Offering Circular Supplement (To Base Offering Circular dated January 1, 2002)

# \$125,000,000



# Government National Mortgage Association

# GINNIE MAE®

Guaranteed REMIC Pass-Through Securities and MX Securities Ginnie Mae REMIC Trust 2003-045

The securities may not be suitable investments for you. You should consider carefully the risks of investing in them.

See "Risk Factors" beginning on page S-6 which highlights some of these risks.

# The Securities

The Trust will issue the Classes of Securities listed on the inside front cover.

The Ginnie Mae Guaranty

Ginnie Mae will guarantee the timely payment of principal and interest on the securities. The Ginnie Mae Guaranty is backed by the full faith and credit of the United States of America.

The Trust and its Assets

The Trust will own Ginnie Mae Certificates.

The Sponsor and the Co-Sponsor will offer the securities from time to time in negotiated transactions at varying prices. We expect the closing date to be May 30, 2003.

You should read the Base Offering Circular as well as this Supplement.

The securities are exempt from registration under the Securities Act of 1933 and are "exempted securities" under the Securities Exchange Act of 1934.

Morgan Stanley

Utendahl Capital Partners, L.P.

The date of this Offering Circular Supplement is May 22, 2003.

#### Ginnie Mae REMIC Trust 2003-045

The Trust will issue the classes of securities listed in the table below. If you own exchangeable securities identified in the table, you can exchange them for the corresponding MX Securities, and vice versa.

Class of REMIC Securities	Original Principal Balance(2)	Interest Rate	Principal Type(3)	Interest Type(3)	Final Distribution Date(4)	CUSIP Number
AB	\$77,121,173	5.0%	SEQ/AD	FIX	January 2025	38373QTB7
AI	7,011,015	5.5	NTL(SEQ/AD)	FIX/IO	January 2025	38373QTC5
$B(1) \ldots \ldots$	42,987,793	5.5	SEQ/AD	FIX	October 2030	38373QTD3
Ζ	4,891,034	5.5	SEQ	FIX/Z	May 2033	38373QTE1
Residual						
RR	0	0.0	NPR	NPR	May 2033	38373QTL5

(1) The Class B Securities may be exchanged for MX Securities described in Schedule I.

(2) Subject to increase as described under "Increase in Size" in this Supplement. The amount shown for the Notional Class (indicated by "NTL" under Principal Type) is its original Class Notional Balance and does not represent principal that will be paid.

(3) As defined under "Class Types" in Appendix I to the Base Offering Circular. The type of Class with which the Class Notional Balance of the Notional Class will be reduced is indicated in parentheses.

(4) See "Yield, Maturity and Prepayment Considerations — Final Distribution Date" in this Supplement.

### **AVAILABLE INFORMATION**

You should purchase the securities only if you have read and understood the following documents:

- this Offering Circular Supplement (this "Supplement") and
- the Base Offering Circular.

The Base Offering Circular is available on Ginnie Mae's website located at http://www.ginniemae.gov.

If you do not have access to the internet, call JPMorgan Chase Bank, which will act as information agent for the Trust, at (800) 234-GNMA, to order copies of the Base Offering Circular.

Please consult the standard abbreviations of Class Types included in the Base Offering Circular as Appendix I and the Glossary included in the Base Offering Circular as Appendix II for definitions of capitalized terms.

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# **TERMS SHEET**

This terms sheet contains selected information for quick reference only. You should read this Supplement, particularly "Risk Factors," and each of the other documents listed under "Available Information."

**Sponsor:** Morgan Stanley & Co. Incorporated

Trustee: U.S. Bank National Association

Tax Administrator: The Trustee

Closing Date: May 30, 2003

**Distribution Date:** The 16th day of each month or, if the 16th day is not a Business Day, the first Business Day thereafter, commencing in June 2003.

# **Trust Assets:**

Trust Asset Type	Certificate Rate	Original Term To Maturity (in years)
Ginnie Mae I	5.5%	30

Assumed Characteristics of the Mortgage Loans Underlying the Trust Assets<sup>1</sup>:

Principal Balance <sup>2</sup>	Weighted Average Remaining Term to Maturity (in months)	Weighted Average Loan Age (in months)	Mortgage Rate
\$125,000,000	358	1	6.0%

<sup>1</sup> As of May 1, 2003.

<sup>2</sup> Does not include Trust Assets that will be added to pay the Trustee Fee.

The actual remaining terms to maturity and loan ages of many of the Mortgage Loans will differ from the weighted averages shown above, perhaps significantly. *See "The Trust Assets — The Mortgage Loans" in this Supplement.* 

**Issuance of Securities:** The Securities, other than the Residual Securities, will initially be issued in book-entry form through the book-entry system of the U.S. Federal Reserve Banks (the "Fedwire Book-Entry System"). The Residual Securities will be issued in fully registered, certificated form. *See "Description of the Securities — Form of Securities" in this Supplement.* 

**Modification and Exchange:** If you own exchangeable Securities you will be able, upon notice and payment of an exchange fee, to exchange them for a proportionate interest in the related Securities shown on Schedule I to this Supplement. *See "Description of the Securities — Modification and Exchange" in this Supplement.* 

**Increased Minimum Denomination Classes:** Each Class that constitutes an Interest Only Class. *See "Description of the Securities—Form of Securities" in this Supplement.* 

**Interest Rates:** The Interest Rates are shown on the inside cover page of this Supplement or on Schedule I to this Supplement.

**Allocation of Principal:** On each Distribution Date, a percentage of the Principal Distribution Amount will be applied to the Trustee Fee, and the remainder of the Principal Distribution Amount (the "Adjusted Principal Distribution Amount") and the Accrual Amount will be allocated sequentially to AB, B and Z, in that order, until retired.

**Accrual Class:** Interest will accrue on the Accrual Class identified on the inside front cover of this Supplement at the per annum rate set forth on that page. However, no interest will be distributed to the Accrual Class as interest. Interest so accrued on the Accrual Class on each Distribution Date will constitute the Accrual Amount, which will be added to the Class Principal Balance of that Class on each Distribution Date and will be distributable as principal as set forth in this Terms Sheet under "Allocation of Principal."

