

- The degree of interest in the action shown by the public or involved agencies;
- Whether substantive or significant environmental issues have been raised;
- The adequacy of the mitigation measures proposed;
- The extent of alternatives considered;
- and
- The degree to which a public hearing can aid the agency decision making process by providing an efficient mechanism for the collection of public comments.

Other factors which should be considered by the lead agency in deciding to hold a hearing are:

- The opportunity for broadest public disclosure.
- The need for important and informative comment by certain interest groups, technical specialists, or community representatives.
- The opportunity for a project sponsor to briefly discuss the project and draft EIS.

## **5.0 PRELIMINARY ISSUES AND CONCERNS TO BE ADDRESSED**

The DEC has determined that the proposed mine expansion and relocation of Mud Creek has potential for significant adverse environmental impacts. The DEC has prepared a Positive Declaration for the action and is requiring a Draft Environmental Impact Statement (DEIS).

The DEC's reasons for supporting this determination are:

### **“1) Impact on Land**

As proposed the project would result in a physical alteration of land due to the removal of approximately 6.5 million tons of material over an estimated 20-25 year period with a final reclamation of an open water lake.

### **2) Impact on Surface Water**

The proposed mine expansion will impact a significant portion (2,515 linear feet) of Mud Creek. Mud Creek is part of a highly complex hydrologic system influenced by Karst topography. The proposed relocation of Mud Creek, and the associated flood plain, may have significant impacts on localized flooding.

The proposed stream relocation will impact a Federal Emergency Management Agency (FEMA) floodplain. Movement of the floodplain on to adjacent properties would be reflective of an increased flooding risk and potentially subjecting adjacent properties to flood insurance requirements. A FEMA Letter of Map Change (LOMC) will likely be required through the Town of LeRoy.

The proposed long-term reclamation plan, as well as the stream relocation plan, will introduce additional wildlife hazards (open water areas) to the LeRoy Airport which are inconsistent with the Federal Aviation Administration's Advisory Circular 150/5200-33B.

### **3) Noise Impacts**

The proposed expansion will move quarry operations closer to noise receptors to the south and the east, potentially resulting in an increase in noise levels at these receptors. Additionally, the application proposes a change in the hours of operation from 7:00am to 5:30pm Monday through Friday to 6:00am to 7:00pm Monday through Friday and 6:00am to Noon on Saturday. [Note: the proposed hours are more consistent with historical construction demands and practices.]

### **4) Other (Dust & Safety)**

Moving the mining operations southward may increase noise and dust impacts, as well as create safety concerns. Particular attention should be given to potential blasting impacts to the LeRoy Airport and the active rail lines (NY Central Lines and Rochester and Southern Railroad Inc.).”

Based upon DEC comments and project specific features, the following environmental elements/topics will be analyzed in the DEIS:

1. Operational Noise
2. Blasting impacts
3. Dust
4. Cultural Resources
5. Hydrology
6. Flora, Fauna and Wetlands
7. Mud Creek Relocation
  - floodplain issues
  - airport issues
8. Land Use

A proposed Table of Contents for the DEIS is appended.

## 6.0 PROPOSED STUDIES

### 6.1 Noise

The proposed project will raise the sound levels above the ambient on the modification property by the use of heavy equipment and general mining operations. This in turn has potential to impact sound levels at surrounding residences (receptors). To analyze this potential impact to nearby homes, a study of mining generated sound levels and also ambient community sound levels will be made. With this data, the projected sound levels to be likely experienced by surrounding receptors as a result of the mine will be calculated.



*Mud Creek as it enters Dolomite property at the railroad bridge.*

The protocol to be used will be the DEC's Program Policy DEP 00-1, *Assessing and Mitigating Noise Impacts*.

### 6.2 Blasting Vibrations & Noise

An issue of concern is the impact of blasting as it relates to general safety particularly to the adjacent airport and rail lines. Existing blast data will be used to analyze potential impacts to sensitive receptors. Data will be used to design an optimum, safe blast as operations approach a minimum distance from sensitive features.

The blast analysis will be used to calculate and predict blasting impacts to residences near the proposed quarry modification area and to design blasts accordingly to mitigate adverse impacts.

### 6.3 Dust (Air Quality)

The primary impact affecting air resources is the generation of dust created by mining activities. The EPA and DEC recognize that non-point source, or fugitive dust emissions, may be generated from activities such as overburden stripping, materials handling and haul truck movement. The issue of dust has been similarly raised concerning the hundreds of mining operations throughout New York. The DEIS will calculate the amount of estimated fugitive dust that could potentially be generated from the proposed mine and then develop methods to attenuate this aspect of mining. The dust control plan will maintain the facility in compliance with all State and Federal air regulations.

### 6.4 Cultural Resources

An archeological sensitivity assessment will be required for this proposed project in compliance with Section 14.09 of the State of Historic Preservation Act (SHPA). The report will be prepared following the New York Archeological Council (NYAC) *Standards for Cultural Resource Investigations and the Curation of Archeological Collections* prepared by the New York Archeological Council (2000) as endorsed by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The Applicant will work with the agencies to implement any needed actions.

## 6.5 Hydrology

The quarry area has a complex hydrogeologic regime due to the bedrock's extensive karst features. The DEIS will analyze both the regional and local characteristics of the groundwater and surficial systems and their influence on the proposed modification. A large amount of published data is available due to the quarry's proximity to the Lehigh Valley Railroad Derailment Site (i.e. spill) and work done by the Department of Earth Science at The College at Brockport concerning flow characteristics of Mud Creek. The published data and on-site information will be used to define the hydrology of the site.



