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Debt Overview

October 20, 2015

City of Denton, Texas



Topics of Discussion

- Introduction
- Debt Instruments
- Professionals Involved
- Credit Ratings
- Sources of Financing
- Refundings
- Debt Service Reserve Fund
- Bond Pricing
- Bond Issuance Process & Ongoing Compliance
- City's Debt Overview

Introduction



- When municipal bonds are issued for a governmental or public purpose, their interest earnings are exempt from federal taxation
 - In contrast, projects that have a private use component or are supported partially by private funds are typically financed with taxable bonds
- Pursuant to the 1876 Texas Constitution the city must have specific authorization to sell debt
- If debt is incurred in ways other than those authorized by State law, it is not enforceable
- The Attorney General approves all issues as to conformance with State law; once approved the bonds become incontestable

Debt Instruments



- From a basic perspective, there are generally two types of obligations:
 - Property Tax Obligations – secured by ad valorem property taxes; can be paid from either taxes or other revenues. Generally, property tax obligations are considered the City’s most secure type of debt and attract the lowest interest rates (GO Obligation Bonds, Certificates of Obligation, Tax Notes)
 - Revenue Bonds – secured and paid solely from certain revenues (water, sewer, electric, sales tax, tax increment reinvestment zone revenues (TIRZ), etc.)

General Obligation Bonds



- Require a bond election for authorization (**must be voted on one of the two uniform election dates in May and November**), and bonds are **specifically authorized and issued for any public purpose.**

- They are sold by ordinance and secured solely from a city's maximum tax rate. Currently, **Denton must abide by the \$2.50 tax rate limitation for home rule cities, however the Attorney General will generally not approve bonds if the maximum debt tax rate exceeds \$1.50.** Cities may choose to pay debt from other sources (water, sewer, electric, drainage, TIRZ, etc.), thereby not levying the tax.
 - The City's current debt service tax rate is \$0.21519

- Upon a successful bond election, the City can issue all or a portion of the GO bonds as needed.
 - The City currently has \$87,725,000 authorized but unissued GO Bonds.

Authorized But Unissued General Obligation Bonds



Purpose	Date Authorized	Amount Authorized	Amount	
			Heretofore Issued	Unissued Balance
Street	11/6/2012	\$ 20,400,000	\$ 12,000,000	\$ 8,400,000
Street	11/4/2014	61,710,000	9,140,000	52,570,000
Public Safety	11/4/2014	16,565,000	2,880,000	13,685,000
Drainage	11/4/2014	8,545,000	4,655,000	3,890,000
Parks	11/4/2014	11,355,000	2,175,000	9,180,000
		<u>\$ 118,575,000</u>	<u>\$ 30,850,000</u>	<u>\$ 87,725,000</u>

CITY OF DENTON, TEXAS

Certificates of Obligation



- In order to issue COs, a Notice of Intent to issue COs must be published in a local newspaper on the same day on two consecutive weeks, with the first publication occurring at least 31 days before the sale date.
- COs are subject to referendum by petition during the required publication period if initiated by at least 5% of the registered voters.
- When combined with a limited (\$1,000 or more total) pledge of revenue from an enterprise system (such as water, electric, sewer, drainage, TIRZ, etc.) they can be issued for any lawful purpose.
- COs sell at rates equal to the City's GO Bonds. The City has elected to sell COs vs. Utility System Revenue Bonds due to interest cost savings.

Contractual Obligations



- Used solely for the acquisition of personal property. Multiple equipment acquisitions can be grouped in a single issue. Used as a cost effective alternative to lease financing. Assets are financed over their useful life, 1 to 40 years.
- Require no voter authorization or notice of intent to sell and are authorized by an ordinance adopted by the city council.
- Considered as debt for effective tax rate calculation purposes when backed by tax, so not subject to rollback.

Anticipation Notes



- Require no voter authorization or notice of intent to sell issued for any public purpose.
- Anticipation Notes can be secured by and are payable from a pledge of revenues (including ad valorem taxes or utility system revenues), anticipation of revenues (including ad valorem taxes or utility system revenues).
- **Anticipation Notes are authorized by an ordinance adopted by the City Council and have a maximum maturity of seven years.**
- The required tax rate to pay debt service on Notes is not subject to rollback.

Revenue Bonds

- Secured and paid solely from certain revenues such as:
 - Water, Sewer and Electric Revenues, (Utility System Revenues)
 - Hotel/Motel Tax Revenue
 - TIRZ Revenues

- **Typically rated below the City's general obligation (tax supported) debt which leads to higher interest rates (see Bond Ratings)**
 - Even if GO bonds and revenue bonds have the same bond ratings, GO bonds tend to have slightly lower rates

- Often requires a debt service reserve fund to be maintained; usually equal to one year's annual debt service requirement

- Require bond covenants such as an additional bonds test and rate covenants to produce a minimum debt service coverage factor

- Rating/marketability sensitive to historical operations

Professionals Involved



➤ Financial Advisor (“FA”) - FirstSouthwest

- Liaison between the bond market and City; Fiduciary to the City
- Possesses specialized knowledge with main goal to net the most advantageous financing to the City
- Charged with coordinating other consultants

➤ Bond Counsel – McCall, Parkhurst and Horton

- Researches the law at the direction of the City and its FA for effective financing and structuring options
- Renders legal opinion that ensures bonds are exempt from Federal income taxes
- Assembles the transcript to submit to the Attorney General for approval

➤ Underwriter

- Purchases the bonds at either public or private sale and markets bonds to the ultimate holders

Professionals Involved (cont.)