**Notional Classes:** The Notional Classes will not receive distributions of principal but have Class Notional Balances for convenience in describing their entitlement to interest. The Class Notional Balance of each Notional Class represents the percentage indicated below of, and reduces to that extent with, the Class Principal Balance indicated:

Class	Original Class Notional Balance	Represents Approximately
AI	\$ 7,011,015	9.0909090909% of AB (SEQ/AD Class)
BI	15,631,924	36.3636363636% of B (SEQ/AD Class)

**Tax Status:** Double REMIC Series. See "Certain Federal Income Tax Consequences" in this Supplement and in the Base Offering Circular.

**Regular and Residual Classes:** Class RR is a Residual Class and includes the Residual Interest of the Issuing REMIC and the Pooling REMIC; all other Classes of REMIC Securities are Regular Classes.

# **RISK FACTORS**

You should purchase securities only if you understand and are able to bear the associated risks. The risks applicable to your investment depend on the principal and interest type of your securities. This section bigblights certain of these risks.

The rate of principal payments on the underlying mortgage loans will affect the rate of principal payments on your securities. The rate at which you will receive principal payments will depend largely on the rate of principal payments, including prepayments, on the mortgage loans underlying the related trust assets. We expect the rate of principal payments on the underlying mortgage loans to vary. Borrowers generally may prepay their mortgage loans at any time without penalty.

*Rates of principal payments can reduce your yield.* The yield on your securities probably will be lower than you expect if:

- you bought your securities at a premium (interest only securities, for example) and principal payments are faster than you expected, or
- you bought your securities at a discount and principal payments are slower than you expected.

In addition, if your securities are interest only securities or securities purchased at a significant premium, you could lose money on your investment if prepayments occur at a rapid rate.

An investment in the securities is subject to significant reinvestment risk. The rate of principal payments on your securities is uncertain. You may be unable to reinvest the payments on your securities at the same returns provided by the securities. Lower prevailing interest rates may result in an unexpected return of principal. In that interest rate climate, higher vielding reinvestment opportunities may be limited. Conversely, higher prevailing interest rates may result in slower returns of principal and you may not be able to take advantage of higher vielding investment opportunities. The final payment on your security may occur much earlier than the final distribution date.

*The securities may not be a suitable investment for you.* The securities, especially the interest only, accrual and residual classes, are not suitable investments for all investors.

In addition, although the sponsor intends to make a market for the purchase and sale of the securities after their initial issuance, it has no obligation to do so. There is no assurance that a secondary market will develop, that any secondary market will continue, or that the price at which you can sell an investment in any class will enable you to realize a desired yield on that investment.

You will bear the market risks of your investment. The market values of the classes are likely to fluctuate. These fluctuations may be significant and could result in significant losses to you.

The secondary markets for mortgage-related securities have experienced periods of illiquidity and can be expected to do so in the future. Illiquidity can have a severely adverse effect on the prices of classes that are especially sensitive to prepayment risk or that have been structured to meet the investment requirements of limited categories of investors.

The residual securities may experience significant adverse tax timing consequences. Accordingly, you are urged to consult tax advisors and to consider the after-tax effect of ownership of a residual security and the suitability of the residual securities to your investment objectives. *See "Certain Federal Income Tax Consequences" in this supplement and in the base offering circular.* 

You are encouraged to consult advisors regarding the financial, legal, tax and other aspects of an investment in the securities. You should not purchase the securities of any class unless you understand and are able to bear the prepayment, yield, liquidity and market risks associated with that class. *The actual characteristics of the underlying mortgage loans will affect the weighted average lives and yields of your securities.* The yield and prepayment tables in this supplement are based on assumed characteristics which are likely to be different from the actual characteristics. As a result, the yields

on your securities could be lower than you

expected, even if the mortgage loans prepay at the constant prepayment rates set forth in the applicable table.

It is highly unlikely that the underlying mortgage loans will prepay at any of the prepayment rates assumed in this supplement, or at any constant prepayment rate.

# THE TRUST ASSETS

#### General

The Sponsor intends to acquire the Trust Assets in privately negotiated transactions prior to the Closing Date and to sell them to the Trust according to the terms of a Trust Agreement between the Sponsor and the Trustee. The Sponsor will make certain representations and warranties with respect to the Trust Assets. All Trust Assets will evidence, directly or indirectly, Ginnie Mae Certificates.

#### The Trust MBS

The Trust MBS are either:

- 1. Ginnie Mae I MBS Certificates guaranteed by Ginnie Mae, or
- 2. Ginnie Mae Platinum Certificates backed by Ginnie Mae I MBS Certificates and guaranteed by Ginnie Mae.

Each Mortgage Loan underlying a Ginnie Mae I MBS Certificate bears interest at a Mortgage Rate 0.50% per annum greater than the related Certificate Rate. The difference between the Mortgage Rate and the Certificate Rate is used to pay the related servicers of the Mortgage Loans a monthly servicing fee and Ginnie Mae a fee for its guaranty of the Ginnie Mae I MBS Certificate of 0.44% per annum and 0.06% per annum, respectively, of the outstanding principal balance of the Mortgage Loan.

#### The Mortgage Loans

The Mortgage Loans underlying the Trust Assets are expected to have, on a weighted average basis, the characteristics set forth in the Terms Sheet under "Assumed Characteristics of the Mortgage Loans Underlying the Trust Assets" and the general characteristics described in the Base Offering Circular. The Mortgage Loans will consist of first lien, single-family, fixed rate, residential mortgage loans that are insured or guaranteed by the Federal Housing Administration, the United States Department of Veterans Affairs, the Rural Housing Service or the United States Department of Housing and Urban Development ("HUD"). See "The Ginnie Mae Certificates — General" in the Base Offering Circular.

Specific information regarding the characteristics of the Mortgage Loans is not available. For purposes of this Supplement, certain assumptions have been made regarding the remaining terms to maturity and loan ages of the Mortgage Loans. However, the actual remaining terms to maturity and loan ages of many of the Mortgage Loans will differ from the characteristics assumed, perhaps significantly. This will be the case even if the weighted average characteristics of the Mortgage Loans are the same as the assumed characteristics. Small differences in the characteristics of the Mortgage Loans can have a significant effect on the weighted average lives

and yields of the Securities. See "Risk Factors" and "Yield, Maturity and Prepayment Considerations" in this Supplement.