*Sinkhole in Mud Creek downstream from the project site which controls most of the downstream flow.*

## 6.6 Flora, Fauna and Wetlands

A terrestrial ecology report will be prepared for the modification and relocated stream area including a wetland study. The study will contain a waters/wetlands, vegetation and wildlife resources report and endangered and threatened species correspondence. The studies will be based on field investigations of the modification area.

## 6.7 Mud Creek Relocation

Mud Creek is an intermittent stream which for most of the year acts as a drainage swale for storm events or snow melt. The relocation plan for a portion of the channel on Dolomite property has raised concerns over alteration of the creek's floodplain as it relates to the Federal Emergency Management Agency (FEMA) and related flood insurance issues. The DEIS will include a detailed discussion of how the FEMA program, administered by the Town of LeRoy, applies to the proposed project, including the proposed relocation of Mud Creek. Also the DEIS will contain the necessary analysis to meet Town and FEMA requirements and to allow for the proper analysis by the Department. The DEIS will analyze the configuration and storage capacities of the existing floodplain, capacities of the designed relocated stream and drainage characteristics of the overall system, using HydroCAD software.

Associated with the stream relocation is a concern by LeRoy Aviation Services, Inc. over potential exacerbation of airport flooding if Mud Creek is relocated. Preliminary design calculations suggest that increased flooding will not result from the proposed action. However, this issue will be analyzed in coordination with the airport's engineering consultants.

A remaining issue is that the potential stream relocation plan may introduce wildlife hazards to the airport via a reclamation lake in the future when mining ends and the site is reclaimed. Albeit an undetermined time frame in the future, this aspect will be discussed between Dolomite's wildlife consultants and the Federal Aviation Administration to explore this issue.

## **6.8 Land Use**

The project will physically alter the land by mining; a significant change. The significant change of land use change is a subjective determination. The use of the project area for mining and subsequent reclamation to a lake is an obvious change; however, from an environmental standpoint, whether this change in use is significant depends upon whether this change will cause any significant adverse environmental impacts. That is, the change of use, per se, is not detrimental to the land. Moreover, the use of the land to obtain its natural resource is temporary and prudent. Once mining is completed, the land surrounding the lake and the lake itself is available for beneficial use.

A determination of the significance of land use change should be assessed in the context of the benefit of utilizing the natural resource. This must be considered as well as the benefits to be derived in terms of jobs and an improved tax base on the project area. Mineable stone resources are basically finite and nonrenewable, with no substitutes of acceptable physical and chemical composition. These facts illustrate that the industry is consumptive by nature, and new sources must continually be identified for future availability. For a mineral bearing property to be suitable for excavation, there must be a sufficient quantity of high quality material available. Similarly, the mineral bearing property must be accessible to major transportation networks and relatively close to the market. As may be expected, few properties offer all of these criteria.

As the population increases, more demands are being placed upon the land as undeveloped areas are rapidly dwindling. The issue really becomes, given any specific land area, what is its best use for the greatest number of people, irrespective of personal interests, for the betterment of society as a whole. For example, would it be intelligent to build homes over a significant natural resource such as this stone which could serve thousands of people and the State in general, for many years. This situation is not novel and typifies the fate of natural resources across the country. Environmental quality is dependent on the economic well-being of an area to provide the mechanisms to protect it. A healthy economy is dependent on industry and the necessary raw materials to provide the region's financial base. Clearly, a balance must be developed whereby industry can continue to supply the existing aggregate resources within the community in an environmentally responsible manner.

The use of the land as a quarry must be also analyzed within the context of “sustainable development”. Guiding principles for sustainable aggregate operations include:

- Develop a site-specific plan for post-mining land use and/or reclamation that engages stakeholders in planning for future needs and interests.
- Plan for the prevention and/or minimization of environmental impacts.
- Adopt and implement an Environmental Management System program to properly manage potential environmental risks and requirements, and improve overall environmental performance.
- Pursue new technologies and practices to improve the operational, safety, health and environmental efficiency of operations.

## **6.9 Safety Issues**

Potential safety concerns associated with the proposed slot cut as being proposed as part of the Mud Creek relocation and floodplain mitigation will be addressed.

The potential impacts of moving Mud Creek closer to the nearby railroad will also be analyzed.

## 7.0 INITIAL IDENTIFICATION OF MITIGATION MEASURES

Mitigation must occur to the fullest extent practicable to lessen or alleviate adverse environmental impacts. In some cases the impact will not be eliminated.

The following is a brief preliminary listing of potential impacts and primary measure(s) to attenuate them.

**Blasting:** conduct blasting analyses to develop a blast that will meet guidelines for safe blasting based upon distances from receptors.

General measures that will be used to minimize impacts and ensure safety off-site include:

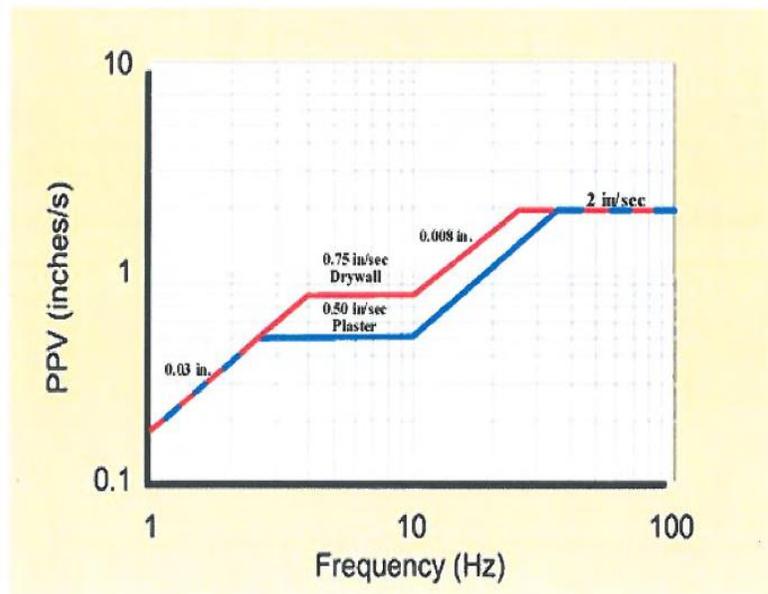
- Use of blasting patterns which optimize the energy to break the rock.
- Use of timing delays which sequence the blasting in a way that minimizes noise and vibration.
- Shots will be monitored by seismographs to aid in corrective blast design if needed.

