
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

Form 11-K

ANNUAL REPORT PURSUANT TO SECTION 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2009

or

TRANSITION REPORT PURSUANT TO SECTION 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 001-16441

CROWN CASTLE INTERNATIONAL CORP. 401(K) PLAN

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

CROWN CASTLE INTERNATIONAL CORP.
1220 Augusta Drive, Suite 500
Houston, Texas 77057-2261

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

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CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

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23.1 Consent of Independent Registered Public Accounting Firm	

Report of Independent Registered Public Accounting Firm

The Crown Castle International Corp. 401(k) Plan Participants and Administrator:

We have audited the accompanying statements of net assets available for benefits of the Crown Castle International Corp. 401(k) Plan (the Plan) as of December 31, 2009 and 2008, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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 as of December 31, 2009 and 2008, and the changes in net assets available for benefits for the years then ended in conformity with U.S. generally accepted accounting principles.

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedules of Schedule H, Line 4a – Schedule of Delinquent Participant Contributions and Schedule H, Line 4i – Schedule of Assets (Held at End of Year) as of December 31, 2009 are presented for the purpose of additional analysis and are not a required part of the basic financial statements but are 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. These supplemental schedules are the responsibility of the Plan's management. The supplemental schedules have been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ KPMG LLP
Pittsburgh, Pennsylvania
June 23, 2010

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

Statements of Net Assets Available for Benefits

December 31, 2009 and 2008

<u>Assets</u>	<u>2009</u>	<u>2008</u>
Investments, at fair value (notes 3 and 4)	64,101,198	\$ 41,216,329
Participant loans	1,169,524	968,993
Receivables:		
Employer contributions	1,858,612	1,538,222
Participant contributions	168,976	—
Other receivables	5,547	6,348
Total receivables	<u>2,033,135</u>	<u>1,544,570</u>
Net assets available for benefits	<u>\$ 67,303,857</u>	<u>\$ 43,729,892</u>

See accompanying notes to financial statements.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN
Statements of Changes in Net Assets Available for Benefits
For the Years Ended December 31, 2009 and 2008

	<u>2009</u>	<u>2008</u>
Additions (deductions) to net assets attributed to:		
Investment income (loss):		
Net appreciation (depreciation) in fair value of investments (note 3)	\$15,066,107	\$(21,739,617)
Dividends and interest	1,149,798	587,258
Total investment income (loss)	<u>16,215,905</u>	<u>(21,152,359)</u>
Contributions:		
Employer	3,897,914	3,440,578
Participants	5,650,099	5,221,568
Rollovers	33,506	77,871
Total contributions	<u>9,581,519</u>	<u>8,740,017</u>
Total additions (deductions)	25,797,424	(12,412,342)
Deductions from net assets attributed to:		
Benefits paid to participants	2,207,709	4,035,746
Administrative expenses	15,750	21,641
Total deductions	<u>2,223,459</u>	<u>4,057,387</u>
Net increase (decrease)	23,573,965	(16,469,729)
Net assets available for benefits:		
Beginning of year	43,729,892	60,199,621
End of year	<u>\$67,303,857</u>	<u>\$ 43,729,892</u>

See accompanying notes to financial statements.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

NOTES TO FINANCIAL STATEMENTS

December 31, 2009 and 2008

(1) Plan Description

The following description of the Crown Castle International Corp. 401(k) Plan (“the Plan”) provides only general information. Participants should refer to the Plan agreement for a more complete description of the Plan’s provisions.

(a) General

The Plan is a defined contribution plan available to eligible employees of Crown Castle International Corp. (“the Company”). The Charles Schwab Trust Company is the trustee of the Plan. Schwab Retirement Plan Services, Inc. is recordkeeper, and both Schwab Retirement Plan Services, Inc. and State Street Bank and Trust Company serve as custodians. The Company is the plan administrator for the Plan. The Plan was established on May 1, 1999. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974.

