

Stauder, Barch & Associates, Inc.

PUBLIC FINANCIAL CONSULTANTS

Since 1968

Richard W. Barch
President

Paul R. Stauder
First Vice President

November 18, 2014

Mr. Matthew Horning, Treasurer
City of Ann Arbor
301 E Huron St
Ann Arbor, MI 48107

RE: Proposed Refunding Bonds (Refunds Building Authority Refunding Bonds, Series 2005-A)

Dear Matt:

Attached is the updated analysis for the refunding of the City's Building Authority Refunding Bonds, Series 2005-A. The 2005 Bonds cannot be refunded again as a Tax-Exempt Bond until 90 days before the call date since the 2005 Refunding was an Advance Refunding. That is, the Bonds cannot be refunded as a Tax-Exempt Bond until December 2014 at the earliest since the first call date is March 1, 2015. We have concluded that if interest rates remain in a similar range as current rates and the bonds then the projected savings may be summarized as follows:

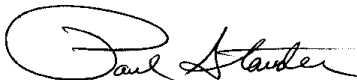
Call Date	Principal Called	Net Savings	Present Value Savings	PV as % of Refunded Principal
3/1/15	\$6,505,000	\$580,416	\$561,562	8.63%

The present value savings is more than the preferred 2% minimum savings when the call date is within 90 days of the refunding.

If you want to proceed with the refunding, then we recommend you contact us to begin the process. The next step is for us to prepare the bond parameter letter that will inform Bond Counsel of the variables to use in the Authorizing Resolution.

Please call if you need additional information.

Sincerely,



Paul R. Stauder
First Vice President



Robert J. Naughton
Vice President

PRS/rjn
Enclosures

\$6,155,000
CITY OF ANN ARBOR
COUNTY OF WASHTENAW, STATE OF MICHIGAN
BUILDING AUTHORITY REFUNDING BONDS, SERIES 2014
(LIMITED TAX GENERAL OBLIGATION)

Analysis as of November 18, 2014

REFUNDING OF: BUILDING AUTHORITY REFUNDING BONDS, SERIES 2005-A

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**CITY OF ANN ARBOR
EXISTING DEBT: BEFORE REFUNDING**

* NIC calculated from: 3/1/14

BUILDING AUTHORITY REFUNDING BONDS, SERIES 2005-A

Original Amount: \$13,305,000

Net Interest Cost: 4.813%

Maturities >= 2016 Callable 3/1/15 @ 100

Fiscal		Current Interest Bonds Dated 7/28/05					TOTAL	
Year	Year	Interest	Interest	Interest	Principal	Total	Total	
Tax	Ended	Due	Due	Rate	Due	P&I	Principal	
Year	6-30	Sep 1	Mar 1		Mar 1			
		\$7,820,000						
2014	2015	\$191,400	\$191,400	5.000%	\$1,315,000	\$1,697,800	\$1,315,000	\$1,697,800
2015	2016	158,525	158,525	5.000%	1,370,000	1,687,050	1,370,000	1,687,050
2016	2017	124,275	124,275	5.000%	1,405,000	1,653,550	1,405,000	1,653,550
2017	2018	89,150	89,150	5.000%	1,440,000	1,618,300	1,440,000	1,618,300
2018	2019	53,150	53,150	5.000%	1,470,000	1,576,300	1,470,000	1,576,300
2019	2020	16,400	16,400	4.000%	820,000	852,800	820,000	852,800
2020	2021	0	0	0.000%	0	0	0	0
2021	2022	0	0	0.000%	0	0	0	0
2022	2023	0	0	0.000%	0	0	0	0
2023	2024	0	0	0.000%	0	0	0	0
2024	2025	0	0	0.000%	0	0	0	0
2025	2026	0	0	0.000%	0	0	0	0
2026	2027	0	0	0.000%	0	0	0	0
2027	2028	0	0	0.000%	0	0	0	0
		\$632,900	\$632,900		\$7,820,000	\$9,085,800	\$7,820,000	\$9,085,800