➤ Paying Agent

- A financial institution, retained by the City, that tracks ownership of the bonds and coordinates the process of bond payments for the City to the bondholder

➤ Rating Agency

- Organizations representing the bond market that evaluate the credit quality of a debt instrument and assign credit ratings

➤ Insurance Provider

- Bond insurance companies that guarantee the payment of principal and interest to bondholders for a one-time upfront fee. Bond insurance is only purchased if it makes economic sense
 - ✓ Bond insurance is not as prevalent in the market as it once was

Bond Ratings



- Bond Ratings vs. Interest Rates have an inverse correlation meaning that the higher the issuer’s credit rating, the lower the interest rates that the issuer is able to obtain on their borrowings and vice versa. The City’s General Obligation Bonds (“G.O.s”) are rated “AA+” by S&P and “AA+” by Fitch (the City currently does not carry a G.O. Moody’s Rating).

	Fitch	S&P		
The higher the bond rating...	AAA	AAA	The lower the interest rate	
	AA+	AA+		
	AA	AA		
	AA-	AA-		
	A+	A+		
	A	A		
	A-	A-		
	BBB+	BBB+		
	BBB	BBB		
	BBB-	BBB-		
	BELOW BBB- :			
	Non Investment Grade / Junk			

CITY OF DENTON, TEXAS

Rating Factors



- Bond credit quality is determined by comparing the City to a set of predetermined standards and other similar cities across the nation
- Combination of objective and subjective analysis
- Credit ratings are based on a variety of factors:
 - Revenue source and legal covenants pledged to the bonds
 - Diversification and stability of the City's tax/revenue base
 - On-going capital needs
 - Financial results and historical trends
 - Managerial and Financial policies/procedures
 - ✓ Historical operations are key to this part of the rating

Rating History



City of Denton, Texas			
Underlying General Obligation Debt Rating History			
Date	Moody's	S&P	Fitch
August 2015		AA+ / Stable Outlook	AA+ / Stable Outlook
May 2015		AA+ / Stable Outlook	AA+ / Stable Outlook
August 2014		AA / Stable Outlook	AA+ / Stable Outlook
April 2014		AA / Stable Outlook	AA+ / Stable Outlook
April 2013		AA / Stable Outlook	AA+ / Stable Outlook
March 2012		AA / Stable Outlook	AA+ / Stable Outlook
March 2011	Aa2	AA / Stable Outlook	
July 2010	Aa2	AA / Stable Outlook	
June 2010	Aa2	AA / Stable Outlook	
February 2010	Aa3	AA / Stable Outlook	
March 2009	Aa3	AA / Stable Outlook	
August 2008	Aa3	AA / Stable Outlook	
October 2007	Aa3	AA- / Stable Outlook	
September 2007	Aa3	AA- / Stable Outlook	
July 2007	Aa3	AA- / Stable Outlook	
July 2006	Aa3	AA- / Stable Outlook	
May 2005	Aa3	AA- / Stable Outlook	

City of Denton, Texas			
Underlying Utility System Debt Rating History			
Date	Moody's	S&P	Fitch
October 2011	A1*		
July 2010		AA-	
April 2010	Aa2		
December 2007	A1	A+	
July 2006	A1	A+	
May 2005	A1	A+	

* Rating change due to an error algorithmic by Moody's

Sources of Financing



➤ **Public Sale**

- ✓ Requires offering document (Official Statement) and Ratings
- ✓ Underwriter sells bonds to multiple investors
- ✓ Can be competitively bid or negotiated directly with the underwriters

➤ **Private Sale (Private Placement)**

- ✓ Generally does not require ratings or offering documents
- ✓ Can be bid or negotiated
- ✓ Purchased by banks, individual investors, or the Texas Water Development Board (“TWDB” – water and sewer projects only)

Refunding vs. Cash Defeasance



- **Refunding – Issue new bonds:** Proceeds are used to payoff outstanding bonds at the call date.
 - *Current Refunding* – Outstanding Bonds are currently callable. Similar to refinancing of a home mortgage
 - *Advance Refunding* – Outstanding Bonds are not callable within 90 days, escrow/trust account is established to pay off the bonds once the call date is reached. Upon establishing escrow/trust account, the bonds are “legally defeased” and no longer an obligation of the City. Per Federal Tax law, bond issues can only be advance refunded one time.

- **Cash Defeasance – Use excess cash:**
 - Prepay outstanding bonds in advance of their maturity if the bonds have reached their call date.
 - If the bonds have not reached their call date, an escrow/trust account must be established to prepay the bonds at the call date.

Debt Service Reserve Fund

- Revenue bond issues typically are credit enhanced with a **debt service reserve fund**. The amount required is defined in the bond resolution, but is typically equal to one year's debt payment. The Reserve Fund can only be used to pay debt service in the event of a shortfall.
- If the Reserve Fund becomes overfunded, the City is limited by IRS rules and the bond resolution to the following options:
 - The surplus should be transferred to the revenue bond debt service fund and be used to pay debt service, or
 - In the event the reserve surplus is attributable to a refunding for savings (which has lowered the reserve requirement), the surplus should be contributed to the refunding to reduce the amount borrowed for the new refunding.
 - ✓ *When the City sells GO bonds to refund revenue bonds, the Reserve Fund requirement is reduced by the full amount of the revenue bonds being refunded*
 - ✓ *When the City sells revenue refunding bonds, the Reserve Fund is reduced only by the incremental annual savings associated with the refunding*

