

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 11-K

- ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934 (NO FEE REQUIRED)**

For the fiscal year ended December 31, 2010

OR

- TRANSITION REPORT PURSUANT TO SECTION 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934 (NO FEE REQUIRED)**

For the transition period from _____ to _____

Commission file number: 1-12744

**MARTIN MARIETTA MATERIALS, INC.
PERFORMANCE SHARING PLAN**

(Full title of the plan and the address of the plan,
if different from that of the issuer named below)

**MARTIN MARIETTA MATERIALS, INC.
2710 Wycliff Road**

Raleigh, North Carolina 27607

(Name of issuer of the securities held pursuant to the plan and the address
of its principal executive office)

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FINANCIAL STATEMENTS AND SUPPLEMENTAL SCHEDULE

Martin Marietta Materials, Inc. Performance Sharing Plan

As of December 31, 2010 and 2009

and For the Year Ended December 31, 2010

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Martin Marietta Materials, Inc. Performance Sharing Plan
Audited Financial Statements and Supplemental Schedule
As of December 31, 2010 and 2009 and For the Year Ended December 31, 2010

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Martin Marietta Materials, Inc., as Plan Administrator
Martin Marietta Materials, Inc. Performance Sharing Plan
Raleigh, NC

We have audited the accompanying statements of net assets available for benefits of the Martin Marietta Materials, Inc. Performance Sharing Plan (the "Plan") as of December 31, 2010 and 2009, and the related statement of changes in net assets available for benefits for the year ended December 31, 2010. These financial statements are the responsibility of Martin Marietta Materials, Inc., as Plan administrator. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Plan's internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan at December 31, 2010 and 2009, and the changes in its net assets available for benefits for the year ended December 31, 2010 in conformity with accounting principles generally accepted in the United States of America.

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The accompanying supplemental Schedule of Assets (Held at End of Year) as of December 31, 2010 is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in our audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Dixon Hughes Goodman LLP
June 24, 2011

Martin Marietta Materials, Inc. Performance Sharing Plan

Statements of Net Assets Available for Benefits

	December 31	
	2010	2009
	<i>(In Thousands)</i>	
Assets		
Investments at fair value		
Common and collective funds	\$ 64,580	\$ 64,092
Martin Marietta Materials, Inc. Common Stock Fund	23,050	23,678
Mutual funds	55,152	46,044
	<u>142,782</u>	<u>133,814</u>
Receivables:		
Employee contributions	–	266
Martin Marietta Materials, Inc. contributions	–	95
Notes receivable from participants	3,194	3,243
	<u>3,194</u>	<u>3,604</u>
Accrued income	–	9
Total assets	<u>145,976</u>	<u>137,427</u>
Liabilities		
Accrual for pending investment trades	–	294
Net assets available for benefits	<u>\$ 145,976</u>	<u>\$ 137,133</u>

See accompanying notes.

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Martin Marietta Materials, Inc. Performance Sharing Plan
Statement of Changes in Net Assets Available for Benefits

For the Year Ended December 31, 2010

(in thousands)

Additions to net assets attributed to:	
Investment income:	
Net appreciation in fair value of investments	\$ 12,312
Interest and dividend income	1,244
	<u>13,556</u>
Interest on notes receivable from participants	189
Contributions:	
Employees	6,972
Martin Marietta Materials, Inc.	2,417
Rollovers	333
	<u>9,722</u>
Total additions	<u>23,467</u>
Deductions from net assets attributed to:	
Benefits paid to participants	14,661
Administrative expenses	252
Total deductions	<u>14,913</u>
Net change	8,554
Transfers in from Martin Marietta Materials, Inc. Savings and Investment Plan	289
Net assets available for benefits:	
Beginning of year	<u>137,133</u>
End of year	<u>\$ 145,976</u>

See accompanying notes.

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements

December 31, 2010 and 2009

1. Significant Accounting Policies

Basis of Accounting

The financial statements of the Martin Marietta Materials, Inc. Performance Sharing Plan (the "Plan") are prepared on the accrual basis of accounting in conformity with accounting principles generally accepted in the United States of America ("GAAP").

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect certain reported amounts, changes therein and related disclosures. Accordingly, actual results could differ from those estimates and assumptions.

Investment Valuation and Income Recognition

Investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 4 for discussion of fair value measurements.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recognized on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation/depreciation includes the Plan's gains and losses on investments bought and sold as well as held during the year.

