

Discussion Materials

Town of Chapel Hill, North Carolina



February 5, 2021

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Topics for Discussion

- Existing Tax Supported Debt and Financial Profile.
 - Current Credit Ratings and Rating Peers
 - Key Financial Ratios / Policies.
 - Peer Comparatives.
 - Debt Service Budgeting Approach.

- Capital Planning.
 - Capital Projects / Funding Overview.
 - Debt Capacity.
 - Debt Affordability.

- Observations.



Existing Tax Supported Debt Profile



Credit Rating Overview and Peer Comparatives

Peer Comparative Introduction

- The Town is currently rated Aaa by Moody's Investors Service (November 2019 and May 2020 AICR) and AAA by Standard and Poor's (November 2019).
 - The Town received its Aaa rating from Moody's in 1998 and its AAA rating from S&P in 2006.
- The following pages contain peer comparatives based on the below Moody's rating categories.
 - National Cities and Towns
 - Aaa 223 Credits
 - Aa1 281 Credits
 - Aa2 594 Credits
 - Moody's North Carolina Cities and Towns
 - Aaa 12 Credits
 - Apex, Asheville, Cary, Chapel Hill, Charlotte, Durham, Greensboro, Huntersville, Morrisville, Raleigh, Wilmington, Winston-Salem
 - Aa1 10 Credits
 - Carrboro, Fayetteville, Fuquay-Varina, Garner, Hickory, High Point, Indian Trail, Matthews, Mooresville, Wake Forest
 - Aa2 13 Credits
 - Burlington, Clayton, Concord, Gastonia, Greenville, Holly Springs, Jacksonville, Monroe, Mount Holly, Rocky Mount, Sanford, Thomasville, Wilson

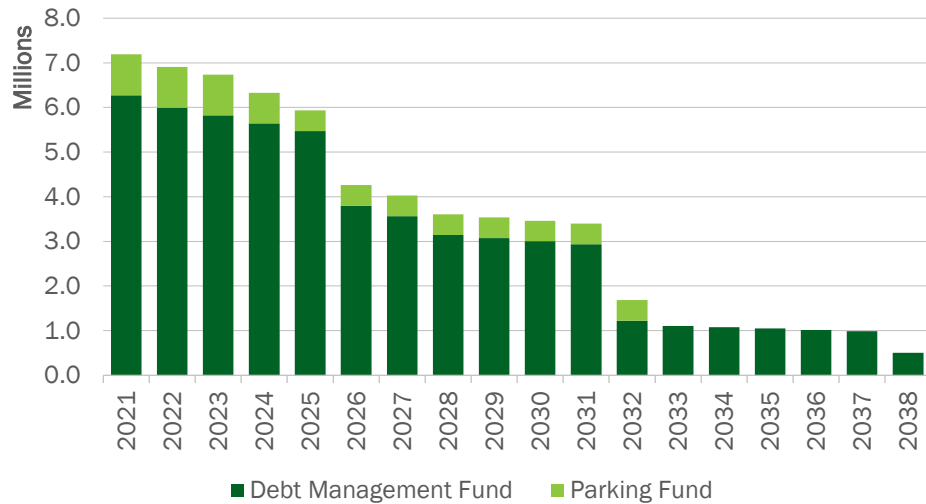
Moody's Investors Service	Standard & Poor's	Fitch Ratings
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-
Non Investment Grade		

Note: The data shown in the peer comparatives is from Moody's Municipal Financial Ratio Analysis database. The figures shown are derived from the most recent financial statement available as of January 27, 2020 (a combination of FY 2019 and FY 2020 figures).



Existing Tax Supported Debt

Tax Supported Debt Service



Par Outstanding – Estimated as of 6/30/2020

Type	Par Amount
General Obligation Bonds (Debt Management Fund)	\$30,851,000
Limited Obligation Bonds (Debt Management Fund)	\$6,570,000
IPCs (Debt Management Fund)	\$7,655,000
Limited Obligation Bonds (Parking Fund)	\$5,735,000
Total	\$50,811,000

Notes:

- Does not include 2013 SunTrust IPC paid from Vehicle Replacement Fund that matures in FY 2021 (\$63,365 par outstanding).
- Does not include \$4,641,000 outstanding paid from Transit Fund and \$2,430,000 outstanding paid from Stormwater Fund.

