

NOTE: THIS DOCUMENT REPRESENTS A COMPLETE DIGITAL VERSION OF VOLUME I OF THE REFERENCED REPORT. PLEASE REFER TO THE ACTUAL REPORT HARDCOPY FOR OFFICIAL SIGNATURES AND PROFESSIONAL SEALS.

**SELF CONTAINED EVALUATION  
AND  
APPRAISAL REPORT  
OF  
OPA-LOCKA WEST AIRPORT LIMESTONE PROPERTY  
MIAMI-DADE COUNTY, FLORIDA  
AS OF  
JUNE 1, 2007  
  
VOLUME I - REPORT**

**CMC PROJECT # S093-01**

Report Prepared By:

**CMC, Inc.**  
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**MINING & MINERAL APPRAISAL, BROKERAGE AND CONSULTING**

June 29, 2007

CMC Project # S093-01

Andrew H. Magenheimer, MAI  
Slack, Johnston & Magenheimer, Inc.  
7300 North Kendall Drive, Suite 520  
Miami, Florida, 33156

Dear Mr. Magenheimer:

**Self Contained Evaluation  
And  
Appraisal Report  
Of  
Opa-Locka West Airport Limestone Property  
Miami-Dade County, Florida  
As Of  
June 1, 2007**

In accordance with your request, I have evaluated and appraised the Mineral<sup>1</sup> and Mining<sup>2</sup> Interests in the above referenced property (Subject Property).

The purpose of the Appraisal Assignment was to determine the Mineral and Mining Interest in the Subject Property, utilizing five (5) scenarios that best represent the range of feasible options to the Miami-Dade Aviation Department (MDAD), whom are the owners of the Subject Property. These Scenarios, which are fully described in Section 1 of this Report, are as follows:

1. Scenario 1: Conservative Royalty Income Approach
2. Scenario 2: Aggressive Royalty Income Approach
3. Scenario 3: Royalty Income Approach – Special Condition – White Rock Quarries
4. Scenario 4: Conservative Mining Income Approach
5. Scenario 5: Aggressive Mining Income Approach

The purpose of this Appraisal Report is for exploring the various options, revenues and cash flow available to MDAD, if they decide to lease out or to contract mine the base/aggregate minerals from the Subject Property.

The appraisals were performed as of June 1, 2007, which represents the completion date of field data research, and mineral resources/reserves estimates, that were analyzed and utilized in the appraisal processes in this Report.

I have made all of the investigations and analyses necessary to estimate the values, as follows:

---

<sup>1</sup> Royalty Income

<sup>2</sup> Mining Income

1. It is my opinion, sustained by the following Report, that the Market Value of the **Mineral Interest** in the Subject Property, as of June 1, 2007, under Scenario 1 (Conservative Royalty Income Approach), was:

**\$21,702,300**

**(Twenty One Million, Seven Hundred Two Thousand, Three Hundred Dollars)**

The above figure represents the Net Present Value (NPV), utilizing a discount rate of 9.0%, of a cash flow totaling \$76,965,200, over a 24 year time period, commencing June 1, 2009.

2. It is further my opinion, sustained by the following Report, that the Market Value of the **Mineral Interest** in the Subject Property, as of June 1, 2007, under Scenario 2 (Aggressive Royalty Income Approach), was:

**\$27,806,800**

**(Twenty Seven Million, Eight Hundred Six Thousand, Eight Hundred Dollars)**

The above figure represents the NPV, utilizing an 11.25% discount rate, of a cash flow totaling \$95,744,500, over a 20 year time period, commencing June 1, 2008.

3. It is further my opinion, sustained by the following Report, that the Market Value of the **Mineral Interest** in the Subject Property, as of June 1, 2007, under Scenario 3 (White Rock Quarries' Royalty Income Approach), was:

**\$37,952,800**

**(Thirty Seven Million, Nine Hundred Fifty Two Thousand, Eight Hundred Fifty Dollars)**

The above figure represents the NPV, utilizing a 9% discount rate, of a cash flow totaling \$113,153,300, over a 21 year time period, commencing June 1, 2008.

4. It is further my opinion, sustained by the following Report, that the Market Value of the **Mining Interest** in the Subject Property, as of June 1, 2007, under Scenario 4 (Conservative Mining Income Approach), was:

**\$40,960,000**

**(Forty Million, Nine Hundred Sixty Thousand Dollars)**

The above figure represents the NPV, utilizing a discount rate of 14.0% of a cash flow totaling \$246,518,500, over a 24 year time period, commencing June 1, 2009.

5. It is further my opinion, sustained by the following Report, that the Market Value of the **Mining Interest** in the Subject Property, as of June 1, 2007, under Scenario 5 (Aggressive Mining Income Approach), was:

**\$91,077,400**

**(Ninety One Million, Seventy-Seven Thousand, Four Hundred Dollars)**

The above figure represents the NPV utilizing a discount rate of 17.5%, of a cash flow totaling \$473,222,300 over a 19 year time period, commencing June 1, 2008.

**NOTE:** The above referenced values represent the NPV of the Mineral and Mining Interests in the Subject Property, which Mineral Appraisers are required to report. NPV is not the same as Revenues or Cash Flows, which are items that the Miami-Dade Aviation Department (owner of Subject Property) is specifically interested in. Revenues and Cash Flows are calculated, and fully detailed in Sections 12 & 13 of this Report.


Mr. Andrew H. Magenheimer, MAI  
June 29, 2007

The appraisal assignment was not based on requested minimum valuations, nor specific valuations being determined.

I further state that I have no interest, present or contemplated, with the Opa-Locka West Airport, or the Miami-Dade Aviation Department, and that my compensation was not based on specific requested values being attained.

If you should require any further information, please contact me at your convenience.

Yours,

---

J. Stuart Limb, FRICS, AIMA  
President  
*Certified Mineral Appraiser*  
*Chartered Minerals Surveyor*

## CERTIFICATE

This document comprises a Self Contained Evaluation And Appraisal Report (Report).

I CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF:

1. The statements of fact contained in this Report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the Subject Property, and no personal interest with respect to the parties involved.
4. I have no bias with respect to the Subject Property or to the parties involved with this assignment.
5. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
6. My compensation for completing this assignment was not contingent upon the development or reporting of a predetermined Value, or direction in Value that favors the cause of the client, attainment of stipulated results, or the occurrence of a subsequent event directly related to the intended use of this Report.
7. My analyses, opinions, and conclusions were prepared in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) 2006, by the Appraisal Standards Board of the Appraisal Foundation.
8. John J. Manes, CMC's Executive Vice President and Senior Geologist, has made a personal inspection of the Subject Property.
9. John J. Manes, CMC's Executive Vice President and Senior Geologist, provided significant professional assistance in the preparation of this Report.
10. There are 80 consecutively numbered pages in this Report, plus a Transmittal Letter, Certificate, Contingent And Limiting Conditions, Table of Contents, Appendices, and Plans, all of which are essential to this Report.
11. This Report sets forth all of the limiting conditions (imposed by the terms of the evaluation assignment or by the undersigned) affecting the analyses, opinions and conclusions contained in this Report.
12. This Report has been made in conformity with the requirements of the following:
  - a. The Uniform Standards of Professional Appraisal Practice (USPAP) 2006, of the Appraisal Standards Board of the Appraisal Foundation;
  - b. The Professional Standards of The American Institute of Minerals Appraisers (AIMA);
  - c. The Professional Standards of the Royal Institution of Chartered Surveyors (RICS) - Minerals Faculty.

13. It is my opinion, sustained by the following Report, that the Market Value of the **Mineral Interest** in the Subject Property, as of June 1, 2007, under Scenario 1 (Conservative Royalty Income Approach), was:

**\$21,702,300**

**(Twenty One Million, Seven Hundred Two Thousand, Three Hundred Dollars)**

The above figure represents the Net Present Value (NPV), utilizing a discount rate of 9.0%, of a cash flow totaling \$76,965,200, over a 24 year time period, commencing June 1, 2009.

14. It is further my opinion, sustained by the following Report, that the Market Value of the **Mineral Interest** in the Subject Property, as of June 1, 2007, under Scenario 2 (Aggressive Royalty Income Approach), was:

**\$27,806,800**

**(Twenty Seven Million, Eight Hundred Six Thousand, Eight Hundred Dollars)**

The above figure represents the NPV, utilizing an 11.25% discount rate, of a cash flow totaling \$95,744,500, over a 20 year time period, commencing June 1, 2008.

15. It is further my opinion, sustained by the following Report, that the Market Value of the **Mineral Interest** in the Subject Property, as of June 1, 2007, under Scenario 3 (White Rock Quarries' Royalty Income Approach), was:

**\$37,952,800**

**(Thirty Seven Million, Nine Hundred Fifty Two Thousand, Eight Hundred Fifty Dollars)**

The above figure represents the NPV, utilizing a 9% discount rate, of a cash flow totaling \$113,153,300, over a 21 year time period, commencing June 1, 2008.

16. It is further my opinion, sustained by the following Report, that the Market Value of the **Mining Interest** in the Subject Property, as of June 1, 2007, under Scenario 4 (Conservative Mining Income Approach), was:

**\$40,960,000**

**(Forty Million, Nine Hundred Sixty Thousand Dollars)**

The above figure represents the NPV, utilizing a discount rate of 14.0% of a cash flow totaling \$246,518,500, over a 24 year time period, commencing June 1, 2009.

17. It is further my opinion, sustained by the following Report, that the Market Value of the **Mining Interest** in the Subject Property, as of June 1, 2007, under Scenario 5 ( Aggressive Mining Income Approach), was:

**\$91,077,400**

**(Ninety One Million, Seventy-Seven Thousand, Four Hundred Dollars)**

The above figure represents the NPV utilizing a discount rate of 17.5%, of a cash flow totaling \$473,222,300 over a 19 year time period, commencing June 1, 2008.

Signed – Mineral Appraiser:

Significant Professional Assistance By:

*J. Stuart Limb*

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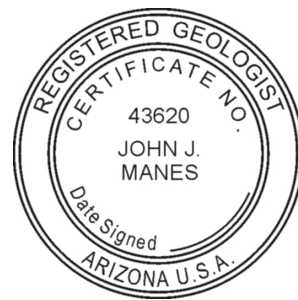
J. Stuart Limb, FRICS, AIMA  
President  
*Certified Minerals Appraiser*  
*Chartered Minerals Surveyor*

*J. Manes*

---

John J. Manes, P.G.  
Executive Vice President  
*Senior Geologist*  
*Registered Professional Geologist #43620*

Professional Seal:



NOTE: THIS DOCUMENT REPRESENTS A COMPLETE DIGITAL VERSION OF VOLUME I OF THE REFERENCED REPORT. PLEASE REFER TO THE ACTUAL REPORT HARDCOPY FOR OFFICIAL SIGNATURES AND PROFESSIONAL SEALS.

## **CONTINGENT AND LIMITING CONDITIONS**

THIS REPORT IS SUBJECT TO THE FOLLOWING GENERAL LIMITING CONDITIONS:

Any description or specifications furnished in this Report are assumed to be correct. Unless otherwise specified, all existing liens and encumbrances have been disregarded and Mineral Interest and Mining Interest Values have been determined as though free and clear (unless otherwise stated within this Report) under responsible ownership and competent management.

CMC, Inc. (CMC) is not a law firm or Title Agency, and while deeds, leases and other real estate documentation may have been reviewed as part of the appraisal process, the existence of any mineral reservations or other encumbrances on the Subject Property has not been determined. Furthermore, the Subject Property has been appraised as if free and clear of any such reservations or encumbrances.

Furthermore CMC makes no warranty, express or implied, as to the existence of any such reservations or encumbrances.

Any information in this Report furnished by others is assumed to be reliable, however no responsibility is assumed for its accuracy. No liability is assumed for the Value Opinions expressed herein.

Possession of this Report, or any copy hereof, does not carry with it the right of publication, nor may it be used for any purpose, by any but the client, without the previous written consent of CMC, or the client, and then only with the proper qualifications and only in its entirety.

CMC is not required to give testimony or to appear in court by reason of this Report unless arrangements have been previously made therefore.

This Report has been prepared in accordance with the Professional Standards of the Royal Institution of Chartered Surveyors (RICS) - Minerals Faculty, the Professional Standards of the American Institute of Minerals Appraisers (AIMA), and the Uniform Standards of Professional Appraisal Practice (USPAP) 2006, by the Appraisal Standards Board of the Appraisal Foundation.

Neither all nor any part of the contents of this Report shall be conveyed to the public through advertising, public relations, news, sales or other media without the written consent and approval of CMC, particularly as to valuation conclusions or to the identity of the appraiser or CMC, or any reference to an appraisal organization or appraisal designation, other than in the case of the "Florida Sunshine Law".

"Appropriate" scientific methods and best professional judgment were utilized in the validation, preparation and evaluation of the data presented in this Report. Users of this Report are hereby cautioned that the calculations, modeling and data evaluation methods used, and the subsequent results presented, entail inherent uncertainties and assumptions, over which CMC has little or no control.

These uncertainties and assumptions are stated herein. Users of this Report, and included data, are hereby advised to be aware of, and understand, these uncertainties and assumptions.

CMC makes no warranties, express or implied, regarding the use of information, calculations, and projections presented herein, nor any responsibility for the results of such use.



**SELF CONTAINED EVALUATION  
AND  
APPRAISAL REPORT  
OF  
OPA-LOCKA WEST AIRPORT LIMESTONE PROPERTY  
MIAMI-DADE COUNTY, FLORIDA**

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## INTRODUCTION, HISTORY AND INSTRUCTIONS

### Introduction

The Opa-Locka West Airport Limestone Property (Subject Property), under ownership of the Miami-Dade Aviation Department (MDAD), consists of approximately 422.02 acres of land located northwest of downtown Miami, in Miami-Dade County, Florida.

Plan A illustrates the regional location of the Subject Property.

The Subject Property has two (2) runways located on it, with these runways formerly utilized for pilots to practice touch-and-go landings outside of Miami-Dade's larger, nearby airports.

United States Highway 27 (State Route 25) runs along the western side of the Subject Property, with the Snake Creek Canal on the northern side, an active aggregate/base mining operation (White Rock Quarries) to the east, a local road (Northwest 186<sup>th</sup> Street) located to the south, and a reclaimed rock quarry to the southwest, with the main access to the Subject Property located on the western side.

Plan B illustrates the site location of the Subject Property.

### History

The Subject Property is also located within the "Lakebelt Mining District", which is a large, localized area west of downtown Miami that was originally reserved to be utilized primarily for mineral resource (limerock) extraction by mining companies, to supply the greater Miami-Dade area by road, and other areas of Florida by rail.

### Instructions

CMC, Inc. (CMC) is a full service mining & mineral appraisal, brokerage and consulting firm which specializes in construction materials and industrial mineral commodities, properties and operations.

CMC was contacted by Mr. Andrew H. Magenheimer, MAI<sup>1</sup>, of SJM, in mid-March 2007, regarding mineral consulting services, and preparation of a Mineral Appraisal for the Subject Property. Consulting services were requested to determine if the Subject Property had potential as a mineral property, and appraisal services were requested to help MDAD understand logistics/options available to them, if the Subject Property were to be utilized as a mineral resource.

A subcontractor appraisal/consulting agreement was entered into on March 27, 2007. A copy of the subcontractor agreement is included in Appendix I.

John J. Manes, Executive Vice President & Senior Geologist of CMC, met with Mr. Magenheimer on March 30, 2007. A site inspection of the Subject Property, and observation of a subsurface exploration (drilling) program being conducted by Wingerter Laboratories (another subconsultant to SJM) took place that morning.

Following the field visit, a meeting was conducted at MDAD's Miami International Airport office with MDAD personnel: Mr. Miguel Southwell, Assistant Director of Business Retention & Development, Mr. Greg Owens, Aviation Department, Mr. Manuel (Manny) Gonzales, Section Chief of Business Ventures, and Mr. Thomas P. Abbott, Assistant County Attorney for Miami-Dade County. The purpose of the meeting was to discuss the Subject Property, collect data and information regarding the Subject Property, exchange contact information, and answer preliminary questions.

Field testing, site investigations, and research and data analyses performed subsequent to the meeting indicated that the Subject Property was viable as an economic mineral (limestone) resource.

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<sup>1</sup> Member of Appraisal Institute (MAI) – Denotes A Certified Real Estate Appraiser.

### Appraisal Scenarios

A few appraisal “scenarios” were initially discussed to provide MDAD with economic and financial indicators of the revenues, cash flows and income potential of the Subject Property, under various options as a mineral/mining (limestone) property. CMC incorporated additional scenarios, for a total of five (5) scenarios, to address all viable options as a mineral/mining (limestone) property.

These appraisal scenarios are fully discussed in Sections 12 & 13 of this Report, and are as follows:

1. Appraisal Scenario 1: Mineral Interest Appraisal of the Subject Property, on a Royalty Income Basis, assuming conservative appraisal parameters. This scenario assumes that MDAD would passively lease their mineral property out to a conservative Mining Company, who would mine the property and pay royalties back to MDAD for extracted materials.
2. Appraisal Scenario 2: Mineral Interest Appraisal of the Subject Property, on a Royalty Income Basis, assuming aggressive appraisal parameters. This scenario assumes that MDAD would passively lease their mineral property out to an aggressive Mining Company, who would mine the property and pay royalties back to MDAD for extracted materials.
3. Appraisal Scenario 3: Mineral Interest Appraisal of the Subject Property, on a Royalty Income Basis, specifically to White Rock Quarries. This scenario assumes that MDAD would passively lease their mineral property to White Rock Quarries, who would mine the property and pay royalties back to MDAD for extracted materials. White Rock Quarries’ existing quarries are located adjacent to the eastern perimeter of the Subject Property and, as a result, there are special incentives (discussed in Section 12 of this Report) to both the Lessor/Lessee to proceed under this arrangement.
4. Appraisal Scenario 4: Mining Interest Appraisal of the Subject Property, on a Mining Income Basis, assuming conservative appraisal parameters. This scenario assumes that MDAD would not take a passive stance, but be involved with the actual mining by contracting or entering into an operational agreement or joint venture with a conservative mining contractor, who would then mine the property for a percentage of the Net Mining Income, with the remainder of the Net Mining Income going to MDAD.
5. Appraisal Scenario 5: Mining Interest Appraisal of the Subject Property, on a Mining Income Basis, assuming conservative appraisal parameters. This scenario assumes that MDAD would not take a passive stance, but be involved with the actual mining, by contracting or entering into an operational agreement or joint venture with an aggressive mining contractor, who would then mine the property for a percentage of the Net Mining Income going with the remainder of the Net Mining Income going to MDAD.
6. Based on the above scenarios, it would appear that a Sixth Scenario, addressing the Mining Interest of the Subject Property, on a mining Income Basis, specifically to White Rock Quarries, would be the next logical scenario. However, based on CMC’s extensive experience with United States aggregate operations, the probability of a large mining company (not mining contractor) entering into an operating agreement/joint venture for a fractional percentage of Mining Income, is extremely remote.

Royalty Income is always much safer (i.e. less “risk” involved) than Mining Income, as the Lessor’s risks do not involve geological conditions, mining, production, equipment, competition, market factors and changes, and all of the other risks that a Mining Operator has to contend with. Mining Income assumes almost all of the risk, and therefore usually results in much higher returns than that derived from Royalty Income.

Fieldwork and research was conducted by CMC from April 2, 2007 through June 1, 2007. The appraisal assignment was completed on June 29, 2007, with an effective appraisal date of June 1, 2007.

## APPRAISAL METHODOLOGY

The purpose of the Appraisal Assignment was to determine the Mineral<sup>1</sup> and Mining<sup>2</sup> Interest Values in the Subject Property, utilizing five (5) scenarios<sup>3</sup> that represent the range of feasible Mineral & Mining Options for the Subject Property available to MDAD.

The purpose of this Appraisal Report was to investigate exploring the various options, revenues and cash flows available to MDAD, if they decide to lease out or to contract mine aggregate/base materials from the Subject Property.

The appraisals were performed as of June 1, 2007, which represents the completion date of field and data research, and mineral resources/reserves estimates, that were analyzed and utilized in the appraisal processes in this Report.

The following Appraisal Standards have been adhered to in this Report:

- The Uniform Standards of Professional Appraisal Practice (USPAP) 2006, by the Appraisal Standards Board (ASB), of The Appraisal Foundation;
- The Professional Standards of The American Institute of Minerals Appraisers (AIMA);
- The Professional Standards of the Royal Institution of Chartered Surveyors (RICS) - Minerals Faculty.

### Uniform Standards Of Professional Appraisal Practice (USPAP)

In appraising property interests, firm guidelines are published by the ASB in the USPAP.

A current economic definition of "Market Value" as agreed upon by agencies that regulate federal financial institutions in the United States is:

"The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date, and the passing of title from seller to buyer under conditions whereby:

- 1) Buyer and seller are typically motivated;
- 2) Both parties are well informed or well advised, and acting in what they consider their best interests;
- 3) A reasonable time is allowed for exposure in the open market;
- 4) Payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto; and
- 5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."

While there are other definitions, most closely follow the above definition, which requires an arm's length transaction between willing and knowledgeable buyers and sellers with no undue time constraints imposed on a sale.

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<sup>1</sup> Royalty Income

<sup>2</sup> Mining Income

<sup>3</sup> See Section 1 Of This Report

In appraising Mining and/or Mineral Interests, the best evidence of such a transaction is a negotiated transaction between companies, or individuals, having expertise and experience in the mining, production and sale of the mineral commodity.

#### USPAP Publication Cycle

USPAP has been published annually since its introduction in 1987. Effective with the publication of the 2008 version of USPAP (January 1, 2008) the document will be published on a two (2) year cycle basis.

The 2006 version of USPAP is valid from July 1, 2006 through December 31, 2007.

#### Significant Professional Assistance

Significant professional assistance in the preparation of this Report was provided by John J. Manes, P.G., Executive Vice President, and Senior Geologist with CMC, Inc.

USPAP requires that under these circumstances, an outline of the contributions made must be listed in the Report. Mr. Manes contributions were as follows:

1. Drafting this Report, in its entirety.
2. Performed Appraisal Calculations/Scenarios for review by J. Stuart Limb, FRICS, AIMA
3. Prepared a Final Draft of the Report for review and finalization by J. Stuart Limb, FRICS, AIMA.

#### USPAP Departure Provisions

The July 1, 2006 version of USPAP initiated many changes from previous versions. The former Departure Rule provision (former USPAP Standards Rule 2-2) is now the Scope of Work Rule (USPAP Standards Rule 1-2).

#### USPAP Scope of Work Rule Provisions

This Rule is defined as follows:

“For each appraisal, appraisal review and appraisal consulting assignment, an appraiser must:

1. Identify the problem to be solved;
2. Determine, and perform, the scope of work necessary to develop credible assignment results;
3. Disclose the scope of work in the report.

Any appraiser must properly identify the problem to be solved to determine the appropriate scope of work. The appraiser must be prepared to demonstrate that the scope of work is sufficient to produce credible assignment results.”

The scope of work, under which this Report on the Subject Property was prepared; was as follows:

1. The problem to be solved is to determine the Market Value of the Subject Property utilizing, as far as possible, the Market, Income and Cost Approaches to Value.
2. In order to do the above, the following appraisal parameters were determined:
  - a. The size, shape and location of the Subject Property were determined together with the legal description(s) and the presence of any easements, rights of way or other impact on the Subject Property which might impede the mining of the Subject Property.
  - b. The status of the Subject Property as regards to the possession of all of the necessary permits to allow mining and processing of the Subject Property was determined.
  - c. The size and quality of the mineral reserves on the Subject Property capable of being processed into economically salable products were determined.

- d. The capability of the excavation and processing equipment to be utilized on the Subject Property to meet the projected future production/sales rates was verified.
- e. The current production capacity within the Market Area in question was determined.
- f. Local transportation costs, and methods of transportation, which could be used in the Market Area in question, were determined in order to assess aggregate demand within the Market Area.
- g. The current and projected economic factors at a National, State and Regional level were determined with particular emphasis on population levels and projections, the amount and trend in building construction and the amount and trend in highway construction, all of which have an impact on the demand for minerals.
- h. Market demand analyses were made utilizing reported production, population, building construction and highway construction data, as far as possible.
- i. Through field, and other, research appropriate royalty rates and trends in those rates, were determined for use in the Mineral Appraisal process.
- j. Where appropriate, projected mining income levels and trends were determined for the Subject Property utilizing historical financial data, where available, in addition to other financial data which might be available.
- k. Through analyses of actual transactions, appropriate discount rates and/or capitalization rates were determined
- l. Through analyses of actual transactions, appropriate Exposure Times and Marketing Periods were determined.

The Appraisal Assignment required CMC to only consider the Mineral and Mining Interests in the Subject Property and therefore no Highest and Best Use Analysis was made.

Excluding the above, this Report may be considered to represent a Self Contained Evaluation and Appraisal Report, in conformance with USPAP Standards Rule 2-2.

#### **AIMA**

The AIMA, which was established in 1991, is a small, specialized group of appraisers accredited by the United States Government to perform mineral appraisals. AIMA appraisers are the equivalent of Members of the Appraisal Institute (MAI) appraisers (who perform real estate appraisals), except AIMA appraisers typically only appraise Mining and Mineral Interests. The AIMA follows the Appraisal Institute's guidelines closely, and also publishes rules to be followed to by its members.

The Author of this Report has been a Member of the AIMA since 1993.

#### **RICS**

The RICS, established in 1868, represents a widely recognized and respected worldwide authority governing real estate matters. The RICS has 110,000 property professional members practicing in 120 countries worldwide. The Minerals Faculty is one of 16 RICS Faculties. There are 500 RICS members in the United States, with the Author of this Report being the only Minerals Faculty Member practicing in the United States.

The RICS has accredited the Massachusetts Institute of Technology (MIT), Georgia State University, the University of Florida's Warrington College, Clemson University, Cornell and Columbia Universities to offer RICS courses. Other United States universities are in the process of accreditation, with a goal of having 15 universities accredited in North America in the near future.



Additional guidelines concerning the appraisal of Mineral and Mining Interests are contained in Guidance Notes published by the RICS. The Guidance Notes provide substantial detail regarding the mechanics of Mineral and Mining Interest Appraisals, including:

- Valuation of Leasehold Interests;
- Valuation of Properties Under Development;
- Definition of Open Market Value;
- Definition of Depreciated Replacement Cost (Cost Approach to Value);
- Equipment Valuation Guidelines;
- Valuation of Wasting Assets (e.g. Mineral and Mining Interests).

The above Guidelines have been adopted in this Report when they assisted the appraiser in extending USPAP Standards.

The Author of this Report has been a Fellow of the RICS - Minerals Faculty since 1976.

#### **Appraisal Accuracy<sup>4</sup> - RICS Presents The Most Extensive And Toughest Test Of Valuation Accuracy Ever Done.**

Market Valuations are constructed by combining asset financials with market data to come to a balanced, evidence supported, assessment. Sometimes not all the pieces of the puzzle are available and the valuer applies their expert knowledge and experience of the market to make a judgment. This unavoidable subjectivity has led to worries over valuation accuracy – an issue that hits the headlines from time to time. Since 1987 the RICS has been working to produce a yearly accuracy report. It uses fairly simple methods to compare professional valuations with the subsequent sale price of the properties. The 2003 results may be summarized as follows:

- The RICS looked at 21,000 transactions completed over the last 20 years.
- The RICS used sophisticated statistical tests, and presented detail of their results, in a recent survey (2003).