(b) Contributions

Employees are eligible for participation in the Plan once they are twenty-one years of age and have completed three months of service with the Company. Employees can participate in the Plan on the first day of the month coinciding with or following three months of service. At the discretion of the plan sponsor, the service requirement can be waived. Participants may contribute any percentage that allows the participant to reach the section 401(k) pre-tax contribution limit of \$16,500 and \$15,500 in 2009 and 2008, respectively, for participants under age 50. Participants who are age 50 and older can contribute an additional \$5,500 and \$5,000, respectively, in 2009 and 2008 for a total of \$22,000 and \$20,500, respectively. These employee contributions are made through salary reductions and are fully vested at all times. Participants may also contribute amounts representing distributions from other qualified plans. Participants direct the investment of their contributions into various investment options offered by the Plan. As of December 31, 2009, the Plan offered 11 mutual funds, seven common collective funds, a participant directed brokerage account and the Crown Castle International Corp. Common Stock Unitized Trust Fund. The Company matches and contributes 100% of the first 3% of compensation that a participant contributes to the Plan. In addition, discretionary amounts may be contributed at the option of the Company’s board of directors. The discretionary contributions for 2009 and 2008 were 100% of the second 3% of compensation that participants contributed to the Plan. Contributions are subject to certain limitations. The Company’s discretionary contributions were \$1,707,993 (net of \$54,304 of forfeitures) and \$1,451,523 (net of \$72,525 of forfeitures) for the years ended December 31, 2009 and 2008, respectively.

(c) Participant Accounts

Participant accounts are maintained at fair market value. Each participant’s account is credited with the participant’s contribution and allocations of (a) the Company’s matching and discretionary contributions and (b) Plan earnings and losses. The participant is entitled to the benefit that can be provided from the participant’s vested account.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN
NOTES TO FINANCIAL STATEMENTS (continued)
December 31, 2009 and 2008

(d) Vesting

Participants are vested immediately in their contributions plus actual earnings (losses) thereon. Vesting in the Company's contribution portion of their accounts is generally based on years of service. A participant is 33% vested after one year of credited service, 67% vested after two years of credited service, and 100% vested after three years of credited service. A participant automatically vests any non-vested accounts upon attainment of age 65, upon retirement due to disability, upon death and upon termination of the Plan.

(e) Participant Loans

Participants are permitted to borrow from their account a minimum of \$1,000 up to a maximum of 50% of the vested balance or \$50,000, whichever is less. The loans are secured by the balance in the participant's account and bear interest at a fixed rate of prime plus 1%. All loans are subject to specific repayment terms and must be repaid within a five-year period. Each participant is permitted one loan at a time.

In the event of default, as described by the Plan, participants are considered to have received a distribution and are subject to income taxes on the distributed amount. Also, participants may be subject to an additional 10% tax on their taxable withdrawal if it occurs prior to age 59 ¹/₂.

(f) Payment of Benefits

Participants are permitted to withdraw any portion of their vested account balance due to death, permanent disability, retirement, attainment of age 59 ¹/₂, in the event of financial hardship or termination of service. The participant may elect to receive a lump-sum payment, subject to federal income tax withholdings, or rollover the vested account balance to another qualified plan. These withdrawals, prior to retirement, may result in certain suspensions of future participation in the plan.

(g) Forfeitures

Company contributions and earnings (losses) thereon that have not become vested, and have been forfeited by participants in accordance with the applicable provisions of the Plan, are applied against Company's contributions to the plan and may be applied to reduce the administrative expenses of the Plan. Beginning with the 2008 discretionary contribution, the Plan has and anticipates continuing to predominately utilize participant forfeitures to reduce any annual discretionary contribution. Amounts forfeited were \$50,311 and \$47,636 during the years ended December 31, 2009 and 2008, respectively. Forfeited amounts of \$4,550 and \$13,051 were applied against administrative expenses for the years ended December 31, 2009 and 2008, respectively. The forfeited amounts that were unallocated to participants totaled \$0 and \$100 as of December 31, 2009 and 2008, respectively. See note 1(b).

(h) Administration Expenses

Plan administrative expenses, to the extent not paid by the Company, are charged to and paid from the Plan's assets. The Plan permits the application of forfeited assets to pay administrative expenses.