Notes Receivable from Participants

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Delinquent participant loans are reclassified as distributions based upon the terms of the Plan.

Payments of Benefits

Benefits are recorded upon distribution. Therefore, no liability is recorded for distributions to participants who terminated during the year but have chosen to defer payments to the following year.

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements (continued)

1. Accounting Policies (continued)

Administrative Expenses

Administrative expenses are paid by either the Plan or Martin Marietta Materials, Inc. (the “Corporation”), as provided by the Plan document. Certain administrative functions are performed by employees of the Corporation, the Plan’s sponsor and administrator. No such employees receive compensation from the Plan. Expenses relating to specific participant transactions (i.e., notes receivable from participants and distributions) are charged directly to the participant’s account.

Transfers

Along with the Plan, the Corporation also sponsors the Martin Marietta Materials, Inc. Savings and Investment Plan, a defined contribution plan for hourly employees. If participants change their employment status between salaried and hourly during the year, their account balances are transferred into the corresponding Plan. For the year ended December 31, 2010, approximately \$289,000 was transferred into the Plan from the hourly plan.

Reclassifications

Effective January 1, 2010, the Plan adopted the Financial Accounting Standards Board (“FASB”) authoritative guidance on reporting loans to participants by defined contribution pension plans. In accordance with the provisions, participant loans are required to be classified as notes receivable from participants, which are segregated from Plan investments and measured at their unpaid principal balance, plus any accrued but unpaid interest. The adoption of this accounting standard requires reclassification of participant loans from investments to notes receivable from participants on the Statement of Net Assets Available for Benefits as of December 31, 2010 and 2009. Accordingly, the 2009 financial statements have been reclassified to conform to the 2010 presentation. There was no impact on Net Assets Available for Benefits or Changes in Net Assets Available for Benefits.

Subsequent Events

The Plan has evaluated subsequent events through June 24, 2011, the date the financial statements were available to be issued.

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements (continued)

2. Description of the Plan

The following description of the Plan provides only general information. Participants should refer to the summary plan description for a more complete description of the Plan's provisions.

General

The Plan is a defined contribution plan providing eligible salaried employees of the Corporation an opportunity to participate in an individual savings and investment program providing tax deferred savings. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA").

Wells Fargo Bank, N.A. ("Wells Fargo") serves as the Plan's trustee and recordkeeper.

Contributions

Employees are eligible to enroll in the Plan as soon as administratively possible upon hire. Participants may elect to contribute basic contributions of 1% to 7% of base salary (as defined in the Plan and subject to applicable Internal Revenue Code (the "Code") limitations on allowable compensation). Certain participants may also elect to make additional supplemental contributions, which are not considered for purposes of computing the employer match. A participant's before-tax combined basic and supplemental contributions may not exceed 25% of that participant's base pay. Participants age 50 or older may make additional before-tax contributions that are not subject to the 25% Plan limit.

Unless an affirmative election not to participate in the Plan is made, employees hired on or after March 1, 2006 are automatically enrolled in the Plan and deemed to have elected to contribute 2% of base salary. The 2% contribution increases by 1% on each anniversary date of the participants' automatic enrollment until the before-tax contribution reaches 7% of base salary. Participants may make an affirmative election at any time to contribute a different amount.

Contributions are automatically invested in a target date fund that is closest to the date the participant attains age 65, unless otherwise designated by the participant. The target date funds seek to provide investors with an appropriate level of risk and return by investing in a mix of stocks, bonds and cash. The allocation is adjusted to become more conservative (investing more in bonds and cash) as the target date approaches and the participant plans to retire and/or begin to use the funds on or around the target date.

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements (continued)

2. Description of the Plan (continued)

Contributions (continued)

Certain participants also have the option of making after-tax contributions up to 17% of base pay to the Plan, in addition to, or in lieu of, before-tax contributions. However, the combined amount of after-tax and before-tax contributions cannot exceed a total of 25% of base pay, subject to certain restrictions for highly compensated employees.

Effective September 1, 2010, the Plan provides for Roth 401(k) contributions. Under this option, a participant pays the federal and state income taxes on the amount contributed at the time of contribution. Any earnings on Roth 401(k) contributions are not taxed as long as the participant's distribution is a qualified distribution. A participant's Roth 401(k) contributions are subject to the same limits as regular before-tax basic and supplemental contributions. Additionally, the combined amount of before-tax, after-tax and Roth 401(k) contributions cannot exceed a total of 25% of base pay, subject to certain restrictions for highly compensated employees.