The first set of tests compared the percentage differences between sales price and the valuations:

- 90% of valuations were within 20%, either way, of the sales price, in 2002, compared to only 59% in 1983.
- 70%, in the last two (2) years, were within 10% of the sales price, compared with 39% in 1983.
- 9.6% is the average absolute error (positive or negative) over the last three (3) years. The mid-point absolute error over this time was 5.7%.

#### Conclusions And Implications

- The accuracy of valuations has improved dramatically over the past 20 years.
- This improvement was relatively rapid, if rather erratic, during the volatile years between 1983 and 1992. Since 1993, improvement has been much steadier, although much slower.
- A significant minority of recent valuations still miss the most modest plus or minus 20% of the sales price, and a small number miss by a large margin.

#### **Tiers Of Value**

As with most forms of Real Estate Interests, Mining and Mineral Interests have various Tiers of Value that is dependant upon the level of development of the property.

The Tiers of Value, in the case of Mineral and Mining Interest Values and/or Going Concern Values, in ascending order, are summarized in the following Table:

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<sup>4</sup> Source: RICS Valuation Faculty, 2003, *Executive Summary - Valuation And Sale Price Variance Report*.

**TABLE 1  
MINERAL/MINING INTERESTS  
TIERS OF VALUE**

Tier #	Description	Comments
1	<u>Greenfield Site</u> – Subject Property Is Located In A Promising Area For Mining But No Site Investigations Have Been Undertaken And The Subject Property Is Not Zoned Or Permitted For Mining.	Comparable To Raw, Unzoned Real Estate.
2	<u>Proved Mining Property</u> – The Subject Property Has Been The Subject Of A Site Investigation Program, Laboratory Testing, Market Survey And Financial Analyses Sufficient To Confirm The Subject Property Has Economically Viable Proved Mineral Reserves At That Location.	Equivalent To Tier 1 Real Estate Property With A Completed Feasibility Study For The Proposed Highest And Best Use.
3	<u>Proved, Permitted Mining Property</u> – The Subject Property Has Received All Of The Necessary Zoning Variances Etc. And Mining And Production Permits Necessary To Commence The Intended Highest And Best Use Of The Subject Property.	Equivalent To Real Estate Development Property With All Zoning Changes Etc. & Permits Necessary To Commence The Intended Highest And Best Use Of The Subject Property.
4	<u>Developed, Mining Property</u> – Sufficient Mining And Processing Equipment Is In Place And Site Development Completed, Or In Progress, To Commence Mining On The Subject Property.	Fully Built Out Real Estate Development Ready For Occupancy.
5	<u>Operational Mining Property</u> – Has Been In Production For Some Time With A Track Record Of Build Up Of Production, Sales, Revenues And Income To Be Able To Value The Subject Property On A Mineral And Mining Income Basis.	Comparable To A Partially, Or Fully Occupied, Real Estate Development With Established Tenants.

The Subject Property would be classified as a Tier 2 property.

#### **Listing of Publications**

Information regarding CMC and its clients, and a list of the Author's publications during the period 1984-2007, is included in Appendix II.

#### **Mineral Appraisal Techniques**

Appraisal techniques in the Mineral Appraisal field closely follow those utilized in less specialized areas (e.g. Residential, Commercial and Industrial Properties).

There are three (3) standard appraisal methods that are utilized, when possible, in addition to the Discounted Cash Flow Approach (Mining Income Approach), these being:

##### **1. Market Approach**

This involves identifying sales of similar properties, with adjustments made to reflect differing factors between the comparable and the Subject Property, such as the date of the transaction, size, shape, condition, location, purchase terms, reserves quality and quantity, permit status, etc.

In adopting the Market Approach for Mineral Interests, it is essential to determine whether the transaction was between parties who were both cognizant of the property's mineral potential. Furthermore, the quality and quantity of the reserves underlying the comparable property should be determined in order to compare them with the reserves under the Subject Property. Additional considerations of importance, from a mining viewpoint, include the location, size and shape of the property and the percentage of minable land.

##### **2. Income Approach (Non/Producer or Owner/Lessor)**

This method involves deriving an annual net cash flow to the property owner and then multiplying this by a discount rate, or capitalization factor, which takes into account the projected time period during which the income stream will be realized, any deferment period prior to the income stream commencing, and the risk involved in the income stream being maintained. In Mineral Appraisals this method is synonymous with the Discounting or Capitalization of future Royalty Income rather than future income from mining the property (see Multiplication Approach below).

The Royalty Income Approach, in the case of Mineral Interests, assumes the mineral owner would lease the mineral reserves to a Mining Company under a royalty arrangement and discount or

capitalize the cash flow, to arrive at a present day Mineral Interest Value. If applicable, any interim use values prior to mining, and a residual value for the mined out property are added to the discounted or capitalized income value, after making due allowance for suitable deferment periods.

The Royalty Income Approach can also be applicable to a Mining Operator who wishes to allocate an asset value for balance sheet purposes, or wishes to raise capital by selling their Mineral Interest to a passive investor then leasing back the Mineral Interest on a royalty basis. This approach is also utilized when a Mining Operator wishes to use their Mineral Interest Value as Collateral for a Loan.

### 3. Cost Approach

This method is utilized for properties of a special or unique nature, where few direct comparables exist, or where the Income Approach is inapplicable. A typical example would be the appraisal of an oil refinery, or a church property.

The Cost Approach is known as the "Purchase In Place Approach" in the case of Mineral Interest Appraisals. The method involves deriving a capital value for the minerals in the ground, based on an analysis of outright sales of mineral properties, or capitalized leases.

### 4. Discounted Cash Flow (Mining Income) Approach (Producer / Lessee)

The Discounted Cash Flow Approach, is utilized to determine the Market Value of a Mining Property when the owner or lessee is also the operator. It is also known as the Mining Income Approach.

This Approach, capitalizes the projected Mining Income to the owner or lessee of a property who has the ability, knowledge and financial capability of mining the property themselves.

In the case of Mineral Interest Appraisals, all four (4) approaches (as outlined above) may be utilized, when applicable.

### Discount Rates And Capitalization Rates

During the appraisal process, Appraisers often have to make "adjustments" to cash flows and future income, to account for the time value of money.

The **time value of money** is the premise that an investor would prefer to receive a payment of a fixed amount of money today, rather than receive that same amount of money in the future. This is because that amount of money could be deposited into an interest-bearing bank account (or invested) now and yield interest or returns. Therefore, the present value of a certain amount of money today is greater than the present value of the "right" to receive that same amount of money at some time in the future.

There are several mathematical formulas utilized to calculate Present Value (PV) from Future Value (FV), and also to calculate a Net Present Value (NPV)<sup>5</sup> from future values. Calculating NPV's and FV's can become very tedious, therefore "Appraisal Tables" have been produced by various authors to simplify the calculation process.

One of the first published Appraisal Tables is Parry's Investment & Valuation Tables, first published in 1913, and currently in its 12<sup>th</sup> Edition (2002). These Tables, and most other published Appraisal Tables, provide Discount Factors and Capitalization Factors, for given Rates, on a year to year basis. Rather than perform complex calculations to derive Present Values/Net Present Values for each future value/year that is being appraised, appraisers can utilize Appraisal Tables and multiply the Future Value(s) by the appropriate Discount/Capitalization Factors, which are "pre-calculated" at given Rates and Years. The process is similar to the more familiar published "Unit Conversion Tables"; rather than perform complex calculations to convert Degrees Fahrenheit into Degrees Celsius, someone has simplified the mathematical formula to "multiply Degrees Fahrenheit by  $x$  to obtain Degrees Celsius".

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<sup>5</sup> The Sum Of Present Values That Have Been Discounted From One Or More Future Value Revenue Streams.

Discount Rates are utilized annually when the cash flow being appraised changes from year to year. Capitalization Rates can be utilized annually or for several years when the cash flow is the same (steady-state) from year to year.

Most Present Value Formulas and Appraisal Tables assume that all of the income is received in a single lump sum at the end of the year (known as Annually in Arrears), and as of recently in four (4) payments of the course of a year (known as Quarterly in Advance). With Mining/Mineral Income (which can be received as frequent as Monthly, Weekly and even Daily) this rarely occurs, and the use of such Formulas/Tables results in an underestimate to the valuation. In some jurisdictions in the United States<sup>6</sup> this problem is recognized, and semi-annual (Mid-Year or Mid-Term) Discount Rates are required. This results in the premise that all of the cash flow for the year being appraised is received half way through the year.

Realizing this still did not represent real world mining income, CMC extended the mathematical formulas used for calculating discount rates and capitalization rates and derived monthly, weekly, bank days and daily discount rates and capitalization rates at various percentages/years. Graphs of these derived rates through time, versus graphs of published rates indicate that there is not much difference between these various terms. While the difference between CMC's derived formula and published Tables may be small, CMC's derived formula represents real life Scenarios, which help to improve appraisal accuracy.

Royalty Income (Mineral Interest Lease) differs from most real estate or property leases because they usually call for two (2) payments per month. Typically, an Advance (also called Guaranteed or Fixed) Royalty payment is due on the first of each month and monthly thereafter, and Production Royalties are typically due by the 20<sup>th</sup> of the following month.

Since Mineral Interest Leases are based on the sales of material made each month, Production Royalties cannot be calculated until the end of the month. To allow for this data being collected, analyzed and calculated, Production Royalties from the previous month are typically due by the 20<sup>th</sup> of the following month. To recognize this, CMC has derived Mathematical formulas using monthly payments.

Most aggregate mining operations (Mining Income) work on a six (6) day per week basis, with materials being produced and sold daily, and cash being received on this basis. Accordingly, CMC derived mathematical formulas using daily payments (Banking Days) for use in appraising Mining Income.

### **Case Law**

Substantial Case Law exists regarding Mineral Appraisal Techniques, with the most succinct Mineral Appraisal Techniques being outlined in the case of Jack S. Foster et. al. v The United States, No. 34-75 United States Claims Court. Extracts from this case are as follows:

Summary: Defendant, the United States, was found liable for a permanent taking of plaintiff lessee's dolomitic rock property on April 7, 1983.

Comparable Sales: Where comparable sales data is lacking, resort to the best available data which, even though somewhat uncertain, is sufficient to produce a value on a reasonably informed basis.

Appraisal Techniques: Include the capitalization of income approach sometimes referred to as the "discounted cash flow" approach or the "present worth of future income".

Comparable Sales: There are few sales of mining properties, comparative data is limited, and since each mining property is unique as to quality, size, location, accessibility, ability to be mined, and access to available market, it is exceedingly difficult to isolate sales that accurately reflect a substitute for the property being appraised.

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<sup>6</sup> State Of California Property Tax Appraisals.

Capitalization Of Income: Direct capitalization of net income is an appropriate method, only when actual income from the property can be established in an on-going business. The capitalization of income approach has become acceptable in recognition of situations where income producing potential is a big element for both buyer and seller in many negotiations in arriving at a fair price.

Business Profits: the capitalization of income approach to compensate the value of a mineral property does **not** (emphasis added) compensate a property owner for lost profits – it is said to measure the compensation for recognized interests in real property – the royalty interest or the operator's interest.

Royalty Interest v. Operator's Interest: A royalty interest is an interest of a passive land owner-lessor or of an inactive lessee; an operator's interest is the interest of a person with the right, the capital and the ability to develop, produce and sell the mineral. These interests are property rights that can be bought and sold. Both Federal and state courts recognize the royalty interest and the operator's interest as component parts of the whole mineral estate.

Discounting: the capitalization of income approach requires the future income stream to be discounted in order to obtain a "present value" as of the date of taking.

Fair Market Value: Fair Market Value is what a willing and informed buyer of mining properties, under no compulsion to buy, will pay, and what a willing and informed mining owner, under no compulsion to sell, will accept for the property, after fair and voluntary dealing, and taking into account all of those factors which such willing and well informed persons would consider regarding the property in light of the customs of the industry.

### **OCC Rulings**

The Office of the Comptroller of the Currency (OCC) is the Federal Agency which monitors and regulates all matters of a financial nature in the United States, including appraisals and appraisers.

Due to the tightening of real estate appraisal regulations in the early 1990s, with the advent of the Savings and Loan scandals, the OCC introduced more stringent Rules for carrying out real estate appraisals in the United States.

On April 9, 1992 the OCC published clarifications on some of its Rules as they pertained to the Appraisal of Mineral Rights, standing timber and growing crops, which might be considered real estate under State laws. The Rules were published in Vol. 57. No. 69 of the Federal Register, Pages 12,198 and 12,199.

As stated in those rules, the OCC used "real property" and "real estate" interchangeably throughout their Appraisal Rules to mean interests in an identified parcel or tract of land and improvements. However the OCC did **not** (emphasis added) intend these terms to include Mineral Rights, timber rights or growing crops, where they are considered separately from the parcel or tract of land.

The OCC proposed the following definition of "real property" and "real estate":

"An identified parcel or tract of land, including easements, rights of way, undivided or future interests and similar rights in a tract of land but **excluding** (emphasis added) **mineral rights** (emphasis added), timber rights or growing crops"

In an OCC Ruling dated October 28, 2003, effective July 1, 2004, the Rules for ordering Real Estate Appraisals for the purpose of establishing the Collateral Value of a Property for the Purposes of a Loan were tightened considerably.

Pertinent extracts from this Ruling are as follows:

1. The Ruling establish minimum standards for an effective program, including standards for selecting individuals who may perform appraisals or evaluations. Among other

considerations, the selection criteria must provide for the independence of the individual performing the appraisal or evaluation.

2. Institutions also need to ensure that the individual selected is competent to perform the assignment.
3. The agencies' Appraisal Regulations address appraiser independence and require that an Institution, or its agents, directly engage the appraiser.
4. Independence is compromised when an Institution uses an appraiser who is recommended by the borrower or allows the borrower to select the appraiser from the Institution's list of approved appraisers.
5. Institutions may not use an appraisal prepared by an individual who was selected or engaged by a borrower. An Institution's use of a borrower-ordered appraisal violates the agencies' appraisal regulations.
6. Likewise, institutions may not use "re-addressed appraisals" – appraisal reports that are altered by the appraiser to replace any references to the original client with the Institution's name. Altering an appraisal report in a manner that conceals the original client or intended users of the appraisal is misleading and violates the agencies' appraisal regulations and the Uniform Standards of Professional Appraisal Practice (USPAP).
7. To foster control and accountability, the agencies encourage an institution to use written engagement letters when ordering appraisals, especially for large, complex, or out-of-area commercial real estate properties. An Institution should include a copy of the written engagement letter in the permanent loan file. An appraiser may also incorporate an engagement letter in the appraisal report. The engagement letter confirms that the assignment was made in a manner that complies with the institution's procedures and the agencies' Regulations and Rules.

Copies of extracts from the above Ruling are included in Appendix II.

While appraisals of Mineral and Mining Interests are not considered Real Estate Appraisals under the OCC's 1992 ruling, most lenders require such appraisals to comply, as far as possible with OCC Rulings on Real Estate Appraisals and also follow USPAP Real Estate Appraisal Guidelines as far as possible.

### **Non-Appraised Interests**

In accordance with OCC Regulations, Mineral Interest Appraisal(s) do **not** constitute Real Estate Appraisals. Other real estate values such as interim non-mining uses during the mining period, and any after use value(s) following the termination of mining, are **excluded** from the Mineral Interest Appraisal. If required, such values should be determined by competent, qualified real estate appraiser and should be incorporated with the Mining and/or Mineral Interest Value.

### **Comparison: Mining / Mineral Interest Appraisals vs. Real Estate Appraisals**

In order to clarify the methods by which Mining Properties and Mineral Interests may be appraised a comparison may be made with real estate appraisal methodology, such as the appraisal of a high rise office building:

Assume the raw land is owned by Brown and leased under a 99 year lease, with a ground rent of \$100,000 per year, to developer Green. Green constructs a high rise office building on the property and leases out the office space, resulting in rental income, net of expenses, averaging \$1,000,000 per year over the last five (5) years.

When asked to appraise the complete fee interest in the above property, a real estate appraiser would derive, and combine, two (2) values, both using the Income Approach to Value, these being:

- 1) Valuation of Ground Rent Income to landowner = \$100,000 per year capitalized over 99 years at x% to value the real estate.
- 2) Valuation of Developer's Income at \$1,000,000 per year net rental income capitalized over 99 years at y% to value the real estate improvements.

In the case where the developer is also the landowner, there would be no ground rent expense and the average Net Rental Income would then become \$1,100,000 per year.

The above example is synonymous with Brown owning a Mineral Property and Green being a Mineral Producer. In that case, Brown's \$100,000 per year Ground Rent is synonymous with Royalty Income and Green's \$1 million per year Net Rental Income is synonymous with Mining Income.

In the case where Green is also the landowner, as is the case with some properties, the Mining Income to Green becomes \$1,100,000 per year.

### **Professional Papers, Case Law and Court Decisions**

The National Association of Real Estate Boards (NAREB) maintains an extensive library of professional papers, case law and court decisions on various topics. One of these topics is the appraisal of Mineral Interests. This Report complies with all applicable standards required by this Association. A summary of various reference works on Surface Mineral Appraisals in the United States is as follows:

1. Encyclopedia of Real Estate Appraising, Third Edition, Chapter 25: Appraisal of Mineral Property.
2. Pennsylvania Coal Co. v. Mahon, 260 U.S. 393 (1922).
3. The Appraisal Journal, April 1948: The Valuation of Rock, Sand and Gravel Deposits.
4. The Appraisal Journal, April 1957: Value of Minerals, Sand, Clay, Etc.
5. The Appraisal Journal, July 1958: Appraisal of Gravel Pit Sites.
6. The Appraisal Journal, April 1959: Valuation of Sand and Gravel Which May Be Removed Without Destroying Value of the Land.
7. Appraisal Journal, July 1, 1959: Supreme Court Decision of the State of Washington - The State of Washington v. the Mottman Mercantile Co., Inc., February 20, 1958 (see 6 above).
8. The Appraisal Journal, January 1961: Valuation of Gravel Properties.
9. The Appraisal Journal, October 1964: Appraisal of Mineral Land.
10. USA vs. 237,500 Acres of Land. November 24, 1964.
11. Real Estate Evaluation Guide, 1969 Vol. 3-1: A Gravel Pit Enterprise.
12. 1973 Proceedings: American Society of Farm Managers and Rural Appraisers, November 25, 26 and 27, 1973.
13. The Appraisal Journal, January, 1970: Moving Sand and Gravel Processing Equipment.
14. USA v. 1,629.6 Acres of Land. June 15, 1973.
15. The Appraisal of Mineral Producing Properties: American Society of Appraisers, Volume 21, Number One, October 1974.
16. Penn Central Transportation Co. v New York City, 438 U.S. 104, 1978.
17. Agins v. City of Tiburon, 447 U.S. 255 (1980).
18. The Appraisal Journal, October 1981: A Review of Hoskold and the Valuation of Mineral Property.
19. Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419 (1982).
20. Jack S. Foster, et al. v. The United States. No. 34-75 2 Cl. Ct. 426 (1983).
21. Shortcomings of the Sales Comparison Method in Appraising Rock and Gravel Properties: American Society of Appraisers, June 1984.
22. Real Estate Valuation Guide, 1987, Volume 17, Issue 195: Appraisal of a Coal Mine.
23. Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470 (1987).
24. Nollan v. California Coastal Comm'n, 483 U.S. 825 (1987).
25. Real Estate Valuation Guide, 1988, Volume 18, Issue 204: Appraisal of a Sand and Gravel Operation.
26. Whitney Benefits, Inc. and Peter Kiewit Sons' Co. v. United States. October 13, 1989.
27. Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992).
28. Appraisal of Construction Rocks: American Institute of Professional Geologists, July 1993.
29. Dolan v. City of Tigard, 512 U.S. 374 (1994).
30. El Paso Natural Gas Company v. Federal Energy Regulatory Commission. October 4, 1996.
31. Florida Rock Industries, Inc. v. United States. August 31, 1999.
32. Mining Engineering, September 1999: Valuation of Undeveloped Rock and Aggregate Deposits by Robert H. Paschall.
33. City of Wichita v. Eisenring. July 14, 2000.
34. The Canadian Appraiser, Winter 1990: The Appraisal of a Gravel Pit.

### FIELD RESEARCH AND DATA CORRELATION

Field research included a survey of crushed stone producers in Opa-Locka West Airport 's Production-Consumption Area (PCA)<sup>1</sup> to determine royalties and purchase prices currently paid for aggregate properties and operations, plus general information on the construction and industrial minerals market in the PCA.

The PCA is comprised of the following Counties:

**TABLE 2  
PRODUCTION-CONSUMPTION AREA**

Number	County	State
1	Miami-Dade	Florida
2	Broward	Florida

Plan C illustrates the PCA.

Contacts were made with organizations having background data on the above referenced PCA, Florida area economies, the construction materials industry in the area, and overall market conditions and prospects.

Specific contacts were as follows:

#### **Regulatory Controls**

Florida Geological Survey  
 Florida Department Of Environmental Protection  
 Miami-Dade Aviation Department Records  
 Previous CMC Appraisals In Florida And Miami-Dade County

#### **Geology and Reserves**

United States Geological Survey  
 Florida Geological Survey  
 Florida Department Of Environmental Protection  
 Miami-Dade Limestone Products Association  
 Miami-Dade Aviation Department Records  
 Previous CMC Appraisals In Florida And Miami-Dade County

#### **Technical Specifications & Requirements**

Florida Department Of Transportation  
 Miami-Dade Aviation Department Records  
 Previous CMC Appraisals In Florida And Miami-Dade County

#### **Operational Aspects**

Florida Department Of Transportation  
 Miami-Dade Aviation Department Records  
 Previous CMC Appraisals In Florida And Miami-Dade County

<sup>1</sup> The PCA Is The Area Within Which Mineral Production Is Generally Matched By The Consumption Of That Particular Mineral. Portions Of Other Adjoining Counties May Also Fall Within The Market Area.



**Aggregate Industry**

United States Geological Survey  
Florida Geological Survey  
United States Department Of Labor, Mine Safety And Health Administration (MSHA)  
Florida Department Of Transportation  
Florida Department Of Environmental Protection  
Previous CMC Appraisals In Florida And Miami-Dade County

**Market Conditions**

Florida State Data Center, County Data Books  
Florida Department Of Commerce & Economic Development  
Florida Department Of Transportation  
Miami-Dade Chamber Of Commerce & Industry  
Construction Industry Research Board (CIRB)  
Previous CMC Appraisals In Florida And Miami-Dade County

**Mineral & Mining Interest Appraisals**

American Institute Of Minerals Appraisers (AIMA)  
Royal Institution Of Chartered Surveyors – Minerals Faculty (RICS)  
National Association Of Real Estate Boards (NAREB)  
CMC Field Interviews  
Miami-Dade Aviation Department Records  
Previous CMC Appraisals In Florida And Miami-Dade County

Data and information obtained from this research was correlated and analyzed for subsequent use in the appraisal process and formulation of this Report.

## MINING AND PRODUCTION ASPECTS

*Note: Common usage in the mining industry in the United States is to refer to production data, which is synonymous with sales data, except where stated.*

### **Mining**

A Comprehensive Report<sup>1</sup> submitted in September 1980 to the United States Army Corps of Engineers studied the rock mining industry in South Florida in considerable detail.

Due to the near surface water level in some counties, including Miami-Dade County, rock mining is conducted below water. In other counties, where ground conditions are different, de-watering or pumping down of the ground water level, is practiced.

The various stages of development involve the following:

- |         |   |
|---------|---|
| Stage 1 | Construction of an access road using crushed stone imported from a nearby quarry.   |
| Stage 2 | A key cut is made by a dragline, working on portable mats to spread its weight over low bearing capacity soils. The dragline removes the surface layer of muck soils and deposits it on either side of the cut.   |
| Stage 3 | As the dragline advances with its stripping, the exposed area is filled with imported crushed stone and a drill rig drills a sequence of blast holes through the crushed stone pad and into the underlying limestone or limerock. After priming the blast holes with explosives, blasting occurs and the limestone is fractured into various sized fragments (shot rock). |
| Stage 4 | The stripping dragline continues to advance the key cut with a new pad being constructed between it and the previously blasted area. The shot rock is excavated from this area by a second dragline and the material is dumped on both sides of the excavation.   |
| Stage 5 | The sequence continues, with on-site excavated rock being used for working pad and road construction, from this point on.<br><br>The stockpiled shot rock is allowed to dry and is then loaded into dump trucks by front end loaders and trucked to the processing plant in large off-road haul trucks.   |
| Stage 6 | As the end of the key cut is reached, a parallel, reverse direction, cut commences. Through a sequence of cuts, all of the minable area is excavated, with the edges of the excavation being left as a gently sloping shelf, or littoral zone, which is used as a mitigation area (see below).  |

Excavations are typically 40 to 60 feet deep. The mitigation area, or littoral zone, described above, is utilized to provide an area for new vegetation and habitat to develop and also as a filtration area, trapping the nutrients from water draining into the excavated lake area. As of late 1980, littoral zones were an emerging practice in South Florida.

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<sup>1</sup> Environmental Assessment – Limestone Rock Mining, Dade, Broward And Collier Counties, Florida, September 1980

**Production**

No limestone production has ever taken place on the Subject Property, until recently, the Subject Property was utilized for pilot training purposes.

CMC's market demand analyses for limestone (discussed in Sections 10 and 11 of this Report) indicate a PCA market demand for limestone ranging between approximately 14.7 and 49.8 million tons per year, and averaging approximately 29 million tons per year.

**Sales Prices To Preferred Customers**

Large Volume, repeat customers that are financially strong, and will take large volumes of material on a regular basis are classed as "preferred customers". Advance material needs of Preferred Customers are usually planned first, and stockpiled specifically for that preferred customer.

In recognition of the positive impact this arrangement has on the producer, a discount over the posted materials price is given to the preferred customer.

CMC has appraised numerous small, medium, large and international operations nationwide, and discounts typically range between five (5) to 10% off the posted price of the materials, tied to stringent on time payment requirements and penalties. Typically, a five (5) percent discount is common, and a 10 percent discount is typical for "internal" sales, where the producer owns another company and sells material "internally" to their other company, at a discounted rate. Discounts above 10 percent are extremely uncommon.

**REGULATORY CONTROLS ON SURFACE MINING AND PROCESSING  
IN  
MIAMI-DADE COUNTY, FLORIDA**

**Regulatory Controls**

Federal controls and regulations on mining and quarrying operations in the United States are largely restricted to Water & Air Quality, Wetland Protection, and Health & Safety Issues. Regulatory controls, at a state and local government level, range from highly constricted and controlled (California and New Jersey) to relatively unregulated (Texas, Louisiana, Mississippi). The degree of regulatory control has a direct impact on the availability and value of permitted mine and quarry properties and operations.

A February 2004<sup>1</sup> article by the USGS indicated the following:

- Public opposition to existing aggregate operations in the United States is low.
- Public opposition to new aggregate operations in the United States is very high, particularly new crushed stone operations.
- 57% of respondents to a survey regarding opposition to proposed new sand & gravel operations ranged between often object, usually object, to always object.
- 82% of respondents to a survey regarding opposition to proposed new crushed stone operations ranged between often object, usually object, to always object.

**General Information**

The National Mining Association, which represents the interests of a large number of mining companies in the United States, published the following information, from government and other sources, regarding mine permitting processes in the United States.

