



Memo

To: Aerotropolis Regional Transportation Authority

From: James A. Mann, Senior Municipal Advisor

Cc: Bob Blodgett, CLA
Tom George, Spencer Fane
Melissa Buck, Ehlers

Date: November 30, 2018

Subject: Financing Concept Comparison

At the November 14, 2018 meeting of the Authority, a request was made with respect to comparing financing costs related to the Painted Prairie Metropolitan District No. 2 debt issuance recently completed. At issue was the costs associated with a market rate obligation that would potentially erase the interest rate savings of a privately placed debt obligation through the Aerotropolis Area Consolidated Metropolitan District (AACMD).

To accomplish the above analysis, to net an \$11 M construction fund, Ehlers has used the following assumptions:

- Privately Placed Debt
 - 9% simple interest
 - Unpaid interest accrues and compounds at 9%
 - Issuance expenses including MA, Counsel and Borrowers Counsel
 - Authority revenues sufficient to make debt payments after year three
- Market Placed Debt
 - 7.5% simple interest
 - Capitalized Interest for 2.5 years
 - Commensurate Debt Service Reserve earning 1.5% interest
 - Issuance expenses including MA, Counsel and Borrowers Counsel
 - Authority revenues sufficient to make debt payments after year three

Based upon the above, attached you will find a comparison of the two financing concepts and the overall costs associated with each. The overall cost differential is more than \$6.5 M in savings over a 40-year financing utilizing a Market Placed Debt instrument. While the Authority would be issuing more debt utilizing the market to place the debt, the compounding of the first three years of interest (unpaid due to anticipated revenue stream) coupled with a higher effective interest rate result in significantly higher costs to the Authority.



Aerotropolis RTA

Comparison of Financing Options

Cash Flow Bond @ 9% with no Cap I

Project Fund	11,000,000
Capitalized Interest	0
Debt Service Reserve	0
Issuance Expenses	103,400
Rounding	0
Bond Size	11,103,400

Cash Flow Bond @ 7.5% with Cap I

Project Fund	11,000,000
Capitalized Interest	2,806,258
Debt Service Reserve	1,273,875
Issuance Expenses	364,475
Rounding	392
Bond Size	15,445,000