# The Trustee Fee

On each Distribution Date, the Trustee will retain a fixed percentage of all principal and interest distributions received on specified Trust Assets in payment of its fee.

#### **GINNIE MAE GUARANTY**

The Government National Mortgage Association ("Ginnie Mae"), a wholly-owned corporate instrumentality of the United States of America within HUD, guarantees the timely payment of principal and interest on the Securities. The General Counsel of HUD has provided an opinion to the effect that Ginnie Mae has the authority to guarantee multiclass securities and that Ginnie Mae guaranties will constitute general obligations of the United States, for which the full faith and credit of the United States is pledged. *See "Ginnie Mae Guaranty" in the Base Offering Circular.* 

# **DESCRIPTION OF THE SECURITIES**

#### General

The description of the Securities contained in this Supplement is not complete and is subject to, and is qualified in its entirety by reference to, all of the provisions of the Trust Agreement. See "Description of the Securities" in the Base Offering Circular.

#### Form of Securities

Each Class of Securities other than the Residual Securities initially will be issued and maintained, and may be transferred only on the Fedwire Book-Entry System. Beneficial Owners of Book-Entry Securities will ordinarily hold these Securities through one or more financial intermediaries, such as banks, brokerage firms and securities clearing organizations that are eligible to maintain book-entry accounts on the Fedwire Book-Entry System. By request accompanied by the payment of a transfer fee of \$25,000 per Certificated Security to be issued, a Beneficial Owner may receive a Regular Security in certificated form.

The Residual Securities will not be issued in book-entry form but will be issued in fully registered, certificated form and may be transferred or exchanged, subject to the transfer restrictions applicable to Residual Securities set forth in the Trust Agreement, at the Corporate Trust Office of the Trustee. *See "Description of the Securities — Forms of Securities; Book-Entry Procedures" in the Base Offering Circular.* 

Each Class (other than the Increased Minimum Denomination Classes) will be issued in minimum dollar denominations of initial principal balance of \$1,000 and integral multiples of \$1 in excess of \$1,000. The Increased Minimum Denomination Classes will be issued in minimum denominations that equal \$100,000 in initial notional balance.

#### Distributions

Distributions on the Securities will be made on each Distribution Date as specified under "Terms Sheet — Distribution Date" in this Supplement. On each Distribution Date for a Security, or in the case of the Certificated Securities, on the first Business Day after the related Distribution Date, the Distribution Amount will be distributed to the Holders of record as of the

close of business on the last Business Day of the calendar month immediately preceding the month in which the Distribution Date occurs. Beneficial Owners of Book-Entry Securities will receive distributions through credits to accounts maintained for their benefit on the books and records of the appropriate financial intermediaries. Holders of Certificated Securities will receive distributions by check or, subject to the restrictions set forth in the Base Offering Circular, by wire transfer. *See "Description of the Securities — Distributions" and "— Method of Distributions" in the Base Offering Circular.* 

#### **Interest Distributions**

The Interest Distribution Amount will be distributed on each Distribution Date to the Holders of all Classes of Securities entitled to distributions of interest.

- Interest will be calculated on the basis of a 360-day year consisting of twelve 30-day months.
- Interest distributable on any Class for any Distribution Date will consist of 30 days' interest on its Class Principal Balance (or Class Notional Balance) as of the related Record Date.
- Investors can calculate the amount of interest to be distributed on each Class of Securities for any Distribution Date by using the Class Factors published in the preceding month. *See "— Class Factors" below.*

#### Categories of Classes

For purposes of interest distributions, the Classes will be categorized as shown under "Interest Type" on the inside cover page of this Supplement and on Schedule I to this Supplement. The abbreviations used on the inside cover page and on Schedule I to this Supplement are explained under "Class Types" in Appendix I to the Base Offering Circular.

#### Accrual Period

The Accrual Period for each Class is the calendar month preceding the Distribution Date.

Each Class will bear interest at the per annum Interest Rate shown on the inside cover page of this Supplement or on Schedule I to this Supplement.

#### Accrual Class

Class Z is an Accrual Class. Interest will accrue on the Accrual Class and be distributed as described under "Terms Sheet — Accrual Class" in this Supplement.

#### **Principal Distributions**

The Adjusted Principal Distribution Amount and the Accrual Amount will be distributed to the Holders entitled thereto as described under "Terms Sheet — Allocation of Principal" in this Supplement. Investors can calculate the amount of principal to be distributed with respect to any Distribution Date by using the Class Factors published in the preceding and current months. *See "— Class Factors" below.* 

# Categories of Classes

For purposes of principal distributions, the Classes will be categorized as shown under "Principal Type" on the inside cover page of this Supplement and on Schedule I to this Supplement. The abbreviations used on the inside cover page, in the Terms Sheet and on Schedule I to this Supplement are explained under "Class Types" in Appendix I to the Base Offering Circular.

#### Notional Classes

The Notional Classes will not receive principal distributions. For convenience in describing interest distributions, the Notional Classes will have the original Class Notional Balances shown on the inside cover page of this Supplement and on Schedule I to this Supplement. The Class Notional Balances will be reduced as shown under "Terms Sheet — Notional Classes" in this Supplement.

#### **Residual Securities**

The Class RR Securities will represent the beneficial ownership of the Residual Interest in the Issuing REMIC and the beneficial ownership of the Residual Interest in the Pooling REMIC, as described under "Certain Federal Income Tax Consequences" in the Base Offering Circular. The Class RR Securities have no Class Principal Balance and do not accrue interest. The Class RR Securities will be entitled to receive the proceeds of the disposition of any assets remaining in the Trust REMICs after the Class Principal Balance of each Class of Regular Securities has been reduced to zero. However, any remaining proceeds are not likely to be significant. The Residual Securities may not be transferred to a Plan Investor, a Non-U.S. Person or a Disqualified Organization.