1. The entire process of finding and permitting a new mineral deposit in the United States can take from four (4) to eight (8) years – if it can be accomplished at all.
2. Federal regulatory compliance has become a moving target, with unending deadlines, delays and excessive and/or frivolous legal challenges. These continually changing requirements have, as recent history indicates, substantially reduced the willingness of companies to make new exploration and mine development investments on United States public lands.
3. Hardrock Mining On Federal Lands, National Research Council  
“The permitting process is cumbersome, complex and unpredictable because it requires cooperation among many stakeholders and compliance with dozens of regulations for a single mine ... The public, the land management agencies and the permit applicants would all benefit if the permitting process were conducted more efficiently.”
4. Federal Laws
  - National Environmental Policy Act
  - Clean Water Act
  - Clean Air Act
  - Safe Drinking Water Act
  - Resource Conservation and Recovery Act
  - Superfund and Toxic Release Inventory

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<sup>1</sup> Trends In Availability Of Aggregate – G.R. Robinson, Jr. USGS – February, 2004

4. Federal Laws (Continued)
  - Endangered Species Act
  - National Historic Preservation Act
  - Federal Land Management Policy Act
  - Plan of Operations/Reclamation Plan Approval
  
5. State Laws
  - State Environmental Policy Acts
  - State Surface Water Discharge Permits
  - State Ground Water Protection Laws or Regulations
  - Storm Water Permits
  - Construction Permits for Dams or Impoundments
  - Air Quality Permits
  - Solid Waste Disposal
  - Water Appropriation Permits
  - Mine Operating Permit
  - Reclamation Plan Approval or Permit
  - Reclamation Bonding
  - Environmental Performance Bonding
  - Wildlife Reviews or Permits
  - Cultural Resources Review
  - Local Use Permits or Building Approvals

A 2001 study by mining consultants Behre Dolbear ranked the United States the worst country in the world in regards to the time required to process and issue a mining permit, even though the United States was ranked favorably for political stability, economic system and social issues affecting mining investment.

There are numerous counties and municipalities that may regulate activities at mines and quarries, and the aspects regulated are different for each local government. Local regulation may include: conformance with the Comprehensive Land Use Plan, impacts on wetlands, operating permits, reclamation, set backs from property lines, stormwater management, truck routes, noise, dust, hours of operation, blasting, performance bonding, garbage disposal, etc. Permits from the County Health Department may be required for drinking water and sewage disposal systems.

### **Federal Permits**

#### The United States Army Corps of Engineers (USACOE)

The USACOE regulates activities that affect wetlands and surface waters under Section 404 of the Federal Water Pollution Control Act. This may include new activities in previously closed mines or pits. The USACOE's wetland jurisdiction may be different from the State's wetland jurisdiction.

The State and USACOE may use the same permit applications for activities involving wetlands and surface waters. When a Joint Application for Environmental Resource Permit, or a Joint Application for Wetland Resource Alterations, is submitted to the State Department of Environmental Protection (DEP), or its equivalent, or a water management district, a copy is forwarded to the USACOE for federal review. The USACOE will then contact the applicant. The federal fees and review processes are separate from the State fees and processes.

A federal permit cannot be issued until the DEP has certified that the proposed project will be in compliance with water quality standards. For projects in coastal counties a federal permit cannot be issued until the DEP finds the project consistent with the specific coastal management program. These two determinations are part of the Wetland Resource Permit or Environmental Resource Permit.

### National Pollution Discharge Elimination System (NPDES) Permit

This is a program to eliminate pollution from point source and stormwater discharges. It is administered by the United States Environmental Protection Agency (EPA); however, parts of this program have been delegated to the State DEPs:

- Point Source Discharges - The regulation of point source discharges is commonly delegated to the State DEP. This permit may be part of the Industrial Wastewater Permit.
- Stormwater Discharges - Stormwater discharges from areas that contain pollutants associated with fugitive dust, outdoor storage of raw materials and by-products, and vehicle and equipment maintenance yards, may be subject to NPDES stormwater standards, if the facility is also required to have a NPDES wastewater permit. If the facility does not need an NPDES wastewater permit, then the NPDES stormwater application is reviewed by the Water Management Division of the EPA.

### Mine Safety

Though not a permitting agency, the Mine Safety and Health Administration (MSHA) of the United States Department of Labor, regulates activities at mines and quarries. Any mine or quarry opened, reopened, or reactivated must comply with the Federal Mine Health and Safety Act, and the rules, policies, standards and regulations of MSHA, before any mining or quarrying can take place. MSHA staff inspect mines and quarries for safety and health protection equipment and documentation.

### **Federal And/Or State/Local Permits**

#### Industrial Wastewater Permit

Industrial Wastewater (IW) Permits are State permits that regulate water and industrial discharges. These permits can also incorporate the federal NPDES wastewater and stormwater permits standards and they also include stormwater runoff. There are two types of IW permits:

- A mine or quarry may qualify for a General IW Permit if the operation can contain process wastewater and runoff from up to a 25-year, 24-hour storm event.
- Mining or quarrying operations that do not qualify for the General IW Permit may be required to obtain an Individual IW Permit. Some types of mining and quarrying operations may be exempt from these permits.

#### Stormwater Permit

The stormwater standards may be incorporated in to the Wetland Resource Permit or the Industrial Wastewater Permit, if these permits are also required. If these permits are not required, then a separate Stormwater Permit application may be required.

#### Wetland Resource/Environmental Resource Permits

Operations in, on, or over wetlands or surface water may require permits. Many states have adopted, by statute, a method to delineate wetlands and surface waters. This method takes into consideration hydric soils, wetland plants, and hydrologic indicators. The jurisdictional line identified by State methods can be different from the line identified by the USACOE's methods. A wetland line will be binding on all other State and local agencies.

In some states and for some types of projects, the administration of the Wetland Resource Permit or the Environmental Resource Permit has been delegated from the DEP to the county. This delegation does not apply to mines or quarries.

#### Reclamation Plans and Notices

Reclamation is the reasonable rehabilitation of the land where resource extraction has occurred. The State reclamation requirements may be administered by the DEP. Some counties and other agencies may also require reclamation plans, permits, or performance bonds. These reclamation programs should

not be confused with the State program. The State requirements typically do not apply to sites where all extracted material remains on site.

**Subject Property Permit Status**

The Subject Property is not currently permitted for limestone mining but is located adjacent to a mined out limestone property to the Southwest and, one of the largest quarries in the United States (White Rock Quarries) mining a property immediately to the east. The Subject Property also lies within the Lakebelt District which was specifically created to recognize limestone mining, and its importance, in this area.

Under the above circumstances, a one (1) year permitting period has been presumed, under the Aggressive Scenarios adopted in the appraisals which follow, and a two (2) year permitting period assumed under the Conservative Scenarios.

## TECHNICAL SPECIFICATIONS AND REQUIREMENTS

Technical specifications pertaining to aggregates<sup>1</sup> are typically determined by the physical, and sometimes the chemical, properties of the aggregates.

In general, chemical properties are of less concern than physical properties when utilizing the product as a construction aggregate source. Chemical properties are critical, when utilizing the product as an industrial sand and gravel, such as glass sand, with physical properties also being important, but to a lesser extent than for aggregate use.

### Construction Aggregates

The building industry uses aggregates in Portland cement concrete, mortar, and plaster. The paving industry uses aggregates in both asphaltic mixtures and Portland cement concrete. Aggregate is commonly designated as the inert fragmental material which is bound into a conglomerate mass by a cementing material such as Portland cement, liquid asphalt, or gypsum plaster.

Portland cement concrete consists of sand and gravel or crushed stone surrounded, and held together, by hardened Portland cement. Concrete mixes commonly contain 15-20% water, 7-14% cement, and 66-78% aggregate by volume. Concrete aggregates have to meet many requirements. Premature deterioration of concrete has been traced, in many instances, to the use of unsuitable aggregates.

The International Center for Aggregate Research (ICAR), has determined that good quality concrete can be made using up to 17% of minus #200 sieve stone fines from many different rock types **without** using chemical or mineral admixtures. In many cases the strength and other properties of such concrete were superior to concrete made with good quality natural sand. In early 2002, ICAR submitted a draft revision to the American Society of Testing & Materials (ASTM) specification committee on this matter.

Typically most minus #200 mesh material is considered waste and represents around 20% of the total aggregate source. Rendering 17% of fines as usable would increase economically minable reserves an average of 3.4% (17% x 20%).

Asphaltic concrete mixes (asphalt or "blacktop"), used predominantly for paving, consist of combinations of coarse aggregates, fine aggregates (sand), and mineral filler (material finer than 0.003 in.), uniformly coated and mixed with liquid asphalt produced in the refining of petroleum. Except for the addition of mineral filler, asphaltic aggregate must meet similar general physical requirements as materials used for Portland cement concrete aggregate.

A typical asphaltic concrete consists of 57% coarse aggregate, 38% fine aggregate (sand) and five (5)% asphalt binder<sup>2</sup>.

Construction aggregate has many requirements that are difficult to meet if only unprocessed material from natural deposits is used. Suitable material is composed of clean, uncoated, properly shaped particles, which are sound and durable. Soundness and durability are terms used to denote the ability of aggregates to retain a uniform physical and chemical state over a long period of time so as not to cause disruption of the concrete when exposed to weathering and other destructive processes. To have these attributes, individual particles must be tough and firm, possessing the strength to resist stresses and chemical and physical changes, which may cause swelling, cracking, softening and leaching. The aggregate should not be contaminated by excess clayey material, silt, mica, organic matter, chemical salts or surface coatings.

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<sup>1</sup> Crushed Stone And Sand & Gravel

<sup>2</sup> Source: Larry Quinlivan, National Stone, Sand & Gravel Association



The quality of an aggregate depends upon its physical and chemical properties. These, in turn, are influenced by inherent mineralogical and textural features of the rock or the effects of later changes such as tectonic fracturing<sup>1</sup>, mechanical or chemical weathering or encrustations.

The physical properties most significant with regard to concrete and asphaltic aggregates are:

- 1) An absence of fractures and pores;
- 2) Particle shape and surface texture;
- 3) Presence of material which may cause volume change.

An aggregate is considered to be physically sound if it has adequate strength and is capable of resisting the agencies of weathering without disruption or decomposition. Minerals or rock particles that are physically weak, extremely absorptive, or easily cleavable are susceptible to breakdown by weathering.

The use of such materials in concrete reduces strength, leads to early deterioration by promoting a weak bond between cement and aggregate, and may induce cracking, spalling or popouts. Severely weathered, soft, micaceous, or porous materials may cause localized stresses to develop in concrete by swelling and shrinking during wetting and drying or freezing and thawing cycles.

The chemical properties which may affect the service life of concrete are:

- 1) Reaction of certain rocks and minerals with high-alkali cement (alkali-aggregate reactivity);
- 2) Leaching of water soluble substances;
- 3) Solution of certain secondary minerals, such as the zeolites, to release sodium and potassium which aids in attacking susceptible aggregate particles;
- 4) Oxidation by weathering to produce compounds that may retard cement hydration.

In 1970, the National Highway Institute (NHI) was established as a branch of the Federal Highway Administration (FHA) to adapt research on new technology pertaining to highway construction. Most of the research was in regard to the use of, and developing standards for construction aggregates. The largest single use of aggregates is in highway construction, as may be noted from analyses carried out by the FHA, included in Appendix VII. The establishment of the NHI also led to a move to standardize State Highway Department specifications for aggregates, particularly in projects, which receive Federal funding. In general, if an aggregate meets State Highway Department specifications, it will meet most specifications utilized in other public and private construction projects.

Other agencies involved in research on aggregates and their use include The Transportation Research Board (TRB), National Council on Public Works Improvement (NCPWI) and The Associated General Contractors of America (AGC). Actual specifications for aggregates are produced by two principle private organizations - the American Society of Testing and Materials (ASTM) and the American Association of State Highway and Transportation Officials (AASHTO).

Specifications for aggregates and their use are not uniform throughout the United States since climatic conditions vary dramatically. Many Southern States have a mild year round climate for the most part and freeze-thaw cycles are rare and short lived, unlike the Northern and Central States where they are common and lengthy.

Aggregates are particularly vulnerable to freeze-thaw conditions since water soaks into the aggregate under rain or snow conditions, and expands when frozen, producing pressure which causes the aggregate, or its medium, (ready mixed concrete or asphaltic concrete) to crack. These cracks, in turn, hold water and the cycle is repeated, leading to "pot hole" conditions found on many highways.

In general, aggregates from a deposit will be satisfactory for most uses if they at least meet the minimum specifications and standards. A general average of the basic requirements recommended by the ASTM,

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<sup>1</sup> Tectonic Fracturing Is Caused By Movements In The Earth's Crust.

AASHTO, State Highway Departments, United States Army Corps of Engineers, Federal Aviation Authority (FAA) and the United States Bureau of Reclamation is summarized in the following Table:

**TABLE 3  
SUMMARY OF STANDARDIZED PHYSICAL TESTS ON AGGREGATES**

Test	Test Description
Abrasion	The Abrasion Loss Should Be Less Than 30%. The Term "Abrasion" Represents A Test Where A Weighed Sample Of Aggregate Is Rotated In A Drum, Normally For 1000 Revolutions. The Fine Particles Are Subsequently Screened And The Sample Is Again Weighed To Determine The Loss Due To Abrasion, Which Should Not Be Greater Than 30%.
Sodium Sulfate Soundness	The Loss In The Sodium Sulfate Test Should Be Less Than 10%. This Test Is Designed To Examine A Material's Tendency To Weaken Due To Crystal Expansion Within Cracks And Crevasses In The Material. The Sample Is Submerged In A Sodium Sulphate Solution, Then Allowed To Dry, Resulting In Salt Crystal Growth.
Specific Gravity	The Specific Gravity Should Be Greater Than 2.55. Specific Gravity Is A Measure Of The Material's Density, Which Has A Direct Effect On The Final Construction Material's Weight And Workability.
Size And Gradation	The Material Should Have Proper Grading Such That The Fine Aggregate Contains No More Than 45% Of The Material Between Two Consecutive Sieve Sizes. The Material Is Passed Through Screens (Normally 6) With Consecutively Smaller Sieve Sizes. For A Material To Pass This Test, No More Than 45% Of The Material Should Remain On Any One Sieve.
Fineness Modulus (FM)	The Fineness Modulus Should Be Between 2.3 - 3.1. Fineness Modulus Represents The Total Percent Of Material Retained On Each Screen Divided By 100. For Proper Gradation, Each Screen Should Contain Between 23% And 31% Of The Material.
Minus #200 Mesh	No More Than 5% Of The Material Should Pass The No. 200 Mesh Sieve. The No. 200 Sieve Is The Finest Screen Size And Is Not Included In The Fineness Modulus Test. If More Than 5% Of The Material Passes This Screen, It Will Most Likely Fail The Size And Grading And FM Tests Previously Described.
Reactivity	A Mortar Bar Containing The Aggregate Should Have An Expansion Of Less Than 0.10% In One Year With A 0.8% Alkali Content Cement. Reactivity Measures The Material's Reaction To Its Surrounding Medium Over A Period Of Time. If A Material Is Reactive To The Surrounding Medium It Will Cause Expansion, Resulting In Cracking And Eventual Destruction Of The Finished Product.
Absorption	The Absorption Should Not Exceed 3%. Absorption Measures The Material's Tendency To Absorb The Surrounding Medium, Such As Cement Or Liquid Asphalt. If Absorption Exceeds 3%, Too Much Medium Will Be Lost, Resulting In Excessive Slumping Or Settling And Uneconomic Medium Costs.
Durability (Freeze-Thaw Test)	The Concrete Containing The Aggregate Should Not Have A Loss In The Modulus Of Elasticity Exceeding 50%, In The Freeze-Thaw Test. Durability Is Measured To Determine The Effect Of Freeze-Thaw Conditions On The Finished Product. If Excessive Freeze-Thaw Occurs, The Finished Product Will Become Brittle, Resulting In A Loss Of Elasticity.
Sand Equivalency	Fine Aggregates Should Have A Sand Equivalency Of Not Less Than 75. Sand Equivalency Measures The Amount Of Fine Material Coating The Individual Grains Of The Aggregate. The Lower The Sand Equivalency Is, The Higher The Amount Of Fine Material Exists Within The Aggregate. The Presence Of Excessive Fine Materials Will Not Allow Proper Adherence Of Cement Or Liquid Asphalt To Individual Aggregate Particles.

Laboratory testing is a means of scientifically evaluating the suitability of aggregate material. In an attempt to forecast the behavior of the aggregate in concrete, numerous tests have been devised, many of which are complicated and require expensive equipment and trained technicians. Several of these tests have been used for many years and are familiar to those involved in asphalt and concrete construction work. A strong effort is being made to standardize testing procedures throughout the United States and many laboratories use, with little or no modifications, test methods as set forth in detail by the ASTM or AASHTO.

The principal tests performed on aggregates are for toughness and abrasion resistance, soundness, organic content, grading, specific gravity, absorption, alkali-aggregate reactivity, and thermal incompatibility. Microscopic examination supplements the laboratory tests, which are summarized in the following Table:

**TABLE 4**  
**LABORATORY METHODS OF DETERMINING SUITABILITY OF AGGREGATES FOR USE**  
**IN**  
**ASPHALTIC & PORTLAND CEMENT CONCRETE**

Property Of Aggregate	Importance	Test Methods	Reference To Tests*
Hardness And Durability (Resistance To Abrasion)	Affects Strength, Resistance To Wear	"Los Angeles Abrasion Test"; Measure Proportion Of Fine Material Produced By Abrasion In Revolving Metal Drum After 500 Revolutions.	ASTM Test C131-51 (ASTM 1954, P.40)
Soundness (Lack Of Fissures In Particles)	Affects Strength, Susceptibility To Frost Damage From Expansion Of Absorbed Water.	Alternately Soak In Sodium Or Magnesium Sulfate Solution And Dry; Crystallization Of Absorbed Solution Forces Open Invisible Cracks. Subject Test Beams Made With Aggregate To Alternate Cycles Of Freezing And Thawing	ASTM Test C88-46T (ASTM 1954, P.76) ASTM Test C290-52T (ASTM 1954, P.191)
Specific Gravity-Dry And With Absorbed Liquid	Determine Mass (Specific Gravity Commonly Specified 2.5 Or More); Absorption Affects Bond Of Cement Paste To Particles.	Compare Oven-Dry Weight With Immersed Weight And Weight After Surface Re-Dried.	ASTM Tests C127-422 C128-42 (ASTM 1954, PP.82, 84)
Size Grading Characteristics	Affects Flowability, Residual Void Spaces, Strength	Standard Sieve Analysis; Screen In Standard-Size Screens; Weigh Various Fractions; Plot On Appropriate Graphs	ASTM Test C136-46 (ASTM 1954, P.69)
General Characteristics: 1. Particle Size 2. Character Of Surface 3. Grain Size 4. Texture (E.G., Pore Space, Grain Packing, Cementation) 5. Color 6. Mineral Composition 7. General Physical Condition (E.G., Weathering) 8. Presence Of Potentially Deleterious Chemical Substances (E.G., Gypsum, Zeolite, Pyrite, Opal, Chalcedony, Volcanic Glass)	Different Effects On Strength Hardness, Color And Permanence Of Concrete	Examine By Naked Eye, Hand Lens And Under Petrographic Microscope	ASTM Test C295-54 (ASTM 1954, P.97)
Potential Chemical Reactivity	Affects Permanence Of Concrete, Reactive Substances Cause "Popouts" And Failures Due To Expansion	Weigh Silica Dissolved In Sodium Hydroxide Solution; Measure Reduction In Alkalinity Caused By Immersion Of Sample In Standard Hydroxide Solution. Measure Expansion Of Mortar Bars Made With Aggregate Over Lengthy Periods (1-2 Years).	ASTM Test C289-54T (ASTM 1954, P.57) ASTM Test C227-52T (ASTM 1954, P.296)
Lack Of Organic Matter (Coal, Lignite, Organic Impurities)	Affects Strength, Resistance To Wear	Separate Material Lighter Than 2.0 Specific Gravity In Heavy Liquid, And Weigh; Compare Color Of Sample With Standard Color Solution-Dark Color Assumed Due To Organic Material.	ASTM Tests C123-53T & C40-48 (ASTM 1954, PP.51, 56)
Cleanness (Lack Of Dirt, Clay, Or Silt Finer Than 200 Mesh)	Determines Quality Of Bond With Cement	Measure Material Passing 200-Mesh Sieve; Measure Suspended Material After Shaking In Water	ASTM Test C117-49 (ASTM 1954, P.47)
Unit Weight	Determines Mass	Weigh Aggregate Contained In Standard Cubic Foot Measure	ASTM Test C29-42 (ASTM 1954, P.90)
Lack Of Soft Or Friable Fragments	Affects Strength, Resistance To Wear	Scratch Test Using Brass Rod Of Rockwell Hardness B65 To B75; Rock Softer Than Rod Is Unsatisfactory	ASTM Test C235-54T (ASTM 1954, P.74)
Toughness	Affects Strength, Resistance To Wear	Impact; Measures Distance A Standard Size Hammer Drops On Specimen To Fracture It.	ASTM Test D3-18 (ASTM 1954, P.88)

\*Standardized Tests As Outlined By The American Society For Testing And Materials (ASTM): ASTM Standards On Mineral Aggregates, Concrete And Nonbituminous Highway Materials.

### **State Of Florida Specifications**

Normally, unprocessed aggregates are unsuitable for other than the most basic uses of aggregate, such as fill and base material applications. To meet the specifications for the more common uses, such as use in ready mixed concrete and asphaltic concrete (blacktop), the materials are beneficiated through crushing, screening and washing. In some cases beneficiation is impractical or impossible, such as attempting to increase the size of small aggregate. Deleterious materials such as clay, organic materials, lignite, shale, and silt may be removed, or their content reduced, in the beneficiation process.

The largest single users of aggregates in the United States are the State Highway Departments (such as FDOT). Each State Highway Department issues technical specifications for the construction of roads and bridges, and the 2007 specifications<sup>1</sup> are the most recent in the State of Florida.

The sections in the 2007 FDOT specifications that reference limestone/limerock and other related applications are:

- Section 200 – Limerock Base
- Section 204 – Graded Aggregate Base
- Section 210 – Reworking Limerock Base
- Section 230 – Limerock Stabilized Base
- Section 901 – Coarse Aggregate
- Section 902 – Fine Aggregate
- Section 911 – Limerock Material for Base and Stabilized Base

Copies of these sections are provided in Appendix V, with the pertinent information summarized in the following table:

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<sup>1</sup> Department Of Transportation, State Of Florida, Standard Specifications For Roads And Bridges, 2007 Edition.

**TABLE 5  
FLORIDA DEPARTMENT OF TRANSPORTATION - AGGREGATE QUALITY REQUIREMENTS  
2007 SPECIFICATIONS**

<b>Section 200 – Rock Base – Must Meet Requirements of Section 911.</b>		
<b>Section 204 – Graded Aggregate Base (Group 1 Aggregates [Limestone] Only)</b>		
Soundness Loss, Sodium, Sulfate	15%	
Percent Wear	45%	
Gradation:		
<b>Sieve Size</b>	<b>Percent by Weight Passing</b>	<b>Notes</b>
2 Inch	100	
1 ½ inch	95 to 100	
¾ inch	65 to 90	
3/8 inch	45 to 75	
No. 4	35 to 60	
No. 10	25 to 45	
No. 50	5 to 25	No. 40 Sieve = Plasticity Index < 4.0 and Liquid Limit < 25
No. 200	0 to 10	Maximum 67 %
<b>Section 210 – Reworking Limerock Base – Must meet requirements of Section 911.</b>		
		Limerock must be from either Miami Oolite or from the Ocala Formation, but not mixed.
<b>Section 230 – Limerock Stabilized Base – Must meet requirements of Section 911.</b>		
<b>Section 901 – Coarse Aggregate</b>		
	May Consist of Gravel, Crushed Stone or Slag	Coarse Aggregates are +4.75 mm in size (3/16 inch).
Coal & Lignite Content	1.00% Maximum	Clay Lumps and Soft and Friable Particles Combined - 3.0% Maximum. Free Shells May Total up to 5.0% in Asphaltic Concrete.
Coal Lumps	2.0% Maximum	
Soft & Friable Fragments	2.0% Maximum	
Cinders & Clinkers	0.50% Maximum	
Free Shells	0.5% Maximum	
Organic Matter	0.03% Maximum	
Materials Passing #200 Sieve	1.75% Maximum	
Chert	3.00% Maximum	
Los Angeles Abrasion Loss	45% Maximum	
Flat or Elongated Pieces	41% Maximum	
Sodium Sulfate Soundness Loss	12% Maximum	
Wearing Coarse Aggregates	Pre-Cenozoic Limestones Excluded.	Specifically Ketona Dolomite, Newala Limestone, Bangor Limestone and Other Formations of Similar Composition and Origin Occurring in Central and Northern Alabama and Georgia.
Gradation	Varies According to Application.	Range from 100 mm to 4.75 mm Square Sieve Sizes (4 inch to 3/16 inch)
<b>Section 902 - Fine Aggregate</b>		
Shale	1.0% Maximum	
Coal & Lignite	1.0% Maximum	
Clay Lumps	1.0% Maximum	
Cinders & Clinkers	0.5% Maximum	
<b>Section 911 - Limerock Base &amp; Stabilized Base</b>		
Liquid Limit (Limerock Base)	35 Maximum	Must be Non Plastic Plasticity Index Less Than 10.
Liquid Limit (Stabilized Base)	35 Maximum	
Gradation (Limerock Base)	97% Passing 90 mm Sieve (3½ inch)	By Weight.
Gradation (Stabilized Base)	97% Passing 37.5 mm Sieve (1½" inch)	By Weight.
Limerock Bearing Ratio (LBR)	100 Maximum 100 Minimum <sup>1/</sup> 100 Minimum <sup>2/</sup>	Shell Material Shell-Rock Material. Coquina-Shell Material (cemented)

<sup>1/</sup>No Individual Test Less Than 90. No Two Consecutive Tests Between 90 & 100.

<sup>2/</sup>Material With an LBR Less Than 90 is Unacceptable.

**Subject Property Characteristics**

Wingerter Laboratories (Wingerter), a geotechnical testing and Florida certified laboratory, based in North Miami, performed a subsurface site exploration program in April 2007 that involved subsurface drilling, collection of core samples, identification and description of core materials, processing of raw materials, and laboratory analyses. A copy of Wingerter’s Subsurface Exploration Report is provided in Appendix VI of this Report.

Prior to laboratory analyses, Wingerter and CMC discussed sampling and testing methodology, and agreed upon a methodology for analyses to be made. To simulate limestone mining at the Subject Property, a composite sample was prepared from Borings 1 through 7, by compositing all core samples collected from the surface to a depth of approximately 55 feet below the surface (i.e. estimated limestone mining depth, based upon field observations).

Wingerter’s laboratory includes mine processing equipment that is used to process raw feed material and replicate beneficiation of materials using similar equipment that limestone mining companies utilize (crusher, screens, etc.) to process materials.

Processed materials were then analyzed for the “major” tests that are used to qualify aggregates and base materials in accordance with FDOT specifications, including: Gradation, Limerock Bearing Ratio (LBR), Carbonate Content, Los Angeles Abrasion Loss (Resistance to Wear) and Sodium Sulfate Soundness Loss.