(i) Termination of Plan

In the event of termination of the Plan, the plan administrator will continue to function during such period as is necessary to make remaining normal distributions and to administer and distribute the residual interests of the participants. Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN
NOTES TO FINANCIAL STATEMENTS (continued)
December 31, 2009 and 2008

subject to the provisions of ERISA. In the event of Plan termination, participants become 100% vested in their accounts. Any unallocated assets of the Plan shall be allocated to participant accounts and distributed in such a manner as the Company may determine.

(j) Risk and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. 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 statement of net assets available for benefits. Recent market conditions have resulted in an unusually high degree of volatility and increase the risks and impact the short-term liquidity associated with certain investments held by the Plan, which could impact the value of investments after the date of these financial statements. For example, approximately 14% of the Plans net assets are invested in the Crown Castle International Corp. Unitized Trust Fund that predominately consists of the Company's common stock.

(2) Summary of Significant Accounting Policies

(a) Basis of Financial Statements

The accompanying financial statements have been prepared on the accrual basis. Amounts payable to participants terminating participation in the Plan are included as a component of net assets available for benefits. The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires the plan administrator to make estimates and assumptions that affect the amounts reported in the financial statements and notes thereto. Actual results could differ from those estimates.

The Company has evaluated subsequent events through the date the financial statements were issued and determined that no significant subsequent events have occurred requiring adjustments to the financial statements or disclosures.

(b) New Accounting Pronouncements

In January 2010, the Financial Accounting Standards Board ("FASB") issued an Accounting Standards Codification Update to improve disclosures about fair value measurements. The provisions of this update are effective for the fiscal years beginning after December 15, 2010 or the year ending December 31, 2011 for the Plan. The adoption of this update is not expected to materially impact the Plan's fair value measurement disclosures.

In September 2009, the FASB issued an Accounting Standards Codification Update for fair value measurements and disclosures related to investments in certain entities that calculate net asset value per share or its equivalent. The adoption of this update did not have a material impact on the Plan's financial statements as of December 31, 2009.

(c) Investment Income

Interest income from investments is recorded as earned on an accrual basis. Dividend income is recorded on the ex-dividend date.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN
NOTES TO FINANCIAL STATEMENTS (continued)
December 31, 2009 and 2008

(d) Investments and Fair Value Measurements

The Company's assets and liabilities recorded at fair value are categorized based upon a fair value hierarchy that ranks the quality and reliability of the information used to determine fair value, in accordance with applicable accounting guidance.

The following is a description of the levels of the fair value hierarchy.

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include quoted prices for similar assets or liabilities in active markets, as well as inputs other than quoted prices that are observable for the asset or liability.
- Level 3 inputs are unobservable inputs and are not corroborated by market data.

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2009 and 2008.

Money market funds and equity securities: Valued at the closing price reported on the active market on which the individual securities are traded.

Mutual funds: Valued at the net asset value ("NAV") of shares held by the plan at year end based on quoted market price on active markets.

Crown Castle International Corp. Common Stock Unitized Trust Fund: Investments in the Crown Castle International Corp. Stock Unitized Trust Fund are valued based on the current market value of the underlying assets of the fund. These investments include cash equivalents as well as shares of the common stock of Crown Castle International Corp., which are valued at their last reported sales price on the last business day of the Plan year.

Common Collective Funds: Investments in collective trust funds are valued at the net asset value of the respective funds on the last day of the Plan year based on audited financial statements.

Purchases and sales of securities are accounted for on a settlement-date basis. The difference between recording transactions on a trade date and a settlement date was not significant to the Plan's financial statements.

In accordance with the policy of stating investments at fair value, unrealized appreciation or depreciation on investments are reflected within investment income (loss) in the Statements of Changes in Net Assets Available for Benefits.

Participant loans are valued at amortized cost, which approximates fair value.

(e) Contributions

Participant contributions are recorded as they are withheld from the participant's wages.

(f) Distributions to Participants

Distributions to participants are recorded when paid by the Plan.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN
NOTES TO FINANCIAL STATEMENTS (continued)
December 31, 2009 and 2008

(3) Investment Programs

Schwab Retirement Plan Services, Inc. and State Street Bank and Trust Company serve as custodians of the Plan assets. The funds listed below were the investment options as of December 31, 2009.