#### **Class Factors**

The Trustee will calculate and make available for each Class of Securities, no later than the day preceding the Distribution Date, the factor (carried out to eight decimal places) that when multiplied by the Original Class Principal Balance (or original Class Notional Balance) of that Class, determines the Class Principal Balance (or Class Notional Balance) after giving effect to the distribution of principal to be made on the Securities (and any addition to the Class Principal Balance of the Accrual Class) or any reduction of Class Notional Balance on that Distribution Date (each, a "Class Factor").

- The Class Factor for any Class of Securities for the month following the issuance of the Securities will reflect its remaining Class Principal Balance (or Class Notional Balance) after giving effect to any principal distribution (or addition to principal) to be made or any reduction of Class Notional Balance on the Distribution Date occurring in that month.
- The Class Factor for each Class for the month of issuance is 1.00000000.
- The Class Factors for the MX Classes and the Class of REMIC Securities that are exchangeable for the MX Classes will be calculated assuming that the maximum possible amount of each Class is outstanding at all times, regardless of any exchanges that may occur.
- Based on the Class Factors published in the preceding and current months (and Interest Rates), investors in any Class (other than the Accrual Class) can calculate the amount of principal and interest to be distributed to that Class, and investors in the Accrual Class can calculate the total amount of principal to be distributed to (or interest to be added to the Class Principal Balance of) that Class on the Distribution Date in the current month.
- Investors may obtain current Class Factors on Ginnie Mae's Multiclass Securities e-Access located on Ginnie Mae's website ("e-Access") or by calling the Information Agent at 800-234-GNMA.

See "Description of the Securities — Distributions" in the Base Offering Circular.

#### Recent Developments: e-Access replaces gRex

Ginnie Mae has retired gRex as a database of information regarding Ginnie Mae MBS and Ginnie Mae Securities. gRex has been replaced by e-Access, a web based application located on Ginnie Mae's website at http://www.ginniemae.gov. Notwithstanding the disclosure in the Base Offering Circular, e-Access maintains all the information historically made available on gRex.

#### Termination

The Trustee, at its option, may purchase or cause the sale of the Trust Assets and thereby terminate the Trust on any Distribution Date on which the aggregate of the Class Principal Balances of the Securities is less than 1% of the aggregate Original Class Principal Balances of the Securities. The Trustee will terminate the Trust and retire the Securities on any Distribution Date upon the Trustee's determination that the REMIC status of either Trust REMIC has been lost or that a substantial risk exists that this status will be lost for the then current taxable year.

Upon any termination of the Trust, the Holder of any outstanding Security (other than a Residual or Notional Class Security) will be entitled to receive that Holder's allocable share of the Class Principal Balance of that Class plus any accrued and unpaid interest thereon at the applicable Interest Rate, and any Holder of any outstanding Notional Class Security will be entitled to receive that Holder's allocable share of any accrued and unpaid interest thereon at the applicable Interest Rate. The Residual Holders will be entitled to their pro rata share of any assets remaining in the Trust REMICs after payment in full of the amounts described in the foregoing sentence. However, any remaining assets are not likely to be significant.

# **Modification and Exchange**

All or a portion of the Class B Securities may be exchanged for a proportionate interest in the related MX Classes shown on Schedule I to this Supplement. Similarly, all or a portion of the related MX Classes may be exchanged for proportionate interests in the Class B Securities or other related MX Classes. This process may occur repeatedly.

Each exchange may be effected only in proportions that result in the principal and interest entitlements of the Securities received being equal to the entitlements of the Securities surrendered.

The Class B Securities may be exchanged for proportionate interests in various subcombinations of MX Classes. Similarly, all or a portion of these MX Classes may be exchanged for proportionate interests in the Class B Securities or in other subcombinations of the MX Classes. Each subcombination may be effected only in proportions that result in the principal and interest entitlements of the Securities received being equal to the entitlements of the Securities surrendered. *See the example under "Description of the Securities — Modification and Exchange" in the Base Offering Circular.* 

A Beneficial Owner proposing to effect an exchange must notify the Trustee through the Beneficial Owner's Book-Entry Depository participant. This notice must be received by the Trustee not later than two Business Days before the proposed exchange date. The exchange date can be any Business Day other than the last Business Day of the month. The notice must contain the outstanding principal balance of the Securities to be included in the exchange and the proposed exchange date. The notice is required to be delivered to the Trustee in writing at its Corporate Trust Office located at One Federal Street – 3rd Floor, Boston,

Massachusetts 02110, Attention: Ginnie Mae REMIC Program Agency Group. The Trustee may be contacted by telephone at (617) 603-6451 and by fax at (617) 603-6644.

A fee will be payable to the Trustee in connection with each exchange equal to 1/32 of 1% of the outstanding principal balance of the Securities surrendered for exchange (but not less than \$2,000 or more than \$25,000). The fee must be paid concurrently with the exchange.

The first distribution on a REMIC Security or an MX Security received in an exchange will be made on the Distribution Date in the month following the month of the exchange. The distribution will be made to the Holder of record as of the Record Date in the month of exchange.

See "Description of the Securities — Modification and Exchange" in the Base Offering Circular.

#### YIELD, MATURITY AND PREPAYMENT CONSIDERATIONS

# General

The prepayment experience of the Mortgage Loans underlying the Trust Assets will affect the Weighted Average Lives of and the yields realized by investors in the Securities.

- The Mortgage Loans do not contain "due-on-sale" provisions, and any Mortgage Loan may be prepaid in full or in part at any time without penalty.
- The rate of payments (including prepayments and payments in respect of liquidations) on the Mortgage Loans is dependent on a variety of economic, geographic, social and other factors, including prevailing market interest rates and general economic factors.

The rate of prepayments with respect to single-family mortgage loans has fluctuated significantly in recent years. Although there is no assurance that prepayment patterns for the Mortgage Loans will conform to patterns for more traditional types of conventional fixed-rate mortgage loans, generally:

- if mortgage interest rates fall materially below the Mortgage Rates on any of the Mortgage Loans (giving consideration to the cost of refinancing), the rate of prepayment of those Mortgage Loans would be expected to increase; and
- if mortgage interest rates rise materially above the Mortgage Rates on any of the Mortgage Loans, the rate of prepayment of those Mortgage Loans would be expected to decrease.