Laboratory analytical results are summarized in the following Table:

**TABLE 6  
SUMMARY OF LABORATORY ANALYTICAL TEST DATA  
ON LIMESTONE FROM THE SUBJECT PROPERTY**

Test Method	Sample Analysis	Value (% Passing)	Notes
ASTM-C136	Sieve Analyses – 1 ½”	100.0	Meets Specs for Stone Size No. 4, 467, 5, 56, 57
	Sieve Analyses – 1”	100.0	Meets Specs for Stone Size No. 5, 56, 57, 6, 67
	Sieve Analyses – ¾”	91.2	Meets Specs for Stone Size No. 6, 67, 68, 7, 78
	Sieve Analyses – ½”	81.1	Minimal Crushing Required to Meet Specs
	Sieve Analyses – 3/8”	58.2	Meets Specs for Stone Size No. 68, 7, 78
	Sieve Analyses – #4	30.9	Meets Specs for Stone Size No. 8, 89
	Sieve Analyses – #8	20.8	Meets Specs for Stone Size No. 89, 9
	Sieve Analyses – #200	4.7	No Applicable Specifications for #200 Sieve
FM-5-515	Limerock Bearing Ratio (LBR)	125	Passes Specifications
FM-5-514	Carbonate Content – Silica & Insolubles	25.43%	Passes Specifications
	Carbonate Content – Ca & Mg Carbonates	74.57%	
ASTM-C131	Los Angeles (L.A.) Abrasion Loss	31.93% Wear Grade B	Passes Specifications
ASTM C-88	Sodium Sulfate Soundness Loss	Total Loss 3.49%	Passes Specifications

As seen from the above table, materials processed from the Subject Property will pass the major applicable tests for coarse aggregates and base materials, in accordance with FDOT specifications, and are capable of being processed into coarse aggregates and base materials.

Copies of laboratory analytical data are included in Appendix V of this Report.

## GEOLOGY, SITE INVESTIGATIONS, & RESERVES

### Geology

Most of the state of Florida is located on the Florida Platform, which extends from the southern edge of the North American Continent into the northeastern Gulf of Mexico for almost 400 miles, in a north-south direction. The Platform is up to 400 miles wide in an east-west direction, however more than half of it lies below sea level in elevation (Florida Geological Survey [FGS], 2001).

The state of Florida is also divided into two (2) distinct physiographic provinces<sup>1</sup>. Most of the state lies within the Florida Platform province. The westernmost portion of Florida, known as the “panhandle region”, is located in the Gulf Coastal Plain province.

The basement rocks of the Florida Platform include Late Phanerozoic (900 to 570 million years ago [ma]) Eon to Cambrian (570 to 505 ma) aged igneous<sup>2</sup> rocks, Ordovician (505 to 438 to ma) and Devonian (408 to 360 mya) Period sedimentary<sup>3</sup> rocks and Triassic (245 to 208 ma) to Jurassic (208 to 144 ma) Period volcanic (igneous) rocks. The surface of these basement rocks are well eroded and a thick sequence of Mid-Jurassic (~180 ma) to Holocene (2 ma to present) Epoch sediments lies unconformably<sup>4</sup> over the basement rock (FGS, 2001; United State Geological Survey [USGS], 2003).

These various rock units range in thickness from 2,000 feet in northern Florida to more than 5,000 feet in southern Florida, and constitute the Florida aquifer system. The relief is very minimal, since most of Florida is characterized by flat terrain and topography.

### Carbonate Rock Classification

The terms “limestone and dolomite” are generally used for the hard limestone rock that is used as a coarse aggregate in ready mixed concrete and asphaltic concrete production. The term “limerock” is the term used for softer limestones that are used as base, fill and screenings.

The FGS published a comprehensive, highly detailed report on the carbonate sediments of Florida in 1979. The carbonate sediments were classified into mining industry categories used locally. A summary of definitions, locations and construction use, from this report, is provided below:

### Limestone

Limestone is any sedimentary rock containing more than 50% combined calcium carbonate minerals: calcite (calcium carbonate) and dolomite (calcium magnesium carbonate). In the aggregate industry, limestone is usually comprised of more than 90% calcium carbonate. Most limestone in Florida is biogenic<sup>5</sup> in origin. There are three (3) main varieties of limestone in Florida:

1. Fossiliferous limestones are the most abundant form found in Florida. Some of these, such as the Key Largo Limestone, represent ancient reefs.
2. Coquina is composed of cemented marine shell fragments often containing quartz sand. The Anastasia Formation is the most abundant coquina formation in Florida.
3. Oolitic limestone is comprised of small grains (2 millimeters or less in size) of calcite or aragonite (a form of calcite) termed "oolites". Oolites form in warm waters around sand grains that became coated with successive layers of calcium carbonate deposits.

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<sup>1</sup> A Region In Which All Parts Are Similar In Geologic Structure And Climate And Relief.

<sup>2</sup> Rocks Or Minerals That Formed From Magma.

<sup>3</sup> Rocks That Formed By Deposition Of Materials.

<sup>4</sup> An Unconformity, Or Unconformable Relationship Exists When There is A Gap In The Order Of The Rocks. In This Instance, Jurassic Rocks Are Overlying Cambrian Rocks, Which Implies A Missing Time Period Of Approximately 240 Million Years.

<sup>5</sup> Formed From The Shells Or Skeletons Of Living Animals.

### Dolomite

Dolomite usually forms from a re-crystallization of limestone (dolomitization) such that the calcium magnesium carbonate content exceeds the calcium carbonate content, and the magnesium carbonate content is greater than 15%.

### Coquina

Coquina is primarily comprised of cemented mollusk shells held together by calcareous materials. It can range from a sandy limestone to a calcareous sandstone, or be uncemented. Coquina, in its hardest form, was the earliest construction material used in Florida when the Spanish settlers used it to construct forts and missions. Today coquina is primarily used as a road base material, which application benefits from coquina's tendency to "case harden" when exposed to the elements.

### Limestone Deposit Locations

Limestone deposits in Florida are located in three (3) major areas:

- 1) The Jackson/Holmes/Washington County area of the Florida Panhandle:
  - a. This area encompasses the dolomite area mentioned below, together with the limestone deposits falling within the Ocala Group.
  - b. The Marianna and Suwannee Limestones form the remainder of the deposits on the southern fringes of the area, other than small areas of the Chattahoochee/St. Marks Formation.
  - c. The Ocala ranges between 200 and 300 feet in thickness, and the Marianna ranges between 25 and 45 feet thick.
  - d. The Suwannee is widely variable in thickness, between zero and 200 feet.
  - e. The Chattahoochee/St. Marks Formation averages 50 feet thick in Holmes and Washington Counties, and between 100 and 227 feet thick in Jackson County.
  
- 2) Big Bend Area, incorporating the Counties of Pasco, Hernando, Sumter, Citrus, Marion, Levy, Alachua, Gilchrist, Dixie, Lafayette, Taylor, Jefferson, Wakulla, and Columbia:
  - a. The Big Bend area limestones are comprised predominantly of the Ocala Group, with an associated Avon Park Limestone occurring in Levy and Marion Counties.
  - b. The Suwannee and Marianna Limestones are in contact with the Ocala Group in Hernando and Taylor Counties. There are small areas of the Chattahoochee/St. Marks Formation in the southern limit of Pasco County, and in the western limit of Wakulla County.
  - c. The Avon Park Limestone is the oldest formation in this area and is the primary source of dolomite (see below).
  - d. The Ocala Group is divided into the Williston, Crystal River and Inglis Formations, with some dolomite and small deposits of coquina occurring in the Inglis.
  - e. The Inglis is typically 50 feet thick and the Williston 30 feet thick.
  - f. The Crystal River Formation varies between zero and 300 feet in thickness and is approximately 100 feet thick in Citrus County.
  - g. The Suwannee Limestone reaches a thickness of more than 200 feet in Hernando and Pasco Counties.
  - h. The St. Marks Formation reaches a maximum thickness of 120 feet in Jefferson County and is widely variable in thickness in Pasco and Hillsborough Counties.
  - i. The Pasco/Polk/Hillsborough County area has deposits of Ocala Group and Suwannee/Marianna Limestones.
  - j. Portions of Suwannee County and adjoining counties have deposits of the Suwannee/Marianna Limestones in the north and the Ocala Group in the south.
  - k. The small portion of limestone in Hillsborough County encompasses the Tampa Metropolitan area with no past or present quarrying listed.



- 3) Southern Florida, including the Counties of Palm Beach, Broward, Miami-Dade, Monroe, Collier, Lee, Hendry and Glades:
  - a. In Lee, Hendry and Collier Counties, the limestone deposits are restricted to the Tamiami Formation, this usually being covered by a thin layer of quartz sand, which is easily removed.
    - i. These deposits range between 40 and 100 feet in thickness and may reach 150 feet thick in places.
  - b. The Key Largo Limestone forms the Florida Keys area.
  - c. The minable limestone deposits in the Miami-Dade, Broward and Palm Beach County area of South Florida are restricted to the Miami Oolite and Fort Thompson Formations.
  - d. The Miami Oolite (Miami Limestone) typically occurs as a soft, white to yellow, pure limestone (up to 95% calcium carbonate). It is thickest under the Atlantic Coast Ridge (estimated at 40 feet), and thins away from the ridge.
    - i. Because of its oolitic structure, the Miami Oolite is extremely porous and serves as part of a major aquifer (Biscayne Aquifer) in southeast Florida.
    - ii. The Miami Oolite deposits have been measured up to 40 feet in thickness in northeast Dade County.
    - iii. The Miami Oolite limestone is a very strong durable material in the Miami area. In other areas the cementing between the oolites is less pronounced and a more friable material results, as with the Fort Thompson limestone deposits.
  - e. Other limestone areas include a small area near Lake Okeechobee in extreme northeast Hendry County in what is believed to be the Fort Thompson and Caloosahatchee Formations. Mining in this area is of little economic significance.

#### Dolomite Deposit Locations

Dolomite deposits in Florida lie predominantly in three (3) main areas along the Gulf Coast, with small inland areas related to these three (3) coastal areas. There is also an isolated deposit in Jackson County, Florida, in the Florida Panhandle area. There are no dolomite deposits in any of the Central, Eastern or Southern Florida Counties.

- 1) The Jackson County deposits are restricted to intermediate or low potential deposits which are often covered with excessive amounts of overburden, which would cost more to remove than could be recovered from subsequent mining. Overburden is material overlying the deposit being mined, and is typically unsalable and must be removed to access the minable deposits. The dolomite deposits in Jackson County occur within the Marianna and Suwannee Formations, which are highly weathered and range between 10 and 200 feet in thickness. The Marianna Formation deposits are approximately 24 feet thick in Jackson County and are typically mined in conjunction with associated limestone deposits.
- 2) The three (3) Gulf Coast areas are Taylor County, Levy County, and Manatee and Sarasota Counties in the Sarasota area. The Taylor County coastal region has a large area of low and intermediate potential dolomite deposits with a small area of high potential deposits in the extreme western corner of the County, which includes the subject property. These also lie within the Marianna and Suwannee Formations. The dolomite deposits are usually thin bedded and typically are mined in conjunction with associated limestone deposits. The dolomite deposits remaining in Taylor and Jefferson Counties are the sole remaining hard rock deposits in northern Florida.
- 3) In southern Levy County, near Gulf Hammock, there are deposits of intermediate to high potential dolomite that occur within the Avon Park Formation. These dolomite deposits range between 200 and 300 feet in thickness. The Inglis Formation is also a source of dolomite in this area, with deposits approximately 50 feet thick.
- 4) The last and southernmost location of dolomite deposits lies along the Gulf Coast in Manatee and Sarasota Counties. These deposits lie within the Hawthorn Formation and are comprised of hard

crystalline dolomite between 150 feet and 300 feet in thickness. Dolomite deposits are abundant in the Hawthorn Formation of western Manatee County, where they are very crystalline and hard.

#### Coquina Deposit Locations

The principle coquina deposits in Florida lie in a narrow band along the Atlantic Coast. The region is approximately 250 miles in length, stretching from Palm Beach County in the south to St. John's County in the north. These coquina deposits occur within the Anastasia Formation, and are comprised of a loosely cemented, sandy mixture of mollusk shells. They represent an ancient coral beach of the Atlantic Ocean that stretches up to a maximum of five miles inland, with a maximum thickness of 100 feet. To the south this beach interfringes with the northern part of the Miami Oolite.

#### Carbonate Rock - Construction Use

Both limestone and dolomite are used as aggregates, primarily in the production of ready mixed concrete and asphaltic concrete ("asphalt" or "blacktop"). Both are used in various industrial mineral applications, such as limestone in cement manufacture and dolomite in refractory (heat resistant) material. Limestones and dolomites in Florida range in age between 42 ma to recent.

#### **Site Investigations**

Local and regional geologic maps indicate that the subsurface underlying the Subject Property is as follows:

- Qm – Miami Limestone (formerly termed Miami Oolite).

A general geological map of the area, prepared from Florida Geological Survey Digital Geologic Maps, is provided as Plan D.

As previously mentioned in Section 6, Wingerter Laboratories (Wingerter), a geotechnical testing and Florida certified laboratory, based in North Miami, performed a subsurface site exploration program on the Subject Property in April 2007.

Wingerter installed eight (8) borings to depths of between 75 to 100 feet below ground surface. Plan E illustrates the locations of the boreholes.

A copy of Wingerter's exploration report, including boring logs for all borings, is included in Appendix VI.

#### **Reserves Classifications**

##### United States Geological Survey (USGS) - 1980

Prior to 1970 the various definitions of reserves used by geologists, engineers, the mining industry and others, varied widely, with no universally agreed definitions. In an effort to develop a common classification system, the United States Bureau of Mines and the United States Geological Survey developed a general classification scheme. This classification system was revised in 1980 and published as Geological Survey Circular 831 – "*Principles of a Resource/Reserve Classification System for Minerals.*" A copy of this publication is included in Appendix V.

Definitions of resources and reserves are provided in this publication, along with three (3) increasing levels of confidence for classifying reserves (Inferred, Indicated and Measured). These three (3) definitions are also synonymous to three (3) classification levels commonly used in the mining industry (Possible, Probable and Proved).

1. Inferred (Possible) reserves are the in-place part of an identified resource from which inferred reserves are estimated. Quantitative estimates are based largely on knowledge of the geologic character of a deposit and for which there may be no samples or measurements. The estimates are based on an assumed continuity beyond the reserve base, for which there is geologic evidence.

2. Indicated (Probable) reserves are where the quantity and grade and(or) quality are computed from information similar to that used for measured resources, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for measured resources, is high enough to assume continuity between points of observation.
3. Measured (Proved) reserves have their quantity computed from dimensions revealed in outcrops, trenches, workings or drill holes. The quality of the reserves is determined from detailed sampling. The sites for inspection, sampling and measurement should be spaced so closely, and the geological character be so well defined, that the size, shape, depth and mineral content of the deposits are well established.

Society For Mining, Metallurgy and Exploration, Inc. (SME) - 1999

The SME published a similar document to the USGS in 1999, entitled "*A Guide For Reporting Exploration Information, Mineral Resources, and Mineral Reserves*". A copy of the SME - 1999 document is also included in Appendix V.

Definitions of resources and reserves are summarized in this publication, along with the definition of a "competent person", and three (3) hierarchy levels of reserves/resources classifications - Measured, Indicated and Inferred.

1. A "Competent Person" is a person who is a member of a professional society for earth scientists or mineral engineers, or has other appropriate qualifications. The Competent Person must have a minimum of five years experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which that person is undertaking. If the Competent Person is estimating, or supervising the estimation of Mineral Resources, the relevant experience must be in the estimation, assessment and evaluation of Mineral Resources. If the Competent Person is estimating, or supervising the estimation of Mineral Reserves, the relevant experience must be in the estimation, assessment, evaluation and economic analysis of Mineral Reserves.

The AIMA defines a "Competent Person" as follows:

Typically, the qualified appraiser must have demonstrated relevant experience, and be a member in good standing of a recognized self-regulating professional organization (SRO) that has disciplinary powers to suspend or expel a member for violation of its Code of Ethics. AIMA is a SRO with such disciplinary powers, though it has not yet had an enforcement need that demonstrates those powers.

2. A "Mineral Resource" is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust (a deposit) in such form and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. Portions of a deposit that do not have reasonable prospects for eventual economic extraction must not be included as a Mineral Resource.
  - An "Inferred Mineral Resource" is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which is limited or of uncertain quality and/or reliability. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource.

- An “Indicated Mineral Resource” is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings, and drill holes. The locations are too widely or inappropriately spaced to confirm geological continuity and/or grade continuity but are spaced closely enough for continuity to be assumed. An Indicated Mineral Resource has a higher level of confidence than that applying to an Inferred Mineral Resource.
  - A “Measured Mineral Resource” is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings, and drill holes. The locations are spaced closely enough to confirm geological and/or grade continuity.
3. A “Mineral Reserve” is the economically minable part of a “Measured Mineral Resource” or an “Indicated Mineral Resource”. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified. Mineral Reserves are sub-divided in order of increasing confidence into Probable Mineral Reserves and Proved Mineral Reserves.
- A “Probable Mineral Reserve” is the economically minable part of an Indicated and, in some circumstances, Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified. A Probable Mineral Reserve has a lower level of confidence than a Proved Mineral Reserve.
  - A “Proved Mineral Reserve” is the economically minable part of a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified.

US Securities And Exchange Commission (SEC), 2001

The SEC published guidelines for the reporting of mineral reserves in annual accounts, public offerings and other similar public reporting functions, on March 31, 2001. A copy of the guidelines is attached at Appendix V.

SEC Guide 7 reads as follows:

Description of Property by Issuers Engaged, or to Be Engaged, in Significant Mining Operations. The following definitions apply to registrants engaged, or to be engaged, in significant mining operations:

1. Reserve. That part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination.

2. Proven (Measured) Reserves. Reserves for which (a) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well-established.
3. Probable (Indicated) Reserves. Reserves for which quantity and grade and/or quality are computed from information similar to that used for proven (measure) reserves, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven (measured) reserves, is high enough to assume continuity between points of observation.

Note: Reserves are customarily stated in terms of "ore" when dealing with metalliferous minerals; when other materials such as coal, oil, shale, tar, sands, limestone, etc. are involved, an appropriate term such as "recoverable coal" may be substituted.

### **Pending Changes to Reserves Classifications**

In March 2004, the SME formed the SEC Reserves Working Group/SME Resources and Reserves Committee (the Working Group) to achieve the following objectives:

- Develop an industry position with respect to the following five issues concerning the public reporting of mineral resources and mineral reserves:
  1. Commodity pricing guidelines. Which assumption should be made to determine the commodity price applicable to the estimation of publicly reported mineral reserves?
  2. Publication of mineral resources. Should mineral resources be publicly reported in addition to mineral reserves?
  3. Technical and economic study requirements. What level of study should be completed before a reserve is reported?
  4. Permitting legal requirements. Which requirements should be satisfied before a reserve is reported?
  5. Competent person. What should be the role of a "competent person" in estimating and reporting mineral resources and mineral reserves?
- Propose an updated version of the 1999 SME "Guide for Reporting Mineral Resources and Mineral Reserves."
- Present the industry position to the SEC for its consideration.

The Working Group recommendations, including the proposed 2005 SME Guide, were submitted to the staff of the SEC Division of Corporate Finance on April 30, 2005 for its consideration. It is the Working Groups' opinion that excepting these recommendations would result in significantly improved public reporting. However, keep in mind that these are only recommendations. The SEC rules and regulations and related interpretations for mining companies engaged or to be engaged in mining operations currently differ from the recommendations made by the Working Group in its report to the SEC.

### **Reserves**

CMC utilized the boring logs and data collected from the Wingerter Labs Site investigation program to prepare an accurate 3-Dimensional model of the Limestone Resources/Reserves on the Subject Property. A complete discussion of the Limestone Resources/Reserves Estimates is included in Appendix VI of this Report, with results summarized in the following Table:

**TABLE 7**  
**SUMMARY OF MINERAL RESOURCE ESTIMATES**

Author	Date	Resource Estimate (Total Tons)	Notes
CMC, Inc.	June 1, 2007	44,627,600 Tons <sup>1</sup>	As of June 1, 2007. See Resource Estimates in Appendix VI.
CMC, Inc.	June 1, 2007	50,387,900 Tons <sup>2</sup>	

<sup>1</sup> Resource Estimates For Subject Property

<sup>2</sup> Resource Estimates Applicable Only Under Special Condition: Appraisal Scenario #3 (See Section 1 Of This Report).

The resources underlying the Subject Property would be classified as a “Measured (Proved) Mineral Resource” in accordance with the USGS – 1980 Standards and the SEC 2001 Standards, and would be classified as a “Measured Mineral Resource” in accordance with the SME - 1999 Standards.

Conventional reporting would typically include Mining & Processing losses, and report the above as a mineral reserve. Since the mineral resource can be made into aggregate and base, each with different losses, it is easier to account for mining losses for the different scenarios in each Appraisal Table, in Sections 12 and 13 of this Report.

The author of this Report qualifies as a “Competent Person” in accordance with the SME - 1999 standards.

### Geological References

Boggs, Jr., S., 1987, Principles of Sedimentology and Stratigraphy. New York: MacMillan Publishing Company.

Florida Geological Survey “Mining and Mineral Resources”, Bulletin No. 39, 1957.

---. The Limestone, Dolomite and Coquina Resources of Florida, Report of Investigation No. 88, 1979.

---. The Sand and Gravel Resources of Florida, Report of Investigation No. 90, 1980.

---. “The Industrial Minerals of Florida”, Information Circular No. 102, 1986.

---. Lithologic Variation in the Miami Limestone of Florida, Open File Report 48, 1992.

---. “Geologic Map of the State of Florida”, Map, Map Series 146, 2001.

---. “Text to Accompany the Geologic Map of Florida”, Open File Report No. 80, 2001.

Miller, R.W. and Donahue, R.L., 1995, Soils In Our Environment. 7th Ed. New Jersey: Prentice-Hall.

United States Geological Survey, 1980, “Principles of a Resource/Reserve Classification System for Minerals” Geological Survey Circular 831.

---., 2004, The Mineral Industry of Florida.

---., 2006, A Tapestry of Time and Terrain: Florida: Online Map.

**THE AGGREGATE INDUSTRY IN THE SUBJECT PROPERTY'S  
PRODUCTION-CONSUMPTION AREA**

*Note: Most of the data presented in this Section of the Report was obtained from the USGS, which produces data on both a quarterly and annual basis. Data is also published by the USGS on a state by state basis, state district basis and by specific minerals on a nationwide basis.*

*The USGS produces preliminary data in order to provide timely information to the public. The preliminary data becomes finalized at a later date and, accordingly, production and price data for the same product may differ from Table to Table in this Report.*

**State Aggregate Use And Production**

*Note: General aggregate use data is included in Appendix VII.*

*Detailed aggregate production data is included in Appendix VIII.*

Total aggregate production in Florida in the year 2004 was 151,456,000 tons, with 21% of this representing sand & gravel production. Corresponding figures for 2005 were 168,010,000 tons and 25% respectively. In 2006 total aggregate production in Florida was 167,550,000 tons at an average FOB price<sup>1</sup> of \$7.16 per ton. Crushed stone production comprised 77.6% of total aggregate production at 130,070,000 tons and an average FOB price of \$8.46 per ton.

Total aggregate production in Florida has increased every year (over at least the last nine (9) years) at a rate averaging 7% per year.

These figures confirm that the aggregate industry in Florida (and also most of the United States) is virtually recession proof, due to on-going public expenditures on infrastructure improvements and construction, which represent the largest single end-users of aggregates in the United States.

The USGS divides each state into Mineral Producing Districts, as illustrated in Plan F. The Subject Property's PCA corresponds with the following USGS Mineral Producing District:

**TABLE 8  
USGS MINERAL PRODUCING DISTRICTS  
STATE OF FLORIDA**

Counties	USGS Mineral Producing District	State
Broward	4	Florida
Miami – Dade	4	Florida

In the year 2004<sup>2</sup> construction sand & gravel production in USGS Mineral Producing District 4 totaled 960,000 tons at an average FOB price of \$3.23 per ton. These figures represent 3% of total Florida sand & gravel production in 2004 at 77% of the statewide average FOB price.

Crushed stone production in USGS Mineral Producing District 4 in the year 2004<sup>2</sup> totaled 68,772,497 tons at an average FOB price of \$5.23 per ton. These figures represent 58% of statewide crushed stone production at 93% of the statewide average FOB price.

<sup>1</sup> Freight On Board, Or Price Loaded On The Delivery Vehicle At The Pit Or Quarry.

<sup>2</sup> Most Recent Breakdown Year Available

### Aggregate Producer Summary

After correlating various information sources (see Appendices VII, VIII, and IX) and carrying out field work, CMC determined that there were a total of 10 major limestone producers in the Subject Property's PCA, as of May 2007.

These producers are summarized as follows:

**TABLE 9  
PRODUCTION-CONSUMPTION AREA  
AGGREGATE PRODUCERS  
AS OF  
MAY 2007**

Company	Quarry	County
Florida Rock Industries Inc	Miami Quarry	Miami-Dade
RMC (Cemex) Florida Group Ltd	Card Sound Quarry	Miami-Dade
Rinker Materials	FEC Quarry	Miami-Dade
Rinker Materials	S.C.L. Quarry	Miami-Dade
Tarmac America, LLC	Pennsuco Quarry	Miami-Dade
Rinker Materials	Krome Quarry	Miami-Dade
Community Asphalt Corp.	Sawgrass Quarry	Miami-Dade
Sunshine Rock Inc	Sunshine Rock	Miami-Dade
Vecellio & Grogan, Inc.	White Rock Quarries	Miami-Dade
SDI Quarry, Inc.	S D I Quarry	Miami-Dade

Copies of Interview Notes with PCA producers who could be contacted are included in Appendix VIII. Plan G illustrates the locations of the above referenced producers.

### Aggregate Production

In the United States, Aggregate Producers are usually not required to report their total production, with the exception of a few northeastern states that require mandatory reporting.

The USGS performs annual surveys of the mineral industry to gain information on production and other mineral related statistics. Since the 1960's, the USGS has conducted these surveys on a voluntary basis, and report their results in terms of large "districts" to keep information on a broad-level basis and not target out reporting results of individual producers. This program works fairly well, as the USGS typically receives information from 85% to 100% of the producers that they interview.

However, estimating aggregate production for a local area can be somewhat difficult, as the USGS data defines a much larger area. One method that CMC utilizes is comparing the district production levels for the district(s) and state(s) and analyzes this against the population of the same district(s)/state(s), to determine the Per Capita Aggregate Consumption, as summarized in the following table.

As discussed later in Section 11 of this Report, CMC utilizes several methods to estimate aggregate supply and demand for a given area. The Per Capita Figures derived in the following table will be utilized to estimate aggregate demand, as detailed in Section 11 of this Report.



**TABLE 10  
PER CAPITA AGGREGATE PRODUCTION DATA  
STATE OF FLORIDA  
2004**

Area	Population	Aggregate Production						Per Capita Aggregate Consumption		
		Crushed Stone		Sand & Gravel		Total Aggregate		Crushed Stone (Tons Per Head)	Sand & Gravel (Tons Per Head)	Total Aggregates (Tons Per Head)
		(Tons)	FOB Price (\$/Ton)	(Tons)	FOB Price (\$/Ton)	(Tons)	FOB Price (\$/Ton)			
USGS District 4	5,863,050	68,772,497	5.23	960,000	3.23	69,732,497	5.20	11.73	0.16	11.89
State of Florida	17,366,593	119,048,000	5.62	32,408,000	4.22	151,456,000	5.32	6.86	1.87	8.72

Source: Mineral Industry Surveys, United States Geological Survey, 2003 Annual Report.

### TRANSPORTATION DATA

Highway construction and maintenance comprise the single largest use of aggregates in the United States (see Appendix VII).