The Corporation matches the participants' annual basic contributions (the first 7% of base pay) starting the first of the month following six months of employment. The Corporation also matches eligible participants' Roth 401(k) and after-tax contributions if the participant contributes less than 7% on a before-tax basis. The amount of the Corporation's match is equal to 50% of the basic contributions and is credited to participant accounts semi-monthly.

Participants may change the overall percentage of their contributions in 1% increments and may change investment elections for future before-tax, after-tax, Roth 401(k) and matching contributions. In addition, participants may change the investment mix of the accumulated value of prior contributions among the investment options daily. The Plan also allows for spot transfers in which a specific dollar amount may be transferred from one investment option to another.

Investment Options

Participants direct the investment of their accounts into the following investment options offered by the Plan: BlackRock LifePath® Portfolios, Wells Fargo Short Term Investment Fund G, Wells Fargo Advantage Total Return Bond Fund, Wells Fargo S&P 500 Index Fund G, Vanguard International Growth Fund, Harbor Capital Appreciation Fund, Loomis Sayles Value Fund Y, Vanguard Explorer Fund and Martin Marietta Materials, Inc. Common Stock Fund.

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements (continued)

2. Description of the Plan (continued)

Participant Accounts

Each participant's account is credited with the participant's and employer's contributions and allocations of earnings. The participant's account is charged with benefit payments, transaction fees related to notes receivable from participants and distributions, and an allocation of administrative expenses. Allocations are based on participant earnings or account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Vesting

Participants are immediately 100% vested in the value of their accounts plus actual earnings thereon, including employer contributions.

Notes Receivable from Participants

The Plan provides for certain participants to borrow from their own investment accounts. All loans must meet specific terms and conditions of the Plan and are subject to applicable regulations of the Code. The minimum loan amount is \$1,000. The maximum loan is the lesser of 50% of the total account balance or \$50,000 minus the highest outstanding loan balance from the past 12 months. Personal loans are available to participants in terms of up to 5 years, and primary residence loans are available for terms of up to 15 years. Such loans bear interest at a fixed rate, established upon loan request, which is equal to the Wells Fargo Bank, N.A. prime rate plus 1%. All loans are due in full immediately upon termination of employment. In addition, the Plan provides for in-service withdrawals to participants that meet specific conditions of financial hardship, as defined in the Plan and in accordance with current specific regulations under the Code. Participants who are still working at the age of 59 ¹/₂ may qualify for special withdrawal rights and privileges as defined in the Plan. At December 31, 2010, interest rates on participant loans outstanding ranged from 4.25% to 10.5%. Principal and interest is paid ratably through payroll deductions.

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements (continued)

2. Description of the Plan (continued)**Payment of Benefits**

Upon separation from the Corporation due to death, disability, termination or retirement, participants may receive the full current value of their contributions and the matching employer contributions in either a lump-sum payment or various installment options as provided by the Plan. Amounts contributed on a before-tax basis may be withdrawn, without penalty, only upon demonstration of financial hardship, disability, or after the participants reach age 59 1/2 years. Participants eligible to receive a distribution from the Plan may elect a lump-sum payment or annual, semi-annual, quarterly or monthly installments over a period elected by the participants (subject to the Code's required minimum distribution rules). However, Roth 401(k) account balances may be distributed only in the form of a single lump-sum payment. The accounts of participants who receive installment payments remain invested in the funds indicated by the participant.

Plan Termination

Although the Corporation expects to continue the Plan indefinitely, the Board of Directors of the Corporation may terminate the Plan for any reason at any time. If the Plan is terminated, each participant or former participant shall receive a payment equal to the value of the participant's account.

3. Investments

The following table presents investments, at fair value, that represent 5% or more of the Plan's net assets at December 31:

	2010	2009
	<i>(In Thousands)</i>	
* Wells Fargo Short Term Investment Fund G	\$ 32,297	\$ 36,028
* Martin Marietta Materials, Inc. Common Stock Fund	\$ 23,050	\$ 23,678
* Wells Fargo S&P 500 Index Fund G	\$ 22,859	\$ 21,575
Vanguard International Growth Fund, Admiral Shares	\$ 15,678	\$ 13,589
Loomis Sayles Value Fund Y	\$ 10,909	\$ 9,437
Vanguard Explorer Fund, Admiral Shares	\$ 10,467	\$ 7,481
* Wells Fargo Advantage Total Return Bond Fund, Class I	\$ 9,054	\$ 7,606
Harbor Capital Appreciation Fund	\$ 9,044	\$ 7,931

* Indicates party-in-interest to the Plan.