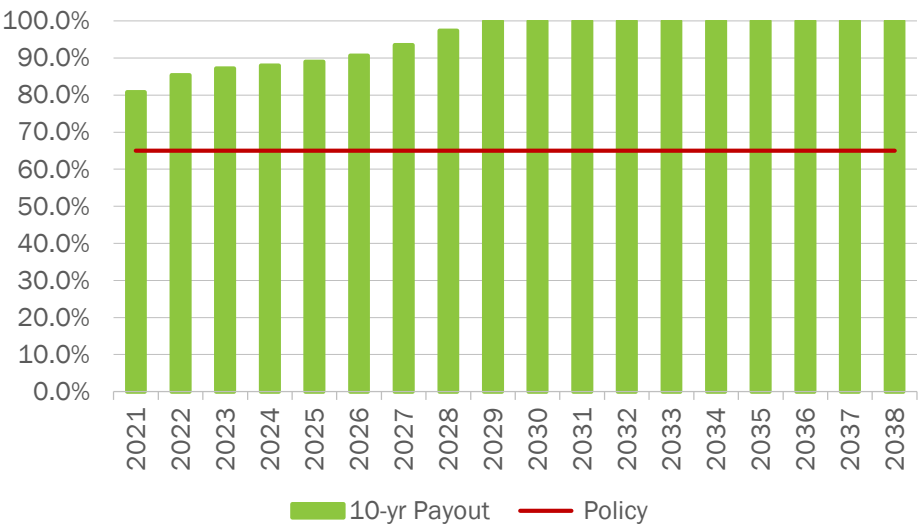
Tax Supported Debt Service

FY	Principal	Interest	Total	10-yr Payout
Total	50,811,000	11,996,678	62,807,678	
2021	5,224,000	1,965,646	7,189,646	80.8%
2022	5,161,000	1,749,853	6,910,853	85.4%
2023	5,207,000	1,530,535	6,737,535	87.2%
2024	5,013,000	1,313,411	6,326,411	87.9%
2025	4,836,000	1,096,881	5,932,881	89.0%
2026	3,371,000	891,969	4,262,969	90.7%
2027	3,265,000	762,269	4,027,269	93.5%
2028	2,960,000	645,979	3,605,979	97.4%
2029	2,998,000	538,647	3,536,647	100.0%
2030	3,036,000	427,287	3,463,287	100.0%
2031	3,080,000	319,462	3,399,462	100.0%
2032	1,470,000	211,615	1,681,615	100.0%
2033	940,000	163,363	1,103,363	100.0%
2034	940,000	135,163	1,075,163	100.0%
2035	940,000	105,788	1,045,788	100.0%
2036	940,000	76,413	1,016,413	100.0%
2037	940,000	46,475	986,475	100.0%
2038	490,000	15,925	505,925	100.0%



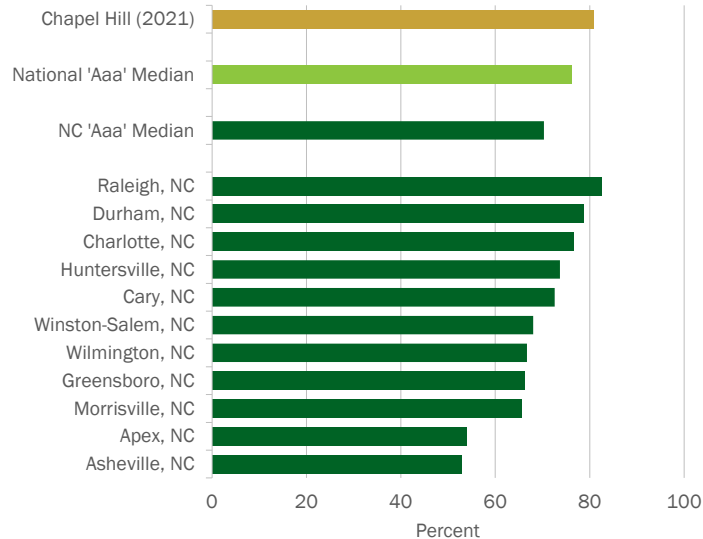
Key Debt Ratio: Tax Supported Payout Ratio