In addition, following any Mortgage Loan default and the subsequent liquidation of the underlying Mortgaged Property, the principal balance of the Mortgage Loan will be distributed through a combination of liquidation proceeds, advances from the related Ginnie Mae Issuer and, to the extent necessary, proceeds of Ginnie Mae's guaranty of the Ginnie Mae Certificates. As a result, defaults experienced on the Mortgage Loans will accelerate the distribution of principal of the Securities.

Under certain circumstances, the Trustee has the option to purchase the Trust Assets, thereby effecting early retirement of the Securities. See "Description of the Securities — Termination" in this Supplement.

# **Accretion Directed Classes**

Classes AB and B are Accretion Directed Classes. The Accrual Amount will be applied to making principal distributions on those Classes as described in this Supplement. Class AI is a

Notional Class whose Class Notional Balance is determined by reference to the Class Principal Balance of Class AB.

Each Accretion Directed Class has the AD designation in the suffix position, rather than the prefix position, in its class principal type because it does not have principal payment stability through the applicable pricing prepayment assumption. Although the Accretion Directed Classes are entitled to receive payments from the Accrual Amount, they do not have principal payment stability through any prepayment rate significantly higher than 0% PSA.

### Assumability

Each Mortgage Loan may be assumed, subject to HUD review and approval, upon the sale of the related Mortgaged Property. *See 'Yield, Maturity and Prepayment Considerations — Assumability of Government Loans'' in the Base Offering Circular.* 

#### **Final Distribution Date**

The Final Distribution Date for each Class, which is set forth on the inside cover page of this Supplement or on Schedule I to this Supplement, is the latest date on which the related Class Principal Balance or Class Notional Balance will be reduced to zero.

- The actual retirement of any Class may occur earlier than its Final Distribution Date.
- According to the terms of the Ginnie Mae Guaranty, Ginnie Mae will guarantee payment in full of the Class Principal Balance of each Class of Securities no later than its Final Distribution Date.

#### **Modeling Assumptions**

Unless otherwise indicated, the tables that follow have been prepared on the basis of the following assumptions (the "Modeling Assumptions"), among others:

1. The Mortgage Loans underlying the Trust Assets have the assumed characteristics shown under "Assumed Characteristics of the Mortgage Loans Underlying the Trust Assets" in the Terms Sheet, except in the case of information set forth under the 0% PSA Prepayment Assumption Rate, for which each Mortgage Loan is assumed to have an original and a remaining term to maturity of 360 months.

2. The Mortgage Loans prepay at the constant percentages of PSA (described below) shown in the related table.

3. Distributions on the Securities are always received on the 16th day of the month, whether or not a Business Day, commencing in June 2003.

- 4. A termination of the Trust does not occur.
- 5. The Closing Date for the Securities is May 30, 2003.
- 6. No expenses or fees are paid by the Trust other than the Trustee Fee.
- 7. Each Class is held from the Closing Date and is not exchanged in whole or in part.

When reading the tables and the related text, investors should bear in mind that the Modeling Assumptions, like any other stated assumptions, are unlikely to be entirely consistent with actual experience.

- For example, most of the Mortgage Loans will not have the characteristics assumed, many Distribution Dates will occur on a Business Day after the 16th of the month and the Trustee may cause a termination of the Trust as described under "Description of the Securities Termination" in this Supplement.
- In addition, distributions on the Securities are based on Certificate Factors and Calculated Certificate Factors, if applicable, which may not reflect actual receipts on the Trust Assets.

See "Description of the Securities — Distributions" in the Base Offering Circular.

#### **Decrement Tables**

Prepayments of mortgage loans are commonly measured by a prepayment standard or model. The model used in this Supplement ("PSA") is the standard prepayment assumption model of The Bond Market Association. PSA represents an assumed rate of prepayment each month relative to the then outstanding principal balance of the Mortgage Loans to which the model is applied. *See "Yield, Maturity and Prepayment Considerations — Standard Prepayment Assumption Models" in the Base Offering Circular.* 

The decrement tables set forth below are based on the assumption that the Mortgage Loans prepay at the indicated percentages of PSA (the "PSA Prepayment Assumption Rates"). As used in the table, each of the PSA Prepayment Assumption Rates reflects a percentage of the 100% PSA assumed prepayment rate. The Mortgage Loans will not prepay at any of the PSA Prepayment Assumption Rates and the timing of changes in the rate of prepayments actually experienced on the Mortgage Loans will not follow the pattern described for the PSA assumption.

The decrement tables set forth below illustrate the percentage of the Original Class Principal Balance (or, in the case of a Notional Class, the original Class Notional Balance) that would remain outstanding following the distribution made each specified month for each Regular or MX Class, based on the assumption that the Mortgage Loans prepay at the PSA Prepayment Assumption Rates. The percentages set forth in the following decrement tables have been rounded to the nearest whole percentage (including rounding down to zero).

The decrement tables also indicate the Weighted Average Life of each Class under each PSA Prepayment Assumption Rate. The Weighted Average Life of each Class is calculated by:

- (a) multiplying the net reduction, if any, of the Class Principal Balance (or the net reduction of the Class Notional Balance, in the case of any Notional Class) from one Distribution Date to the next Distribution Date by the number of years from the date of issuance thereof to the related Distribution Date,
- (b) summing the results, and
- (c) dividing the sum by the aggregate amount of the assumed net reductions in principal balance or notional amount, as applicable, referred to in clause (a).

The information shown for each Notional Class is for illustrative purposes only, as a Notional Class is not entitled to distributions of principal and has no weighted average life. The weighted average life shown for each Notional Class has been calculated on the assumption that a reduction in the Class Notional Balance thereof is a distribution of principal.

The Weighted Average Lives are likely to vary, perhaps significantly, from those set forth in the tables below due to the differences between the actual characteristics of the Mortgage Loans underlying the Trust Assets and the Modeling Assumptions.