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements (continued)

3. Investments (continued)

During the year ended December 31, 2010, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated in fair value as follows (in thousands):

Common and collective funds	\$ 5,266
Martin Marietta Materials, Inc. Common Stock Fund	863
Mutual funds	<u>6,183</u>
	<u>\$ 12,312</u>

4. Fair Value Measurements

Fair value as defined under GAAP is an exit price, representing the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. GAAP establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value. These tiers include:

- Level 1: Observable inputs such as quoted prices in active markets.
- Level 2: Inputs other than quoted prices in active markets that are either directly or indirectly observable.
- Level 3: Unobservable inputs about which little or no market data exists, therefore requiring an entity to develop its own assumptions.

Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Plan's assessment of the significance of a particular input to the fair value measurement requires judgment, and may affect the valuation of fair value assets and liabilities and their placement within the fair value hierarchy levels.

When quoted prices are available in active markets for identical instruments, investment securities are classified within Level 1 of the fair value hierarchy. Level 1 investments include mutual funds.

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements (continued)

4. Fair Value Measurements (continued)

Level 2 investment securities include common collective trust funds and the Martin Marietta Materials, Inc. Common Stock Fund for which quoted prices are not available in active markets for identical instruments. The Plan utilizes a third party pricing service to determine the fair value of each of these investment securities. Because quoted prices in active markets for identical assets are not available, these prices are determined using observable market information such as quotes from less active markets and/or quoted prices of securities with similar characteristics.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of these assets could result in a different fair value measurement at the reporting date.

The Plan did not have any significant transfers between Level 1 and Level 2 during the year ended December 31, 2010. The following table sets forth by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31:

	2010		
	Level 1	Level 2	Fair Value
	<i>(In Thousands)</i>		
Common and collective funds:			
Stable value	\$ --	\$ 64,580	\$ 64,580
Martin Marietta Materials, Inc.			
Common Stock Fund	--	23,050	23,050
Mutual funds:			
Growth	46,098	--	46,098
Fixed income	9,054	--	9,054
Total	<u>\$ 55,152</u>	<u>\$ 87,630</u>	<u>\$ 142,782</u>

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements (continued)

4. Fair Value Measurements (continued)

	2009		Fair Value
	Level 1	Level 2	
	<i>(In Thousands)</i>		
Common and collective funds:			
Stable value	\$ --	\$ 64,092	\$ 64,092
Martin Marietta Materials, Inc.			
Common Stock Fund	--	23,678	23,678
Mutual funds:			
Growth	38,438		38,438
Fixed income	7,606	--	7,606
Total	<u>\$ 46,044</u>	<u>\$ 87,770</u>	<u>\$ 133,814</u>

The following table sets forth a summary of the Plan's investment funds with a reported estimated fair value using net asset value per share at December 31:

	Fair Value*		Unfunded Commitment	Redemption Frequency	Other Redemption Restrictions	Redemption Notice Period
	2010	2009				
Wells Fargo Short Term Investment Fund G (a)	\$ 32,297	\$ 36,028	None	Immediate	None	None
Wells Fargo S&P 500 Index Fund G (b)	22,859	21,575	None	Immediate	None	None
BlackRock LifePath® Portfolios (c)	9,424	6,489	None	Immediate	None	None
Common and collective funds	64,580	64,092				
Martin Marietta Materials, Inc. Common Stock Fund (d)	23,050	23,678	None	Immediate	None	None
	<u>\$ 87,630</u>	<u>\$ 87,770</u>				

* The fair values of the investments have been estimated using the net asset value of the investment.

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements (continued)

4. Fair Value Measurements (continued)

- (a) Seeks to invest in short-term fixed income securities with the objective of providing high current income with the preservation of capital and the maintenance of liquidity.
- (b) Seeks to approximate the total return of the Standard and Poor's (S&P) 500 Index by investing in the same stocks and in the approximately same percentages as the stocks that make up the index.
- (c) Seeks to provide income and moderate long-term growth of capital. Portfolios are comprised of a mix of stocks, bonds, commodities and cash and gradually become more conservative as the target year approaches.
- (d) Seeks to invest in shares of the Corporation's common stock and cash equivalent reserves. Growth comes through dividends and appreciation in the Corporation's stock value. See also Note 7.