Bond Pricing



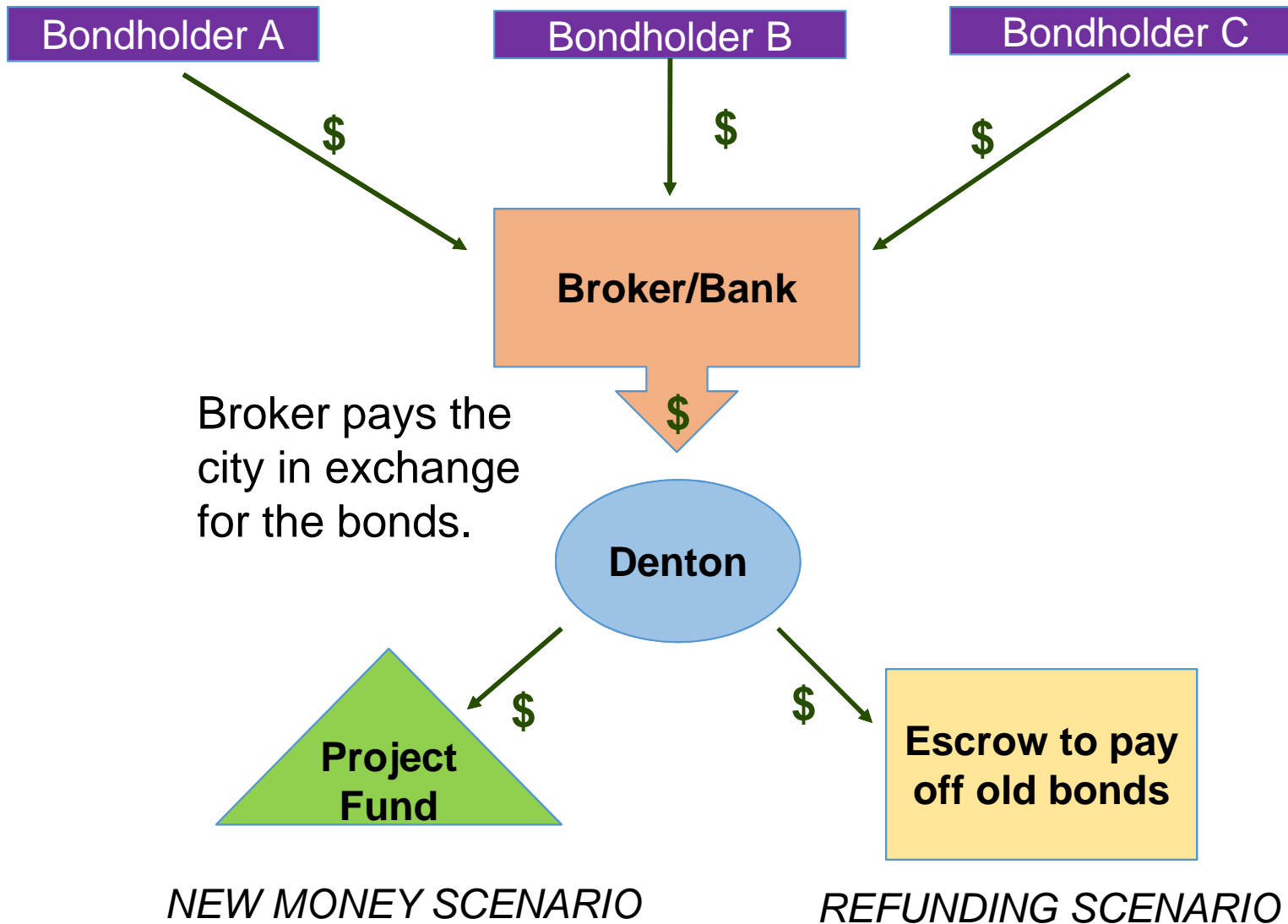
- Generally, municipal bonds are sold in \$5,000 denominations
- Bonds can be sold at “par”, a “premium” or a “discount” depending on the relationship between the coupon rate paid to the investor and the current market yield

Example: \$100,000 “AA+” bond due August 15, 2025 and priced on October 9, 2015

	Coupon Rate	Market Yield	Price
Par	2.50%	2.50%	\$100,000
Premium	4.00%	2.50%	\$113,022
Discount	2.25%	2.50%	\$97,827

When the City sells premium bonds, fewer bonds are needed to fund the same project costs. Over the past few years, some institutional investors have shown a preference for premium bonds since the larger interest payments accelerate the return on investment.

How does the money flow?