Some states have kept up with their highway construction and maintenance programs, while others lag behind, as summarized in the following Table:

**TABLE 11  
STATE HIGHWAY MAINTENANCE AND CONSTRUCTION RANKINGS  
2004**

New Ranking	State	Previous Ranking	New Ranking	State	Previous Ranking
1	Wyoming	1	26	New Hampshire	23
2	North Dakota	2	27	New Mexico	34
3	South Carolina	3	28	Arizona	33
4	Georgia	4	29	Nebraska	13
5	Montana	7	30	South Dakota	32
6	Kansas	12	31	Oklahoma	30
7	Oregon	6 (Tied)	32	West Virginia	31
8	Texas	6 (Tied)	33	Pennsylvania	37
9	Idaho	8	34	Maryland	38
10	Kentucky	14	35	Illinois	36
11	Alabama	11	36	Rhode Island	43
12	Minnesota	10	37	Vermont	40
13	Nevada	9	38	Florida	39
14	Virginia	18	39	Missouri	21
15	Maine	16	40	Alaska	17
16	Wisconsin	29	41	Delaware	35
17	Indiana	15	42	Louisiana	44
18	Washington	26	43	Michigan	42
19	Colorado	19	44	Connecticut	41
20	Tennessee	24	45	California	45
21	Mississippi	20	46	Arkansas	46
22	Ohio	28	47	New York	48
23	Iowa	25	48	Hawaii	47
24	Utah	22	49	Massachusetts	49
25	North Carolina	27	50	New Jersey	50

Source: Better Roads Magazine, 2004.

As may be noted from the above Table, the State of Florida ranked 38th out of the 50 states in the year 2004, as regards to highway maintenance, and therefore faces a large highway maintenance program over many years. Interstate Highway Pavement Conditions, as of the year 2001<sup>1</sup>, are shown in the following Table:

<sup>1</sup> Latest Data Available

**TABLE 12**  
**INTERSTATE HIGHWAY PAVEMENT CONDITIONS**  
**2001**

State	Poor (%)	Mediocre (%)	Fair (%)	Good (%)
Alabama	18	11	15	56
Alaska	4	39	27	30
Arizona	0	1	4	95
Arkansas	4	11	12	73
California	10	27	21	42
Colorado	3	21	30	45
Connecticut	6	26	29 39	29
Delaware	8	17	54	21
Dist. Of Columbia	58	42	0	0
Florida	0	1	3	96
Georgia	0	0	4	95
Hawaii	27	45	25	2
Idaho	2	9	16	73
Illinois	2	17	25	55
Indiana	1	12	18	69
Iowa	5	18	28	48
Kansas	0	11	21	68
Kentucky	0	9	19	72
Louisiana	4	27	24	45
Maine	0	6	14	79
Maryland	7	13	25	55
Massachusetts	1	24	42	32
Michigan	12	32	26	29
Minnesota	1	27	24	47
Mississippi	3	10	11	76
Missouri	3	16	19	63
Montana	1	5	3	91
Nebraska	4	10	8	78
Nevada	0	6	6	87
New Hampshire	0	1	4	95
New Jersey	15	40	35	10
New Mexico	0	2	5	92
New York	18	21	19	42
North Carolina	9	25	21	45
North Dakota	0	5	21	75

**TABLE 12 (Continued)  
INTERSTATE HIGHWAY PAVEMENT CONDITIONS  
2001**

State	Poor (%)	Mediocre (%)	Fair (%)	Good (%)
Ohio	1	7	15	77
Oklahoma	5	17	14	65
Oregon	0	1	13	86
Pennsylvania	2	13	26	59
Rhode Island	0	4	28	67
South Carolina	0	8	19	73
South Dakota	0	6	37	57
Tennessee	1	4	4	92
Texas	1	14	21	65
Utah	4	8	19	70
Vermont	1	5	10	84
Virginia	2	14	14	70
Washington	5	19	15	61
West Virginia	3	16	12	68
Wisconsin	3	12	26	59
Wyoming	2	3	12	82
<b>United States Total</b>	<b>4</b>	<b>14</b>	<b>18</b>	<b>65</b>

Source: The Road Information Program (TRIP) Analysis Of Federal Highway Administration (FHWA) Data; Data Is Latest Available

As may be noted from the above Table, the State of Florida had 96% of its Interstate Highway Pavement in Good condition in 2001, and faces a small remediation program, in regards to Interstate Highway Pavement Maintenance.

A November 2006 Publication<sup>1</sup> prepared by the Federal Highway Authority, (FHWA) on bridge sufficiency ratings (SR) for all bridges, exceeding 20 feet in length, in every state, is summarized in the following Table:

**TABLE 13  
UNITED STATES BRIDGE INVENTORY  
NOVEMBER 2006**

State	Total # Of Interstate And State Bridges	Total SD/FO <sup>1</sup>	%	Total # Of City/County/ Township Bridges	Total SD/FO <sup>1</sup>	%	Total # Of All Bridges	Combined Total SD/FO <sup>1</sup>	%
Alabama	5,673	1,192	21	10,039	2,727	27	15,712	3,919	25
Alaska	891	183	21	138	52	38	1,029	235	23
Arizona	4,630	161	3	2,354	223	9	6,984	384	5
Arkansas	7,132	1,170	16	5,227	1,579	30	12,359	2,749	22

<sup>1</sup> Better Roads Magazine – November 2006

**TABLE 13 (Continued)**  
**UNITED STATES BRIDGE INVENTORY**  
**NOVEMBER 2006**

State	Total # Of Interstate And State Bridges	Total SD/FO <sup>1</sup>	%	Total # Of City/County/Township Bridges	Total SD/FO <sup>1</sup>	%	Total # Of All Bridges	Combined Total SD/FO <sup>1</sup>	%
California	12,482	1,751	14	12,201	2,590	21	24,683	4,341	18
Colorado	3,750	479	13	4,754	623	13	8,504	1,102	13
Connecticut	2,919	1,015	35	1,232	404	33	4,151	1,419	34
Delaware	839	136	16	7	4	57	846	140	17
District of Columbia	214	88	41	N/A	N/A	N/A	214	88	41
Florida	6,324	835	13	4,802	1,204	25	11,126	2,039	18
Georgia	5,931	890	15	8,385	2,023	24	14,316	2,913	20
Hawaii	758	275	36	398	151	38	1,156	426	37
Idaho	1,267	287	23	2,286	385	17	3,553	672	19
Illinois	8,085	1,633	20	18,018	2,950	16	26,103	4,583	18
Indiana	5,676	813	14	12,732	3,206	25	18,408	4,019	22
Iowa	3,973	555	14	20,614	6,099	30	24,587	6,654	27
Kansas	5,318	795	15	20,509	4,641	23	25,827	5,436	21
Kentucky	8,814	2,576	29	4,728	1,683	36	13,542	4,259	31
Louisiana	7,889	2,207	28	5,292	1,835	35	13,181	4,042	31
Maine	2,068	566	27	212	115	54	2,280	681	30
Maryland	2,775	614	22	2,201	726	33	4,976	1,340	27
Massachusetts	3,401	1,213	36	1,544	586	38	4,945	1,799	36
Michigan	4,447	1,297	29	6,399	1,696	27	10,846	2,993	28
Minnesota	3,837	365	10	9,821	1,433	15	13,658	1,798	13
Mississippi	5,564	1,159	21	10,935	3,200	29	16,499	4,359	26
Missouri	10,224	2,892	28	13,748	4,653	34	23,972	7,545	31
Montana	2,578	438	17	1,785	487	27	4,363	925	21
Nebraska	3,493	213	Six	11,940	3,576	30	15,433	3,789	25
Nevada	1,075	31	3	697	38	Five	1,772	69	4
New Hampshire	1,494	321	21	929	419	45	2,423	740	31
New Jersey	2,405	573	24	4,006	1,216	30	6,411	1,789	28
New Mexico*	2,994	451	15	718	233	32	3,712	684	18
New York	8,116	3,157	39	9,251	3,283	35	17,367	6,440	37
North Carolina	17,231	5,361	31	743	194	26	18,974	5,555	31
North Dakota	1,118	72	6	3,313	1,002	30	4,431	1,074	24
Ohio	11,583	2,482	21	18,940	4,723	25	30,523	7,205	24
Oklahoma	7,644	1,848	24	15,927	5,939	37	23,571	7,787	33
Oregon	2,676	826	31	3,950	853	22	6,626	1,679	25

<sup>1</sup> Better Roads Magazine – November 2006

\* Indicates Last Years Numbers.

**TABLE 13 (Continued)  
UNITED STATES BRIDGE INVENTORY  
NOVEMBER 2006**

State	Total # Of Interstate And State Bridges	Total SD/FO <sup>1</sup>	%	Total # Of City/County/Township Bridges	Total SD/FO <sup>1</sup>	%	Total # Of All Bridges	Combined Total SD/FO <sup>1</sup>	%
Pennsylvania	16,576	6,122	37	6,951	3,053	44	23,527	9,175	39
Rhode Island	611	327	54	153	78	51	764	405	53
South Carolina	8,339	1,839	22	860	335	39	9,199	2,174	24
South Dakota	1,803	203	11	4,032	1,292	32	5,835	1,495	26
Tennessee	7,585	1,271	17	12,177	2,535	21	19,762	3,806	19
Texas	32,421	4,490	14	16,673	5,604	34	49,094	10,094	21
Utah*	1,802	291	16	968	195	20	2,770	486	18
Vermont	1,077	374	35	1,604	559	35	2,681	933	35
Virginia	11,540	2,581	22	1,202	281	23	12,742	2,862	22
Washington	3,197	887	28	4,187	926	22	7,384	1,813	25
West Virginia	6,771	2,472	37	116	83	72	6,887	2,555	37
Wisconsin	5,004	649	13	8,705	1,535	18	13,709	2,184	16
Wyoming	1,928	91	5	844	252	30	2,772	343	12
<b>Total</b>	<b>285,942</b>	<b>62,517</b>	<b>21.9</b>	<b>309,247</b>	<b>83,479</b>	<b>27.0</b>	<b>595,189</b>	<b>145,996</b>	<b>24.5</b>

<sup>1</sup> Better Roads Magazine – November 2005

\* Indicates Last Years Numbers.

As may be noted from the above Table the State of Florida has 25.0%, respectively, of its total bridges rated Structurally Deficient or Functionally Obsolete, compared to the United States average of 27.0%.

Two (2) research reports published in 2004 outline the dire state of the nation's highways, and the economic costs of traffic congestion.

**Bumpy Roads Ahead - Cities With The Roughest Rides And Strategies To Make Our Roads Smoother, The Road Information Program, October 2006**

In this report, The Road Information Program (TRIP) examines the condition of major roads in the nation's most populous metropolitan areas, recent trends in urban travel, and the latest developments in repairing and building roads to last longer. Pavement condition data is based on the Federal Highway Administration's (FHWA) 2004 annual survey of state transportation officials on the condition of major state and locally maintained roads, based on a uniform pavement rating index. Although there may be some variance in how transportation officials apply this index, the FHWA survey is the only national source of pavement condition ratings based on consistent criteria. The major findings of the TRIP report are:

The condition of the nation's most critical metropolitan area roads and highways is getting worse, increasing the cost motorists are paying to maintain their vehicles as a result of driving on roads and highways with pavements in poor condition. These roads are maintained by local and state governments.

- One out of four (4) (26%) of the nation's major metropolitan roads – interstates, freeways and other principal arterial routes – have pavements that are in substandard condition. Pavement conditions on the nation's major urban roads and highways have worsened in each year since 1999, when 23% were in substandard or poor condition.

- The percentage of the nation's major urban roads and highways with pavements in good condition decreased from 33% in 1999 to 32% in 2004.
- The ten urban regions with at least 500,000 people, which includes the city and its surrounding suburbs, with the greatest share of major roads and highways with pavements in poor condition are: San Jose –66% Los Angeles –65%, San Francisco-Oakland –the 58%, Kansas City–58%, New Orleans (pre-Katrina) – 56%, San Diego– 54%, Sacramento – 50%, St. Louis–46%, Omaha– 46% and New York– 45%.
- The average urban motorist in the United States. is paying \$383 annually in additional vehicle operating costs as a result of driving on roads in need of repair. Driving on roads in disrepair increases consumer costs by accelerating vehicle deterioration, increasing the frequency of needed maintenance and increasing fuel consumption.
- The 10 urban regions with at least 500,000 people, which includes the city and its suburbs, where motorists pay the most annually in additional vehicle maintenance because of roads in poor condition are: San Jose-\$705, Los Angeles-\$693, San-Francisco-Oakland-\$654, Kansas City-\$651, San Diego-\$618, Sacramento - \$608, New Orleans (pre--Katrina) -\$603, Oklahoma City - \$568, Omaha-\$560, and St. Louis- \$559.
- While a desirable goal for state and local governments is to maintain 75% of its roads in good condition, only three of the nation's urban areas of 500,000 people or more – Atlanta, Orlando and Phoenix– achieve this goal. In fact, only 13 major urban areas have at least 50% of their major roads in good condition.
- Overall travel on urban roads increased by 38% from 1990 to 2004. Urban travel by large commercial trucks grew at an even faster rate, increasing by 51% from 1990 to 2004. Large trucks place significant stress on road surfaces.
- Vehicle travel is expected to increase by approximately 33% by 2020, and the level of heavy truck travel nationally is anticipated to increase by approximately 39% by 2020, putting greater stress on our nation's urban roadways.

A 2004 United States Department of Transportation (DOT) study prepared for Congress found that urban road and highway pavement conditions are likely to get worse at current funding levels. Significant inflation and the cost of highway construction materials may further increase the cost of needed road and highway repairs. Current federal highway revenues will be unable to fully fund the federal highway program by 2009.

- All levels of government are spending \$11.2 billion annually in preserving the physical condition of urban roads and highways. The DOT study estimates that the annual investment needed to maintain urban roads and highways in their current condition is \$15.6 billion annually and that the needed annual investment to improve the condition of urban roads and highways is \$19.3 billion annually.
- The study found that keeping urban roadways in their current condition would require a 40% increase in annual funding and improving the physical condition of urban roadways would require a 73% increase in annual funding.
- Through 2022, the United States faces a \$76 billion shortfall in the cost to maintain urban roadways in their current condition and a \$138 billion shortfall in the cost to make significant improvements to the urban roadways, according to the study.
- The United States Bureau of labor statistics reports that from June 2005 to June 2006, the price of materials used for road and highway construction and United States increased by 16%. This significant increase in highway construction costs was spurred by increases in the cost for asphalt, concrete and diesel fuel.
- The current \$10.2 billion balance in the highway account of the Federal Highway Trust Fund, which funds and numerous road, bridge and highway improvements, is expected to decrease to \$2.4 billion by the year 2008 and will have a \$2.3 billion deficit in 2009, based on revenue projections by the United States treasury.

**The 2005 Urban Mobility Report, By David Schrank, Associate Research Scientist And Tim Lomax, Research Engineer, Texas Transportation Institute, Texas A&M University System, May 2005**

Congestion continues to grow in America's urban areas. Despite a slow group growth in jobs and travel in 2003, congestion caused 3.7 billion hours of travel delay and 2.3 billion gallons of wasted fuel, an increase of 79 million hours and 69,000,000 gallons from 2002 to a total cost of more than \$63 billion. The solutions to this problem will require commitment by the public and by national, state and local officials to increase investment levels and identify projects, programs and policies that can achieve mobility goals. The 2005 Annual Urban Mobility Report shows that the current pace of transportation improvement, however, is not sufficient to keep pace with the even of slow growth and travel to man's in most major urban areas.

Major Findings For 2005– The Big Numbers

The problem can be stated simply –urban areas are not acting in that capacity, improving operations or managing demand well enough to keep congestion from growing larger. Over the most recent three (3) years, the contribution of operations improvements has grown from 260 to 340 million hours of congestion relief, but delay has increased by 300 million hours over the same period. Congestion occurs during longer portions of the day and delays more travelers and goods than ever before. If the current fuel prices are used, the congestion "invoice" climbs another \$1.7 billion which would bring the total cost to about \$65 billion. Some important statistics are shown below.

Performance Measure	1982	1993	2002	2003
Annual Delay Per Peak Traveler (Hours)	16	40	47	47
Travel Time Index	1.12	1.28	1.37	1.37
Number Of Urban Areas With More Than 20 Hours Of Delay Per Peak Traveler	5	37	50	51
Total Hours Of Delay (Billion)	0.7	2.4	3.6	3.7
Total Gallons Of "Wasted" Fuel (Billion)	0.4	1.3	2.2	2.3
Cost Of Congestion (Billions Of 2003 \$)	12.5	39.4	61.5	63.1
<b>Travel Needs Served:</b>				
Daily Vehicle Miles Of Travel On Major Roads (Billion)	1.06	1.66	2.09	2.14
Annual Person Miles of Public Transportation Travel (Billion)	22.9	35.1	43.7	43.4
<b>Expansion Needed to Keep Today's Congestion Level:</b>				
Additional Lane Miles of Freeways and Major Streets	7,638	6,459	4,927	5,002
Additional Daily Public Transportation Riders (Million)	8.6	8.2	7.2	7.3
<b>Hours of Delay Saved by:</b>				
Operational Treatments (Million)	N/A	N/A	301	336
Public Transportation (Million)	269	696	1,097	1,096
<b>Congestion Costs Saved By</b>				
Operational Treatments (Billions Of 2003 \$)	NA	N/A	5.0	5.6
Public Transportation (Billions Of 2003 40 \$)	4.6	9.0	18.2	18.2

NA – No Estimate Available

Pre-2000 Data Do Not Include Effect Of Operational Strategies And Public Transportation.

Travel Time Index – The Ratio Of Travel Time In The Peak Period To Travel Time At Free-Flow Conditions.

A TTI Of 1.35 Indicates A 20-Minute Free-Flow Trip Takes 27 Minutes In The Peak.

Delay Per Peak Traveler – The Extra Time Spent Traveling At Congested Speeds Rather Than Free-Flow Speeds Divided By The Number Of Persons Making A Trip During The Peak Period.

Wasted Fuel – Extra Fuel Consumed During Congested Travel.

Expansion Needed - Even Lane Miles Are Daily Riders To Keep Pace With Travel Growth (Maintain Congestion).

The following Table shows the condition of United States Urban Streets, as of June 2002:



**TABLE 14**  
**THE STATE OF URBAN STREETS**  
**BETTER ROADS MAGAZINE**  
**JUNE 2002**

City	Poor (%)	Mediocre (%)	Fair (%)	Good (%)	Extra Vehicle Operating Cost Per Driver (\$)
Atlanta	0	3	10	87	50
Austin, TX	23	24	26	27	404
Baltimore	20	22	25	33	333
Boston	57	27	12	5	513
Buffalo-Niagara Falls	22	24	26	28	343
Charlotte	12	32	20	37	327
Chicago	22	33	25	21	372
Cincinnati	14	24	19	43	261
Cleveland	19	29	19	33	326
Columbus, OH	5	21	23	51	169
Dallas-Ft. Worth	22	37	28	13	451
Denver	19	1	15	64	235
Detroit	54	29	9	8	599
Ft. Lauderdale-E. Hollywood	2	19	19	60	122
Grand Rapids, MI	41	22	14	23	478
Hartford-Middletown	23	34	22	21	343
Houston	23	30	25	23	422
Indianapolis	14	15	18	54	286
Jacksonville, FL	3	10	6	82	79
Kansas City, MO	24	39	18	19	517
Las Vegas	7	22	31	40	210
Los Angeles	56	36	5	3	641
Louisville, KY	17	28	29	26	437
Memphis	14	27	17	42	295
Miami-Hialeah	6	12	13	69	121
Milwaukee	35	28	14	23	427
Minneapolis-St. Paul	1	9	20	71	113
Nashville	7	12	25	55	197
New Orleans	56	21	9	14	620
New York-NE New Jersey	53	27	14	7	473
Norfolk-Virginia Beach-Newport News	23	31	21	25	397
Oklahoma City	45	24	14	17	617
Orlando	4	6	10	80	74
Philadelphia	33	37	16	14	409
Phoenix	1	9	20	70	98
Pittsburgh	19	33	21	27	332
Portland, OR-Vancouver, WA	24	42	22	12	452

Source: Better Roads Magazine, June 2002.

**TABLE 14 (Continued)**  
**THE STATE OF URBAN STREETS**  
**BETTER ROADS MAGAZINE**  
**JUNE 2002**

City	Poor (%)	Mediocre (%)	Fair (%)	Good (%)	Extra Vehicle Operating Cost Per Driver (\$)
Providence, RI	16	42	24	19	346
Raleigh, NC	11	19	21	48	274
Richmond	17	36	25	22	405
Sacramento	41	41	26	2	550
Salt Lake City	9	36	28	27	325
San Antonio	22	26	20	32	394
San Bernardino-Riverside, CA	26	44	20	10	439
San Diego	32	49	11	8	492
San Francisco-Oakland	50	35	10	5	597
San Jose	51	36	11	3	609
Seattle	9	26	18	46	225
St. Louis	28	36	21	15	545
Tampa-St. Petersburg, FL	5	13	14	67	136
Washington, DC-MD-VA	31	27	14	18	453
West Palm Beach-Boca Raton, FL	1	9	11	79	63
<b>U.S. Average</b>	<b>20.5</b>	<b>24.2</b>	<b>17.1</b>	<b>30.2</b>	<b>--</b>

Source: Better Roads Magazine, June 2002.

As may be noted from the above Table, the Florida Cities averaged 69.5% of their urban streets being in good condition in 2002, much better than the United States' average of 30.2%.

### Delivered Price Equation

The PCA for materials that could be produced from the Subject Property (see Section 10 of this Report) encompasses customers served by truck deliveries in producer or customer owned vehicles, or by contract haulers. In general, the edge of the PCA is defined as the distance at which the delivered price of the particular product from the Subject Property equals that of the same product delivered from competitor locations.

### Truck Rates

Truck rates are crucial for a relatively low priced commodity such as those that could be produced from the Subject Property. In general, customers are interested in the delivered price of the material at their facility. In some cases customers will take deliveries from their normal supplier due to overall volume discounts, or for other reasons, even though a lower delivered price may be available from another source.

In actual practice, aggregate suppliers adjust their FOB prices and truck rates to achieve a delivered price to a customer that they estimate will beat the delivered price quoted by their closest competitor.

In some (extreme) cases this may result in materials being delivered many miles from one location to within close proximity of a competitor source. This may be achieved by discounting FOB prices on specific products to specific customers, coupled with break even truck rates on company owned trucks, in order to increase sales volumes.

A 2002 Publication by the USGS<sup>1</sup> indicated that truck transportation in the mid-Atlantic Region costs an average of \$0.18 per loaded ton mile.

### **Rail Rates**

The USGS Publication quoted above indicated rail rates were around one third those of truck rates in the mid-Atlantic Region.

Aggregates are exported out of the PCA via rail, due to the high demand for aggregates in other areas of Florida, which have limited local aggregate supplies.

Double handling costs, such as off-loading and re-loading material at the rail yard into trucks for shipping to a customer, are of the order of \$0.50 per ton, and short hauls are expensive due to the truck haul pricing system.

### Current Problems With Railing Aggregates

A recent article addressed some of today's issues regarding moving aggregates by rail, "Moving Aggregate To Market."<sup>2</sup>

Despite solutions proposed to remedy the rail problem, the industry remains cynical that its needs will be met.

The National Stone, Sand & Gravel Association's Transportation Forum brought more than 90 aggregate industry and transportation leaders together to discuss the current and future aggregates market in the rail hauling arena, challenges port authority managers are facing, as well as shipping, trucking, and rail leasing issues.

Daryl Smith, vice president of emerging markets for Jacksonville, Florida-based CSX Railroad, one of the six major rail lines that service the aggregates industry, told attendees during the "Staying on Track" session that the railroad is aware of the problems. He acknowledges that some of this is the fault of the railroad, which it is working on, but he also points to another factor – the continued growth and demand of the aggregates industry.

Roughly 3 million tons more construction stone and sand was shipped via rail in 2003 than in 2004. There has been an 8% growth in aggregates by rail. Crushed stone, sand and gravel account for about 1% of total rail service- 3% of the railcar loads and 96 million tons of materials. However, despite addressing these transportations issues, many attendees say they still aren't confident that the rail problem will be resolved.

They all unanimously agreed that they are discontent with the current rail situation, and they are pleased that the lines of communication concerning problems with transportation, particularly rail, are being addressed. Several attendees said they appreciate the efforts, but the presentations on the rail solution "were too general" and that rail transportation "will continue to be a major transportation problem."

### **Ship/Barge Rates**

The USGS Publication quoted above indicated that barge rates in the mid-Atlantic Region were around \$0.03 per loaded ton mile.

Aggregates, excluding the lower priced products, are shipped into Port Everglades and Tampa by deep water vessels from Nova Scotia, the Yucatan Peninsula, and the Bahamas at an estimated cost of around \$0.001 to \$0.003 per loaded ton mile. Double handling costs, such as off-loading and re-loading material at the rail yard into trucks for shipping to a customer, are of the order of \$0.50 per ton, and short hauls are expensive due to the truck haul pricing system.

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<sup>1</sup> Sociocultural Dimensions Of Supply And Demand For Natural Aggregate - Examples From The Mid-Atlantic Region, United States, U.S. Geological Survey Open-File Report 02-350

<sup>2</sup> Aggregates Manager February 2005

No aggregates are imported by Ship or Barge into the PCA.

### **Transportation Regulations**

Prior to 1980 both rail and truck rates were regulated in the United States, often at both a Federal and State level. In 1980 Congress rejected efforts to eliminate economic regulation of the trucking industry and enacted the 1980 Motor Carrier Act. This Act did, however, seek to promote rate and service options while retaining a framework of regulation.

Notwithstanding the 1980 Act, the Interstate Commerce Commission (ICC) pursued a "hands off" policy as regards freight rates and, for the most part, truck freight rates throughout the United States have been at negotiated rates since 1980. The rail industry's freight rates were also regulated by the ICC, until the passing of the Staggers Rail Act of 1980 when regulation by the ICC was abolished. The ICC was subsequently abolished.

**MARKET CONDITIONS  
IN  
THE SUBJECT PROPERTY'S PRODUCTION-CONSUMPTION AREA**

*Note: Backup data to information summarized in this Section of the Report is contained in Appendix IX of this Report. Market data collated as part of other CMC Aggregate property appraisals has also been utilized in this Section of the Report and in Appendix IX.*

Local market conditions are dependant, to varying degrees, on National, State and Regional economic conditions.

An analysis of National economic trends in the United States followed by market conditions and trends at Regional, State and County levels has been adopted for the purpose of this market study. Aggregate market demand estimates, adopting approaches based on population, building construction, and highway construction data, are contained in Section 11 of this Report.

As mentioned in Section 3 of this Report, a substantial number of information sources were contacted to ascertain market conditions in Subject Property's PCA, with particular reference to the demand for aggregates.

The Subject Property's PCA is illustrated in Plan C.

### **Economic Indicators**

#### **National Economic Indicators**

*Note: This section includes data taken from reports and forecasts published at various dates since 1992 through the present day.*

Basic trends in the United States economy have been monitored by many economists<sup>1</sup> for decades, with the general consensus of opinion being as follows:

- i) The basic trend of the United States economy, is upward.
- ii) Economic instability is normal.
- iii) Every recession is unique.
- iv) Government efforts to prevent recessions have done more harm than good.

Since the end of World War II the United States economy has grown at an annual average rate of approximately 3% and has been interrupted by nine recessions which lasted, on average, less than nine (9) months. Stated another way, the United States economy experiences growth 83% of the time.

Usually the economy is growing faster or slower than three (3)% and, at times, the rate of growth will be too fast to be sustainable. This results in imbalances in the supply and demand patterns which would naturally bring an end to the boom, despite the fact that government economic policy usually intervenes (restrictive policies), causing a recession.