**CITY OF ANN ARBOR
BONDS TO BE REFUNDED OR COVERED BY ESCROW**

BUILDING AUTHORITY REFUNDING BONDS, SERIES 2005-A
Maturities >= 2016 Callable 3/1/15 @ 100

		Principal					
Call Date	First Called	Last Called	Defeased Before Call	Principal Called	Call Price	Call Premium	
3/1/15	3/1/16	3/1/20	\$0	\$6,505,000	100.0	\$0	

Fiscal		Interest		Interest		Principal			
Tax Year	Ended 6-30,	Due Sep 1	Due Mar 1	Interest Rate	Due Mar 1	Principal To Escrow	Call Premium	Debt Service To Escrow	
2014	2015	\$0	\$158,525	5.000%	\$0	\$6,505,000	\$0	\$6,663,525	
2015	2016	158,525	158,525	5.000%	1,370,000	0	0	0	
2016	2017	124,275	124,275	5.000%	1,405,000	0	0	0	
2017	2018	89,150	89,150	5.000%	1,440,000	0	0	0	
2018	2019	53,150	53,150	5.000%	1,470,000	0	0	0	
2019	2020	16,400	16,400	4.000%	820,000	0	0	0	
2020	2021	0	0	0.000%	0	0	0	0	
2021	2022	0	0	0.000%	0	0	0	0	
2022	2023	0	0	0.000%	0	0	0	0	
2023	2024	0	0	0.000%	0	0	0	0	
2024	2025	0	0	0.000%	0	0	0	0	
2025	2026	0	0	0.000%	0	0	0	0	
		\$441,500	\$600,025		\$6,505,000	\$6,505,000	\$0	\$6,663,525	

\$6,155,000
CITY OF ANN ARBOR
COUNTY OF WASHTENAW, STATE OF MICHIGAN
BUILDING AUTHORITY REFUNDING BONDS, SERIES 2014
(LIMITED TAX GENERAL OBLIGATION)

Estimated Sources & Uses of Funds

	Refunding 2005
Sources of Funds	
Par Amount of Bonds	\$6,155,000.00
Production	446,286.05
Accrued Interest	0.00
Other	0.00
Contribution from Debt Fund	158,525.00
Total Sources	\$6,759,811.05
Uses of Funds	
Deposit to Escrow Account	\$6,663,356.00
Deposit to Debt Fund	0.00
Underwriter's Discount @ 0.550% Estimate	33,852.50
Bond Insurance 0.000% of total Debt Service	0.00
Costs of Issuance Estimate	61,355.00
Miscellaneous	1,247.55
Total Uses	\$6,759,811.05
Costs of Issuance Detail	
	Estimates
Bond Attorney	Dykema Gossett PLLC \$24,000.00
Financial Consultant	Stauder, Barch & Assoc. 14,655.00
Credit Rating Company	12,000.00
Notice of Sale	1,600.00
Escrow Agent	500.00
Auditor Review	0.00
Security Report Filing	Dept. of Treasury 1,000.00
Verification Agent	1,200.00
Official Statement	5,500.00
Paying Agent 1st yr.	500.00
Municipal Advisory Council Fee	400.00
Total Costs of Issuance	\$61,355.00

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RJN/aww

CITY OF ANN ARBOR
EXISTING DEBT: AFTER REFUNDING
 * NIC calculated from: 3/1/14

BUILDING AUTHORITY REFUNDING BONDS, SERIES 2005-A
 Original Amount: \$13,305,000
 Net Interest Cost: 5.000%
 Maturities >= 2016 Escrowed to Call 3/1/15 @ 100

BUILDING AUTHORITY REFUNDING BONDS, SERIES 2014
 Original Amount: \$6,155,000
 Net Interest Cost: 1.352%
 Non-Callable