10-Year Payout Ratio



- Existing 10-year Payout Ratio
 - FY 2021: 80.8%
- The 10-Year Payout Ratio measures the amount of principal to be retired in the next 10 years.
- This ratio is an important metric that indicates whether or not a locality is back-loading its debt.
- The Town has a policy establishing a minimum 10-Year Payout Ratio of 65%.

10-year Payout Ratio Peer Comparative

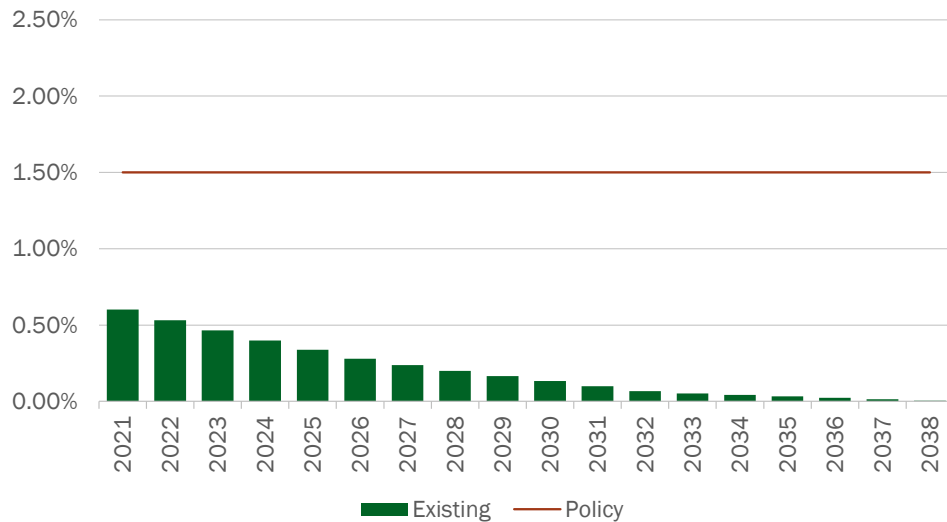


- Rating Considerations:
 - Moody's: Moody's rating criteria for General Obligation credits allows for a scorecard adjustment if an issuer has unusually slow or rapid amortization of debt principal.
 - S&P: A payout ratio greater than 65% results in a one point positive qualitative adjustment to the Debt & Contingent Liabilities section of S&P's General Obligation rating methodology.



Key Debt Ratio: Debt to Assessed Value

Debt to Assessed Value



Existing Debt to Assessed Value

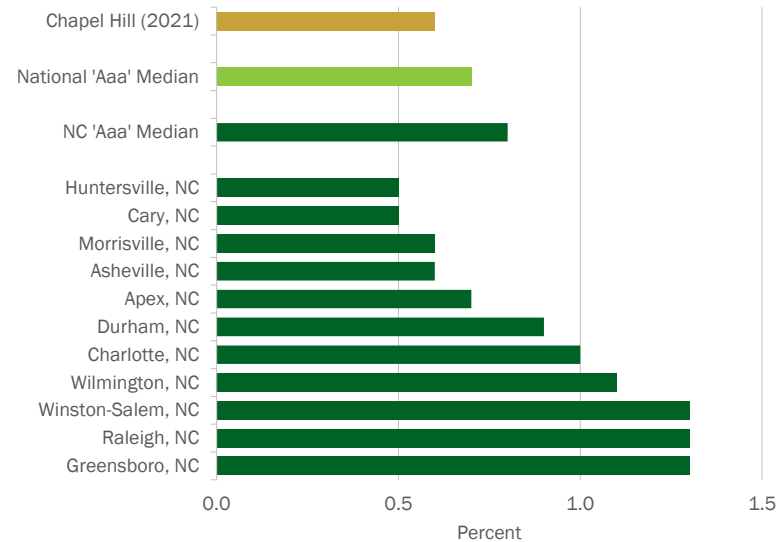
— FY 2021: 0.60%

Assumed Future Growth Rates

— 2021 Budgeted Assessed Value: \$8,441,580,000
 — 2022 & Beyond: 1.50%

■ The Town has a policy establishing a maximum Debt to Assessed Value of 1.50%.