As a primary measure to mitigate the impacts of blasting to an acceptable level, Dolomite will design its blasts to conform to the guidelines developed by the US Bureau of Mines (reports 8485 and 8507).

Air blast recommendations are:

0.1 Hz high-pass system.....	134 dB
2.0 Hz high-pass system.....	133 dB
5 or 6 Hz-pass system.....	129 dB
C-Slow (events not exceeding 2-sec duration).....	105 dB

In regard to blasting vibration, the following chart will be used as a guideline for safe levels.



## Noise

There are several characteristics of the site design and measures which will be implemented by Dolomite that will reduce noise impacts. These include the following:

1. Construction of a 10-15± foot berm between mining activity and receptors.
2. The equipment used on-site will be inspected periodically to ensure that properly functioning muffler systems are used on all equipment.
3. While in the site, all equipment will not be allowed to idle unnecessarily.
4. As the mining occurs, perimeter vegetation will be retained to provide increased buffer area effectiveness.
5. Distance to receptors.
6. Seasonal nature of business.
7. Mining activity is largely confined to the excavation depression.

## Dust and Sediment/Erosion

The implementation of Best Management Practices (BMPs) is the most effective means of mitigating dust impacts from mining operations. The proposed disturbance of fine particles by extraction and hauling techniques can increase the potential for dust generation and these dust generation activities and situations should be identified to apply the needed BMPs.

The primary potential dust generator for the proposed action will be haul trucks traveling to and from the active faces.

The implementation of dust control measures will satisfactorily mitigate any impacts to any local receptors and will ensure that the project is in compliance with State and Federal regulations. The dust control measures involve a combination of good operating practices and engineered control devices on equipment and on land. The proposed operation will employ a number of these techniques to control dust, including:

### Good Operating Practices

- Careful loading and unloading of haul trucks.
- Shut down idle and unloaded equipment.
- Control travel speed of vehicles on haulways and access roads.
- Maintain equipment through daily inspections and repairs, as needed.
- Clean up spillage.

### Engineered Controls

- Water road surfaces to reduce dust.
- Construction of berms and planting vegetation where possible to reduce wind erosion.

## **Sedimentation and Erosion Control**

An important component of stormwater management is the use of Best Management Practices (BMP's). BMP's are measures designed to prevent or minimize the potential for erosion and sedimentation by stormwater discharges. This includes a wide range of measures, structural features, and activities, and may include processes, procedures, schedules of activities, prohibitions on practices and other management practices to prevent or reduce stormwater contamination.

Key factors to prevent sediment from potentially leaving the mine site are the controlling of sheet flow movement downslope through the use of vegetation buffers and structural controls and good housekeeping procedures preventing sheet flow from coming in contact with transportable granular materials.

- Sediment control features will be periodically checked and maintained for integrity and effectiveness. These include berms, straw bales, silt fences and catchment basins. These features, when constructed as needed, will be replaced, improved or cleaned-out as necessary.

### **Structural Controls**

The primary structural control method to be employed is stormwater flow diversion practices. Diversion structures include conveyance features such as channels or drains. Other structures, such as berms, are designed to block runoff from passing beyond a certain point. Grading can also divert sheet flow movement toward collection areas.

Specific to the Dolomite modification site is the diversion of runoff to the excavation area which will act as a large collection basin for precipitation events.

Other structural controls to be used on the site include:

- Straw bales and silt fences will be erected along the perimeter of berms as applicable.
- Quarry perimeters will be graded to promote internal drainage to the hole

### **Exposure Minimization**

By eliminating or minimizing exposed disturbed areas the potential for stormwater to come in contact with transportable sediment is greatly reduced. In a mining operation this can be best achieved by preservation of natural vegetation and secondarily by concurrent reclamation when possible.

Measures to be implemented are:

- Clearing of vegetation, removal of overburden will be kept to a minimum in advance of the active face.
- Concurrent reclamation will be done as operationally feasible.

## **Housekeeping**

Proposed housekeeping practices at the quarry will be designed to maintain a clean and orderly operation, which will minimize sediment transport. Plans for the Dolomite site are:

- Berms will be smooth graded and compacted, especially the crests, to decrease pinnacles and irregular surfaces
- Stockpiles will be confined to designated areas.

## **Groundwater**

The following measures will also be used to mitigate potential pollution impacts to groundwater:

- Vehicles will be kept in good repair and will be checked regularly for leaking hydrocarbon products.
- Spill prevention measures to be put in place as applicable.
- Containment structures for fuel tanks as applicable.
- No solid or liquid wastes will be disposed of at the project site. All refuse generated at the project site will be transported off-site for disposal.
- Maintenance of vehicles is done in the shop by the office.