	Principal	Rate	Interest	Accrued Interest Amortized @ 9.00%	Total Payments	Accrued Interest Compounded	Principal	Rate	Interest	DSR Interest @ 1.5% Annually	Total Payments	Accrued Interest Compounded
2019			499,653	499,653	499,653	499,653				(9,554)	(9,554)	(9,554)
2020			999,306	999,306	999,306	1,543,928				(19,108)	(19,108)	(19,108)
2021	35,303	9.00%	997,717	249,577	1,282,597	2,682,187	75,000	7.50%	1,155,563	(19,108)	1,211,454	(19,108)
2022	38,630	9.00%	994,390	249,577	1,282,597		80,000	7.50%	1,149,750	(19,108)	1,210,642	
2023	42,271	9.00%	990,750	249,578	1,282,598		85,000	7.50%	1,143,563	(19,108)	1,209,454	
2024	46,254	9.00%	986,766	249,577	1,282,597		95,000	7.50%	1,136,813	(19,108)	1,212,704	
2025	50,613	9.00%	982,407	249,577	1,282,597		100,000	7.50%	1,129,500	(19,108)	1,210,392	
2026	55,383	9.00%	977,637	249,578	1,282,598		105,000	7.50%	1,121,813	(19,108)	1,207,704	
2027	60,603	9.00%	972,418	249,577	1,282,598		110,000	7.50%	1,113,563	(19,108)	1,209,454	
2028	66,314	9.00%	966,707	249,578	1,282,598		125,000	7.50%	1,104,563	(19,108)	1,210,454	
2029	72,563	9.00%	960,457	249,577	1,282,597		135,000	7.50%	1,094,813	(19,108)	1,210,704	
2030	79,402	9.00%	953,619	249,578	1,282,598		145,000	7.50%	1,084,313	(19,108)	1,210,204	
2031	86,885	9.00%	946,136	249,577	1,282,598		155,000	7.50%	1,073,063	(19,108)	1,208,954	
2032	95,073	9.00%	937,948	249,577	1,282,598		170,000	7.50%	1,060,875	(19,108)	1,211,767	
2033	104,033	9.00%	928,988	249,577	1,282,598		180,000	7.50%	1,047,750	(19,108)	1,208,642	
2034	113,837	9.00%	919,184	249,577	1,282,598		190,000	7.50%	1,033,688	(19,108)	1,209,579	
2035	124,565	9.00%	908,456	249,577	1,282,598		210,000	7.50%	1,018,500	(19,108)	1,209,392	
2036	136,304	9.00%	896,717	249,577	1,282,598		230,000	7.50%	1,002,000	(19,108)	1,212,892	
2037	149,149	9.00%	883,871	249,577	1,282,597		245,000	7.50%	984,188	(19,108)	1,210,079	
2038	163,205	9.00%	869,815	249,577	1,282,597		265,000	7.50%	965,063	(19,108)	1,210,954	
2039	178,586	9.00%	854,435	249,577	1,282,597		285,000	7.50%	944,438	(19,108)	1,210,329	
2040	195,416	9.00%	837,605	249,577	1,282,597		305,000	7.50%	922,313	(19,108)	1,208,204	
2041	213,832	9.00%	819,189	249,577	1,282,598		330,000	7.50%	898,500	(19,108)	1,209,392	
2042	233,984	9.00%	799,037	249,577	1,282,598		355,000	7.50%	872,813	(19,108)	1,208,704	
2043	256,035	9.00%	776,986	249,577	1,282,598		385,000	7.50%	845,063	(19,108)	1,210,954	
2044	280,164	9.00%	752,857	249,577	1,282,598		415,000	7.50%	815,063	(19,108)	1,210,954	
2045	306,567	9.00%	726,454	249,577	1,282,598		445,000	7.50%	782,813	(19,108)	1,208,704	
2046	335,458	9.00%	697,363	249,577	1,282,598		480,000	7.50%	748,125	(19,108)	1,209,017	
2047	367,071	9.00%	665,949	249,577	1,282,597		520,000	7.50%	710,625	(19,108)	1,211,517	
2048	401,665	9.00%	631,356	249,577	1,282,598		560,000	7.50%	670,125	(19,108)	1,211,017	
2049	439,518	9.00%	593,503	249,577	1,282,598		605,000	7.50%	626,438	(19,108)	1,212,329	
2050	480,938	9.00%	552,082	249,577	1,282,597		650,000	7.50%	579,375	(19,108)	1,210,267	
2051	526,262	9.00%	506,758	249,578	1,282,598		700,000	7.50%	528,750	(19,108)	1,209,642	
2052	575,858	9.00%	457,163	249,577	1,282,598		755,000	7.50%	474,188	(19,108)	1,210,079	
2053	630,127	9.00%	402,894	249,577	1,282,597		815,000	7.50%	415,313	(19,108)	1,211,204	
2054	689,511	9.00%	343,510	249,577	1,282,598		880,000	7.50%	351,750	(19,108)	1,212,642	
2055	754,491	9.00%	278,530	249,578	1,282,598		945,000	7.50%	283,313	(19,108)	1,209,204	
2056	825,595	9.00%	207,426	249,577	1,282,598		1,020,000	7.50%	209,625	(19,108)	1,210,517	
2057	903,399	9.00%	129,621	249,577	1,282,598		1,100,000	7.50%	130,125	(19,108)	1,211,017	
2058	988,536	9.00%	44,484	249,577	1,282,597		1,185,000	7.50%	44,438	(1,283,429)	(53,992)	
2059												
Total	11,103,400		30,649,650	9,483,928	51,236,979		15,445,000		31,272,563	(2,038,200)	44,679,363	0

Example Financing No Cap I

\$11,103,400 Revenue Bonds, Dated January 1, 2019

Sources & Uses

Dated 01/01/2019 | Delivered 01/01/2019

Sources Of Funds

Par Amount of Bonds	\$11,103,400.00
Total Sources	\$11,103,400.00

Uses Of Funds

Costs of Issuance	103,400.00
Deposit to Project Construction Fund	11,000,000.00
Total Uses	\$11,103,400.00