Debt to Assessed Value Peer Comparative



Rating Considerations:

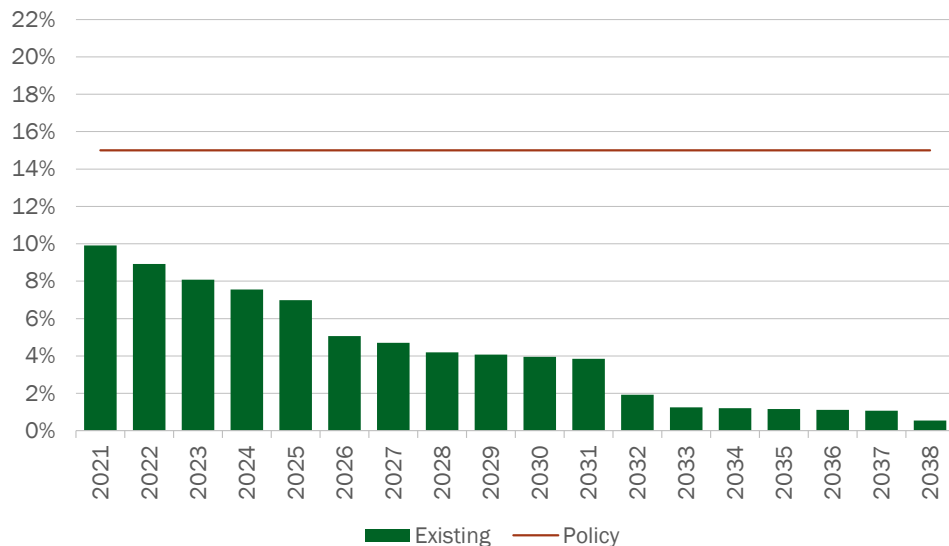
— Moody's: Criteria for General Obligation Credits defines categories of Debt to Assessed Values as:

- **Very Strong (Aaa):** < 0.75%
- Strong (Aa): 0.75% - 1.75%
- Moderate (A): 1.75% - 4.00%
- Weak – Very Poor (Baa and below): > 4.00%

— S&P: A positive qualitative adjustment is made to the Debt and Contingent Liabilities score for a debt to market value ratio below 3.00%, while a negative adjustment is made for a ratio above 10.00%.

Key Debt Ratio: Debt Service vs. Expenditures

Debt Service vs. Governmental Expenditures



Existing Debt Service vs. Expenditures

– FY 2021: 9.92%

Assumed Future Growth Rates

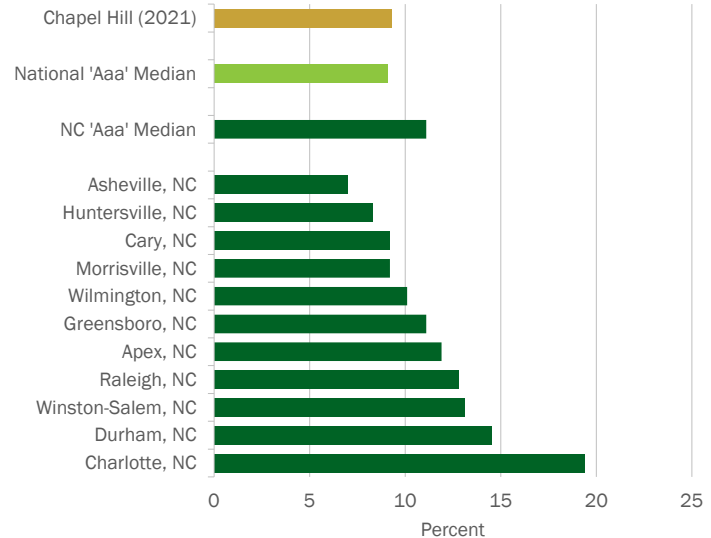
– 2020 Adjusted Expenditures: \$64,338,502

– 2021 and Beyond: 1.50%

■ The Town has a policy establishing a maximum level of Debt Service to Expenditures of 15.00%.