						PSA	Prepayı	nent Ass	sumption	n Rates					
		Clas	sses AB a	und AI		Cla	usses B, I	BC, BD, I	BE, BG a	nd BI			Class 7	Z	
Distribution Date	0%	200%	369%	550%	750%	0%	200%	369%	550%	750%	0%	200%	369%	550%	750%
Initial Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May 2004	98	93	89	84	79	100	100	100	100	100	106	106	106	106	106
May 2005	95	78	65	51	36	100	100	100	100	100	112	112	112	112	112
May 2006	93	60	35	13	0	100	100	100	100	85	118	118	118	118	118
May 2007	90	43	12	0	0	100	100	100	76	39	125	125	125	125	125
May 2008	87	28	0	0	0	100	100	89	44	14	132	132	132	132	132
May 2009	84	15	0	0	0	100	100	64	23	0	139	139	139	139	136
May 2010	80	4	0	0	0	100	100	44	9	0	147	147	147	147	74
May 2011	77	0	0	0	0	100	89	29	0	0	155	155	155	148	40
May 2012	73	0	0	0	0	100	73	17	0	0	164	164	164	97	21
May 2013	69	0	0	0	0	100	59	7	0	0	173	173	173	63	11
May 2014	65	0	0	0	0	100	46	0	0	0	183	183	178	41	6
May 2015	60	0	0	0	0	100	35	0	0	0	193	193	134	27	3
May 2016	55	0	0	0	0	100	26	0	0	0	204	204	101	17	2
May 2017	50	0	0	0	0	100	17	0	0	0	216	216	76	11	1
May 2018	45	0	0	0	0	100	9	0	0	0	228	228	57	7	0
May 2019	39	0	0	0	0	100	2	0	0	0	241	241	42	5	0
May 2020	33	0	0	0	0	100	0	0	0	0	254	217	31	3	0
May 2021	27	0	0	0	0	100	0	0	0	0	269	181	23	2	0
May 2022	20	0	0	0	0	100	0	0	0	0	284	150	17	1	0
May 2023	13	0	0	0	0	100	0	0	0	0	300	123	12	1	0
May 2024	5	0	0	0	0	100	0	0	0	0	317	100	9	0	0
May 2025	0	0	0	0	0	95	0	0	0	0	334	80	6	0	0
May 2026	0	0	0	0	0	79	0	0	0	0	353	63	4	0	0
May 2027	0	0	0	0	0	63	0	0	0	0	373	49	3	0	0
May 2028	0	0	0	0	0	45	0	0	0	0	394	37	2	0	0
May 2029	0	0	0	0	0	27	0	0	0	0	417	26	1	0	0
May 2030	0	0	0	0	0	7	0	0	0	0	440	18	1	0	0
May 2031	0	0	0	0	0	0	0	0	0	0	346	10	0	0	0
May 2032	0	0	0	0	0	0	0	0	0	0	178	4	0	0	0
May 2033	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Average Life (years)	13.1	3.7	2.5	2.0	1.6	24.7	11.1	7.0	5.0	3.9	28.7	20.8	14.3	10.2	7.6

# Percentages of Original Class Principal (or Class Notional Balances) and Weighted Average Lives

# **Yield Considerations**

An investor seeking to maximize yield should make a decision whether to invest in any Class based on the anticipated yield of that Class resulting from its purchase price and the investor's own projection of Mortgage Loan prepayment rates under a variety of scenarios, LIBOR levels or the yield of any Class. No representation is made regarding Mortgage Loan prepayment rates or the yield of any Class.

#### Prepayments: Effect on Yields

The yields to investors will be sensitive in varying degrees to the rate of prepayments on the Mortgage Loans.

- In the case of Regular Securities or MX Securities purchased at a premium (especially Interest Only Classes), faster than anticipated rates of principal payments could result in actual yields to investors that are lower than the anticipated yields.
- Investors in the Interest Only Classes should also consider the risk that rapid rates of principal payments could result in the failure of investors to recover fully their investments.
- In the case of Regular Securities or MX Securities purchased at a discount, slower than anticipated rates of principal payments (and could result in actual yields to investors that are lower than the anticipated yields.

See "Risk Factors — Rates of principal payments can reduce your yield" in this Supplement.

Rapid rates of prepayments on the Mortgage Loans are likely to coincide with periods of low prevailing interest rates.

During periods of low prevailing interest rates, the yields at which an investor may be able to reinvest amounts received as principal payments on the investor's Class of Securities may be lower than the yield on that Class.

Slow rates of prepayments on the Mortgage Loans are likely to coincide with periods of high prevailing interest rates.

During periods of high prevailing interest rates, the amount of principal payments available to an investor for reinvestment at those high rates may be relatively low.

The Mortgage Loans will not prepay at any constant rate until maturity, nor will all of the Mortgage Loans prepay at the same rate at any one time. The timing of changes in the rate of prepayments may affect the actual yield to an investor, even if the average rate of principal prepayments is consistent with the investor's expectation. In general, the earlier a prepayment of principal on the Mortgage Loans, the greater the effect on an investor's yield. As a result, the effect on an investor's yield of principal prepayments occurring at a rate higher (or lower) than the rate anticipated by the investor during the period immediately following the Closing Date is not likely to be offset by a later equivalent reduction (or increase) in the rate of principal prepayments.

#### Payment Delay: Effect on Yields

The effective yield on any Class will be less than the yield otherwise produced by its Interest Rate and purchase price because, on each Distribution Date, 30 days' interest will be payable on (or added to the principal amount of) that Class even though interest began to accrue approximately 46 days earlier.

### **Yield Tables**

The following tables show the pre-tax yields to maturity on a corporate bond equivalent basis of specified Classes at various constant percentages of PSA.

The Mortgage Loans will not prepay at any constant rate until maturity. Moreover, it is likely that the Mortgage Loans will experience actual prepayment rates that differ from those of the Modeling Assumptions. Therefore, the actual pre-tax yield of any Class may differ from those shown in the applicable table below for that Class even if the Class is purchased at the assumed price shown.

The yields were calculated by

- 1. determining the monthly discount rates that, when applied to the applicable assumed streams of cash flows to be paid on the applicable Class, would cause the discounted present value of the assumed streams of cash flows to equal the assumed purchase price of that Class plus accrued interest, and
- 2. converting the monthly rates to corporate bond equivalent rates.