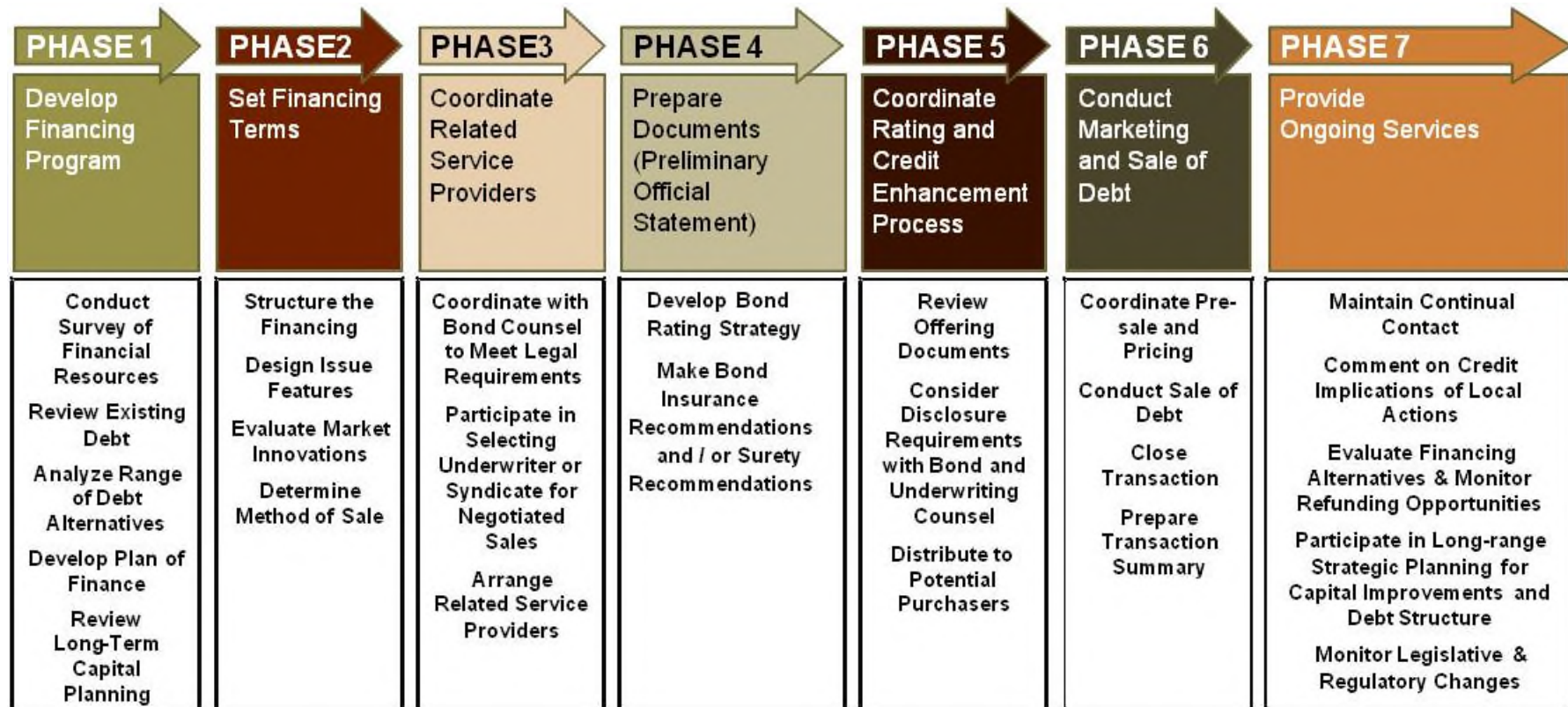


CITY OF DENTON, TEXAS

Bond Issuance Process



Typical Bond Issuance Process



CITY OF DENTON, TEXAS

Post Issuance Compliance



- In accordance with best practices, the City maintains written procedures for all of the following:
 - Monitoring change in use of projects that could impact the tax status of outstanding tax-exempt debt
 - Arbitrage compliance relating to the investment of bond proceeds and the spend down of those proceeds
 - Timely filing of continuing disclosure information
 - ✓ Annual filings
 - ✓ Certain disclosure events
 - Record retention

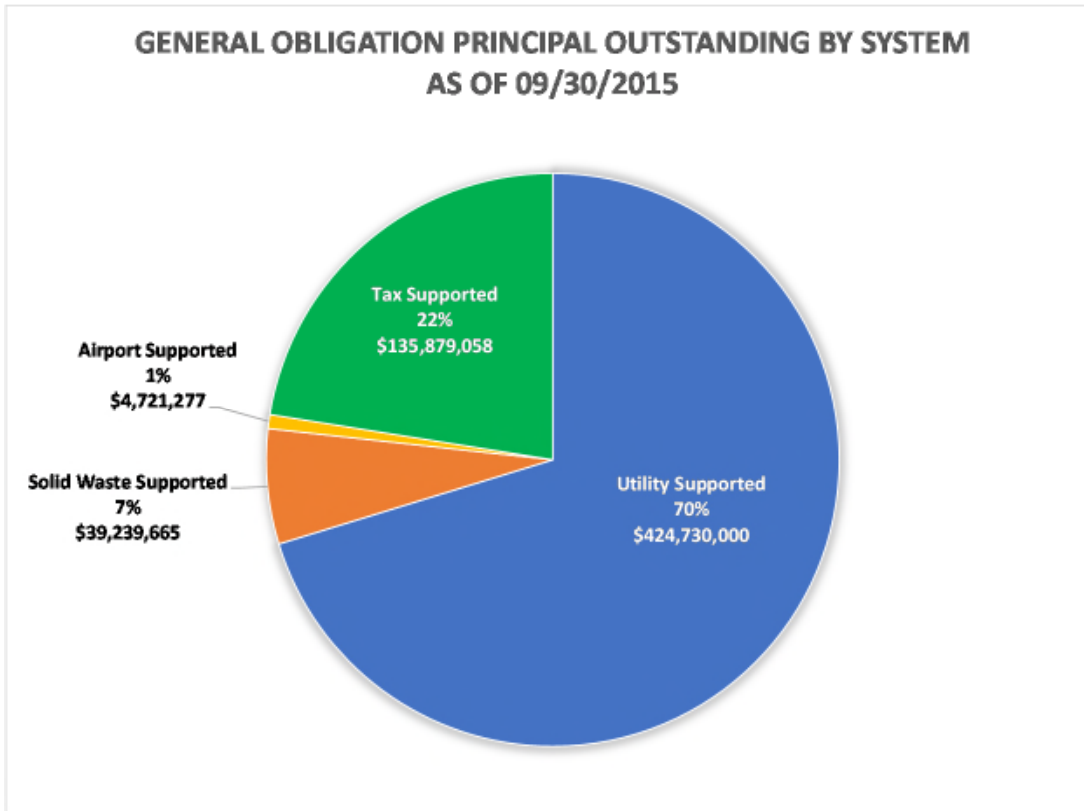
Top Denton Bondholders



Institutional investors with more than \$2 million:

<u>Account Name</u>	<u>Institution Type</u>
1 Thornburg Investment Management, Inc.	Mutual Fund
2 American National Registered Investment Advisor, Inc.	Insurance
3 BlackRock Advisors, LLC	Mutual Fund
4 Deutsche Investment Management Americas, Inc.	Mutual Fund
5 Erie Insurance Group	Insurance
6 Greater New York Mutual Insurance Company	Insurance
7 Arch Investment Management, LTD	Investment Manager
8 Farm Bureau Mutual Insurance Company of Michigan	Insurance
9 Cincinnati Financial Corp.	Insurance
10 Dimensional Fund Advisors, L.P.	Mutual Fund
11 J.P. Morgan Investment Management, Inc.	Mutual Fund
12 American Assets Investment Management, LLC	Mutual Fund

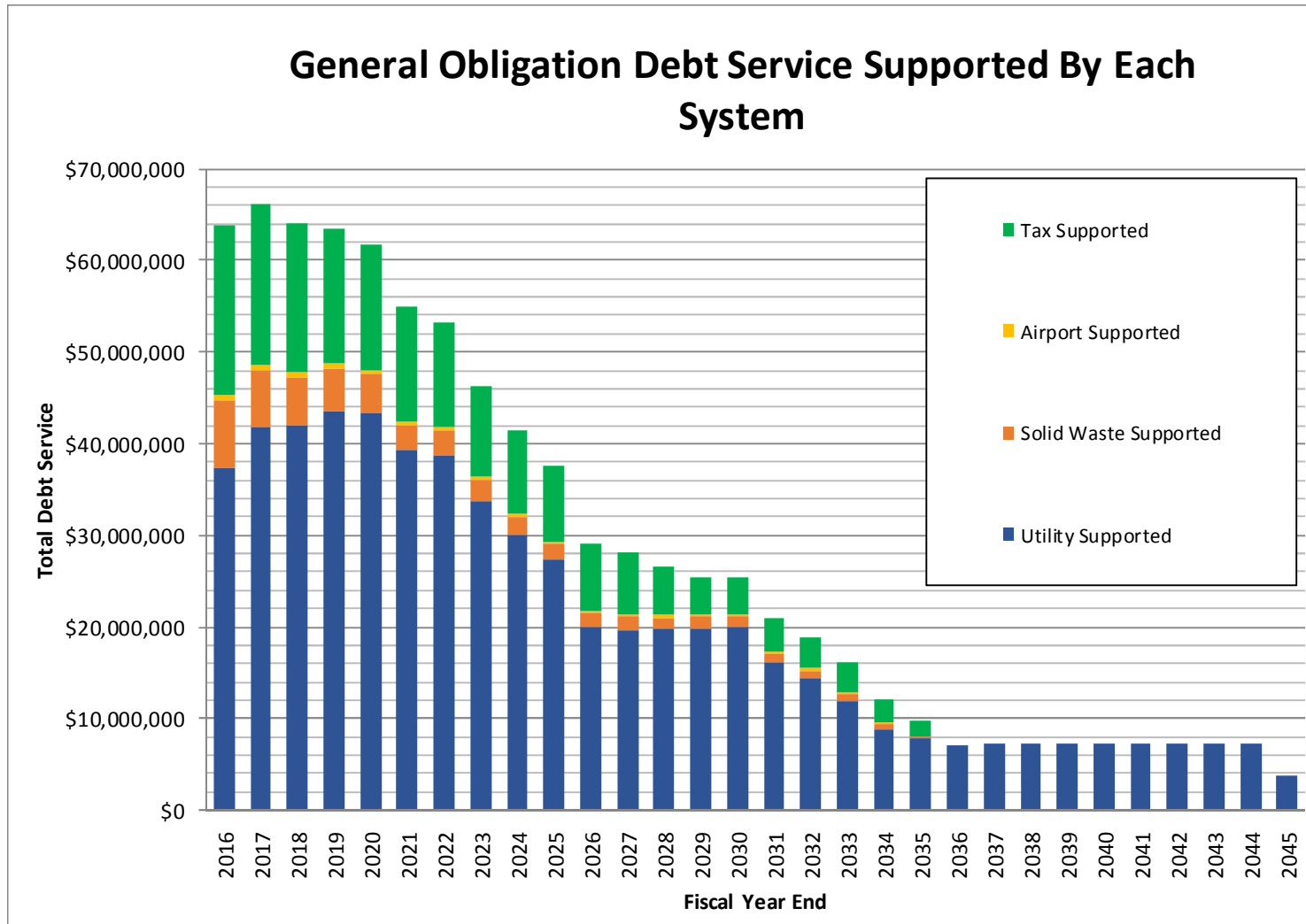
City of Denton Debt Overview



FYE 30-Sep	Principal Repayment Schedule	% of Principal Retired
2016	\$ 38,350,000	6.34%
2017	42,855,000	13.43%
2018	42,585,000	20.48%
2019	44,025,000	27.76%
2020	44,250,000	35.08%
2021	39,440,000	41.60%
2022	39,605,000	48.15%
2023	34,370,000	53.84%
2024	30,920,000	58.95%
2025	28,225,000	63.62%
2026	20,845,000	67.07%
2027	20,655,000	70.48%
2028	19,935,000	73.78%
2029	19,430,000	77.00%
2030	20,370,000	80.36%
2031	16,660,000	83.12%
2032	15,225,000	85.64%
2033	12,950,000	87.78%
2034	9,285,000	89.32%
2035	7,420,000	90.54%
2036	4,960,000	91.36%
2037	5,190,000	92.22%
2038	5,430,000	93.12%
2039	5,675,000	94.06%
2040	5,920,000	95.04%
2041	6,165,000	96.06%
2042	6,415,000	97.12%
2043	6,675,000	98.22%
2044	6,945,000	99.37%
2045	3,795,000	100.00%
	<u>\$ 604,570,000</u>	