## **Land Use**

The purpose of the proposed action is mining; this cannot be mitigated since it is the objective of the Applicant. Its impacts such as noise or dust and mitigation of these will be individually analyzed. The use of the land as a mine, however, is not permanent but temporary. The reclamation plan to form a lake will be the subsequent feature of the property, an obvious change. This diversity, however, can create opportunities for the community. Also a specific proposal for the use of the property 25 years hence is speculative. The goals, objectives and character of the Town will undoubtedly change over that time frame. The property will provide a setting for recreational uses such as boating and fishing. A guarantee that these developments will occur after mining is beyond the scope of the reclamation plan discussed under the mined land use plan and the SEQR process.

## **8.0 ALTERNATIVES CONSIDERED**

A DEIS is required to include an analysis of alternatives. The basis for this is expressed in *THE SEQRA HANDBOOK*.

**“The project sponsor develops the proposed action based on its goals and objectives. These goals and objectives are not always shared by the reviewing agencies and the public. Requiring that reasonable alternatives be discussed allows a reviewer to independently determine if the proposed action is, in fact, the best project when the environmental factors have been considered.”**

### **8.1 No Action Alternative**

Under this scenario, within a period of time, stone reserves at the LeRoy Quarry will be exhausted, aggregate production would stop, and Dolomite would cease as a business at the site. The direct economic effects of this action will be studied and analyzed.

### **8.2 Alternative Site**

Part 617.14(f)(5) of SEQRA indicates that alternative sites may be limited to parcels owned by, or under option to the applicant. Alternative sites under control of Dolomite will be investigated as to their suitability to meet the Applicant’s objectives.

### **8.3 Alternative Design and Technology**

The design of the quarry and the technology available to produce the aggregate has a direct effect on potential environmental impacts of the action. Alternatives, when available and feasible, must consider the cost effectiveness of their implementation.

### **8.4 Alternative Size**

Many of the environmental impacts associated with the proposed mine would be experienced regardless of size such as noise and blasting vibrations. A factor that does influence impacts when considering a reduced project size is the duration over which the impact is experienced. The DEIS will analyze how a change in project scale or magnitude will affect the environment and how it impacts the Applicant’s project objectives.

### **8.5 Alternative Development Schedule**

Initiation of scheduling the project is indicated to have no correlation with environmental elements. This will be, however, analyzed further.

In terms of the mining pace (rate), this is purely market driven and generally has little to no bearing on environmental aspects. This will be discussed in the DEIS.

### **8.6 Alternative Land Use**

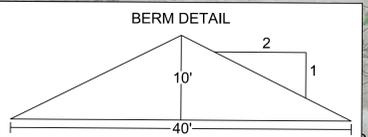
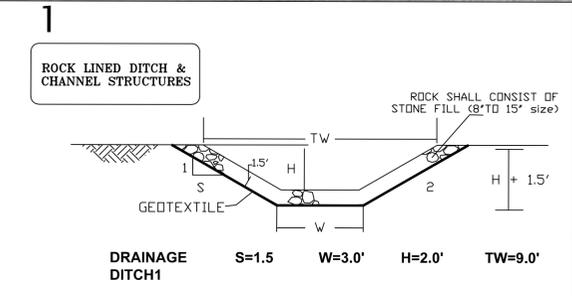
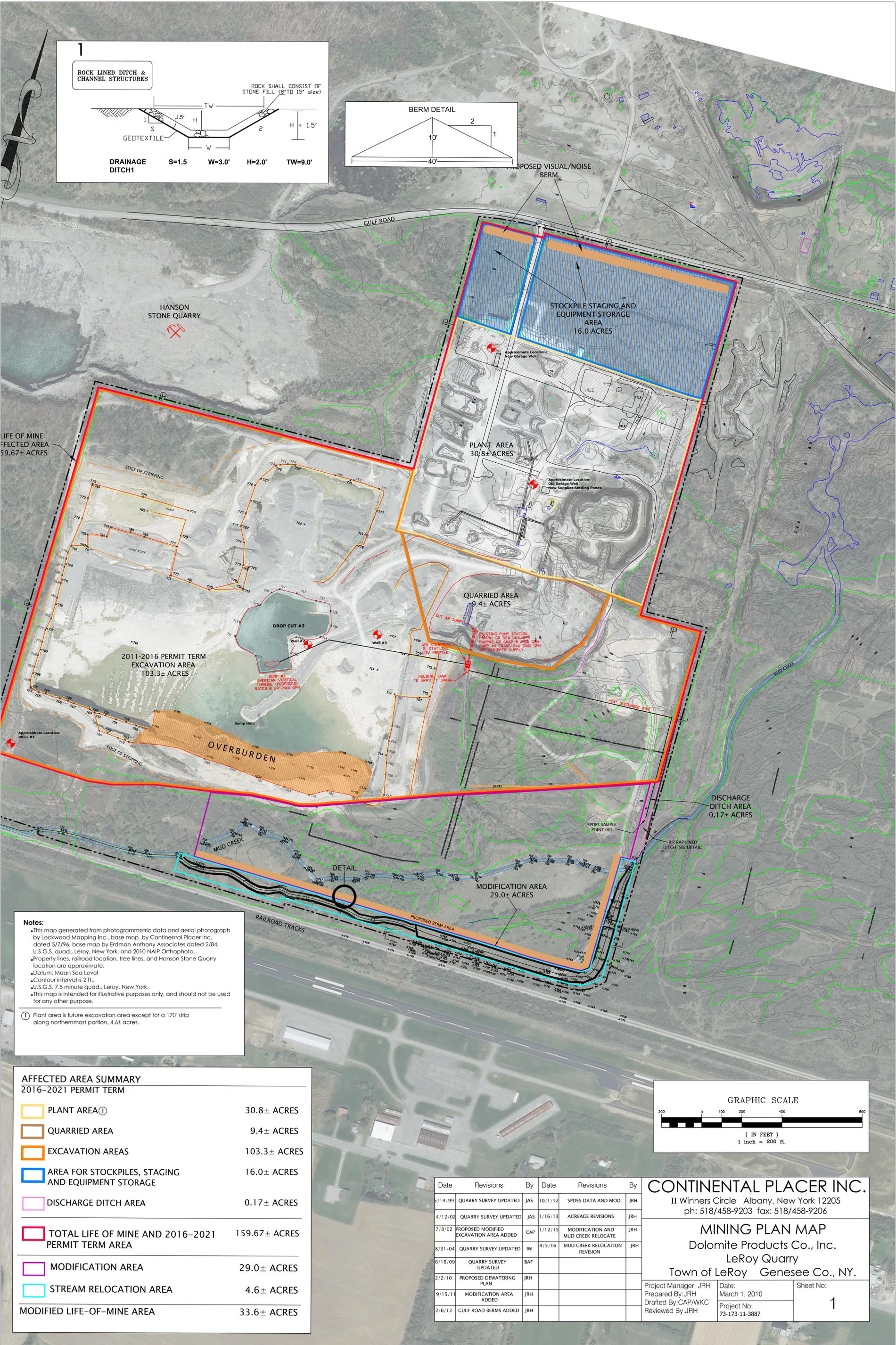
Alternative land uses for the project site must take into account the objective of the project sponsor and the business in which they are in. Short of these goals, land uses which may be considered would involve secondary land uses. This will involve an analysis of reclamation plans. The DEIS will examine differing reclamation schemes and how they would affect the secondary use of the land.