5. Common and Collective Investment Funds

The Wells Fargo Short Term Investment Fund G ("STIF"), Wells Fargo S&P 500 Index Fund G ("S&P Fund") and the BlackRock LifePath® Portfolio Funds ("BlackRock Funds"), (collectively, the "Funds") are common and collective trust funds. The STIF and S&P Fund are sponsored by Wells Fargo Bank, N.A. The BlackRock Funds are sponsored by BlackRock Institutional Trust Company, N.A. The Funds' unit values are calculated by dividing the Funds' net asset values on the calculation date by the number of units of such fund that are outstanding on the calculation date. The number of units of the Funds that are outstanding on the calculation date is derived from observable purchase and redemption activity of the Funds. The beneficial interest of each Plan participant is represented by units. Distribution to the Funds' unit holders is declared daily from the net investment income and automatically reinvested in the Funds on a monthly basis, when paid. It is the policy of the Funds to use their best efforts to maintain a stable net asset value; although, there is no guarantee that the Funds will be able to do so.

Participants ordinarily may direct the withdrawal or transfer of all or a portion of their investment at contract value. Contract value represents contributions made to the Funds, plus earnings, less participant withdrawals and administrative expenses. The Funds impose certain restrictions on the Plan, and the Funds themselves may be subject to circumstances that impact their ability to transact at contract value, as described in the following paragraph. Plan management believes that the occurrence of events that would cause the Funds to transact at less than contract value is not probable.

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements (continued)

5. Common and Collective Investment Funds (continued)

Restrictions on the Plan

Participant-initiated transactions are those transactions allowed by the Plan, including withdrawals for benefits, loans, or transfers to noncompeting funds within a plan, but excluding withdrawals that are deemed to be caused by the actions of the Corporation. The following employer-initiated events may limit the ability of the Funds to transact at contract value:

- A failure of the Plan or its trust to qualify for exemption from federal income taxes or any required prohibited transaction exemption under ERISA.
- Any communication given to Plan participants designed to influence a participant not to invest in the Funds or to transfer assets out of the Funds.
- Any transfer of assets from the Funds directly into a competing investment option.
- The establishment of a defined contribution plan that competes with the Plan for employee contributions.
- Complete or partial termination of the Plan or its merger with another plan.

6. Income Tax Status

The Internal Revenue Service has determined and informed the Corporation by letter dated April 29, 2010, that the Plan and related trust are designed in accordance with the applicable sections of the Code. The Plan administrator believes the Plan is designed and is currently being operated in compliance with the applicable requirements of the Code.

GAAP requires Plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by a taxing authority. The Plan administrator has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2010, there are no uncertain positions taken or expected to be taken that would require recognition of a liability or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The Plan administrator believes it is no longer subject to income tax examinations for years prior to 2007.

Martin Marietta Materials, Inc. Performance Sharing Plan

Notes to Financial Statements (continued)

7. Exempt Party-in-Interest Transactions

Certain Plan investments are shares of mutual funds and common and collective funds managed by Wells Fargo. Wells Fargo is the trustee, as defined by the Plan, and, therefore, these transactions qualify as exempt party-in-interest transactions. Fees paid to the trustee by the Plan for administrative services were approximately \$252,000 for the year ended December 31, 2010.

The Martin Marietta Materials, Inc. Common Stock Fund (“MMMI Fund”) is managed by the Corporation’s Benefit Plan Committee. The MMMI Fund invests in shares of the Corporation’s common stock and in cash equivalent reserves for liquidity purposes. As the MMMI Fund holds approximately 97% to 99% common stock shares, its return closely mirrors the return on the underlying stock. The MMMI Fund utilizes unitized accounting, which allows the MMMI Fund to operate like a mutual fund in that it holds a combination of two investments that are priced each day and totaled to give the MMMI Fund a single unit value. The MMMI Fund’s net asset value differs from the Corporation’s publicly-reported stock price. Participants’ accounts hold equivalent shares of the Corporation’s common stock.

At December 31, 2010 and 2009, the Plan held, at the participants’ discretion, 2,727,200 and 2,886,200 units, respectively of the Corporation’s common stock, with a cost basis of \$16,626,000 and \$17,104,000, respectively. During the year ended December 31, 2010, the Plan recorded dividend income of \$417,000 related to these shares.

8. Risks and Uncertainties

The Plan invests in various investment securities. Investment securities, in general, are exposed to various risks such as interest rate, credit and overall market volatility. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants’ account balances and the amounts reported in the Statements of Net Assets Available for Benefits.