Note: Governmental Expenditures represent the ongoing operating expenditures of the Town. In this analysis, debt service and capital outlay expenditures are excluded.

Debt Service vs. Expenditures Peer Comparative



Rating Considerations:

– Moody's: Moody's criteria allows for a scorecard adjustment if an issuer has very high or low debt service relative to its budget Percent.

– S&P: The Debt and Contingent Liabilities section defines categories of Net Direct Debt as a % of Total Governmental Funds Expenditures as follows:

- Very Strong: <8%
- **Strong: 8% to 15%**
- Adequate: 15% - 25%
- Weak: 25% - 35%
- Very Weak: > 35%



Debt Management Fund Cash Flow Forecast



Debt Management Fund Overview

- The Town has established a Debt Management Fund for the repayment of tax supported debt obligations.
- The Town has dedicated 9.8 cents on the tax rate to fund the Debt Management Fund.
- The Debt Management Fund also receives revenues from:
 - Transfers from the Parking Fund for repayment of parking related Debt Service
 - Interest on Investments
- The Town's Debt Management Fund pays for debt service on the following obligations:
 - 2012 General Obligation Refunding Bonds
 - 2012 General Obligation Public Improvement Bonds
 - 2012 Limited Obligation Bonds
 - 2013 General Obligation Refunding Bond
 - 2015 Bank of North Carolina IPC
 - 2016 Raymond James IPC
 - 2017 General Obligation Public Improvement Bonds
 - 2017 General Obligation Public Safety Bonds
 - 2018 General Obligation Public Improvement Bonds
 - 2019 General Obligation Refunding Bonds

Note: Additionally, the Town operates both a Transit Fund (funded primarily by 6 cents on the tax rate) and Storm Water Management Fund (funded primarily by Storm Water fees) that pays the debt service on certain transit and storm water related loans that are not paid by the debt fund.

- Transit Fund:
 - 2017 Pinnacle Bank IFC
- Storm Water Management Fund:
 - 2018 General Obligation Public Improvement Bonds