## **APPENDIX**

- 1. Mining Plan Map**
- 2. Reclamation Plan Map**
- 3. Stream Relocation Details**
- 4. Proposed DEIS Table of Contents**

**APPENDIX 1**

**Mining Plan Map**



LIFE OF MINE AFFECTED AREA  
59.67± ACRES

HANSON  
STONE QUARRY

PROPOSED VISUAL/NOISE  
BERM

STOCKPILE STAGING AND  
EQUIPMENT STORAGE  
AREA  
16.0 ACRES

PLANT AREA  
30.8± ACRES

QUARRIED AREA  
9.4± ACRES

2011-2016 PERMIT TERM  
EXCAVATION AREA  
103.3± ACRES

OVERBURDEN

DISCHARGE  
DITCH AREA  
0.17± ACRES

MODIFICATION AREA  
29.0± ACRES

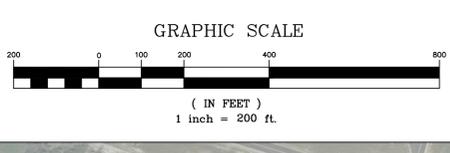
**Notes:**

- This map generated from photogrammetric data and aerial photograph by Lockwood Mapping Inc., base map by Continental Placer Inc. dated 5/7/96, base map by Erdman Anthony Associates dated 2/84, U.S.G.S. quad., Leroy, New York, and 2010 NAIP Orthophoto.
- Property lines, railroad location, tree lines, and Hanson Stone Quarry location are approximate.
- Datum: Mean Sea Level
- Contour interval is 2 ft.
- U.S.G.S. 7.5 minute quad., Leroy, New York.
- This map is intended for illustrative purposes only, and should not be used for any other purpose.

① Plant area is future excavation area except for a 170' strip along northernmost portion, 4.6± acres.

**AFFECTED AREA SUMMARY**  
2016-2021 PERMIT TERM

PLANT AREA ①	30.8± ACRES
QUARRIED AREA	9.4± ACRES
EXCAVATION AREAS	103.3± ACRES
AREA FOR STOCKPILES, STAGING AND EQUIPMENT STORAGE	16.0± ACRES
DISCHARGE DITCH AREA	0.17± ACRES
<b>TOTAL LIFE OF MINE AND 2016-2021 PERMIT TERM AREA</b>	<b>159.67± ACRES</b>
MODIFICATION AREA	29.0± ACRES
STREAM RELOCATION AREA	4.6± ACRES
<b>MODIFIED LIFE-OF-MINE AREA</b>	<b>33.6± ACRES</b>



Date	Revisions	By	Date	Revisions	By
5/14/99	QUARRY SURVEY UPDATED	JAS	10/1/12	SPDES DATA AND MOD.	JRH
4/12/02	QUARRY SURVEY UPDATED	JAS	1/16/13	ACREAGE REVISIONS	JRH
7/8/02	PROPOSED MODIFIED EXCAVATION AREA ADDED	CAP	1/12/15	MODIFICATION AND MUD CREEK RELOCATE	JRH
8/31/04	QUARRY SURVEY UPDATED	IW	4/5/16	MUD CREEK RELOCATION REVISION	JRH
6/16/09	QUARRY SURVEY UPDATED	BAF			
2/2/10	PROPOSED DEWATERING PLAN	JRH			
9/15/11	MODIFICATION AREA ADDED	JRH			
2/6/12	GULF ROAD BERMS ADDED	JRH			