Example Financing No Cap I

\$11,103,400 Revenue Bonds, Dated January 1, 2019

Net Debt Service Schedule -- Accrual Basis

Calendar Year	Principal	Coupon	Interest	Total P+I	Net New D/S
2019	-	-	499,653.00	499,653.00	499,653.00
2020	-	-	999,306.00	999,306.00	999,306.00
2021	-	-	999,306.00	999,306.00	999,306.00
2022	35,303.00	9.000%	997,717.37	1,033,020.37	1,033,020.37
2023	38,630.00	9.000%	994,390.39	1,033,020.39	1,033,020.39
2024	42,271.00	9.000%	990,749.84	1,033,020.84	1,033,020.84
2025	46,254.00	9.000%	986,766.21	1,033,020.21	1,033,020.21
2026	50,613.00	9.000%	982,407.20	1,033,020.20	1,033,020.20
2027	55,383.00	9.000%	977,637.38	1,033,020.38	1,033,020.38
2028	60,603.00	9.000%	972,418.01	1,033,021.01	1,033,021.01
2029	66,314.00	9.000%	966,706.75	1,033,020.75	1,033,020.75
2030	72,563.00	9.000%	960,457.28	1,033,020.28	1,033,020.28
2031	79,402.00	9.000%	953,618.85	1,033,020.85	1,033,020.85
2032	86,885.00	9.000%	946,135.94	1,033,020.94	1,033,020.94
2033	95,073.00	9.000%	937,947.83	1,033,020.83	1,033,020.83
2034	104,033.00	9.000%	928,988.06	1,033,021.06	1,033,021.06
2035	113,837.00	9.000%	919,183.91	1,033,020.91	1,033,020.91
2036	124,565.00	9.000%	908,455.82	1,033,020.82	1,033,020.82
2037	136,304.00	9.000%	896,716.72	1,033,020.72	1,033,020.72
2038	149,149.00	9.000%	883,871.33	1,033,020.33	1,033,020.33
2039	163,205.00	9.000%	869,815.40	1,033,020.40	1,033,020.40
2040	178,586.00	9.000%	854,434.81	1,033,020.81	1,033,020.81
2041	195,416.00	9.000%	837,604.72	1,033,020.72	1,033,020.72
2042	213,832.00	9.000%	819,188.56	1,033,020.56	1,033,020.56
2043	233,984.00	9.000%	799,036.84	1,033,020.84	1,033,020.84
2044	256,035.00	9.000%	776,985.98	1,033,020.98	1,033,020.98
2045	280,164.00	9.000%	752,857.02	1,033,021.02	1,033,021.02
2046	306,567.00	9.000%	726,454.13	1,033,021.13	1,033,021.13
2047	335,458.00	9.000%	697,563.01	1,033,021.01	1,033,021.01
2048	367,071.00	9.000%	665,949.20	1,033,020.20	1,033,020.20
2049	401,665.00	9.000%	631,356.08	1,033,021.08	1,033,021.08
2050	439,518.00	9.000%	593,502.85	1,033,020.85	1,033,020.85
2051	480,938.00	9.000%	552,082.33	1,033,020.33	1,033,020.33
2052	526,262.00	9.000%	506,758.33	1,033,020.33	1,033,020.33
2053	575,858.00	9.000%	457,162.93	1,033,020.93	1,033,020.93
2054	630,127.00	9.000%	402,893.60	1,033,020.60	1,033,020.60
2055	689,511.00	9.000%	343,509.89	1,033,020.89	1,033,020.89
2056	754,491.00	9.000%	278,529.80	1,033,020.80	1,033,020.80
2057	825,595.00	9.000%	207,425.93	1,033,020.93	1,033,020.93
2058	903,399.00	9.000%	129,621.20	1,033,020.20	1,033,020.20
2059	988,536.00	9.000%	44,484.12	1,033,020.12	1,033,020.12
-	\$11,103,400.00	-	\$30,649,650.62	\$41,753,050.62	\$41,753,050.62

Example Debt Service - 2.5 Years Cap I

\$15,445,000 Revenue Bonds, Dated January 1, 2019

Sources & Uses

Dated 01/01/2019 | Delivered 01/01/2019

Sources Of Funds

Par Amount of Bonds	\$15,445,000.00
Total Sources	\$15,445,000.00

Uses Of Funds

Total Underwriter's Discount (1.500%)	231,675.00
Costs of Issuance	132,800.00
Deposit to Debt Service Reserve Fund (DSRF)	1,273,875.00
Deposit to Capitalized Interest (CIF) Fund	2,806,257.85
Deposit to Project Construction Fund	11,000,000.00
Rounding Amount	392.15
Total Uses	\$15,445,000.00