These calculations do not take into account variations that may occur in the interest rates at which investors may be able to reinvest funds received by them as distributions on their Securities and consequently do not purport to reflect the return on any investment in any Class when those reinvestment rates are considered.

The information set forth in the following tables was prepared on the basis of the Modeling Assumptions and the assumption that the purchase price of Classes AI and BI (expressed as a percentage of its original Class Notional Balance) plus accrued interest is as indicated in the related table. **The assumed purchase price is not necessarily that at which actual sales will occur.** 

Sensitivity of Class AI to Prepayments

200%	369%	550%	659%	750%
42.5%	25.8%	9.1%	0.1%	(7.0)%

	PSA Prepa	yment Assum	ption Rates	
200%	369%	550%	716%	750%
23.3%	17.3%	8.8%	0.1%	(1.8)%

\* The price does not include accrued interest. Accrued interest has been added to the price in calculating the yields set forth in the table.

# **CERTAIN FEDERAL INCOME TAX CONSEQUENCES**

The following tax discussion, when read in conjunction with the discussion of "Certain Federal Income Tax Consequences" in the Base Offering Circular, describes the material federal income tax considerations for investors in the Securities. However, these two tax discussions do not purport to deal with all federal tax consequences applicable to all categories of investors, some of which may be subject to special rules.

# Investors should consult their own tax advisors in determining the federal, state, local and any other tax consequences to them of the purchase, ownership and disposition of the Securities.

#### **REMIC Elections**

In the opinion of Cleary, Gottlieb, Steen & Hamilton, the Trust will constitute a Double REMIC Series for federal income tax purposes. Separate REMIC elections will be made for the Pooling REMIC and the Issuing REMIC.

#### **Regular Securities**

The Regular Securities will be treated as debt instruments issued by the Issuing REMIC for federal income tax purposes. Income on the Regular Securities must be reported under an accrual method of accounting.

The Class AI Securities are "Interest Weighted Securities" as described in "Certain Federal Income Tax Consequences — Tax Treatment of Regular Securities — Interest Weighted Securities and Non-VRDI Securities" in the Base Offering Circular. Although the tax treatment of Interest Weighted Securities is not entirely certain, Holders of the Interest Weighted Securities should expect to accrue all income on these Securities (other than income attributable to

market discount or *de minimis* market discount) under the original issue discount ("OID") rules based on the expected payments on these securities at the prepayment assumption described below.

The Class Z Securities are Accrual Securities. Holders of Accrual Securities are required to accrue all income from their Securities (other than income attributable to market discount or *de minimis* market discount) under the OID rules based on the expected payments on the Accrual Securities at the prepayment assumption described below.

Other than the Securities described in the preceding two paragraphs, based on anticipated prices (including accrued interest), the assumed Mortgage Loan characteristics and the prepayment assumption described below, no Classes are expected to be issued with OID.

Prospective investors in the Securities should be aware, however, that the foregoing expectations about OID could change because of differences (1) between anticipated purchase prices and actual purchase prices or (2) between the assumed characteristics of the Trust Assets and the characteristics of the Trust Assets actually delivered to the Trust. The prepayment assumption that should be used in determining the rates of accrual of OID, if any, on the Regular Securities is 369% PSA (as described in "Yield, Maturity and Prepayment Considerations" in this Supplement). No representation is made, however, about the rate at which prepayments on the Mortgage Loans actually will occur. *See "Certain Federal Income Tax Consequences" in the Base Offering Circular*.

The Regular Securities generally will be treated as "regular interests" in a REMIC for domestic building and loan associations, "permitted assets" for financial asset securitization investment trusts ("FASITs"), and "real estate assets" for real estate investment trusts ("REITs") as described in "Certain Federal Income Tax Consequences" in the Base Offering Circular. Similarly, interest on the Regular Securities will be considered "interest on obligations secured by mortgages on real property" for REITs.

#### **Residual Securities**

The Class RR Securities will represent the beneficial ownership of the Residual Interest in the Pooling REMIC and the beneficial ownership of the Residual Interest in the Issuing REMIC. The Residual Securities, *i.e.*, the Class RR Securities, generally will be treated as "residual interests" in a REMIC for domestic building and loan associations and as "real estate assets" for REITs, as described in "Certain Federal Income Tax Consequences" in the Base Offering Circular, but will not be treated as debt for federal income tax purposes. Instead, the Holders of the Residual Securities will be required to report, and will be taxed on, their pro rata shares of the taxable income or loss of the Trust REMICs, and these requirements will continue until there are no outstanding regular interests in the respective Trust REMICs. Thus, Residual Holders will have taxable income attributable to the Residual Securities even though they will not receive principal or interest distributions with respect to the Residual Securities, which could result in a negative after-tax return for the Residual Holders. It is not expected that the Pooling REMIC will have a substantial amount of taxable income or loss in any period. However, even though the Holders of the Class RR Securities are not entitled to any stated principal or interest payments on the Class RR Securities, the Issuing REMIC may have substantial taxable income in certain periods, and offsetting tax losses may not occur until much later periods. Accordingly, a Holder of the Class RR Securities may experience substantial adverse tax timing consequences. Prospective investors are urged to consult their own tax advisors and consider the after-tax effect of ownership of the Residual Securities and the suitability of the Residual Securities to their investment objectives.

Prospective Holders of Residual Securities should be aware that, at issuance, based on the expected prices of the Regular and Residual Securities and the prepayment assumption described above, the residual interests represented by the Residual Securities will be treated as "noneconomic residual interests" as that term is defined in Treasury regulations.