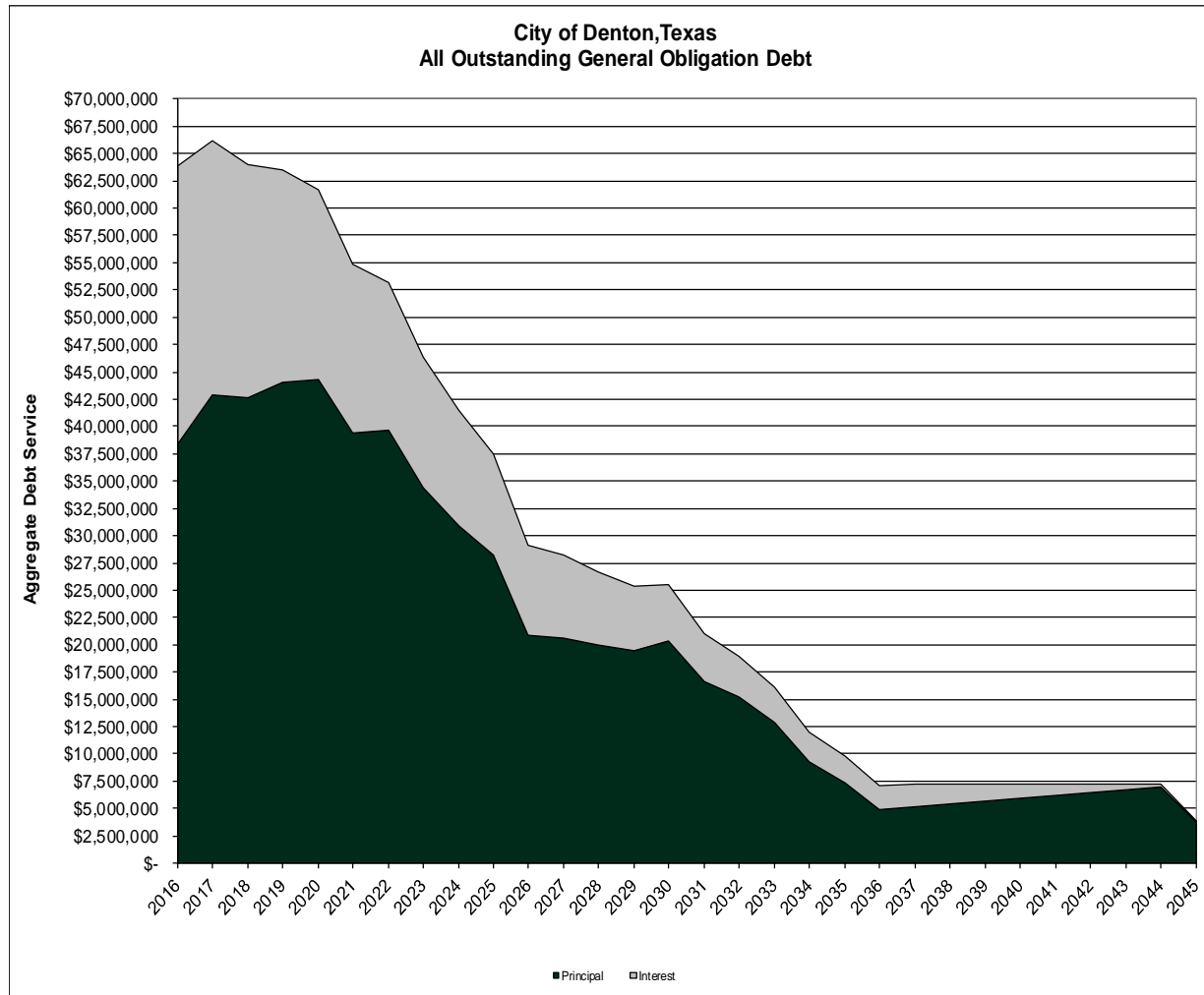
CITY OF DENTON, TEXAS

City of Denton Debt Overview



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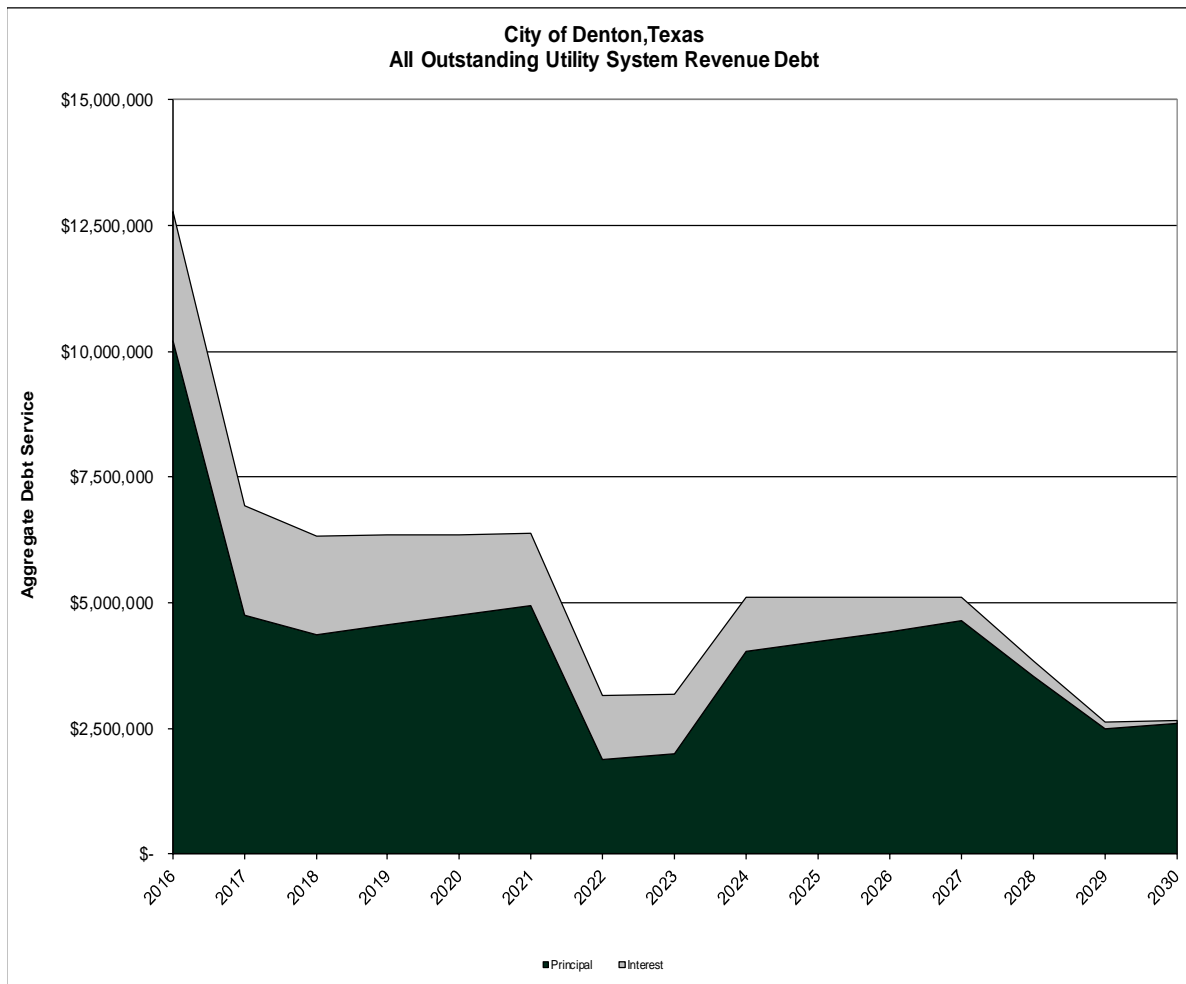
City of Denton Debt Overview (cont)



Period Ending	General Obligation Debt		
	Principal	Interest	Debt Service
9/30/2016	\$ 38,350,000	\$ 25,476,003	\$ 63,826,003
9/30/2017	42,855,000	23,352,180	66,207,180
9/30/2018	42,585,000	21,453,711	64,038,711
9/30/2019	44,025,000	19,445,836	63,470,836
9/30/2020	44,250,000	17,407,344	61,657,344
9/30/2021	39,440,000	15,475,670	54,915,670
9/30/2022	39,605,000	13,630,019	53,235,019
9/30/2023	34,370,000	11,936,459	46,306,459
9/30/2024	30,920,000	10,515,584	41,435,584
9/30/2025	28,225,000	9,282,571	37,507,571
9/30/2026	20,845,000	8,308,965	29,153,965
9/30/2027	20,655,000	7,503,126	28,158,126
9/30/2028	19,935,000	6,695,499	26,630,499
9/30/2029	19,430,000	5,901,781	25,331,781
9/30/2030	20,370,000	5,083,554	25,453,554
9/30/2031	16,660,000	4,328,253	20,988,253
9/30/2032	15,225,000	3,710,406	18,935,406
9/30/2033	12,950,000	3,185,453	16,135,453
9/30/2034	9,285,000	2,763,625	12,048,625
9/30/2035	7,420,000	2,435,200	9,855,200
9/30/2036	4,960,000	2,187,600	7,147,600
9/30/2037	5,190,000	1,984,600	7,174,600
9/30/2038	5,430,000	1,772,200	7,202,200
9/30/2039	5,675,000	1,550,100	7,225,100
9/30/2040	5,920,000	1,318,200	7,238,200
9/30/2041	6,165,000	1,076,500	7,241,500
9/30/2042	6,415,000	824,900	7,239,900
9/30/2043	6,675,000	563,100	7,238,100
9/30/2044	6,945,000	290,700	7,235,700
9/30/2045	3,795,000	75,900	3,870,900
	\$ 604,570,000	\$ 229,535,040.70	\$ 834,105,041

CITY OF DENTON, TEXAS

City of Denton Debt Overview (cont)