Once the recession is underway natural market forces resume, e.g., inventories are liquidated and industrial production rebounds. Typically, in a recession, government spending increases, and this helps to spur the recovery. Three recessions, since World War II, were caused by cutbacks in government defense spending, two were caused by inventory adjustments, three were caused by combinations of sharp cutbacks in consumer spending, inventory adjustments and declines in business investment and one was caused by a change in government policies, affecting housing and consumer spending.

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<sup>1</sup> National Bureau Of Economic Research

The results of this are an almost complete inability to predict the course of a business cycle.

United States government policy, since World War II, has been to smooth out economic fluctuations through the implementation of a fiscal policy which tightens money supply during a boom and eases money supply during a recession.

Unfortunately, history indicates that this policy has not worked and, in fact, has exacerbated both recessions and expansions. This is mainly due to the fact that economic conditions have changed by the time government policies are implemented. A good example of this occurred in late 1990 when rapid increases in interest rates were caused by government measures introduced to curb inflation even though the economy had already slowed. The result was economic decline, in the early part of 1991, followed by a modest recovery. The same may also have been the case between mid year 2000 and mid year 2001.

The following Table summarizes Business Cycle Expansions and Contractions in the United States between 1854 and June 2007. The most recent business cycle expansion of 120 months from March 1991 through March 2001 comprised the longest economic expansion since records were first kept in 1854.

The current business cycle expansion, which commenced on December 21, measured 66 months in length, as of June 2007.

**TABLE 15**  
**DURATION OF BUSINESS CYCLE EXPANSIONS AND**  
**CONTRACTIONS IN THE UNITED STATES**  
**1854-2007**

Business Cycle			Duration (Months) Of		
Trough	Peak	Trough	Expansion	Contraction	Full Cycle
Dec. 1854	June 1857	Dec. 1858	30	18	48
Dec. 1858	Oct. 1860	June 1861	22	8	30
June 1861	Apr. 1865	Dec. 1867	46	32	78
Dec. 1867	June 1869	Dec. 1870	18	18	36
Dec. 1870	Oct. 1873	Mar. 1879	34	65	99
Mar. 1879	Mar. 1882	May 1885	36	38	74
May 1885	Mar. 1887	Apr. 1888	22	13	35
Apr. 1888	July 1890	May 1891	27	10	37
May 1891	Jan. 1893	June 1894	20	17	37
June 1894	Dec. 1895	June 1897	18	18	36
June 1897	June 1899	Dec. 1900	24	18	42
Dec. 1900	Sept. 1902	Aug. 1904	21	23	44
Aug. 1904	May 1907	June 1908	33	13	46
June 1908	Jan. 1910	Jan. 1912	19	24	43
Jan. 1912	Jan. 1913	Dec. 1914	12	23	35
Dec. 1914	Aug. 1918	Mar. 1919	44	7	51
Mar. 1919	Jan. 1920	July 1921	10	18	28
July 1921	May 1923	July 1924	22	14	36
July 1924	Oct. 1926	Nov. 1927	27	13	40
Nov. 1927	Aug. 1929	Mar. 1933	21	43	64
Mar. 1933	May 1937	June 1938	50	13	63
June 1938	Feb. 1945	Oct. 1945	80	8	88
Oct. 1945	Nov. 1948	Oct. 1949	37	11	48
Oct. 1949	July 1953	May 1954	45	10	55
May 1954	Aug. 1957	Apr. 1958	39	8	47
Apr. 1958	Apr. 1960	Feb. 1961	24	10	34
Feb. 1961	Nov. 1969	Nov. 1970	106	11	117
Nov. 1970	Nov. 1973	Mar. 1975	36	16	52
Mar. 1975	Jan. 1980	July 1980	58	6	64
July 1980	July 1981	Nov. 1982	12	16	28
Nov. 1982	July 1990	Mar. 1991	92	8	100
Mar. 1991	Feb. 2001	Mar. 2001	120	-	120
Mar. 2001	Aug. 2001	Nov. 2001	6	4	2
Dec. 2001	June 2007	--	66	--	--
Averages:					
34 Cycles, 1854 – 2007			41	20	53
18 Cycles, 1919 – 2007			52	18	59
12 Cycles, 1945 – 2007			61	20	64

Source: National Bureau Of Economic Research

According to published reports the last recession ended in November 2001 followed by a very mild “jobless” recovery through the present day. The change in two (2) principal economic indicators for the period 1982-2003, are summarized in the following Tables:

**TABLE 16  
UNITED STATES GROSS DOMESTIC PRODUCT (GDP)  
FISCAL YEARS 1982-2006<sup>1</sup>**

Fiscal Year Ending September 30 <sup>th</sup>	GDP (\$ Billions)	Annual Change (%)	Year	GDP (\$ Billions)	Annual Change (%)
1982	3,255.0	4.0	1995	7,397.7	4.6
1983	3,536.7	8.7	1996	7,816.9	5.7
1984	3,933.2	11.2	1997	8,304.3	6.2
1985	4,220.3	7.3	1998	8,747.0	5.3
1986	4,462.8	5.7	1999	9,268.4	6.0
1987	4,739.5	6.2	2000	9,817.0	5.9
1988	5,103.8	7.7	2001	10,100.8	2.9
1989	5,484.4	7.5	2002	10,480.8	3.8
1990	5,803.1	5.8	2003	11,004.0	3.0
1991	5,995.9	3.3	2004	11,712.5	3.9
1992	6,337.7	5.7	2005	12,445.8	3.2
1993	6,657.4	5.0	2006	13,253.9	3.4
1994	7,072.2	6.2			

<sup>1</sup> United States Government Fiscal Year Ends September 30<sup>th</sup>

Source: United States Department Of Commerce, Bureau Of Economic Analysis & [www.bea.gov/bea/rels.htm](http://www.bea.gov/bea/rels.htm).

As may be noted from the above Table, growth in the GDP between Fiscal Years 1992 and 2000 in the United States was very healthy but declined appreciably in Fiscal Year 2001, with 2002 representing the start of slow recovery years through the end of 2006.

**TABLE 17  
UNITED STATES RATE OF CONSUMER PRICE INDEX (CPI)  
FISCAL YEARS 1982-2006<sup>1</sup>**

Fiscal Year Ending September 30 <sup>t</sup>	Inflation Rate (%)	Fiscal Year Ending September 30 <sup>t</sup>	Inflation Rate (%)
1982	3.8	1995	2.5
1983	3.8	1996	3.3
1984	3.9	1997	1.7
1985	3.8	1998	1.6
1986	1.1	1999	2.7
1987	4.4	2000	3.4
1988	4.4	2001	1.6
1989	4.6	2002	2.4
1990	6.1	2003	1.9
1991	3.1	2004	3.3
1992	2.9	2005	3.7
1993	2.7	2006	2.5
1994	2.7		

<sup>1</sup> United States Government Fiscal Year Ends September 30<sup>th</sup>.

Source: United States Department Of Labor, Bureau Of Labor Statistics



As may be noted from the above Table, the Annual Inflation Rate in the United States has been fairly stable since 1992.

### **State/Regional**

According to the April 2007 issue of the Federal Reserve Board Beige Book, reports from the Sixth District, which includes Florida, contacts indicated that business activity continued to expand modestly in March and the first half of April 2007. Retail sales increased, while auto sales remained mixed. Reports on the tourism and hospitality industry were generally positive. Residential home sales and construction continued to decline in most areas, most notably in Florida. In contrast, commercial construction exceeded year-ago levels in much of the District. Factory activity was mixed, with sluggishness reported in industries linked to residential housing and strength noted for defense contractors. Labor markets remained relatively tight, with continuing shortages of skilled workers in parts of the District. Price increases for some commodities and building supplies slowed, but several contacts noted that fuel, labor, and insurance costs were accelerating. Drought and freezing temperatures damaged District crops in the early spring.

The Florida Economic Bulletin 2007 reports the following:

Florida's real gross state product expanded at an annualized rate of 2.9% in the fourth quarter of 2006, slightly higher than the 2.7% pace seen in the third quarter 2006. Real personal income growth fluctuated wildly from 8.4% in the first quarter of 2006, to 0.3% in the second quarter, then 4.1% in the third quarter, finally ending with 6.7% in quarter four 2006.

In the twelve months through December 2006, Florida added more than 212,600 jobs, for a year-to-year increase of 2.7%, or about one percentage point higher than the nationwide job growth rate for the same period. Employment in Florida's service sector grew by almost 3% in 2006 – nearly double the national rate. Professional and business services, which make up about 17% of Florida's non-farm employment, grew at a rate of almost 5%. In December 2006, Florida's statewide unemployment rate stood at 3.3%, well below the overall United States jobless rate of 4.5%.

Enterprise Florida 2007 Highlights of Florida's Economy:

- Florida is the 4<sup>th</sup> most populous state in the nation and the most populous state in the Southeast with 18,089,888 residents in 2006.
- Florida's 2005 Gross Domestic Product of \$673.27 billion ranked it the 4<sup>th</sup> largest in the nation and the largest in the Southeast.
- In 2006, Florida's total personal income reached nearly \$647.6 billion, ranking Florida 4<sup>th</sup> in the nation and 1<sup>st</sup> in the Southeast.
- Florida's total employment of 8,693,000 million workers ranked it 4<sup>th</sup> in the national 1<sup>st</sup> in the Southeast in 2006.
- From January 2006 to January 2007, Florida added 145,200 nonagricultural jobs, an annual growth of 1.8 percent, or slightly higher than the nation's 1.6 percent growth rate over the same period. As of January 2007, Florida had enjoyed 53 consecutive months of job growth.
- At 3.3% in January 2007, Florida's unemployment rate has been below the national average since mid-2002.
- In 2005 Florida ranked 2<sup>nd</sup> in the nation in professional and business services employment; 3<sup>rd</sup> in natural resources and mining, construction leisure and hospitality, and public administration; and 4<sup>th</sup> in information, financial activities, education/health services, and trade, transportation, and utilities .
- In 2006, Florida's total international merchandise trade exceeded \$100 billion for the first time, growing by 15.2 percent from the previous year, and reaching nearly \$110 billion.
- The total value of merchandise trade flowing into and out of the United States via Florida's two customs districts has grown from \$56.4 billion in 1996 to \$109.75 billion in 2006, an increase of 94.5 percent.

- Foreign direct investment (FDI) in Florida totaled \$31.7 billion in 2004, sustaining an estimated 256,000 jobs. Florida ranked 11<sup>th</sup> in the nation and 1<sup>st</sup> in the Southeast in total inward FDI stock. Florida also ranked 5<sup>th</sup> in the nation and 1<sup>st</sup> in the Southeast in FDI-related employment.

The Greater Miami Chamber of Commerce reveals that, as of the first half of 2007, Miami-Dade's economy is sending mixed signals on the future pace of business expansion for the remainder of 2007 and into early 2008.

The most recent set of data is positive for economic expansion. Based on currently available statistics, economic activity remains strong in most industry sectors. Miami-Dade led South Florida counties in employment growth over the past twelve months, and enjoyed twice the average rate of employment increase at the national level.

There are a number of factors that account for the strength in employment growth that we have witnessed in early 2007. Among these factors, the following stand out:

- First, the Latin American economies continue to expand at a solid 4-5% annual pace. This has led to record levels of international trade, fueling the expansion of Miami-Dade's key economic sectors such as wholesale trade, transportation and financial activities.
- Second, Miami is succeeding in becoming a premiere global leisure travel destination and as the music and entertainment capital of Latin America. The growth in visitors to Florida have been relatively flat this year, but the Miami destination has enjoyed moderate growth with strong increases in room rates and occupancy levels at hotels and motels. This factor stimulates retail trade services and other consumer related activities.
- Third, the U.S. economy continues to expand at a moderate pace with relatively low interest rates and low unemployment levels. This is again, positive for a number of key Miami-Dade industries that depend on national markets for their revenue generation.

A number of factors suggest that slower economic growth over the next twelve months, with an even steeper slowdown is possible, depending on the degree of adjustment to the deepening real estate market correction.

This correction is presently impacting the sub-prime mortgage lending market, leading to a tightening of credit conditions. Any sharp reduction in spending by the household sector could significantly dampen economic activity at the national and local levels.

In summary, the economic expansion of Miami-Dade continued at a strong pace early in 2007. The fundamentals of the local economy are positive overall, and the ongoing Latin American economic expansion provides further strength. However, there are some storm clouds at the national level that carry the possibility of sharply slowing down the Miami-Dade economy later in the year.

### **Specific Economic Indicators**

#### **Population**

Population data in the Subject Property's PCA are included in Appendix IX. An analysis of this data is included in Section 11 of this Report.

Population projections are not available at a County level in Florida, however, State population projections are included in Appendix IX.

**TABLE 18  
POPULATION ESTIMATES  
SUBJECT PROPERTY'S PRODUCTION-CONSUMPTION AREA  
1995 – 2006**

County	Year											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Broward	1,447,124	1,481,333	1,522,179	1,560,649	1,594,130	1,632,821	1,672,733	1,706,774	1,730,256	1,754,984	1,782,016	1,787,636
Miami-Dade	2,086,286	2,130,937	2,158,352	2,180,081	2,220,961	2,260,646	2,288,121	2,316,632	2,334,373	2,254,000	2,377,725	2,402,208
PCA Total	3,533,410	3,612,270	3,680,531	3,740,730	3,815,091	3,893,467	3,960,354	4,023,406	4,064,629	4,108,984	4,159,741	4,189,844
State Of Florida	14,537,875	14,853,360	15,186,304	15,486,559	15,759,421	16,050,166	16,354,728	16,682,250	16,981,800	17,366,593	17,768,191	18,089,888

**TABLE 19**  
**FLORIDA: POPULATION PROJECTIONS**  
**2010 – 2025**

2005	2015	2025
16,279,000	18,497,000	20,710,000

Population projections are not available at a County level in Florida however, State population projections are included in Appendix IX.

**Building Permits**

Building permit activity has a direct bearing on construction activity and the demand for construction materials. Copies of building permit data for the PCA are included in Appendix IX. An analysis of this data is included in Section 11 of this Report and is summarized in the following Table:

**TABLE 20**  
**BUILDING CONSTRUCTION ACTIVITY**  
**SUBJECT PROPERTY'S PRODUCTION CONSUMPTION AREA**  
**1998-2007<sup>1</sup>**  
**(\$000)**

Area	Year									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007 <sup>1</sup>
Broward County Total Construction	1,281,815.4	1,409,811.2	1,486,624.2	1,381,461.2	1,576,728.1	1,118,885.9	1,065,926.2	1,106,812.8	988,266.4	234,082.6
Miami-Dade County Total Construction	1,023,672.6	1,181,262.8	1,221,756.9	1,306,780.5	1,314,766.7	1,697,335.9	2,509,639.1	3,750,503.0	3,323,112.7	388,271.5
PCA Total Construction	2,305,488.0	2,591,074.0	2,708,381.1	2,688,241.7	1,576,728.1	1,809,221.8	3,575,565.3	4,857,315.8	4,311,379.1	1,622,354.1
State of Florida Total Construction	1,412,687.0	1,610,979.0	17,462,412.0	19,465,304.0	22,467,802.0	28,351,596.0	36,959,407.0	40,635,993.0	35,716,293.0	7,136,020.0

<sup>1</sup> Four (4) Months Only

**Highway Construction**

Highway construction data for the PCA from the Florida Department of Transportation is included in Appendix IX. An analysis of this data is included in Section 11 of this Report.

## MARKET ANALYSES

As mentioned in Section 3 of this Report, a substantial amount of information was obtained in order to ascertain market conditions in the Subject Property's PCA, with particular reference to the demand for aggregates.

### **Aggregate Demand In Opa-Locka West Airport's PCA**

There are four (4) standard approaches to estimating aggregate demand in a particular Market Area, these being:

- 1) Reported Production Approach (Supply Side)
- 2) Population Approach (Demand Side)
- 3) Building Construction Approach (Demand Side)
- 4) Highway Construction Approach (Demand Side)

### **Reported Production**

Reported aggregate production data, at a State and District level, is reported in Section 8 of this Report, with supporting data included in Appendix VIII. No County level aggregate population data has been available from the USGS in Florida since the 1960s, due to concerns regarding proprietary information being released to the public, therefore it was not possible to utilize this market analysis method in this case.

### **Population Approach**

A USGS Report<sup>1</sup> indicated that the long term demand for aggregates may be determined from the population size and density within a particular market area, with most truck served market areas having a market area radius of between 18 and 25 miles. Short term trends in the demand for aggregates follow the economic cycle of the time in question. The same report indicated that, at population densities of around 1,000 people per square mile, Counties typically transition from being aggregate exporters to aggregate importers.

An analysis of aggregate consumption, on a per capita basis, for the State of Florida may be made by determining the per capita crushed stone and sand and gravel production within the appropriate USGS Mineral Producing District and applying this to the PCA.

The PCA falls within USGS District 4 (See Plan F), which had a 2004 population estimated at 5,863,050.

Total aggregate production in USGS District 4 in 2004<sup>2</sup> was 93,425,000 tons, based on USGS statistics.

This leads to a per capita USGS District 4 aggregate production figure of  $93,425,000 \div 5,863,050 = 15.94$  tons per head of population.

Assuming local aggregate production balances, local aggregate consumption, then the estimated aggregate consumption in the PCA in 2006, utilizing the Population Approach, would be as shown in the following Table:

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<sup>1</sup> Sociocultural Dimensions Of Supply And Demand For Natural Aggregate – Examples From The Mid-Atlantic Region, United States, United States Geological Survey Open-File Report 02-350

**TABLE 21  
 PRODUCTION-CONSUMPTION AREA  
 AGGREGATE DEMAND ESTIMATE  
 POPULATION APPROACH  
 2006**

County	Population Estimate <sup>1</sup>	Total Aggregate Production Demand <sup>2</sup> (Tons/Year)	%
Broward	1,787,636	21,254,992	42.67
Miami-Dade	2,402,208	28,562,253	57.33
PCA Total	4,189,844	49,817,245	100.0

<sup>1</sup> See Population Data, Appendix IX

<sup>2</sup> At 11.89 Tons Per Head Of Population

Note: A substantial portion of aggregate production in the PCA is shipped out of the PCA by rail. The FEC railroad is used for rail shipments along Florida's East Coast as far as Jacksonville and the CSX Railroad is utilized for shipments into Central Florida. PCA demand is therefore much less than PCA production.

As may be noted from the above Table, the PCA Counties, which includes the city of Miami, comprises 57.33% of the total PCA aggregate demand under the Population Approach, equivalent to 49.8 million tons per year (rounded).

**Building Construction Approach**

Building construction is an important indicator as to the demand for construction materials, including aggregates, although there is often up to a one-year gap between the granting of a permit and construction activity commencing.

PCA building permit data is summarized in the following Table, with 1996 representing the last year for which full residential and non-residential data was available at a State and County level.

Assuming that the demand for aggregates is proportional to building permit values, aggregate demand in the PCA, adopting the Building Construction Approach, may be calculated as follows:



**TABLE 22  
 PRODUCTION-CONSUMPTION AREA  
 AGGREGATE DEMAND ESTIMATE  
 BUILDING CONSTRUCTION APPROACH  
 2006**

County	Total Building Construction (\$000)	% Of Total State Building Construction	Total State Aggregate Production (Tons)	Estimated Market Area Aggregate Demand (Tons/Yr)	% Of PCA Aggregate Production
Broward	1,106,812.8	2.72	123,045,000	3,346,824	22.76
Miami-Dade	3,750,503.0	9.23	123,045,000	11,357,054	77.24
PCA Total	4,857,315.8	11.95	123,045,000	14,703,878	100.0
Florida	40,635,993.0				

<sup>1</sup> See Building Permit Data, Appendix IX

A more localized aggregate demand estimate, consisting of the PCA alone, was estimated to be 14,703,878 tons per year using the Building Construction Approach.

**Highway Construction Approach**

The Federal Highway Authority (FHA) analyzes the use of various construction materials used in highway construction at a State and National level. This data is included in Appendix VII.

Appendix VII also contains total aggregate production data for each State and a calculation of the amount of aggregates used in highway construction expressed as a percentage of total State aggregate production.

As may be noted from Appendix VII, the State of Florida utilizes 11,000 tons of aggregates per million dollars of federally funded highway construction and aggregate use in highway construction comprised 20.26 % of total aggregate use.

The following Table summarizes FDOT's Transportation Program for the PCA. Adopting the use factors stated above, aggregate demand in the PCA may be determined as follows:

**TABLE 23  
PRODUCTION-CONSUMPTION AREA  
AGGREGATE DEMAND ESTIMATE  
HIGHWAY CONSTRUCTION APPROACH  
FISCAL YEAR 2007**

County	Projected Highway Construction (\$/Million)	Total Highway Construction Aggregate Demand at 11,000 Tons/\$Million of Highway Construction (Tons)	Total Aggregate Demand at 100 x Highway Construction 20.26 Aggregate Demand Estimate (Tons)	%
Broward	56.465	621,115	3,065,721	13.20
Miami-Dade	371.217	4,083,387	20,154,921	86.80
Total PCA FY 2007			23,220,642	100.0

The American Road & Transportation Builders Association (ARTBA) monitors United States highway construction and reported, in May 2005, that United States and local transportation agencies awarded 33.3% more in new contracts in January 2005 than it did in January 2004. Texas awarded the greatest value of contracts in January 2005, at \$329.5 million.

**Summary**

A summary of the four (4) PCA aggregate supply/demand estimates is as follows:

**TABLE 24  
PRODUCTION-CONSUMPTION AREA  
AGGREGATE DEMAND ESTIMATES  
SUMMARY**

Market Estimate Approach	PCA Aggregate Demand Estimate (Tons/Year)
Reported Production	N/A
Population	49,817,245
Building Construction	14,703,875
Highway Construction (FY 2007)	23,220,642
PCA Average	29,247,255

All of these estimates are understated, since other markets are served by the Florida East Coast (FEC) Railroad, along Florida's East Coast, as far as Jacksonville, and by rail into Central Florida by the CSX Railroad.

CMC's research also revealed a total of 10 major limestone producers in the PCA in June 2007 (see Section 8 of this Report).

Based on the above, a market share for a new (11<sup>th</sup>) limestone producer would range between approximately one (1) to three (3) million tons per year. With shipments restricted to the PCA by truck, CMC's appraisals, (see Sections 12 and 13 of this Report) have been restricted to sales maximizing at the rate of 2.5 million tons per year under the Aggressive Scenarios, and 2.0 million tons per year under the Conservative Scenarios.

The 2.5 million ton per year cap was also applied to Scenario 3 where it was assumed the Subject Property would be leased to White Rock Quarries who are currently mining a property adjacent to, and abutting, the Subject Property. White Rock Quarries has been mining limerock in the PCA for many years, and is one of the largest quarrying operations in the United States, with annual production estimated at around 11 million tons per year.

It is conceivable, as part of any lease negotiations with White Rock Quarries, that they could be persuaded to concentrate their mining (all/most/some) on the Subject Property until the exhaustion of reserves. By being able to mine through the common property line and having the ability to utilize existing plant and equipment, the minable reserves on the Subject Property increases by approximately 5.8 million tons (See Section 7 of this Report).

If White Rock Quarries could be persuaded to mine 100% of their production capacity from the Subject Property, then mining would take less than five 5 years. This is highly unlikely to happen however, and may be impractical. At 50% of their total production rate the saleable reserves would be exhausted in less than 10 years, and at 35% of their total production rate, saleable reserves would be exhausted in around 13 years, which are more likely scenarios.

## MINERAL INTEREST APPRAISALS

The author of this Report has performed numerous mineral and mining property/company appraisals in Florida. During the course of these projects, field interviews were conducted with mining operators and owners. The interviews carried out as part of this Appraisal project are provided in Appendix VIII.

### Appraisal Scenarios

As mentioned in Section 1 of this Report, a few appraisal “scenarios” were implemented to provide with economic and financial indications of the revenues, cash flows and income potentials of the Subject Property, under various Scenarios as a mineral/mining property.

Scenarios 1, 2 & 3, which are discussed in this Section of the Report, evaluate the Market Value of the **Mineral Interest** in the Subject Property. This assumes that MDAD would simply lease their property out to a Mining Company, who would mine the property and pay royalties back to MDAD for materials that are produced and sold from the Subject Property.

Scenarios 4 and 5, which are discussed in the next Section (Section 13) of the Report, evaluate the Market Value of the **Mining Interest** in the Subject Property. This assumes that MDAD would have a more active role in the risk and involvement of mining the Subject Property.

Royalty Income is always much safer (i.e. less “risk” involved) than Mining Income, as the Lessor’s risks do not involve geology, mining, production, equipment, competition, market changes, and all the other risks that a Mining Operator has to contend with.

Scenarios 1, 2 & 3 are as follows:

1. Appraisal Scenario 1: Mineral Interest Appraisal of the Subject Property, on a Royalty Income Basis, assuming conservative appraisal parameters. This scenario assumes that MDAD would passively lease their mineral property out to a conservative Mining Company, who would mine the property and pay royalties back to MDAD on material sales.
2. Appraisal Scenario 2: Mineral Interest Appraisal of the Subject Property, on a Royalty Income Basis, assuming aggressive appraisal parameters. This scenario assumes that MDAD would passively lease their mineral property out to an aggressive Mining Company, who would mine the property and pay royalties back to MDAD material sales.
3. Appraisal Scenario 3: Mineral Interest Appraisal of the Subject Property, on a Royalty Income Basis, specifically to White Rock Quarries. This scenario assumes that MDAD would passively lease their mineral property to White Rock Quarries, who would mine the property and pay royalties back to MDAD on materials. White Rock’s quarries are located to the east of the Subject Property, and as a result, there are special incentives to both the Lessor/Lessee under this arrangement, due to the following:
  - a. Extra Reserves made available to White Rock
  - b. Ability to Mine Through Common Property Lines (Extra Reserves to Subject Property).
  - c. Minimal Permitting Period (simple extension of existing White Rock permits)
  - d. White Rock is a competitive, Aggressive Producer with existing customers and high market penetration
  - e. Strong incentive to Competitively Mine the Subject Property (to keep competitors out).
  - f. Existing Processing/Mining Equipment located at White Rock.
  - g. No Need For A Processing Area on the Subject Property.

## Appraisal Parameters

Calculating the Mineral Interest Value using the Royalty Income Approach to Value requires the following parameters to be determined:

1. Effective Appraisal Date
2. Commencement Date of Production/Sales
3. Sustainable Production & Sales Rates
4. Saleable Reserves
5. Reserves Lives
6. Sustainable Royalty Rates
7. Applicable Discount/Capitalization Rates

The parameters CMC has derived for each Scenario are as follows:

### 1. Effective Appraisal Date

The effective appraisal date for all three (3) scenarios is June 1, 2007, which represents the completion date of field and data research, and mineral resources/reserves estimates, which were analyzed and utilized in the appraisal processes contained in this Report.

### 2. Commencement Date of Production/Sales

Typically, six (6) months to one (1) year is required to permit an aggregate property in this kind of situation, construct on-site mining equipment and build up enough stockpiles of materials to begin sales. In some areas where sensitive environmental issues or excessive regulations exist, this process may take two (2) years or longer, if a permit can be obtained at all.

- a. Appraisal Scenario 1: Conservative Mineral Interest Appraisal – Conservatively assumes that two (2) years will be needed to permit, construct plant and equipment and stockpile materials for sale.
- b. Appraisal Scenario 2: Aggressive Mineral Interest Appraisal – Aggressively assumes that only one (1) year will be needed to permit, construct a plant and equipment and stockpile materials for sale.
- c. Appraisal Scenario 3: Mineral Interest Appraisal (White Rock) – White Rock already has existing permits to mine their property to the east of the Subject Property, therefore it is assumed that they can simply “extend” their existing permit, most likely within a few months timeframe. Several months will also be required to negotiate/execute a lease and commence mining, so a one (1) year startup period has been allowed for.