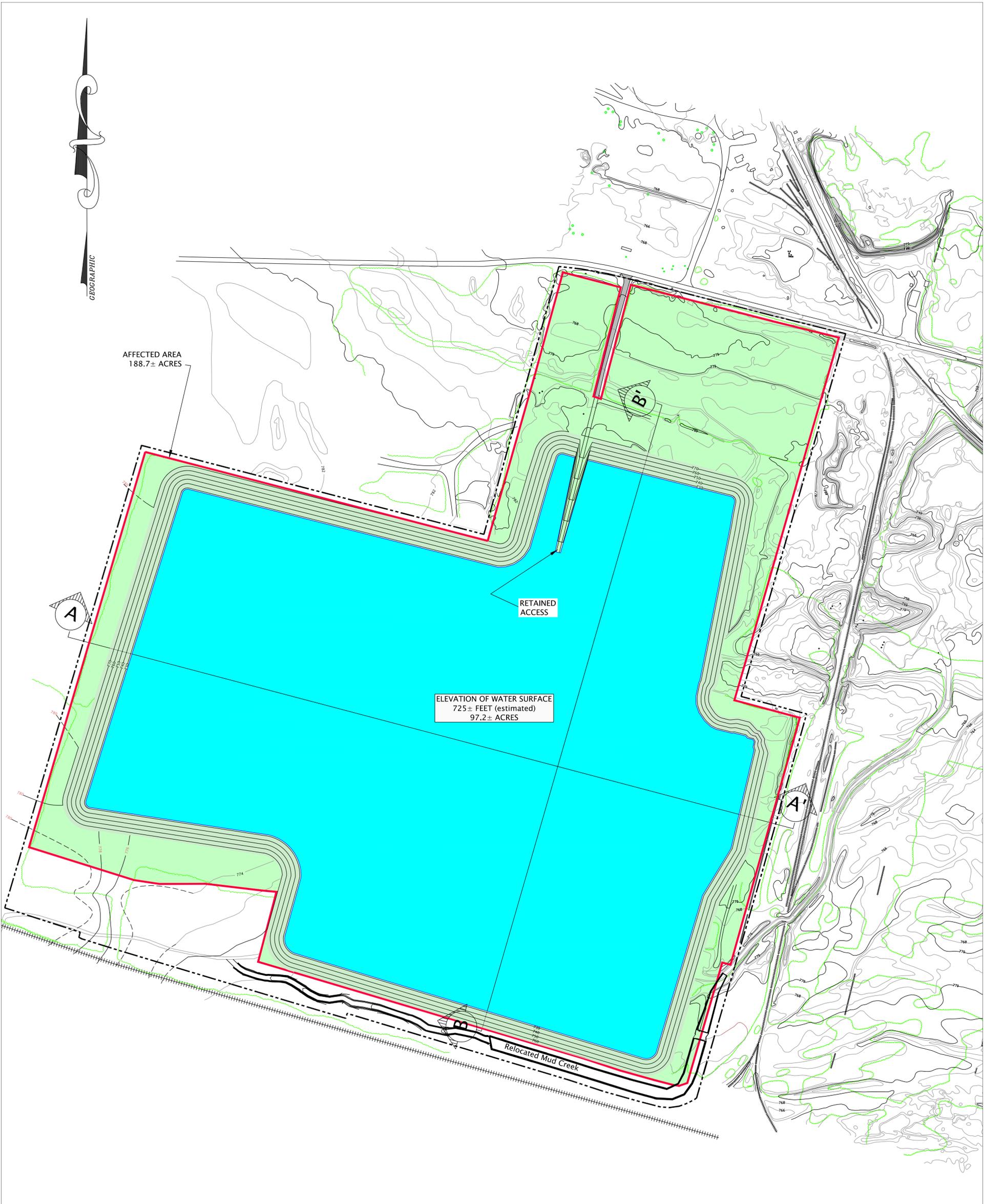
**CONTINENTAL PLACER INC.**  
11 Winners Circle Albany, New York 12205  
ph: 518/458-9203 fax: 518/458-9206

**MINING PLAN MAP**  
Dolomite Products Co., Inc.  
LeRoy Quarry  
Town of LeRoy Genesee Co., NY.

Project Manager: JRH	Date: March 1, 2010	Sheet No: 1
Prepared By: JRH	Project No: 73-173-11-3887	
Drafted By: CAP/WKC		
Reviewed By: JRH		

**APPENDIX 2**

**Reclamation Plan Map**



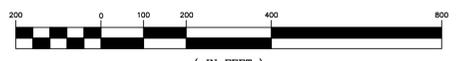
AFFECTED AREA  
188.7± ACRES

ELEVATION OF WATER SURFACE  
725± FEET (estimated)  
97.2± ACRES

RETAINED  
ACCESS

Relocated Mud Creek

GRAPHIC SCALE



( IN FEET )  
1 inch = 200 ft.  
CONTOUR INTERVAL 2 FT.

NOTES:

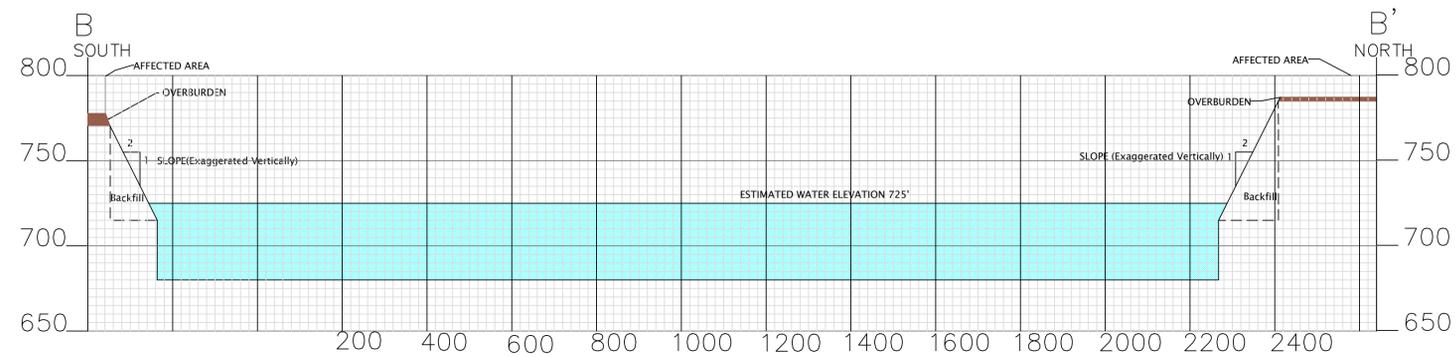
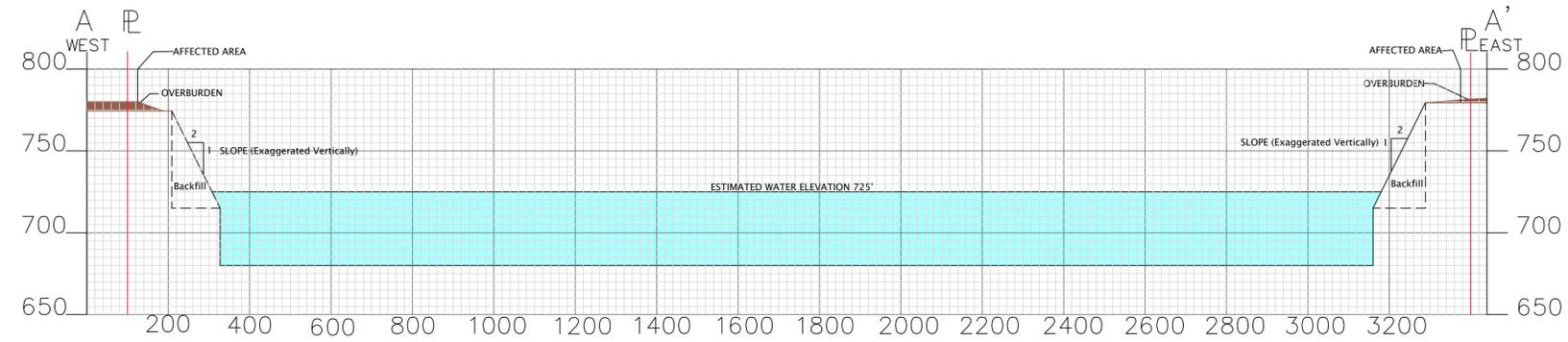
1. QUARRY PERIMETER WILL BE SMOOTH GRADED TO BLEND INTO EXISTING TOPOGRAPHY.
2. ALL SLOPES ABOVE WATER LEVEL WILL BE AT A 2 HORIZONTAL TO 1 VERTICAL GRADE WITHIN EXCAVATION AREA.

Date	Revisions	By
1/12/15	Modification Area Added	JRH
4/5/16	Add Mudd Creek	JRH

**CONTINENTAL PLACER INC.**  
 11 Winners Circle Albany, New York 12205  
 ph: 518/458-9203 fax: 518/458-9206

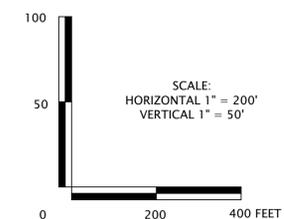
**RECLAMATION PLAN MAP**  
 Dolomite Products Co., Inc.  
 LeRoy Quarry  
 Town of LeRoy Genesee Co., NY.

Project Manager: JRH	Date: November 30, 2011	Sheet No:
Prepared By: JRH	Project No: 73-173-11-3887	2
Drafted By: WKC		
Reviewed By: JRH		



**NOTES**

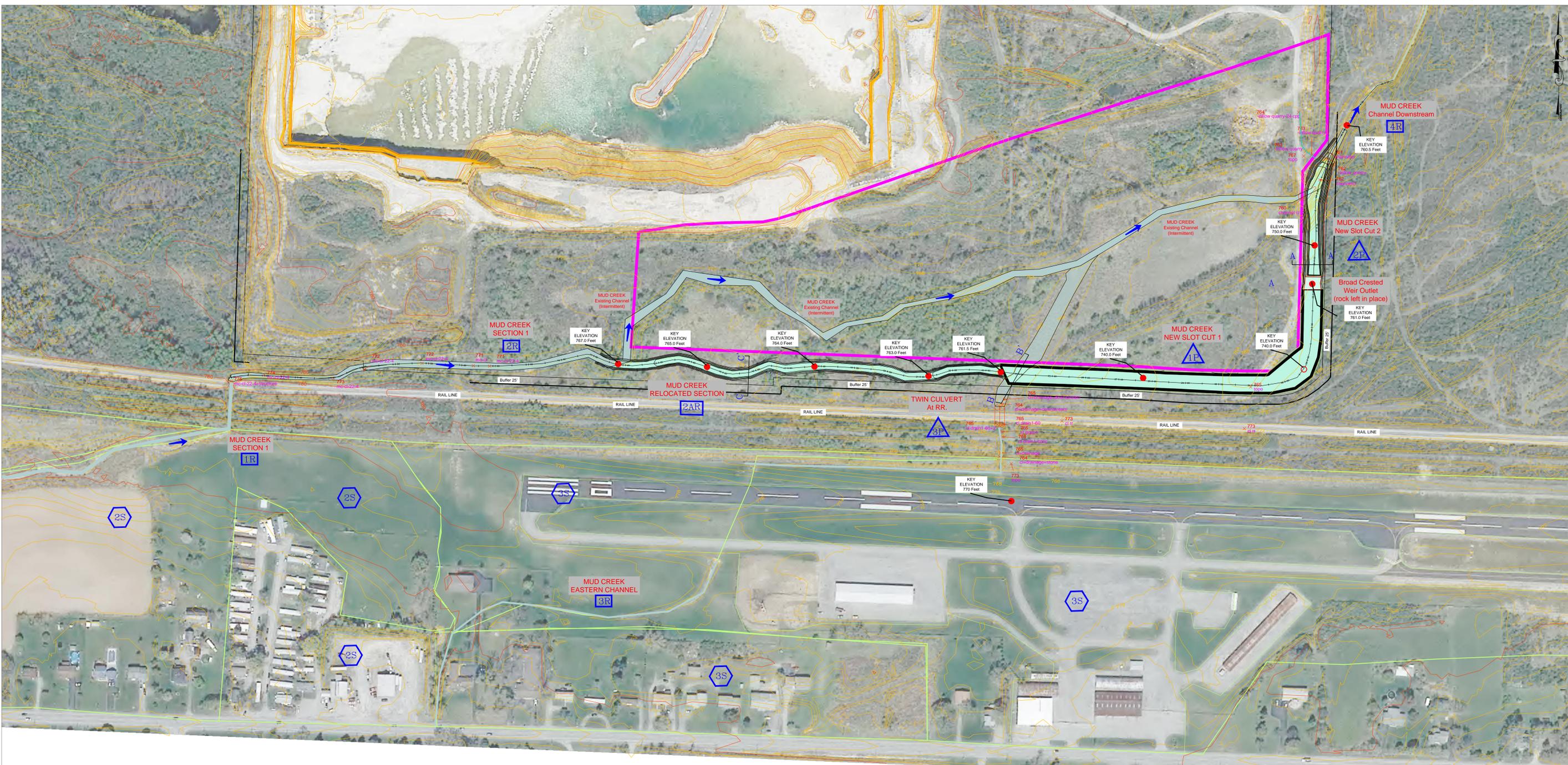
1. BENCH CONFIGURATIONS AND ELEVATIONS ARE APPROXIMATE AND MAY VARY BASED UPON ACTUAL FIELD CONDITIONS ENCOUNTERED
2. MINED AREAS ABOVE WATER WILL BE GRADED TO A 2 HORIZONTAL TO 1 VERTICAL SLOPE.
3. SLOPES IN UNCONSOLIDATED OVERBURDEN WILL BE GRADED NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL
4. QUARRY PERIMETERS AND PLANT AREA WILL BE SMOOTH GRADED TO BLEND WITH SURROUNDING TOPOGRAPHY