- Alger Small Cap Growth Institutional I Fund
- Artio International Equity A Fund
- Columbia Acorn Z Fund
- Crown Castle International Corp. Stock Unitized Trust Fund
- Goldman Sachs Government Income A Fund
- Goldman Sachs Mid Cap Value A Fund
- Growth Fund of America
- JPMorgan Core Bond Select
- Northern Small Cap Value Fund
- Personal Choice Retirement Account
- Schwab 1000 Index Fund
- Schwab Managed Retirement Trust 2010 CI III
- Schwab Managed Retirement Trust 2020 CI III
- Schwab Managed Retirement Trust 2030 CI III
- Schwab Managed Retirement Trust 2040 CI III
- Schwab Managed Retirement Trust 2050 CI III
- Schwab Managed Retirement Trust Income
- Schwab U.S. Treasury Money Fund
- Van Kampen Growth & Income A Fund
- Virtus Real Estate Securities A

The following are investments that represent 5% or more of the Plan's assets:

	December 31,	
	2009	2008
Mutual Funds: (valued at fair value)		
Columbia Acorn Z Fund	\$ 4,154,270	\$2,425,478
Growth Fund of America	10,352,653	6,675,680
JPMorgan Core Bond Select(1)	3,338,799	2,519,932
Artio International Equity A Fund	7,160,669	4,993,441
Schwab 1000 Index Fund	4,529,251	3,382,825
Van Kampen Growth & Income A Fund	3,841,136	2,342,618
Common Collective Funds: (valued at fair value)		
Schwab U.S. Treasury Money Fund(1)	\$ 2,998,417	\$3,460,921
Common Stock Unitized Trust Fund: (valued at fair value of underlying assets)		
Crown Castle International Corp. Stock Unitized Trust Fund	\$ 9,626,890	\$4,323,042

(1) Investment is only 5% or more of the Plan assets as of December 31, 2008.

For the years ended December 31, 2009 and 2008, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated (depreciated) in fair value, as follows:

	For the Years Ended December 31,	
	2009	2008
Mutual funds and common stock	\$ 7,845,310	\$ (16,645,350)
Common collective funds	1,689,398	(1,729,797)
Common stock unitized trust fund	5,531,399	(3,364,470)
	\$ 15,066,107	\$ (21,739,617)

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN
NOTES TO FINANCIAL STATEMENTS (continued)
December 31, 2009 and 2008

(4) Fair Values

Investments measured at fair value on a recurring basis consisted of the following types of instruments as of December 31, 2009.

	<u>Assets at Fair Value as of December 31, 2009</u>			
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Mutual funds	\$ 41,362,757	\$ —	\$ —	\$ 41,362,757
Common collective funds	—	11,460,020	—	11,460,020
Participant directed brokerage account:				
Money market funds	352,294	—	—	352,294
Common stocks	486,748	—	—	486,748
Mutual funds	671,913	—	—	671,913
Unit investment trusts and other	—	140,576	—	140,576
Total participant directed brokerage account	<u>1,510,955</u>	<u>140,576</u>	<u>—</u>	<u>1,651,531</u>
Crown Castle International Corp. unitized trust fund	—	9,626,890	—	9,626,890
Total	<u>\$ 42,873,712</u>	<u>\$ 21,227,486</u>	<u>\$ —</u>	<u>\$ 64,101,198</u>

(5) Federal Income Taxes

The Plan received a favorable determination letter from the Internal Revenue Service dated October 29, 2004, which stated that the Plan and related trust are designed in accordance with the applicable sections of the Internal Revenue Code (IRC). Since receiving the determination letter, the Plan has been amended and restated, including the adoption of a non-standardized prototype adoption agreement effective January 1, 2009. On May 23, 2008, the prototype plan sponsor received a favorable opinion letter from the IRS. Accordingly, the accompanying financial statements do not include a provision for federal income taxes.

(6) Party-In-Interest Transactions

Certain Plan investments are funds managed by The Charles Schwab Trust Company. The Charles Schwab Trust Company is the trustee of the Plan. Schwab Retirement Plan Services, Inc. is recordkeeper, and both Schwab Retirement Plan Services, Inc. and State Street Bank and Trust Company serve as custodians.