Martin Marietta Materials, Inc. Performance Sharing Plan

EIN: 56-1848578 Plan Number: 005

Schedule H, Line 4i – Schedule of Assets
(Held at End of Year)

December 31, 2010

(a)	(b) Identity of Issue, Borrower, Lessor, or Similar Party	(c) Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	(d) Cost	(e) Current Value <i>(in thousands)</i>
*	Wells Fargo Bank, N.A.	Wells Fargo Short Term Investment Fund G		\$ 32,297
*	Martin Marietta Materials, Inc.	Common Stock Fund		23,050
*	Wells Fargo Bank, N.A.	Wells Fargo S&P 500 Index Fund G		22,859
	The Vanguard Group	Vanguard International Growth Fund, Admiral Shares		15,678
	Loomis Sayles	Loomis Sayles Value Fund Y		10,909
	The Vanguard Group	Vanguard Explorer Fund, Admiral Shares		10,467
*	Wells Fargo Bank, N.A.	Wells Fargo Advantage Total Return Bond Fund, Class I		9,054
	Harbor Funds	Harbor Capital Appreciation Fund		9,044
	BlackRock Institutional Trust Company, N.A.	BlackRock Lifepath Index Retirement M		1,807
	BlackRock Institutional Trust Company, N.A.	BlackRock Lifepath Index 2015 M		1,332
	BlackRock Institutional Trust Company, N.A.	BlackRock Lifepath Index 2020 M		1,255
	BlackRock Institutional Trust Company, N.A.	BlackRock Lifepath Index 2025 M		1,217
	BlackRock Institutional Trust Company, N.A.	BlackRock Lifepath Index 2030 M		1,414
	BlackRock Institutional Trust Company, N.A.	BlackRock Lifepath Index 2035 M		794
	BlackRock Institutional Trust Company, N.A.	BlackRock Lifepath Index 2040 M		556
	BlackRock Institutional Trust Company, N.A.	BlackRock Lifepath Index 2045 M		377
	BlackRock Institutional Trust Company, N.A.	BlackRock Lifepath Index 2050 M		672
*	Participant loans**	Interest Rates ranging from 4.25% to 10.5%		3,194
				<u>\$ 145,976</u>

Note: Cost information has not been included in column (d) because all investments are participant directed.

* Indicates party-in-interest to the Plan.

** The accompanying financial statements classify participant loans as notes receivable from participants.

SIGNATURES

THE PLAN. Pursuant to the requirements of the Securities Exchange Act of 1934, the plan administrator of the below named plan has duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

MARTIN MARIETTA MATERIALS, INC.
PERFORMANCE SHARING PLAN

By: Martin Marietta Materials, Inc.
Plan Administrator

By: Benefit Plan Committee

By: /s/ Anne H. Lloyd
Anne H. Lloyd

Date: June 24, 2011

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Document</u>
23.01	Consent of Dixon Hughes Goodman LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-115918) pertaining to the Amended and Restated Martin Marietta Materials, Inc. Common Stock Purchase Plan for Directors, Martin Marietta Materials, Inc. Performance Sharing Plan and the Martin Marietta Materials, Inc. Savings and Investment Plan; in the Registration Statement (Form S-8 No. 333-85608) pertaining to the Martin Marietta Materials, Inc. Common Stock Purchase Plan for Directors; in the Registration Statement (Form S-8 No. 33-83516) pertaining to the Martin Marietta Materials, Inc. Omnibus Securities Award Plan, as amended; in the Registration Statement (Form S-8 No. 333-15429) pertaining to the Martin Marietta Materials, Inc. Common Stock Purchase Plan for Directors, Martin Marietta Materials, Inc. Performance Sharing Plan and the Martin Marietta Materials, Inc. Savings and Investment Plan; in the Registration Statement (Form S-8 No. 333-79039) pertaining to the Martin Marietta Materials, Inc. Stock-Based Award Plan, as amended; in the Registration Statement (Form S-3 No. 333-157731) pertaining to Debt Securities, Preferred Stock, Common Stock, and Warrants of Martin Marietta Materials, Inc. of our report dated June 24, 2011, with respect to the financial statements and schedule of the Martin Marietta Materials, Inc. Performance Sharing Plan included in the Annual Report on Form 11-K for the year ended December 31, 2010.

Dixon Hughes Goodman LLP
Raleigh, North Carolina
June 24, 2011