Date	Revisions	By	CONTINENTAL PLACER INC.		
1/12/15	Modification Area Added	JRH	11 Winners Circle Albany, New York 12205 ph: 518/458-9203 fax: 518/458-9206		
4/5/16	Revise Bench Elevation	JRH	<b>DOLOMITE PRODUCTS CO., INC.</b> <b>RECLAMATION SECTIONS</b> <b>LEROY QUARRY</b> <b>TOWN OF LEROY GENESEE COUNTY, N.Y.</b>		
			Project Manager: JRH	Date: November 30, 2011	Sheet No:
			Prepared By: JRH	Project No: 73-173-11-3887	3
			Drafted By: WKC		
			Reviewed By: JRH		

## **APPENDIX 3**

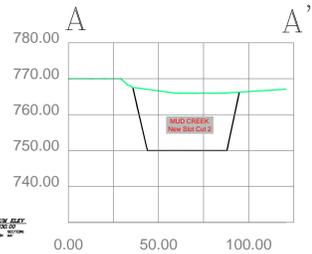
### **Stream Relocation Details**



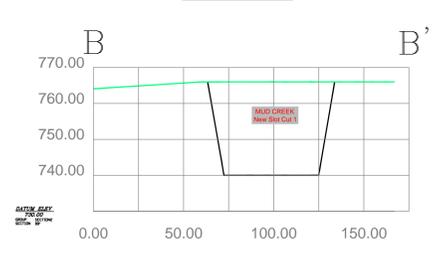
**MUD CREEK CHANNEL PROFILE**



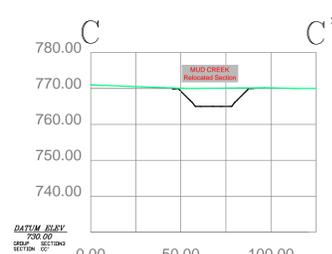
**PROFILE AA'**



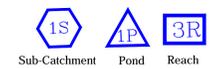
**PROFILE BB'**



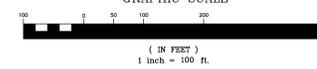
**PROFILE CC'**



HYDROCAD REFERENCE SYMBOLS



GRAPHIC SCALE



Date	Revisions	By

**CONTINENTAL PLACER INC.**  
 11 Winners Circle, Albany, New York 12205  
 ph: 518/458-9203 fax: 518/458-9206

**MUD CREEK RELOCATION PLAN**  
 Dolomite Products Co., Inc.  
 LeRoy Quarry  
 Town of LeRoy Genesee Co., NY

Project Manager: JRH	Date: April 6, 2016	Sheet No:
Prepared By: JAS	Project No: 73-173-11-3887	<b>1 of 1</b>
Checked By: JAS		
Reviewed By: JRH		

**APPENDIX 4**

**Proposed DEIS Table of Contents**

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## REFERENCES

**APPENDIX**

- |                   |  |
|-------------------|--|
| <b>APPENDIX 1</b> | <b>•Mined Land Use Plan</b>                            |
| <b>APPENDIX 2</b> | <b>•DEC Correspondence<br/>•Final Scoping Document</b> |
| <b>APPENDIX 3</b> | <b>•Soils Description</b>                              |
| <b>APPENDIX 4</b> | <b>•Air Quality Data</b>                               |
| <b>APPENDIX 5</b> | <b>•TES Ecology Report</b>                             |
| <b>APPENDIX 6</b> | <b>•Stream Relocation Plan</b>                         |
| <b>APPENDIX 7</b> | <b>•Sound Recording Data Sheets</b>                    |
| <b>APPENDIX 8</b> | <b>•Cultural Resources Report</b>                      |