The Crown Castle International Corp. Stock Unitized Trust Fund holds 240,985 shares and 237,385 shares of Crown Castle International Corp. common stock as of December 31, 2009 and 2008, respectively.

Participants have loans from their fund accounts outstanding in the amount of \$1,169,524 and \$968,993 as of December 31, 2009 and 2008, respectively.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

EIN: 76-0470458

Plan Number: 001

Schedule H, Line 4a– Schedule of Delinquent Participant Contributions

December 31, 2009

<u>Participant Contributions Transferred Late to Plan</u>	<u>Total that Constitute Nonexempt Prohibited Transactions</u>			<u>Total Fully Corrected Under VFCP and PTE 2002-51</u>
	<u>Contributions Not Corrected</u>	<u>Contributions Corrected Outside VFCP</u>	<u>Contributions Pending Correction in VFCP</u>	
\$ 91	\$ —	\$ 91	\$ —	\$ —

See accompanying report of independent registered public accounting firm.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

EIN: 76-0470458

Plan Number: 001

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

December 31, 2009

<u>Identity of Issuer, Borrower, Lessor or Similar Party</u>	<u>Description of Investment</u>	<u>Current Value</u>
Mutual Funds:		
Alger Management, Inc.	Alger Small Cap Growth Institutional I Fund	\$ 1,108,074
American Funds	Growth Fund of America	10,352,653
Artio Investments Funds	Artio International Equity A Fund	7,160,669
Columbia Wagner Asset Management	Columbia Acorn Z Fund	4,154,270
Goldman Sachs Trust	Goldman Sachs Government Income A Fund	1,671,132
Goldman Sachs Trust	Goldman Sachs Mid Cap Value A Fund	2,891,495
JPMorgan Asset Management	JPMorgan Core Bond Select	3,338,799
Northern Trust	Northern Small Cap Value Fund	1,255,513
Phoenix Investment Partners, LTD	Virtus Real Estate Securities A	1,059,765
*The Charles Schwab Trust Company	Schwab 1000 Index Fund	4,529,251
Van Kampen Funds	Van Kampen Growth & Income A Fund	3,841,136
Total Mutual Funds		<u>41,362,757</u>
Common Collective Funds:		
*The Charles Schwab Trust Company	Schwab U.S. Treasury Money Fund	2,998,417
*The Charles Schwab Trust Company	Schwab Managed Retirement Trust 2010 CI III	1,009,003
*The Charles Schwab Trust Company	Schwab Managed Retirement Trust 2020 CI III	2,633,762
*The Charles Schwab Trust Company	Schwab Managed Retirement Trust 2030 CI III	1,994,754
*The Charles Schwab Trust Company	Schwab Managed Retirement Trust 2040 CI III	2,381,105
*The Charles Schwab Trust Company	Schwab Managed Retirement Trust 2050 CI III	268,847
*The Charles Schwab Trust Company	Schwab Managed Retirement Trust Income	174,132
Total Common Collective Funds		<u>11,460,020</u>
Participant Directed Brokerage Account:		
*The Charles Schwab Trust Company	Personal Choice Retirement Account	1,651,531
Unitized Trust Fund:		
*Crown Castle International Corp.	Employer Securities	9,626,890
Participant Loans:		
*Participants	178 participant loans with various rates of interest from 4.25% to 9.25% and various maturity dates through January 2015	1,169,524
		<u>\$ 65,270,722</u>

* Party-in interest

See accompanying report of independent registered public accounting firm.

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Crown Castle International Corp.

We consent to the incorporation by reference in the registration statement (no. 333-163843) on Form S-8 of Crown Castle International Corp. of our report dated June 23, 2010 with respect to the statements of net assets available for benefits of the Crown Castle International Corp. 401(k) Plan as of December 31, 2009 and 2008, the related statements of changes in net assets available for benefits for the years then ended, and the related supplemental schedules of Schedule H, Line 4a – Schedule of Delinquent Participant Contributions and Schedule H, Line 4i – Schedule of Assets (Held at End of Year) as of December 31, 2009, which report appears in the December 31, 2009 annual report on Form 11-K of the Crown Castle International Corp. 401(k) Plan.

/s/ KPMG LLP
Pittsburgh, Pennsylvania
June 23, 2010