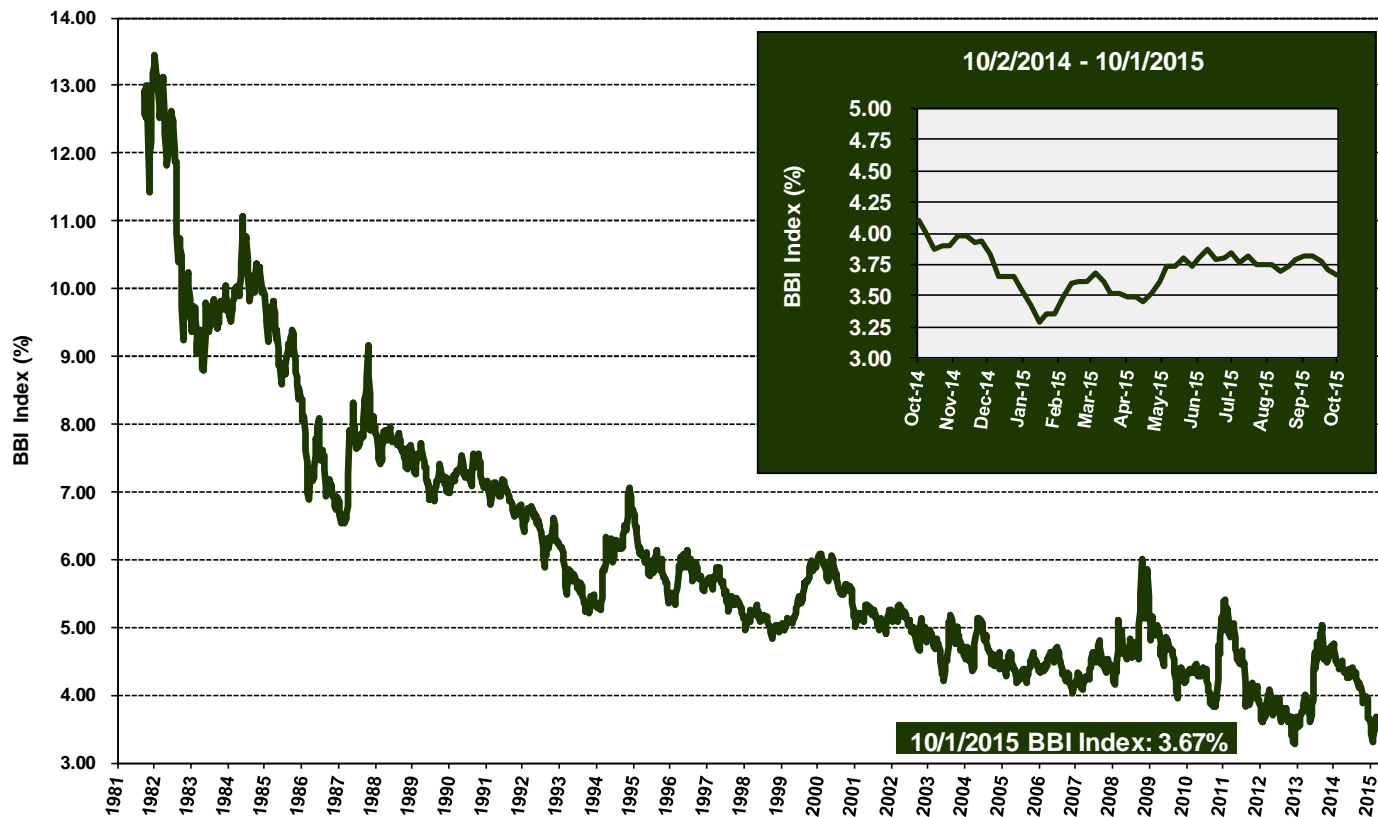
Utility System Revenue Debt			
Period Ending	Principal	Interest	Debt Service
9/30/2016	\$10,210,000	\$ 2,551,456	\$12,761,456
9/30/2017	4,735,000	2,185,150	6,920,150
9/30/2018	4,350,000	1,979,025	6,329,025
9/30/2019	4,550,000	1,795,844	6,345,844
9/30/2020	4,740,000	1,607,838	6,347,838
9/30/2021	4,955,000	1,410,522	6,365,522
9/30/2022	1,890,000	1,268,378	3,158,378
9/30/2023	1,985,000	1,184,172	3,169,172
9/30/2024	4,040,000	1,054,169	5,094,169
9/30/2025	4,225,000	873,966	5,098,966
9/30/2026	4,430,000	680,738	5,110,738
9/30/2027	4,635,000	477,594	5,112,594
9/30/2028	3,535,000	294,538	3,829,538
9/30/2029	2,475,000	162,456	2,637,456
9/30/2030	2,585,000	54,931	2,639,931
	\$63,340,000	\$17,580,775	\$80,920,775

CITY OF DENTON, TEXAS

Municipal Bond Interest Rate Environment



**Bond Buyer 20 Year GO Index
September 1981 - October 1, 2015**



Bond Buyer 20 Year GO Index is a weekly index estimating the composite yield on 20 general obligation bonds rated "A" or better.

This graph depicts historical interest rates. Future interest rates are dependent upon many factors such as, but not limited to, interest rate trends, tax rates, the supply and demand of short term securities, changes in laws, rules and regulations, as well as changes in credit quality and rating agency considerations. The effect of changes in such factors individually or in any combination could materially affect the relationships and effective interest rates. These results should be viewed with these potential changes in mind as well as the understanding that there may be interruptions in the short term market or no market may exist at all.

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