Example Debt Service - 2.5 Years Cap I

\$15,445,000 Revenue Bonds, Dated January 1, 2019

Net Debt Service Schedule -- Accrual Basis

Calendar Year	Principal	Coupon	Interest	Total P+I	DSR	CIF	Net New D/S
2019	-	-	579,187.50	579,187.50	(9,554.06)	(579,187.50)	(9,554.06)
2020	-	-	1,158,375.00	1,158,375.00	(19,108.12)	(1,158,375.00)	(19,108.12)
2021	-	-	1,158,375.00	1,158,375.00	(19,108.12)	(1,158,375.00)	(19,108.12)
2022	75,000.00	7.500%	1,155,562.50	1,230,562.50	(19,108.12)	-	1,211,454.38
2023	80,000.00	7.500%	1,149,750.00	1,229,750.00	(19,108.12)	-	1,210,641.88
2024	85,000.00	7.500%	1,143,562.50	1,228,562.50	(19,108.12)	-	1,209,454.38
2025	95,000.00	7.500%	1,136,812.50	1,231,812.50	(19,108.12)	-	1,212,704.38
2026	100,000.00	7.500%	1,129,500.00	1,229,500.00	(19,108.12)	-	1,210,391.88
2027	105,000.00	7.500%	1,121,812.50	1,226,812.50	(19,108.12)	-	1,207,704.38
2028	115,000.00	7.500%	1,113,562.50	1,228,562.50	(19,108.12)	-	1,209,454.38
2029	125,000.00	7.500%	1,104,562.50	1,229,562.50	(19,108.12)	-	1,210,454.38
2030	135,000.00	7.500%	1,094,812.50	1,229,812.50	(19,108.12)	-	1,210,704.38
2031	145,000.00	7.500%	1,084,312.50	1,229,312.50	(19,108.12)	-	1,210,204.38
2032	155,000.00	7.500%	1,073,062.50	1,228,062.50	(19,108.12)	-	1,208,954.38
2033	170,000.00	7.500%	1,060,875.00	1,230,875.00	(19,108.12)	-	1,211,766.88
2034	180,000.00	7.500%	1,047,750.00	1,227,750.00	(19,108.12)	-	1,208,641.88
2035	195,000.00	7.500%	1,033,687.50	1,228,687.50	(19,108.12)	-	1,209,579.38
2036	210,000.00	7.500%	1,018,500.00	1,228,500.00	(19,108.12)	-	1,209,391.88
2037	230,000.00	7.500%	1,002,000.00	1,232,000.00	(19,108.12)	-	1,212,891.88
2038	245,000.00	7.500%	984,187.50	1,229,187.50	(19,108.12)	-	1,210,079.38
2039	265,000.00	7.500%	965,062.50	1,230,062.50	(19,108.12)	-	1,210,954.38
2040	285,000.00	7.500%	944,437.50	1,229,437.50	(19,108.12)	-	1,210,329.38
2041	305,000.00	7.500%	922,312.50	1,227,312.50	(19,108.12)	-	1,208,204.38
2042	330,000.00	7.500%	898,500.00	1,228,500.00	(19,108.12)	-	1,209,391.88
2043	355,000.00	7.500%	872,812.50	1,227,812.50	(19,108.12)	-	1,208,704.38
2044	385,000.00	7.500%	845,062.50	1,230,062.50	(19,108.12)	-	1,210,954.38
2045	415,000.00	7.500%	815,062.50	1,230,062.50	(19,108.12)	-	1,210,954.38
2046	445,000.00	7.500%	782,812.50	1,227,812.50	(19,108.12)	-	1,208,704.38
2047	480,000.00	7.500%	748,125.00	1,228,125.00	(19,108.12)	-	1,209,016.88
2048	520,000.00	7.500%	710,625.00	1,230,625.00	(19,108.12)	-	1,211,516.88
2049	560,000.00	7.500%	670,125.00	1,230,125.00	(19,108.12)	-	1,211,016.88
2050	605,000.00	7.500%	626,437.50	1,231,437.50	(19,108.12)	-	1,212,329.38
2051	650,000.00	7.500%	579,375.00	1,229,375.00	(19,108.12)	-	1,210,266.88
2052	700,000.00	7.500%	528,750.00	1,228,750.00	(19,108.12)	-	1,209,641.88
2053	755,000.00	7.500%	474,187.50	1,229,187.50	(19,108.12)	-	1,210,079.38
2054	815,000.00	7.500%	415,312.50	1,230,312.50	(19,108.12)	-	1,211,204.38
2055	880,000.00	7.500%	351,750.00	1,231,750.00	(19,108.12)	-	1,212,641.88
2056	945,000.00	7.500%	283,312.50	1,228,312.50	(19,108.12)	-	1,209,204.38
2057	1,020,000.00	7.500%	209,625.00	1,229,625.00	(19,108.12)	-	1,210,516.88
2058	1,100,000.00	7.500%	130,125.00	1,230,125.00	(19,108.12)	-	1,211,016.88
2059	1,185,000.00	7.500%	44,437.50	1,229,437.50	(1,283,429.06)	-	(53,991.56)
-	\$15,445,000.00	-	\$34,168,500.00	\$49,613,500.00	(2,038,199.80)	(2,895,937.50)	\$44,679,362.70