### 3. Sustainable Production & Sales Rates

Production/sales from other aggregate operations in the Lakebelt District, excluding the Mega Quarries<sup>1</sup>, are in the range of two (2) to three (3) million tons per year.

- a. Appraisal Scenario 1: Conservative Mineral Interest Appraisal – Conservatively assumes that production will start at 500,000 tons per year, increasing each year by 500,000 tons per year, until reaching a maximum production level of 2,000,000 tons per year.
- b. Appraisal Scenario 2: Aggressive Mineral Interest Appraisal – Aggressively assumes that production will start at 1,000,000 tons per year, increasing each year by 1,000,000 tons per year, then by 500,000 tons per year, until reaching a maximum production level of 2,500,000 tons per year.
- c. Appraisal Scenario 3: Special Mineral Interest Appraisal (White Rock) – Assumes that production will start at 1,000,000 tons per year, increasing each year by 1,000,000 tons per

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<sup>1</sup> Sales In Excess Of 5 Million Tons Per Year From Operations Having Rail, Barge Or Ship Loading Facilities.

year, then by 500,000 tons per year, until reaching a maximum production level of 2,500,000 tons per year.

4. Saleable Resources

As calculated in Section 7 of this Report, the Mineral Resources on the Subject Property, as of June 1, 2007, were 44,627,600 tons for Scenarios 1 & 2; **OR** 50,387,900 tons for Scenario 3 (additional resources liberated by White Rock mining through common property line to the Subject Property). Since the resources have already had appropriate deductions for setbacks, grade, density, etc., incorporation of mining losses (from extraction and processing) will be included into the calculations to convert the resources into reserves.

5. Reserves Life

The reserves lives after incorporating mining losses and utilizing the saleable resources figure and sustainable production/sales rates summarized above, would be as follows:

- a. Appraisal Scenario 1: Conservative Mineral Interest Appraisal – Approximately 23 Years
- b. Appraisal Scenario 2: Aggressive Mineral Interest Appraisal – Approximately 20 Years
- c. Appraisal Scenario 3: Mineral Interest Appraisal (White Rock) – Approximately 21 Years

6. Sustainable Royalty Rate

As previously mentioned, CMC conducted field interviews with mining operators and owners, as part of the appraisal process. Current market prices were collected where possible and, as seen from these Field Interview Notes (Appendix VIII), the average sales price (Per Ton) of aggregates was \$20.00 per ton, and the average sales price of base was approximately \$11.00 Per Ton.

Lessors typically tie the royalty in as a percentage of the sales price of the product (without delivery/transportation costs), so that they can benefit from higher royalties when material sales prices increase. Typically, for aggregates/base rock, between eight (8) to 10% of the average sales price is collected as a royalty, with the low end (8%) representing small, rural mineral properties, and the 10% representing large or premium mineral properties. Royalty rates utilized in the appraisals are as follows:

- a. Appraisal Scenario 1: Conservative Mineral Interest Appraisal – 9% of the average sales price, increasing conservatively (with sales prices) at three (3) percent per year.
- b. Appraisal Scenario 2: Aggressive Mineral Interest Appraisal – 10% of the average sales price, increasing aggressively at five (5) percent per year.
- c. Appraisal Scenario 3: Mineral Interest Appraisal (White Rock) – 10% of the average sales price, increasing aggressively at five (5) percent per year.

7. Discount Rates/Capitalization Rates

CMC continuously monitors Industry Data, Mergers & Acquisitions, sales, financial analyses and financial performance of United States Construction Materials and Aggregate companies. Graphs of various financial data, compiled from CMC's analyses from the time period 1985 through the present are presented in Tables 1-5, in Appendix X.

Table 1 is utilized to select discount and capitalization rates for Mineral/Mining Interest Appraisals. As may be noted from Table 1, the rolling average Rate of Return on Capital Employed (ROCE) between 1993 and 2005 of United States construction materials companies has been very stable, in the 12.0 to 13.6 percent range, being 12.1 percent in 2006.

It should be noted that these are operator's "risk rates" with the impacts of changing geological conditions, processing problems, competition, market changes, being reflected in the risk.

While a royalty owner shares to some extent in the risks of the business, some of their royalty income is usually guaranteed through advance royalty provisions. Usually the royalty owner's only risk is what level of production royalties they will receive on a month to month basis.

A royalty owner's risk is substantially lower than the operator's risk, but not as low as the, so called, "safe risk rate" represented by the United States Government's 30 Year Treasury Bonds (T-Bills), which have been around five (5) percent recently.

Therefore, a discount rate somewhere between the "safe" rate of return (5%) and industry average rate of return (12.1%) is applicable.

Since royalty income is received monthly (often guaranteed) throughout the course of a year, rather than as a lump sum at the end of the year, Monthly Discount rates are appropriate. Deferrals, such as for permitting and deferral of income, are appropriately discounted using Year-End Discount rates. The discount rates should also be indicative of the overall "risk" of achieving the conservative or aggressive parameters that each scenario has allows for. Discount rates CMC considers applicable for each Scenario are as follows:

- a. Mineral Interest Appraisal Scenario 1: Conservative Mineral Interest Appraisal – 9% Discount Rate
- b. Mineral Interest Appraisal Scenario 2: Aggressive Mineral Interest Appraisal – 11.25% Discount Rate
- c. Mineral Interest Appraisal Scenario 3: Mineral Interest Appraisal (White Rock) – 9% Discount Rate

Appraisal Scenario 1 has been assigned a "typical" discount rate that CMC applies to royalties. CMC utilized a 20% higher risk rate (11.25%) for the Aggressive Scenario (due to the increased risk), and utilized 9% for Appraisal Scenario 3, since White Rock already has multiple local quarries, is well established in local mining and has very good market penetration.

### **Mineral Interest Appraisals**

The Mineral Interest Appraisals of the Subject Property may now be made for Scenarios 1, 2, and 3, utilizing the parameters derived above, as follows:

**TABLE 25**  
**MINERAL INTEREST APPRAISAL**  
**SCENARIO 1: CONSERVATIVE ROYALTY INCOME APPROACH**  
**AS OF JUNE 1, 2007**

Year Commencing June 1st	Total Production (Tons)	Mining Losses		Sales (Tons/Year)		Royalties		MDAD Net Royalty Income (\$/Year)	Discount Rate 1 Year at 9.0% (Monthly)	Deferral Rate 1 Year at 9.0% (Year-End)	Net Present Value (\$)
		Aggregate (Tons)	Base (Tons)	Aggregate (Tons)	Base (Tons)	Aggregate (\$/Ton)	Base (\$/Ton)				
2007	0	0	0	0	0	\$1.80	\$0.99	\$0	0.9896789	0.9174312	\$0
2008	0	0	0	0	0	\$1.85	\$1.02	\$0	0.9896789	0.8416800	\$0
2009	500,000	22,500	18,625	127,500	331,375	\$1.91	\$1.05	\$591,517	0.9896789	0.7721835	\$452,045
2010	1,000,000	45,000	37,250	255,000	662,750	\$1.97	\$1.08	\$1,218,524	0.9896789	0.7084252	\$854,324
2011	1,500,000	67,500	55,875	382,500	994,125	\$2.03	\$1.11	\$1,882,620	0.9896789	0.6499314	\$1,210,945
2012	2,000,000	90,000	74,500	510,000	1,325,500	\$2.09	\$1.15	\$2,585,465	0.9896789	0.5962673	\$1,525,717
2013	2,000,000	90,000	74,500	510,000	1,325,500	\$2.15	\$1.18	\$2,663,029	0.9896789	0.5470342	\$1,441,733
2014	2,000,000	90,000	74,500	510,000	1,325,500	\$2.21	\$1.22	\$2,742,920	0.9896789	0.5018663	\$1,362,371
2015	2,000,000	90,000	74,500	510,000	1,325,500	\$2.28	\$1.25	\$2,825,208	0.9896789	0.4604278	\$1,287,378
2016	2,000,000	90,000	74,500	510,000	1,325,500	\$2.35	\$1.29	\$2,909,964	0.9896789	0.4224108	\$1,216,513
2017	2,000,000	90,000	74,500	510,000	1,325,500	\$2.42	\$1.33	\$2,997,263	0.9896789	0.3875329	\$1,149,550
2018	2,000,000	90,000	74,500	510,000	1,325,500	\$2.49	\$1.37	\$3,087,181	0.9896789	0.3555347	\$1,086,271
2019	2,000,000	90,000	74,500	510,000	1,325,500	\$2.57	\$1.41	\$3,179,796	0.9896789	0.3261786	\$1,026,477
2020	2,000,000	90,000	74,500	510,000	1,325,500	\$2.64	\$1.45	\$3,275,190	0.9896789	0.2992465	\$969,974
2021	2,000,000	90,000	74,500	510,000	1,325,500	\$2.72	\$1.50	\$3,373,446	0.9896789	0.2745380	\$916,580
2022	2,000,000	90,000	74,500	510,000	1,325,500	\$2.80	\$1.54	\$3,474,649	0.9896789	0.2518698	\$866,127
2023	2,000,000	90,000	74,500	510,000	1,325,500	\$2.89	\$1.59	\$3,578,889	0.9896789	0.2310732	\$818,450
2024	2,000,000	90,000	74,500	510,000	1,325,500	\$2.98	\$1.64	\$3,686,255	0.9896789	0.2119937	\$773,397
2025	2,000,000	90,000	74,500	510,000	1,325,500	\$3.06	\$1.69	\$3,796,843	0.9896789	0.1944897	\$730,825
2026	2,000,000	90,000	74,500	510,000	1,325,500	\$3.16	\$1.74	\$3,910,748	0.9896789	0.1784309	\$690,596
2027	2,000,000	90,000	74,500	510,000	1,325,500	\$3.25	\$1.79	\$4,028,071	0.9896789	0.1636981	\$652,582
2028	2,000,000	90,000	74,500	510,000	1,325,500	\$3.35	\$1.84	\$4,148,913	0.9896789	0.1501817	\$616,660
2029	2,000,000	90,000	74,500	510,000	1,325,500	\$3.45	\$1.90	\$4,273,380	0.9896789	0.1377814	\$582,715
2030	2,000,000	90,000	74,500	510,000	1,325,500	\$3.55	\$1.95	\$4,401,581	0.9896789	0.1264049	\$550,639
2031	2,000,000	90,000	74,500	510,000	1,325,500	\$3.66	\$2.01	\$4,533,629	0.9896789	0.1159678	\$520,329
2032	1,627,600	73,242	60,628	415,038	1,078,692	\$3.77	\$2.07	\$3,800,151	0.9896789	0.1063925	\$400,135
<b>Totals</b>	<b>44,627,600</b>	<b>2,008,242</b>	<b>1,662,378</b>	<b>11,380,038</b>	<b>29,576,942</b>			<b>\$76,965,231</b>			<b>\$21,702,333</b>
<i>Averages</i>	<i>1,716,446</i>	<i>77,240</i>	<i>63,938</i>	<i>437,694</i>	<i>1,137,575</i>	<i>\$2.67</i>	<i>\$1.47</i>	<i>\$2,960,201</i>			<i>\$834,705</i>
							<b>Say</b>	<b>\$76,965,200</b>			<b>\$21,702,300</b>

**Notes:**

- 1.) Sales Equal To Production Minus Mining Losses [15% Mining Losses on Aggregate -> Losses Become Base; then 5% Mining Losses on Base]
- 2.) Borehole Data, MDAD Research, and Other Local Producers Indicate That Deposit Composition Is Approximately 70% Base & 30% Aggregate
- 3.) Total Resources = 44,627,600 Tons, Per CMC Resource Estimate June 1, 2007
- 4.) Reserves Based on Resource Extraction Plan 1 [See Section 7 & Plan F1 of this Report]



**TABLE 26  
MINERAL INTEREST APPRAISAL  
SCENARIO 2: AGGRESSIVE ROYALTY INCOME APPROACH  
AS OF JUNE 1, 2007**

Year Commencing June 1st	Total Production (Tons)	Mining Losses		Sales (Tons/Year)		Royalties		MDAD Net Royalty Income (\$/Year)	Discount Rate 1 Year at 11.25% (Monthly)	Deferral Rate 1 Year at 11.25% (Year-End)	Net Present Value (\$)
		Aggregate (Tons)	Base (Tons)	Aggregate (Tons)	Base (Tons)	Aggregate (\$/Ton)	Base (\$/Ton)				
2007	0	0	0	0	0	\$2.00	\$1.10	\$0	0.9873596	0.8988764	\$0
2008	750,000	33,750	27,938	191,250	497,063	\$2.10	\$1.16	\$975,732	0.9873596	0.8079788	\$778,406
2009	1,500,000	67,500	55,875	382,500	994,125	\$2.21	\$1.21	\$2,049,038	0.9873596	0.7262731	\$1,469,350
2010	2,250,000	101,250	83,813	573,750	1,491,188	\$2.32	\$1.27	\$3,227,234	0.9873596	0.6528297	\$2,080,203
2011	2,500,000	112,500	93,125	637,500	1,656,875	\$2.43	\$1.34	\$3,765,107	0.9873596	0.5868132	\$2,181,486
2012	2,500,000	112,500	93,125	637,500	1,656,875	\$2.55	\$1.40	\$3,953,362	0.9873596	0.5274726	\$2,058,931
2013	2,500,000	112,500	93,125	637,500	1,656,875	\$2.68	\$1.47	\$4,151,030	0.9873596	0.4741326	\$1,943,261
2014	2,500,000	112,500	93,125	637,500	1,656,875	\$2.81	\$1.55	\$4,358,582	0.9873596	0.4261867	\$1,834,089
2015	2,500,000	112,500	93,125	637,500	1,656,875	\$2.95	\$1.63	\$4,576,511	0.9873596	0.3830891	\$1,731,050
2016	2,500,000	112,500	93,125	637,500	1,656,875	\$3.10	\$1.71	\$4,805,336	0.9873596	0.3443498	\$1,633,800
2017	2,500,000	112,500	93,125	637,500	1,656,875	\$3.26	\$1.79	\$5,045,603	0.9873596	0.3095279	\$1,542,014
2018	2,500,000	112,500	93,125	637,500	1,656,875	\$3.42	\$1.88	\$5,297,883	0.9873596	0.2782273	\$1,455,384
2019	2,500,000	112,500	93,125	637,500	1,656,875	\$3.59	\$1.98	\$5,562,777	0.9873596	0.2500920	\$1,373,620
2020	2,500,000	112,500	93,125	637,500	1,656,875	\$3.77	\$2.07	\$5,840,916	0.9873596	0.2248018	\$1,296,451
2021	2,500,000	112,500	93,125	637,500	1,656,875	\$3.96	\$2.18	\$6,132,962	0.9873596	0.2020690	\$1,223,616
2022	2,500,000	112,500	93,125	637,500	1,656,875	\$4.16	\$2.29	\$6,439,610	0.9873596	0.1816351	\$1,154,874
2023	2,500,000	112,500	93,125	637,500	1,656,875	\$4.37	\$2.40	\$6,761,590	0.9873596	0.1632675	\$1,089,993
2024	2,500,000	112,500	93,125	637,500	1,656,875	\$4.58	\$2.52	\$7,099,670	0.9873596	0.1467573	\$1,028,758
2025	2,500,000	112,500	93,125	637,500	1,656,875	\$4.81	\$2.65	\$7,454,653	0.9873596	0.1319167	\$970,962
2026	2,500,000	112,500	93,125	637,500	1,656,875	\$5.05	\$2.78	\$7,827,386	0.9873596	0.1185768	\$916,414
2027	127,600	5,742	4,753	32,538	84,567	\$5.31	\$2.92	\$419,485	0.9873596	0.1065859	\$44,146
<b>Totals</b>	<b>44,627,600</b>	<b>2,008,242</b>	<b>1,662,378</b>	<b>11,380,038</b>	<b>29,576,942</b>			<b>\$95,744,467</b>			<b>\$27,806,808</b>
<i>Averages</i>	<i>2,125,124</i>	<i>95,631</i>	<i>79,161</i>	<i>541,907</i>	<i>1,408,426</i>	<i>\$3.40</i>	<i>\$1.87</i>	<i>\$4,559,260</i>			<i>\$1,324,134</i>
							<b>Say</b>	<b>\$95,744,500</b>			<b>\$27,806,800</b>

Notes:

- 1.) Sales Equal To Production Minus Mining Losses [15% Mining Losses on Aggregate -> Losses Become Base Rock; then 5% Mining Losses on Base Rock]
- 2.) Borehole Data, MDAD Research, and Other Local Producers Indicate That Deposit Composition Is Approximately 70% Base Rock & 30% Aggregate
- 3.) Total Reserves = 44,627,600 Tons, Per CMC Reserves Estimate June 1, 2007
- 4.) Reserves Based on Resource Extraction Plan 1 [See Section 7 & Plan F1 of this Report]

**TABLE 27**  
**MINERAL INTEREST APPRAISAL**  
**SCENARIO 3: ROYALTY INCOME APPROACH – WHITE ROCK QUARRIES**  
**AS OF JUNE 1, 2007**

Year Commencing June 1st	Total Production (Tons)	Mining Losses		Sales (Tons/Year)		Royalties		MDAD Net Royalty Income (\$/Year)	Discount Rate 1 Year at 9.0% (Monthly)	Deferral Rate 1 Year at 9.0% (Year-End)	Net Present Value (\$)
		Aggregate (Tons)	Base (Tons)	Aggregate (Tons)	Base (Tons)	Aggregate (\$/Ton)	Base (\$/Ton)				
2007	0	0	0	0	0	\$2.00	\$1.10	\$0	0.9896789	0.9174312	\$0
2008	1,000,000	45,000	37,250	255,000	662,750	\$2.10	\$1.16	\$1,300,976	0.9896789	0.8416800	\$1,083,704
2009	2,000,000	90,000	74,500	510,000	1,325,500	\$2.21	\$1.21	\$2,732,050	0.9896789	0.7721835	\$2,087,870
2010	2,500,000	112,500	93,125	637,500	1,656,875	\$2.32	\$1.27	\$3,585,816	0.9896789	0.7084252	\$2,514,064
2011	2,500,000	112,500	93,125	637,500	1,656,875	\$2.43	\$1.34	\$3,765,107	0.9896789	0.6499314	\$2,421,805
2012	2,500,000	112,500	93,125	637,500	1,656,875	\$2.55	\$1.40	\$3,953,362	0.9896789	0.5962673	\$2,332,931
2013	2,500,000	112,500	93,125	637,500	1,656,875	\$2.68	\$1.47	\$4,151,030	0.9896789	0.5470342	\$2,247,319
2014	2,500,000	112,500	93,125	637,500	1,656,875	\$2.81	\$1.55	\$4,358,582	0.9896789	0.5018663	\$2,164,849
2015	2,500,000	112,500	93,125	637,500	1,656,875	\$2.95	\$1.63	\$4,576,511	0.9896789	0.4604278	\$2,085,405
2016	2,500,000	112,500	93,125	637,500	1,656,875	\$3.10	\$1.71	\$4,805,336	0.9896789	0.4224108	\$2,008,876
2017	2,500,000	112,500	93,125	637,500	1,656,875	\$3.26	\$1.79	\$5,045,603	0.9896789	0.3875329	\$1,935,156
2018	2,500,000	112,500	93,125	637,500	1,656,875	\$3.42	\$1.88	\$5,297,883	0.9896789	0.3555347	\$1,864,141
2019	2,500,000	112,500	93,125	637,500	1,656,875	\$3.59	\$1.98	\$5,562,777	0.9896789	0.3261786	\$1,795,732
2020	2,500,000	112,500	93,125	637,500	1,656,875	\$3.77	\$2.07	\$5,840,916	0.9896789	0.2992465	\$1,729,834
2021	2,500,000	112,500	93,125	637,500	1,656,875	\$3.96	\$2.18	\$6,132,962	0.9896789	0.2745380	\$1,666,353
2022	2,500,000	112,500	93,125	637,500	1,656,875	\$4.16	\$2.29	\$6,439,610	0.9896789	0.2518698	\$1,605,203
2023	2,500,000	112,500	93,125	637,500	1,656,875	\$4.37	\$2.40	\$6,761,590	0.9896789	0.2310732	\$1,546,296
2024	2,500,000	112,500	93,125	637,500	1,656,875	\$4.58	\$2.52	\$7,099,670	0.9896789	0.2119937	\$1,489,551
2025	2,500,000	112,500	93,125	637,500	1,656,875	\$4.81	\$2.65	\$7,454,653	0.9896789	0.1944897	\$1,434,889
2026	2,500,000	112,500	93,125	637,500	1,656,875	\$5.05	\$2.78	\$7,827,386	0.9896789	0.1784309	\$1,382,233
2027	2,500,000	112,500	93,125	637,500	1,656,875	\$5.31	\$2.92	\$8,218,755	0.9896789	0.1636981	\$1,331,509
2028	2,387,900	107,456	88,949	608,915	1,582,581	\$5.57	\$3.06	\$8,242,738	0.9896789	0.1501817	\$1,225,132
<b>Totals</b>	<b>50,387,900</b>	<b>2,267,456</b>	<b>1,876,949</b>	<b>12,848,915</b>	<b>33,394,581</b>	-	-	<b>\$113,153,313</b>			<b>\$37,952,849</b>
<i>Averages</i>	<i>2,290,359</i>	<i>103,066</i>	<i>85,316</i>	<i>584,042</i>	<i>1,517,935</i>	<i>\$3.50</i>	<i>\$1.93</i>	<i>\$5,143,332</i>			<i>\$1,725,130</i>
							<b>Say</b>	<b>\$113,153,300</b>			<b>\$37,952,800</b>

Notes:

- 1.) Sales Equal To Production Minus Mining Losses [15% Mining Losses on Aggregate -> Losses Become Base Rock; then 5% Mining Losses on Base Rock]
- 2.) Borehole Data, MDAD Research, and Other Local Producers Indicate That Deposit Composition Is Approximately 70% Base Rock & 30% Aggregate
- 3.) Total Reserves = 44,627,600 Tons, Per CMC Reserves Estimate June 1, 2007
- 4.) Reserves Based on Resource Extraction Plan 1 [See Section 7 & Plan F1 of this Report]

### **Mineral Interest Appraisals – Summary**

The Net Royalty Income is not discounted to account for risk/time, and is equivalent to the “Cash Flow” that MDAD could receive over time. The Net Present Value is discounted to account for risk/time and represents the current Net Present Value of the Mineral Interest, if it were to be sold today.

1. It is my opinion, sustained by the following Report, that the Market Value of the **Mineral Interest** in the Subject Property, as of June 1, 2007, under Scenario 1 (Conservative Royalty Income Approach), was:

**\$21,702,300**

**(Twenty One Million, Seven Hundred Two Thousand, Three Hundred Dollars)**

The above figure represents the Net Present Value (NPV), utilizing a discount rate of 9.0%, of a cash flow totaling \$76,965,200, over a 24 year time period, commencing June 1, 2009.

2. It is further my opinion, sustained by the following Report, that the Market Value of the **Mineral Interest** in the Subject Property, as of June 1, 2007, under Scenario 2 (Aggressive Royalty Income Approach), was:

**\$27,806,800**

**(Twenty Seven Million, Eight Hundred Six Thousand, Eight Hundred Dollars)**

The above figure represents the NPV, utilizing an 11.25% discount rate, of a cash flow totaling \$95,744,500, over a 20 year time period, commencing June 1, 2008.

3. It is further my opinion, sustained by the following Report, that the Market Value of the **Mineral Interest** in the Subject Property, as of June 1, 2007, under Scenario 3 (White Rock Quarries Royalty Income Approach), was:

**\$37,952,800**

**(Thirty Seven Million, Nine Hundred Fifty Two Thousand, Eight Hundred Fifty Dollars)**

The above figure represents the NPV, utilizing a 9% discount rate, of a cash flow totaling \$113,153,300, over a 21 year time period, commencing June 1, 2008.

Note: The above Mineral Interest Values **exclude** any real estate values resulting from interim uses of the Subject Property, other than aggregate production, and also **exclude** any residual use value of the Subject Property after the cessation of mining. Such values should be determined by a competent real estate appraiser and would be **additional values** to the above stated Mineral Interest Values.

### **Exposure Time**

Exposure time is the estimated length of time that the Subject Property would have been offered on the market prior to a hypothetical sale of the Subject Property on the effective date of the appraisal. Based on data obtained from sales transactions and interviews with market participants, it is our opinion that the probable exposure time for the Subject Property at the concluded Market Values is nine (9) to 12 months.

### **Marketing Period**

Marketing period is an opinion of the amount of time it might take to sell the Subject Property at the concluded Market Values during the period immediately subsequent to the effective date of the appraisal. Because we foresee no significant changes in market conditions in the near term, it is our opinion that a reasonable marketing period for the Subject Property is the same as its exposure time. Therefore, the Subject Property’s marketing period is estimated at nine (9) to 12 months.

### MINING INTEREST APPRAISALS

Scenarios 1, 2 & 3, which were discussed in the previous Section of the Report, evaluate the Market Value of the **Mineral Interest** in the Subject Property. This assumes that MDAD would simply lease their mineral property out to a Mining Company, who would mine the property and pay royalties back to MDAD for materials that are produced and sold from the Subject Property.

Scenarios 4 and 5 evaluate the Market Value of the **Mining Interest** in the Subject Property. This assumes that MDAD would have a more active role in the risk, development and involvement of mining the Subject Property.

Based on the above scenarios, it would appear that a sixth Scenario, addressing the Mining Interest of the Subject Property, on a Mining Income Basis, specifically to White Rock Quarries, would be a logical scenario. However, based on CMC's extensive experience with United States aggregate operations, the probability of a large mining company (not mining contractor) entering into an operating agreement/joint venture for a percentage of the total profit, is extremely remote.

Scenarios 4 & 5 are as follows:

- Appraisal Scenario 4: Mining Interest Appraisal of the Subject Property, on a Mining Income Basis, assuming conservative appraisal parameters. This scenario assumes that MDAD would not take a passive stance, but be involved in the actual mining through contracting or entering into a operational agreement or joint venture with a conservative mining contractor, who would then mine the property and process the materials for a percentage of the Net Mining Income, with the remainder of the Net Mining Income going to MDAD.
- Appraisal Scenario 5: Mining Interest Appraisal of the Subject Property, on a Mining Income Basis, assuming aggressive appraisal parameters. This scenario assumes that MDAD would not take a passive stance, but be involved in the actual mining through contracting, or entering into an operational agreement or joint venture, with an aggressive mining contractor, who would then mines the property and process the materials for a percentage of the Net Mining Income, with the remainder of the Net Mining Income going to MDAD.

#### Appraisal Parameters

Calculating the Mining Interest Values using the Mining Income Approach to Value requires the following parameters to be determined:

1. Effective Appraisal Date
2. Commencement Date of Production/Sales
3. Sustainable Production & Sales Rates
4. Salable Reserves
5. Reserves Lives
6. Applicable Fees & Expenses
7. Expenses (Contract Mining & Processing)
8. Sustainable Sales Prices
9. Applicable Discount/Capitalization Rates

These parameters, as derived by CMC, apply to Scenarios 4 & 5, and are as follows:

#### 1. Effective Appraisal Date

The effective appraisal date for both scenarios is June 1, 2007, which represents the completion date of field data research, and mineral resources/reserves estimates, which were analyzed and utilized in the appraisal processes contained in this Report.