Fiscal Year	Tax Year	Interest			Current Interest Bonds Dated			Current Interest Bonds Dated			TOTAL	
		6-30	2015	2016	2015	2016	2017	2015	2016	2017	Principal	Total P&I
		\$191,400	\$191,400	\$32,875	\$6,155,000	\$6,155,000	\$0	\$0	\$0	\$0	\$1,315,000	\$1,539,275
2015	2015	0	0	0	121,134	102,850	0.000%	1,345,000	1,345,000	0	1,345,000	1,568,984
2016	2016	0	0	0	89,400	89,400	3.000%	1,360,000	1,360,000	0	1,360,000	1,538,800
2017	2017	0	0	0	69,000	69,000	4.000%	1,365,000	1,365,000	0	1,365,000	1,503,000
2018	2018	0	0	0	41,700	41,700	4.000%	1,375,000	1,375,000	0	1,375,000	1,458,400
2019	2019	0	0	0	14,200	14,200	4.000%	710,000	710,000	0	710,000	738,400
2020	2020	0	0	0	0	0	0.000%	0	0	0	0	0
2021	2021	0	0	0	0	0	3.000%	0	0	0	0	0
2022	2022	0	0	0	0	0	0.000%	0	0	0	0	0
2023	2023	0	0	0	0	0	0.000%	0	0	0	0	0
2024	2024	0	0	0	0	0	0.000%	0	0	0	0	0
2025	2025	0	0	0	0	0	0.000%	0	0	0	0	0
2026	2026	0	0	0	0	0	0.000%	0	0	0	0	0
2027	2027	0	0	0	0	0	0.000%	0	0	0	0	0
2028	2028	0	0	0	0	0	0.000%	0	0	0	0	0
		\$191,400	\$191,400	\$32,875	\$335,434	\$317,150		\$6,155,000	\$6,155,000	\$6,807,584	\$7,470,000	\$8,346,859

\$6,155,000

CITY OF ANN ARBOR
COUNTY OF WASHTENAW, STATE OF MICHIGAN
BUILDING AUTHORITY REFUNDING BONDS, SERIES 2014

SAVINGS ANALYSIS - SERIES 2005

PRESENT VALUE ANALYSIS Rate = 1.10%
 Present Value of Refunding Bonds = \$7,321,374
 Less Present Value of Refunding Bonds = (6,601,287)
 Gross Present Value Savings = \$720,087
 Plus Excess Proceeds = 0
 Less Initial Transfer Amount = (158,525)
 Net Present Value Savings = \$561,562
 % of Current Issue: 9.12%
 % of Previous Issue: 8.63%

Fiscal Year	BUILDING AUTHORITY REFUNDING BONDS, SERIES 2014				BONDS TO BE REFUNDED OR COVERED BY ESCROW				Total P&I	* Net Actual Cumulative Savings
	Interest Due	Interest Rate	Principal Due	Net Interest Cost	Interest Due	Interest Rate	Principal Due	Net Interest Cost		
2014	\$0	0.000%	\$0	\$0	\$158,525	5.000%	\$0	\$0	\$158,525	\$0
2015	121,134	2.000%	1,345,000	1,568,984	158,525	5.000%	1,370,000	1,687,050	118,066	118,066
2016	89,400	3.000%	1,360,000	1,538,800	124,275	5.000%	1,405,000	1,653,550	114,750	232,816
2017	69,000	4.000%	1,365,000	1,503,000	89,150	5.000%	1,440,000	1,618,300	115,300	348,116
2018	41,700	4.000%	1,375,000	1,458,400	53,150	5.000%	1,470,000	1,576,300	117,900	466,016
2019	14,200	4.000%	710,000	738,400	16,400	4.000%	820,000	852,800	114,400	580,416
2020	0	0.000%	0	0	0	0.000%	0	0	0	580,416
2021	0	0.000%	0	0	0	0.000%	0	0	0	580,416
2022	0	0.000%	0	0	0	0.000%	0	0	0	580,416
2023	0	0.000%	0	0	0	0.000%	0	0	0	580,416
2024	0	0.000%	0	0	0	0.000%	0	0	0	580,416
2025	0	0.000%	0	0	0	0.000%	0	0	0	580,416
2026	0	0.000%	0	0	0	0.000%	0	0	0	580,416
	\$335,434		\$317,150	\$6,155,000	\$600,025		\$6,505,000	\$7,546,525	\$738,941	\$720,087
									(158,525)	(158,525)
									\$580,416	\$561,562