Debt Affordability Analysis

Existing Debt Management Fund

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Debt Service Requirements							Revenue Available for DS					Debt Service Cash Flow Surplus (Deficit)						
FY	Existing Debt Service - Debt Fund ¹	Existing Debt Service - Parking Fund	CIP Debt Service	CIP Pay-Go Cash	Service Charges	Total	Property Taxes (Grown at 1.5%)	Transfer from Parking for existing debt ²	Interest on Investments ³	Blue Hill Incremental Tax Revenue ⁴	New Rosemary Parking Deck Net Revenues	Total Revenues Available	Surplus/ (Deficit)	Revenue From Prior Tax Impact	Debt Fund Balance Utilized	Adjusted Surplus/ (Deficit)	Estimated Incremental Tax Equivalent	Debt Fund Balance
2021	6,274,815	914,831	-	-	-	7,189,646	8,230,000	914,831	9,566	-	-	9,154,397	1,964,751	-	-	1,964,751	-	11,530,433
2022	5,994,021	916,831	-	-	-	6,910,853	8,353,450	916,831	11,530	445,100	-	9,726,912	2,816,059	-	-	2,816,059	-	14,346,492
2023	5,825,454	912,081	-	-	-	6,737,535	8,478,752	912,081	71,732	445,100	-	9,907,665	3,170,131	-	-	3,170,131	-	17,516,622
2024	5,645,580	680,831	-	-	-	6,326,411	8,605,933	680,831	87,583	445,100	-	9,819,447	3,493,036	-	-	3,493,036	-	21,009,659
2025	5,468,550	464,331	-	-	-	5,932,881	8,735,022	464,331	210,097	445,100	-	9,854,550	3,921,669	-	-	3,921,669	-	24,931,327
2026	3,800,638	462,331	-	-	-	4,262,969	8,866,047	462,331	249,313	445,100	-	10,022,792	5,759,823	-	-	5,759,823	-	30,691,150
2027	3,561,919	465,350	-	-	-	4,027,269	8,999,038	465,350	306,912	445,100	-	10,216,400	6,189,131	-	-	6,189,131	-	36,880,281
2028	3,143,579	462,400	-	-	-	3,605,979	9,134,024	462,400	368,803	445,100	-	10,410,326	6,804,348	-	-	6,804,348	-	43,684,629
2029	3,074,447	462,200	-	-	-	3,536,647	9,271,034	462,200	436,846	445,100	-	10,615,180	7,078,533	-	-	7,078,533	-	50,763,162
2030	3,001,887	461,400	-	-	-	3,463,287	9,410,099	461,400	507,632	445,100	-	10,824,231	7,360,944	-	-	7,360,944	-	58,124,106
2031	2,934,462	465,000	-	-	-	3,399,462	9,551,251	465,000	581,241	445,100	-	11,042,592	7,643,130	-	-	7,643,130	-	65,767,237
2032	1,218,815	462,800	-	-	-	1,681,615	9,694,520	462,800	657,672	445,100	-	11,260,092	9,578,477	-	-	9,578,477	-	75,345,714
2033	1,103,363	-	-	-	-	1,103,363	9,839,938	-	753,457	445,100	-	11,038,495	9,935,132	-	-	9,935,132	-	85,280,846
2034	1,075,163	-	-	-	-	1,075,163	9,987,537	-	852,808	445,100	-	11,285,445	10,210,283	-	-	10,210,283	-	95,491,128
2035	1,045,788	-	-	-	-	1,045,788	10,137,350	-	954,911	445,100	-	11,537,361	10,491,573	-	-	10,491,573	-	105,982,702
2036	1,016,413	-	-	-	-	1,016,413	10,289,410	-	1,059,827	445,100	-	11,794,337	10,777,924	-	-	10,777,924	-	116,760,626
2037	986,475	-	-	-	-	986,475	10,443,751	-	1,167,606	445,100	-	12,056,457	11,069,982	-	-	11,069,982	-	127,830,609
2038	505,925	-	-	-	-	505,925	10,600,407	-	1,278,306	445,100	-	12,323,813	11,817,888	-	-	11,817,888	-	139,648,497
2039	-	-	-	-	-	-	10,759,413	-	1,396,485	445,100	-	12,600,998	12,600,998	-	-	12,600,998	-	152,249,495
2040	-	-	-	-	-	-	10,920,805	-	1,522,495	445,100	-	12,888,400	12,888,400	-	-	12,888,400	-	165,137,895
2041	-	-	-	-	-	-	11,084,617	-	1,651,379	445,100	-	13,181,096	13,181,096	-	-	13,181,096	-	178,318,991
2042	-	-	-	-	-	-	11,250,886	-	1,783,190	445,100	-	13,479,176	13,479,176	-	-	13,479,176	-	191,798,167
2043	-	-	-	-	-	-	11,419,649	-	1,917,982	445,100	-	13,782,731	13,782,731	-	-	13,782,731	-	205,580,897
2044	-	-	-	-	-	-	11,590,944	-	2,055,809	445,100	-	14,091,853	14,091,853	-	-	14,091,853	-	219,672,750
2045	-	-	-	-	-	-	11,764,808	-	2,196,728	445,100	-	14,406,636	14,406,636	-	-	14,406,636	-	234,079,386
2046	-	-	-	-	-	-	11,941,280	-	2,340,794	445,100	-	14,727,174	14,727,174	-	-	14,727,174	-	248,806,560
Total	55,677,291	7,130,388	-	-	-	62,807,678							Total	-	-	Total Tax Effect	0.00¢	

¹ Excludes Parking Fund Debt Service.

² The Parking Fund is assumed to transfer an amount equal to annual debt service on existing Parking Fund debt (Column C). The Parking Fund's ability to make this transfer will depend on actual results.