The proposed Treasury Regulations referred to in the Base Offering Circular relating to transfers of noneconomic residual interests were finalized recently. See "Certain Federal Income Tax Consequences — Tax Treatment of Residual Securities — Non-Recognition of Certain Transfers for Federal Income Tax Purposes" in the Base Offering Circular. With certain exceptions, the final regulations incorporate the safe harbor rules in the proposed regulations (the "present value test") and in Revenue Procedure 2001-12 (the "asset test"). Among other things, the final regulations modify the present value test to require use of the federal short term rate for the month of transfer for purposes of the present value calculations. In addition, in order to qualify for either safe harbor (the present value or asset test), a transfer of a noneconomic residual interest may not be to a foreign permanent establishment or fixed base of a U.S. taxpayer (an "offshore location"), and each transferee must represent that it will not cause income from the noneconomic residual interest to be attributable to an offshore location of the transfere or another U.S. taxpayer. The final regulations generally apply to transfers of noneconomic residual interests occurring on or after February 4, 2000, although the modifications noted above generally apply to transfers occurring on or after August 19, 2002.

Prospective Holders of Residual Securities should consult their tax advisors regarding the final regulations and their application to transfers of Residual Securities.

# **MX Securities**

For a discussion of certain federal income tax consequences applicable to the MX Classes, see "Certain Federal Income Tax Consequences — Tax Treatment of MX Securities", "— Exchanges of MX Classes and Regular Classes" and "— Taxation of Foreign Holders of REMIC Securities and MX Securities" in the Base Offering Circular.

#### **ERISA MATTERS**

Ginnie Mae guarantees distributions of principal and interest with respect to the Securities. The Ginnie Mae Guaranty is supported by the full faith and credit of the United States of America. The Regular and MX Securities will qualify as "guaranteed governmental mortgage pool certificates" within the meaning of a Department of Labor regulation, the effect of which is to provide that mortgage loans and participations therein underlying a "guaranteed governmental mortgage pool certificate" will not be considered assets of an employee benefit plan subject to the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), or subject to section 4975 of the Code (each, a "Plan"), solely by reason of the Plan's purchase and holding of that certificate.

Governmental plans and certain church plans, while not subject to the fiduciary responsibility provisions of ERISA or the prohibited transaction provisions of ERISA and the Code, may nevertheless be subject to local, state or other federal laws that are substantially similar to the foregoing provisions of ERISA and the Code. Fiduciaries of any such plans should consult with their counsel before purchasing any of the Securities.

Plan Investors should consult with their advisors, however, to determine whether the purchase, holding, or resale of a Security could give rise to a transaction that is prohibited or is not otherwise permissible under either ERISA or the Code.

See "ERISA Considerations" in the Base Offering Circular.

The Residual Securities are not offered to, and may not be transferred to, a Plan Investor.

#### LEGAL INVESTMENT CONSIDERATIONS

Institutions whose investment activities are subject to legal investment laws and regulations or to review by certain regulatory authorities may be subject to restrictions on investment in the Securities. No representation is made about the proper characterization of any Class for legal investment or other purposes, or about the permissibility of the purchase by particular investors of any Class under applicable legal investment restrictions.

Investors should consult their own legal advisors regarding applicable investment restrictions and the effect of any restrictions on the liquidity of the Securities prior to investing in the Securities.

See "Legal Investment Considerations" in the Base Offering Circular.

# PLAN OF DISTRIBUTION

Subject to the terms and conditions of the Sponsor Agreement, the Sponsor has agreed to purchase all of the Securities if any are sold and purchased. The Sponsor proposes to offer each Class to the public from time to time for sale in negotiated transactions at varying prices to be determined at the time of sale, plus accrued interest, if any, from May 1, 2003. The Sponsor may effect these transactions by sales to or through certain securities dealers. These dealers may receive compensation in the form of discounts, concessions or commissions from the Sponsor and/or commissions from any purchasers for which they act as agents. Some of the Securities may be sold through dealers in relatively small sales. In the usual case, the commission charged on a relatively small sale of securities will be a higher percentage of the sales price than that charged on a large sale of securities.

#### **INCREASE IN SIZE**

Before the Closing Date, Ginnie Mae, the Trustee and the Sponsor may agree to increase the size of this offering. In that event, the Securities will have the same characteristics as described in this Supplement, except that the Original Class Principal Balance (or original Class Notional Balance) of each Class will increase by the same proportion. The Trust Agreement, the Final Data Statement and the Supplemental Statement, if any, will reflect any increase in the size of the transaction.

#### **LEGAL MATTERS**

Certain legal matters will be passed upon for Ginnie Mae by Sidley Austin Brown & Wood LLP, New York, New York, for the Trust by Cleary, Gottlieb, Steen & Hamilton and Marcell Solomon & Associates, P.C., and for the Trustee by Nixon Peabody LLP.

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Combination <sup>(1)</sup>	
Available (	

<b>REMIC Securities</b>	curities			MX	<b>MX Securities</b>			
Class	Original Class Principal Balance	Related MX Class	Maximum Original Class Principal Balance or Class Notional Balance(2)	Principal Type(3)	Interest Rate	Interest Type(3)	CUSIP Number	Final Distribution Date(4)
Combination 1(5)								
В	\$42,987,793	BC	\$42,987,793	SEQ/AD	3.5%	FIX	38373QTF8	October 2030
		BD	42,987,793	SEQ/AD	4.0	FIX	38373QTG6	October 2030
		BE	42,987,793	SEQ/AD	4.5	FIX	38373QTH4	October 2030
		BG	42,987,793	SEQ/AD	5.0	FIX	38373 Q T J 0	October 2030
		BI	15,631,924	NTL(SEQ/AD)	5.5	FIX/IO	38373QTK7	October 2030
				-				

(1) All exchanges must comply with minimum denominations restrictions.

- (2) The amount shown for each MX Class represents the maximum Original Class Principal Balance (or original Class Notional Balance) of that Class, assuming it were to be issued on the Closing Date.
  - (3) As defined under "Class Types" in Appendix I to the Base Offering Circular.
- (4) See "Yield, Maturity and Prepayment Considerations Final Distribution Date" in this Supplement.
- (5) Various subcombinations are permitted. See "Description of the Securities Modification and Exchange" in the Base Offering Circular for a discussion of subcombinations.





\$125,000,000

Government National Mortgage Association

# GINNIE MAE®

Guaranteed REMIC Pass-Through Securities and MX Securities Ginnie Mae REMIC Trust 2003-045

OFFERING CIRCULAR SUPPLEMENT May 22, 2003

Morgan Stanley Utendahl Capital Partners, L.P.