* Cumulative Savings Includes the Initial Transfer Am \$158,525.00
 * Cumulative Savings Includes Excess Proceeds: \$0.00
 Less Issuer Contribution, Plus Excess Proceeds:

\$6,155,000
CITY OF ANN ARBOR
COUNTY OF WASHTENAW, STATE OF MICHIGAN
BUILDING AUTHORITY REFUNDING BONDS, SERIES 2014
(LIMITED TAX GENERAL OBLIGATION)

Bond Production Report

Sale Date: 1/5/15 First Call Date: Non-Callable
Dated Date: 1/29/15 First Call Premium: n/a
Delivery Date: 1/29/15
First Coupon Date: 9/1/15

Coupons and Yields from recent bond sale: City of Oxford
Cumulative

Principal Due	Principal	Bond Type	Bond Years	Coupon	Yield	Price	Gross Production
3/1/16	\$1,345,000	Serial	1,464.56	2.000%	0.550%	101.571	\$1,366,129.95
3/1/17	1,360,000	Serial	4,305.44	3.000%	0.750%	104.654	1,423,294.40
3/1/18	1,365,000	Serial	8,521.78	4.000%	1.000%	109.101	1,489,228.65
3/1/19	1,375,000	Serial	14,144.00	4.000%	1.250%	110.927	1,525,246.25
3/1/20	710,000	Serial	17,757.11	4.000%	1.480%	112.308	797,386.80
3/1/21	0	Serial		0.000%	0.000%	100.000	0.00
	<u>\$6,155,000</u>						<u>\$6,601,286.05</u>

Par Amount:	\$6,155,000.00	
Production (Discount)/Premium:	<u>446,286.05</u>	
Gross Production:	\$6,601,286.05	107.251%
(Bond Insurance):	0.00	0.000%
(Underwriter's Discount):	<u>(33,852.50)</u>	0.550%
Bid:	<u>\$6,567,433.55</u>	<u>106.701%</u>
Accrued:	0.00	
Net to Issuer:	<u>\$6,567,433.55</u>	

Gross Interest Cost:	\$652,584.44
+ Net Discount:	<u>(412,433.55)</u>
Net Interest Cost:	<u>\$240,150.89</u>

Original Issue Premium	\$446,286.05
Original Issue Discount	<u>0.00</u>
Net OI (Discount)/Premium	\$446,286.05

Bond Years:	17,757.11	
Average Life:	2.885	
Average Coupon:	3.67506% @	100.000%
Net Interest Rate:	1.35242% @	106.701%
True Interest Rate:	1.28811% @	106.701%
Arbitrage Yield:	1.10256% @	107.251%

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Municipal Bond Financial and Marketing Consultants
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Run Date: 11/18/14 12:15

\$6,155,000
CITY OF ANN ARBOR
COUNTY OF WASHTENAW, STATE OF MICHIGAN
BUILDING AUTHORITY REFUNDING BONDS, SERIES 2014
(LIMITED TAX GENERAL OBLIGATION)

Bond Attorney: Dykema Gossett PLLC
Purchaser:
Paying Agent:
Sale Date: 1/5/15
Dated Date: 1/29/15
Delivery Date: 1/29/15
Capitalized Interest: None
Insurer: None

Debt Service and Yield Calculation Schedule

Par Value of Bonds:	\$6,155,000.00
Plus: OI(Discount)/Premium:	446,286.05
Gross Production:	6,601,286.05
Plus: (Bond Insurance):	0.00
Plus: (Underwriter Discount):	(33,852.50)
Bid:	6,567,433.55
Plus: Accrued Interest:	0.00
Net to Issuer:	<u>\$6,567,433.55</u>
Bond Years:	17,757.11
Average Life:	2.885