2. Commencement Date of Production/Sales

Typically, six (6) months to one (1) year is required to permit an aggregate property in this kind of situation, construct on-site mining and processing equipment and build up enough stockpiles of materials to commence sales. In some areas, where sensitive environmental issues or excessive regulations exist, this process may take two (2) years or longer, if a permit can be obtained at all.

- a. Appraisal Scenario 4: Conservative Mining Interest Appraisal – Conservatively assumes that two (2) years will be needed to permit, construct plant and equipment and stockpile materials for sale.
- b. Appraisal Scenario 5: Aggressive Mining Interest Appraisal – Aggressively assumes that only one (1) year will be needed to permit, construct plant and equipment and stockpile materials for sale.

3. Sustainable Production & Sales Rates

Production/sales from other aggregate operations in the Lakebelt District, excluding the Mega Quarries<sup>1</sup> are in the range of two (2) to three (3) million tons per year.

- a. Appraisal Scenario 4: Conservative Mining Interest Appraisal – Conservatively assumes that production will start at 500,000 tons per year, increasing each year by 500,000 tons per year, until reaching a maximum production level of 2,000,000 tons per year.
- b. Appraisal Scenario 5: Aggressive Mining Interest Appraisal – Aggressively assumes that production will start at 1,000,000 tons per year, increasing each year by 1,000,000 tons per year, then by 500,000 tons per year, until reaching a maximum production level of 2,500,000 tons per year.

4. Saleable Resources

As calculated in Section 7 of this Report, the mineral resources on the Subject Property, as of June 1, 2007, was 44,627,600 tons, for Scenarios 4 & 5. Since the resources have already had appropriate deductions for the setbacks, grade, density, etc., incorporation of mining losses (from extraction and processing) will be included into the calculations to convert the resources into reserves.

5. Reserves Life

The reserves lives after incorporating mining losses and utilizing the above saleable resources figure and sustainable production/sales rates would be as follows:

- a. Mining Appraisal Scenario 4: Conservative Mining Interest Appraisal – Approximately 25 Years
- b. Mining Appraisal Scenario 5: Aggressive Mining Interest Appraisal – Approximately 19 Years

6. Fees & Expenses

Two (2) new Florida Department of Revenue<sup>2</sup> taxes are applicable to Lakebelt District Mining operations:

- a. Mitigation Fee – Each ton of mined material is subject to a “Mitigation Fee” equivalent to a fixed price per ton from 2007 to 2009, then increased by 2.1% per year, plus a “Growth Factor”.
  - i. Appraisal Scenario 4: Conservative Mining Interest Appraisal – Increase by 2.1%, plus 5% per year.
  - ii. Appraisal Scenario 5: Aggressive Mining Interest Appraisal – Increase by 2.1%, plus 3% per year.

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<sup>1</sup> Sales In Excess Of 5 Million Tons Per Year From Operations Having Rail, Barge Or Ship Loading Facilities.

<sup>2</sup> <http://dor.myflorida.com/dor/taxes>.

- b. Water Treatment Plant Fee – Each ton of mined material is subject to a “Fee”, equivalent to a fixed price of 15 cents per ton.

7. Expenses (Contract Mining & Processing)

MDAD is considering using a contract crushing company to mine materials on-site. MDAD informed CMC that they have had numerous discussions with local contract crushing companies, whom are very abundant (and eager) to perform contract crushing for a fixed fee of 25% of the total mining income received.

From CMC’s experience with contract crushing operations, 25% of Gross Mining Income is a typical contract crushing fee, however this only provides minimal basics: i.e. process and stockpile raw materials on site. Minimal processing (usually portable equipment capable of producing a maximum of 1.25 million tons per year) may also be performed.

The 25% Fee covers the contractor’s equipment costs, labor, and profit to the contractor. However, this excludes all of the other necessary items that are required “cradle to grave” for a Lake Belt Area mining operation. At a minimum, these would include:

1. Detailed Site Investigation to quantify/qualify reserves/justify Capital Expenditures (CapEx)
2. Market Study to determine supply/demand/economics/viability/justify CapEx
3. Apply for and obtain all Necessary Permits
4. Design Mining Plant & Equipment
5. Purchase Mining Plant & Equipment
6. Purchase Support Equipment (i.e. draglines, excavators, front-end loaders, haul trucks)
7. Move Mining Plant & Equipment to site
8. Installation and Hookup of Mining Plant & Equipment
9. Prepare for Mining
10. Make Key Cut (Dragline) or Stripping of Overburden (excavator)
11. Blast Shotrock / Excavate Raw Materials
12. Dry Shotrock/Raw Materials
13. Load Shotrock/Raw Materials With Loader onto Haul Trucks
14. Haul Shotrock/Raw Materials to Processing Facility
15. Dump Shotrock/Raw Materials
16. Load Shotrock/Raw Materials in to feeder
17. Process Materials (Crushing, Screening, Washing, etc.)
18. Stockpile processed materials on site
19. Quality Assurance/Control to confirm processed materials meet specifications
20. Load materials into haul vehicles
21. Weigh Vehicles/Materials at Scalehouse
22. Administration & Recordkeeping
23. Selling, General & Administrative Expenses
24. Marketing Expenses
25. Lake Belt Fees

Although some of these items may not be applicable, or can be circumvented by MDAD, it is highly doubtful that a contract crushing company would perform all (or most) of the above (including the initial tens of millions of dollars in investment) for only 25% of future mining income, especially when an aggregate company would perform the same, for 100% of future mining income.

To feasibly achieve sales volumes of 2.0 to 2.5 million tons per year, and process specification aggregates/base for sale to customers, a mining, processing & retailing contractor (not just a contract crusher) would be required. Assuming a contractor capable of doing the above (and making the initial investment in plant/equipment), a higher percentage was utilized by CMC (based on experience with Aggregate Company Rates of Returns, Contractor Fees, Profit Margins, and Capital Expenditures) as follows:

- a. Appraisal Scenario 4: Conservative Mining Interest Appraisal – Assumes that a 70% of Gross Mining Income Mining, Processing & Retailing Contract is negotiated.
- b. Appraisal Scenario 5: Aggressive Mining Interest Appraisal – Assumes that a 60% of Gross Mining Income Mining, Processing & Retailing Contract is negotiated.

The above items have a major impact on the cash flows and net present values of the appraisal scenarios, therefore the appraisal scenarios should be re-evaluated if an exact percentage is negotiated.

#### 8. Sustainable Sales Prices

As previously mentioned in this Report, CMC conducted Field Interviews with mining operators and owners, as part of the appraisal process. Current market prices were collected where possible and, as seen from these Field Interview Notes (Appendix VIII), the average sales price (per ton) of aggregates was \$20.00 per ton, and the average sales price of base was approximately \$11.00 per ton.

Price Increases were allocated as follows:

- a. Appraisal Scenario 4: Conservative Mining Interest Appraisal – Increase Sales Prices by 3% per year, in line with observed National price increases.
- b. Appraisal Scenario 5: Aggressive Mining Interest Appraisal – Increase Sales Prices by 5% per year, in line with observed (Aggressive) local price increases.

#### 9. Discount Rates/Capitalization Rates

CMC continuously monitors Industry Data, Mergers & Acquisitions, sales, financial analyses and the financial performance of United States Construction Materials and Aggregate companies. Graphs of various financial data, compiled from CMC's analyses from the time period 1985 through the present are presented in Tables 1-5, in Appendix X.

Table 1 is utilized to select discount and capitalization rates for Mineral/Mining Interest Appraisals. As may be noted from Table 1, the rolling average Rate of Return on Capital Employed (ROCE) between 1993 and 2005 of United States construction materials companies has been very stable, in the 12.0 to 13.6 percent range, being 12.1 percent in 2006.

It should be noted that these are operator's "risk rates" with the impacts of changing geological conditions, processing problems competition, market changes, being reflected in the risk.

Since this represents a startup operation in a new market, additional risk is involved.

Therefore, a discount rate somewhere between the "safe" rate of return (5%) and industry rates of return (7-20%) is considered applicable.

Since mining income is received very frequently (daily) throughout the course of a year, rather than as a lump sum at the end of the year, Daily Discount Rates are appropriate. Deferrals, such as for permitting and deferral of income, are appropriately discounted using Year-End Discount rates. The Discount Rates should also be indicative of the overall "risk" of achieving the other conservative or aggressive parameters that each Scenario utilizes. Discount Rates utilized are as follows:

- a. Appraisal Scenario 4: Conservative Mineral Interest Appraisal – 14.00% Discount Rate
- b. Appraisal Scenario 5: Aggressive Mineral Interest Appraisal – 17.50% Discount Rate (20% over the Conservative Discount Rate)

Appraisal Scenario 4 has been assigned a discount rate that CMC typically applies to “startup” (i.e. riskier) mining operations. CMC utilized a 20% higher risk rate (17.5%) for the Aggressive Scenario (due to the increased risk of achieving aggressive goals).

**Mining Interest Appraisals**

The Mining Interest Appraisals of the Subject Property may now be made under Scenarios 4 & 5, utilizing the parameters derived above, as per the following Tables:



**TABLE 28  
MINING INTEREST APPRAISAL  
SCENARIO 4: CONSERVATIVE MINING INCOME APPROACH  
AS OF JUNE 1, 2007**

Year Commencing June 1st	Total Production (Tons)	Mining Losses		Sales (Tons/Year)		Mining Income		Gross Mining Income (\$/Year)	Mining Fees & Costs		Adj. Gross Mining Income (\$/Year)	Contractor Costs (\$/Year)	Net Mining Income (\$/Year)	Discount Rate 1 Year at 14.0% (Daily)	Deferral Rate 1 Year at 14.0% (Year-End)	Net Present Value (NPV) (\$)
		Aggregate (Tons)	Base (Tons)	Aggregate (Tons)	Base (Tons)	Aggregate (\$/Ton)	Base (\$/Ton)		Mitigation Fee (\$/Year)	Water Treat. (\$/Year)						
2007	0	0	0	0	0	\$20.00	\$11.00	\$0	\$0	\$0	\$0	\$0	\$0	0.9923246	0.8771930	\$0
2008	0	0	0	0	0	\$20.60	\$11.33	\$0	\$0	\$0	\$0	\$0	\$0	0.9923246	0.7694675	\$0
2009	500,000	22,500	18,625	127,500	331,375	\$21.22	\$11.67	\$6,572,408	\$120,000	\$75,000	\$6,377,408	\$4,464,186	\$1,913,222	0.9923246	0.6749715	\$1,281,459
2010	1,000,000	45,000	37,250	255,000	662,750	\$21.85	\$12.02	\$13,539,161	\$256,800	\$150,000	\$13,132,361	\$9,192,652	\$3,939,708	0.9923246	0.5920803	\$2,314,720
2011	1,500,000	67,500	55,875	382,500	994,125	\$22.51	\$12.38	\$20,918,003	\$412,164	\$225,000	\$20,280,839	\$14,196,588	\$6,084,252	0.9923246	0.5193687	\$3,135,716
2012	2,000,000	90,000	74,500	510,000	1,325,500	\$23.19	\$12.75	\$28,727,391	\$588,021	\$300,000	\$27,839,371	\$19,487,559	\$8,351,811	0.9923246	0.4555865	\$3,775,768
2013	2,000,000	90,000	74,500	510,000	1,325,500	\$23.88	\$13.13	\$29,589,213	\$629,182	\$300,000	\$28,660,031	\$20,062,022	\$8,598,009	0.9923246	0.3996373	\$3,409,712
2014	2,000,000	90,000	74,500	510,000	1,325,500	\$24.60	\$13.53	\$30,476,889	\$673,225	\$300,000	\$29,503,664	\$20,652,565	\$8,851,099	0.9923246	0.3505591	\$3,079,018
2015	2,000,000	90,000	74,500	510,000	1,325,500	\$25.34	\$13.93	\$31,391,196	\$720,351	\$300,000	\$30,370,845	\$21,259,592	\$9,111,254	0.9923246	0.3075079	\$2,780,278
2016	2,000,000	90,000	74,500	510,000	1,325,500	\$26.10	\$14.35	\$32,332,932	\$770,775	\$300,000	\$31,262,157	\$21,883,510	\$9,378,647	0.9923246	0.2697438	\$2,510,414
2017	2,000,000	90,000	74,500	510,000	1,325,500	\$26.88	\$14.78	\$33,302,920	\$824,729	\$300,000	\$32,178,190	\$22,524,733	\$9,653,457	0.9923246	0.2366174	\$2,266,644
2018	2,000,000	90,000	74,500	510,000	1,325,500	\$27.68	\$15.23	\$34,302,007	\$882,460	\$300,000	\$33,119,547	\$23,183,683	\$9,935,864	0.9923246	0.2075591	\$2,046,450
2019	2,000,000	90,000	74,500	510,000	1,325,500	\$28.52	\$15.68	\$35,331,068	\$944,233	\$300,000	\$34,086,835	\$23,860,785	\$10,226,051	0.9923246	0.1820694	\$1,847,560
2020	2,000,000	90,000	74,500	510,000	1,325,500	\$29.37	\$16.15	\$36,391,000	\$1,010,329	\$300,000	\$35,080,671	\$24,556,470	\$10,524,201	0.9923246	0.1597100	\$1,667,919
2021	2,000,000	90,000	74,500	510,000	1,325,500	\$30.25	\$16.64	\$37,482,730	\$1,081,052	\$300,000	\$36,101,678	\$25,271,174	\$10,830,503	0.9923246	0.1400965	\$1,505,670
2022	2,000,000	90,000	74,500	510,000	1,325,500	\$31.16	\$17.14	\$38,607,212	\$1,156,726	\$300,000	\$37,150,486	\$26,005,340	\$11,145,146	0.9923246	0.1228917	\$1,359,133
2023	2,000,000	90,000	74,500	510,000	1,325,500	\$32.09	\$17.65	\$39,765,428	\$1,237,696	\$300,000	\$38,227,732	\$26,759,412	\$11,468,319	0.9923246	0.1077997	\$1,226,792
2024	2,000,000	90,000	74,500	510,000	1,325,500	\$33.06	\$18.18	\$40,958,391	\$1,324,335	\$300,000	\$39,334,056	\$27,533,839	\$11,800,217	0.9923246	0.0945611	\$1,107,277
2025	2,000,000	90,000	74,500	510,000	1,325,500	\$34.05	\$18.73	\$42,187,142	\$1,417,039	\$300,000	\$40,470,104	\$28,329,073	\$12,141,031	0.9923246	0.0829484	\$999,349
2026	2,000,000	90,000	74,500	510,000	1,325,500	\$35.07	\$19.29	\$43,452,757	\$1,516,231	\$300,000	\$41,636,525	\$29,145,568	\$12,490,958	0.9923246	0.0727617	\$901,887
2027	2,000,000	90,000	74,500	510,000	1,325,500	\$36.12	\$19.87	\$44,756,339	\$1,622,367	\$300,000	\$42,833,972	\$29,983,780	\$12,850,192	0.9923246	0.0638261	\$813,882
2028	2,000,000	90,000	74,500	510,000	1,325,500	\$37.21	\$20.46	\$46,099,030	\$1,735,933	\$300,000	\$44,063,096	\$30,844,167	\$13,218,929	0.9923246	0.0559878	\$734,418
2029	2,000,000	90,000	74,500	510,000	1,325,500	\$38.32	\$21.08	\$47,482,001	\$1,857,449	\$300,000	\$45,324,552	\$31,727,186	\$13,597,366	0.9923246	0.0491121	\$662,670
2030	2,000,000	90,000	74,500	510,000	1,325,500	\$39.47	\$21.71	\$48,906,461	\$1,987,470	\$300,000	\$46,618,991	\$32,633,293	\$13,985,697	0.9923246	0.0430808	\$597,890
2031	2,000,000	90,000	74,500	510,000	1,325,500	\$40.66	\$22.36	\$50,373,654	\$2,126,593	\$300,000	\$47,947,062	\$33,562,943	\$14,384,118	0.9923246	0.0377902	\$539,407
2032	1,627,600	73,242	60,628	415,038	1,078,692	\$41.88	\$23.03	\$42,223,902	\$1,851,765	\$244,140	\$40,127,998	\$28,089,598	\$12,038,399	0.9923246	0.0331493	\$396,001
<b>Totals</b>	<b>44,627,600</b>	<b>2,008,242</b>	<b>1,662,378</b>	<b>11,380,038</b>	<b>29,576,942</b>	-	-	<b>\$855,169,234</b>	<b>\$26,746,924</b>	<b>\$6,694,140</b>	<b>\$821,728,170</b>	<b>\$575,209,719</b>	<b>\$246,518,451</b>			<b>\$40,960,034</b>
<b>Averages</b>	<b>1,716,446</b>	<b>77,240</b>	<b>63,938</b>	<b>437,694</b>	<b>1,137,575</b>	<b>\$29.66</b>	<b>\$16.31</b>	<b>\$32,891,124</b>	<b>\$1,028,727.86</b>	<b>\$257,466.92</b>	<b>\$31,604,929.60</b>	<b>\$22,123,450.72</b>	<b>\$9,481,479</b>			<b>\$1,575,386</b>
												<b>Say</b>	<b>\$246,518,500</b>			<b>\$40,960,000</b>

**Notes:**

- 1.) Sales Equal To Production Minus Mining Losses [15% Mining Losses on Aggregate -> Losses Become Base Rock; then 5% Mining Losses on Base Rock]
- 2.) Borehole Data, MDAD Research, and Other Local Producers Indicate That Deposit Composition Is Approximately 70% Base Rock & 30% Aggregate
- 3.) Total Reserves = 44,627,600 Tons, Per CMC Reserves Estimate June 1, 2007
- 4.) Reserves Based on Resource Extraction Plan 1 [See Section 7 & Plan F1 of this Report]

**TABLE 29  
MINING INTEREST APPRAISAL  
SCENARIO 5: AGGRESSIVE MINING INCOME APPROACH  
AS OF JUNE 1, 2007**

Year Commencing June 1st	Total Production (Tons)	Mining Losses		Sales (Tons/Year)		Mining Income		Gross Mining Income (\$/Year)	Mining Fees & Costs		Adj. Gross Mining Income (\$/Year)	Contractor Costs (\$/Year)	Net Mining Income (\$/Year)	Discount Rate 1 Year at 17.5% (Daily)	Deferral Rate 1 Year at 17.5% (Year-End)	Net Present Value (NPV) (\$)
		Aggregate (Tons)	Base (Tons)	Aggregate (Tons)	Base (Tons)	Aggregate (\$/Ton)	Base Rock (\$/Ton)		Mitigation Fee (\$/Year)	Water Treat. (\$/Year)						
2007	0	0	0	0	0	\$20.00	\$11.00	\$0	\$0	\$0	\$0	\$0	\$0	0.9906915	0.8510638	\$0
2008	1,000,000	45,000	37,250	255,000	662,750	\$21.00	\$11.55	\$19,968,638	\$180,000	\$150,000	\$19,638,638	\$12,765,114	\$6,873,523	0.9906915	0.7243096	\$4,932,216
2009	2,000,000	90,000	74,500	510,000	1,325,500	\$22.05	\$12.13	\$41,934,139	\$480,000	\$300,000	\$41,154,139	\$26,750,190	\$14,403,949	0.9906915	0.6164337	\$8,796,429
2010	2,500,000	112,500	93,125	637,500	1,656,875	\$23.15	\$12.73	\$55,038,557	\$630,000	\$375,000	\$54,033,557	\$35,121,812	\$18,911,745	0.9906915	0.5246245	\$9,829,209
2011	2,500,000	112,500	93,125	637,500	1,656,875	\$24.31	\$13.37	\$57,790,485	\$661,500	\$375,000	\$56,753,985	\$36,890,090	\$19,863,895	0.9906915	0.4464889	\$8,786,451
2012	2,500,000	112,500	93,125	637,500	1,656,875	\$25.53	\$14.04	\$60,680,009	\$694,575	\$375,000	\$59,610,434	\$38,746,782	\$20,863,652	0.9906915	0.3799906	\$7,854,193
2013	2,500,000	112,500	93,125	637,500	1,656,875	\$26.80	\$14.74	\$63,714,010	\$729,304	\$375,000	\$62,609,706	\$40,696,309	\$21,913,397	0.9906915	0.3233962	\$7,020,743
2014	2,500,000	112,500	93,125	637,500	1,656,875	\$28.14	\$15.48	\$66,899,710	\$765,769	\$375,000	\$65,758,941	\$42,743,312	\$23,015,629	0.9906915	0.2752308	\$6,275,645
2015	2,500,000	112,500	93,125	637,500	1,656,875	\$29.55	\$16.25	\$70,244,696	\$804,057	\$375,000	\$69,065,638	\$44,892,665	\$24,172,973	0.9906915	0.2342390	\$5,609,546
2016	2,500,000	112,500	93,125	637,500	1,656,875	\$31.03	\$17.06	\$73,756,930	\$844,260	\$375,000	\$72,537,670	\$47,149,486	\$25,388,185	0.9906915	0.1993523	\$5,014,082
2017	2,500,000	112,500	93,125	637,500	1,656,875	\$32.58	\$17.92	\$77,444,777	\$886,473	\$375,000	\$76,183,304	\$49,519,147	\$26,664,156	0.9906915	0.1696616	\$4,481,772
2018	2,500,000	112,500	93,125	637,500	1,656,875	\$34.21	\$18.81	\$81,317,016	\$930,797	\$375,000	\$80,011,219	\$52,007,292	\$28,003,927	0.9906915	0.1443928	\$4,005,926
2019	2,500,000	112,500	93,125	637,500	1,656,875	\$35.92	\$19.75	\$85,382,867	\$977,337	\$375,000	\$84,030,530	\$54,619,844	\$29,410,685	0.9906915	0.1228875	\$3,580,563
2020	2,500,000	112,500	93,125	637,500	1,656,875	\$37.71	\$20.74	\$89,652,010	\$1,026,204	\$375,000	\$88,250,806	\$57,363,024	\$30,887,782	0.9906915	0.1045851	\$3,200,332
2021	2,500,000	112,500	93,125	637,500	1,656,875	\$39.60	\$21.78	\$94,134,610	\$1,077,514	\$375,000	\$92,682,097	\$60,243,363	\$32,438,734	0.9906915	0.0890086	\$2,860,450
2022	2,500,000	112,500	93,125	637,500	1,656,875	\$41.58	\$22.87	\$98,841,341	\$1,131,389	\$375,000	\$97,334,951	\$63,267,718	\$34,067,233	0.9906915	0.0757520	\$2,556,639
2023	2,500,000	112,500	93,125	637,500	1,656,875	\$43.66	\$24.01	\$103,783,408	\$1,187,959	\$375,000	\$102,220,449	\$66,443,292	\$35,777,157	0.9906915	0.0644698	\$2,285,075
2024	2,500,000	112,500	93,125	637,500	1,656,875	\$45.84	\$25.21	\$108,972,578	\$1,247,357	\$375,000	\$107,350,222	\$69,777,644	\$37,572,578	0.9906915	0.0548679	\$2,042,339
2025	2,500,000	112,500	93,125	637,500	1,656,875	\$48.13	\$26.47	\$106,636,152	\$1,309,725	\$375,000	\$104,951,427	\$68,218,428	\$36,733,000	0.9906915	0.0466961	\$1,699,321
2026	1,627,600	73,242	60,628	415,038	1,078,692	\$45.84	\$25.21	\$19,025,494	\$895,317	\$244,140	\$17,886,037	\$11,625,924	\$6,260,113	0.9906915	0.0397414	\$246,470
<b>Totals</b>	<b>44,627,600</b>	<b>2,008,242</b>	<b>1,662,378</b>	<b>11,380,038</b>	<b>29,576,942</b>			<b>\$1,375,217,427</b>	<b>\$16,459,537</b>	<b>\$6,694,140</b>	<b>\$1,352,063,750</b>	<b>\$878,841,437</b>	<b>\$473,222,312</b>			<b>\$91,077,400</b>
<i>Averages</i>	<i>2,231,380</i>	<i>100,412</i>	<i>83,119</i>	<i>569,002</i>	<i>1,478,847</i>	<i>\$32.83</i>	<i>\$18.06</i>	<i>\$68,760,871</i>	<i>\$822,977</i>	<i>\$334,707.00</i>	<i>\$67,603,187.48</i>	<i>\$43,942,071.86</i>	<i>\$23,661,116</i>			<i>\$4,553,870</i>
												<b>Say</b>	<b>\$473,222,300</b>			<b>\$91,077,400</b>

**Notes:**

- 1.) Sales Equal To Production Minus Mining Losses [15% Mining Losses on Aggregate -> Losses Become Base Rock; then 5% Mining Losses on Base Rock]
- 2.) Borehole Data, MDAD Research, and Other Local Producers Indicate That Deposit Composition Is Approximately 70% Base Rock & 30% Aggregate
- 3.) Total Reserves = 44,627,600 Tons, Per CMC Reserves Estimate June 1, 2007
- 4.) Reserves Based on Resource Extraction Plan 1 [See Section 7 & Plan F1 of this Report]

### **Mining Interest Appraisals – Summary**

The Gross Mining Income is not discounted to account for risk/time, and is equivalent to the “Cash Flow” that would be received over time. However, Mining Fees & Expenses (including the Mining & Processing Contractor) will need to be paid, leaving the Net Mining Income, which best represents the cash flow to MDAD.

No allowance has been made for Selling, General and Administrative costs (SG&A), which, typically, comprise between seven (7) and 12% of Gross Mining Income, but may be negotiated as part of the Mining & Processing Expense with the Contractor.

The Net Present Value is discounted to account for risk/time and represents the current Net Present Value of the Mining Interest, if it were to be sold today.

1. It is my opinion, sustained by the following Report, that the Market Value of the **Mining Interest** in the Subject Property, as of June 1, 2007, under Scenario 4 (Conservative Mining Income Approach), was:

**\$40,960,000**  
**(Forty Million, Nine Hundred Sixty Thousand Dollars)**

The above figure represents the NPV, utilizing a discount rate of 14.0% of a cash flow totaling \$246,518,500, over a 24 year time period, commencing June 1, 2009.

2. It is my opinion, sustained by the following Report, that the Market Value of the **Mining Interest** in the Subject Property, as of June 1, 2007, under Scenario 5 (Aggressive Mining Income Approach), was:

**\$91,077,400**  
**(Ninety One Million, Seventy-Seven Thousand, Four Hundred Dollars)**

The above figure represents the NPV utilizing a discount rate of 17.5%, of a cash flow totaling \$473,222,300 over a 19 year time period, commencing June 1, 2008.

Notes: The above Mining Interest Value **exclude** any real estate values resulting from interim uses of the Subject Property, other than aggregate production, and also **exclude** any residual use value of the Subject Property after the cessation of mining. Such values should be determined by a competent real estate appraiser and would be **additional values** to the above stated Mining Interest Value.

### **Exposure Time**

Exposure time is the estimated length of time that the Subject Property would have been offered on the market prior to a hypothetical sale of the Subject Property on the effective date of the appraisal. Based on data obtained from sales transactions and interviews with market participants, it is our opinion that the probable exposure time for the Subject Property at the concluded Market Value is nine (9) to 12 months.

### **Marketing Period**

Marketing period is an opinion of the amount of time it might take to sell the Subject Property at the concluded Market Value during the period immediately subsequent to the effective date of the appraisal. Because we foresee no significant changes in market conditions in the near term, it is our opinion that a reasonable marketing period for the Subject Property is the same as its exposure time. Therefore, the Subject Property’s marketing period is estimated at nine (9) to 12 months.