<i>Internal Rate of Return Target:</i>	\$6,155,000.00	<u>Bond Yields</u>	
Plus: OI(Discount)/Premium:	446,286.05		3.66272% = IRR
(Bond Insurance):	0.00		
Accrued Interest:	0.00		
<i>Arbitrage Yield Target:</i>	6,601,286.05		1.10256% = ARB
(Underwriter Discount):	(33,852.50)		
<i>True Interest Cost Target:</i>	6,567,433.55		1.28811% = TIC
Issuance Costs:	(61,355.00)		
<i>Effective Interest Cost Target:</i>	<u>\$6,506,078.55</u>		1.62787% = EIC

Gross Interest Cost:	\$652,584.44	Avg Coup:	3.67506%
Less Net (Discount)/Premium:	412,433.55		
Net Interest Cost:	<u>240,150.89</u>	N.I.C. %	1.35242%
Net Present Value:	<u>\$6,353,474.28</u>		

Payment Date	Principal Due	Interest Rate	Interest Due	Total Payment	Fiscal Year Total
9/1/15			\$121,134.44	\$121,134.44	
3/1/16	1,345,000.00	2.000%	102,850.00	1,447,850.00	1,568,984.44
9/1/16			89,400.00	89,400.00	
3/1/17	1,360,000.00	3.000%	89,400.00	1,449,400.00	1,538,800.00
9/1/17			69,000.00	69,000.00	
3/1/18	1,365,000.00	4.000%	69,000.00	1,434,000.00	1,503,000.00
9/1/18			41,700.00	41,700.00	
3/1/19	1,375,000.00	4.000%	41,700.00	1,416,700.00	1,458,400.00
9/1/19			14,200.00	14,200.00	
3/1/20	710,000.00	4.000%	14,200.00	724,200.00	738,400.00
9/1/20			0.00	0.00	
3/1/21			0.00	0.00	0.00
	<u>\$6,155,000.00</u>		<u>\$652,584.44</u>	<u>\$6,807,584.44</u>	<u>\$6,807,584.44</u>

NOTE: The above table does not include charges for bond registrar and paying agent services.

11/18/14
RJN/aww

**SECURITIES PURCHASED FOR ESCROW TO REFUND
CITY OF ANN ARBOR BUILDING AUTHORITY REFUNDING BONDS, SERIES 2005-A**

Settlement Date **1/29/15**
SLGS Rates as of: 11/17/14

Rdmp	Cpn	Qty@1	Matur	Dated	Setmnt	First	Yld	Prc	Type	Accrued	Current Par
3/1/15	0.030%	6,663,356	3/1/15	1/29/15	1/29/15	3/1/15	0.030%	100.000000%	SLGS Cert.	\$0.00	\$6,663,356.00
										Total	\$6,663,356.00
										Plus Contribution	0.00
										Less Rollovers	0.00
										Cost of Escrow	\$6,663,356.00

**CASH FLOW SCHEDULE FOR CITY OF ANN ARBOR BUILDING AUTHORITY REFUNDING BONDS, SERIES 2005-A
(INCLUDES ALL SECURITIES & UNINVESTED CASH)**

Period Ending	Beginning Balance	Principal Received	Coupon Interest		Total Received	Balance After Receipts	Liability	Balance
			Received	Received				
1/29/15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3/1/15	0.00	6,663,356.00	169.78	6,663,525.78	6,663,525.78	6,663,525.78	6,663,525.00	0.78
		<u>\$6,663,356.00</u>	<u>\$169.78</u>	<u>\$6,663,525.78</u>	<u>\$6,663,525.78</u>	<u>\$6,663,525.78</u>	<u>\$6,663,525.00</u>	

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TRUE

YIELD CALCULATION OF ALL ESCROW SECURITIES

1/29/15			
3/1/15			
	<u>Return on SLGS</u>	<u>Present Value Factor From Closing Date</u>	<u>Present Value at 0.02866%</u>
	\$6,663,525.78	0.99997452	\$6,663,356.00
			<u>\$6,663,356.00</u>
		Cost of Portfolio:	\$6,663,356.00
		Less Uninvested:	<u>0.00</u>
		Present Value Target:	<u>\$6,663,356.00</u>

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