³ Assumed to be equal to 0.10% of prior years ending Debt Fund Balance in FY 2021-2022, 0.50% in FY2023-2024 and 1.00% in FY 2025 and beyond.

⁴ Transfer from General Fund based on incremental assessed value and resulting tax revenue in Blue Hill. Transfers may increase over time with additional development / assessed value growth.

- FY 2021 Value of a Penny: \$839,796
- FY 2022 & Beyond: 1.50% (consistent with Town planning model)



Capital Planning



2015 and 2018 General Obligation Bond Referendums

- On November 3, 2015, the Town passed a GO Bond Referendum for 5 separate purposes. A total of \$40,300,000 in General Obligation Bonds was proposed and passed by the Town.
 - \$16,200,000 Streets and Sidewalks
 - \$5,000,000 Trails & Greenways
 - \$8,000,000 Parks & Recreation
 - \$5,200,000 Solid Waste
 - \$5,900,000 Storm Water

- Additionally, on November 6, 2018, the Town passed a GO Bond Referendum for \$10 million of Affordable Housing Bonds.

- The Town's GO Bond authorization will expire 7 years from the date of the Referendum. The Town would have the ability to extend the approval for 3 additional years, subject to LGC approval, for a total of up to 10 years from the date of the Referendum.

- The Town has issued \$21,500,000 of General Obligation Bonds to date and \$28,800,000 of the referendum authorization remains unissued:

A	B	C	D	E	F	G
Referendum Question	Authorized GO Bonds	2017 Issuance	2018 Issuance	Remaining Authorized / Unissued	Initial Expiration	Final Expiration (if extended)
1 Streets and Sidewalks	\$ 16,200,000	\$ 3,000,000	\$ 5,500,000	\$ 7,700,000	11/3/2022	11/3/2025
2 Trails & Greenways	5,000,000	5,000,000	-	-	11/3/2022	11/3/2025
3 Parks & Recreation	8,000,000	1,000,000	4,300,000	2,700,000	11/3/2022	11/3/2025
4 Solid Waste	5,200,000	-	-	5,200,000	11/3/2022	11/3/2025
5 Storm Water	5,900,000	-	2,700,000	3,200,000	11/3/2022	11/3/2025
6 Affordable Housing	10,000,000	-	-	10,000,000	11/6/2025	11/6/2028
7 Total	\$ 50,300,000	\$ 9,000,000	\$ 12,500,000	\$ 28,800,000		

Capital Projects Under Consideration



- The Town has identified the following Capital Projects that it is considering funding in the next two years. Following the issuance of the proposed General Obligation Bonds mentioned below, the Town will have \$8.4 million of remaining authorized but unissued General Obligation Bonds (\$5.2 million for Solid Waste and \$3.2 million for Storm Water). Solid Waste and Storm Water are not included in this analysis as they are repaid from dedicated funds.

A	B	C
Project	Amount	Timing
1 2021 GO Bonds		
2 Affordable Housing	\$ 5,000,000	Spring 2021 (FY 21)
3		
4 2021 LOBs		
5 New Rosemary Parking Deck ¹	33,200,000	Spring 2021 (FY 21)
6 Elliot Road Reconstruction Phase II	6,400,000	Spring 2021 (FY 21)
7 Total 2021 LOBs	39,600,000	
8		
9 2022 GO Bonds		
10 Affordable Housing II	5,000,000	Spring 2022 (FY 22)
11 Streets and Sidewalks	7,700,000	Spring 2022 (FY 22)
12 New MSC - Parks & Recreation Facilities ²	2,700,000	Spring 2022 (FY 22)
13 Total 2022 GO Bonds	15,400,000	
14		
15 2022 LOBs		
16 New Municipal Service Center ²	31,300,000	Spring 2022 (FY 22)
17 Total Projects	\$ 91,300,000	

¹ Debt Service on the Rosemary Deck Project is assumed to be paid from parking revenues associated with the Rosemary Deck along with UNC-Chapel Hill's upfront purchase of 100 spaces (\$2.9 Million).

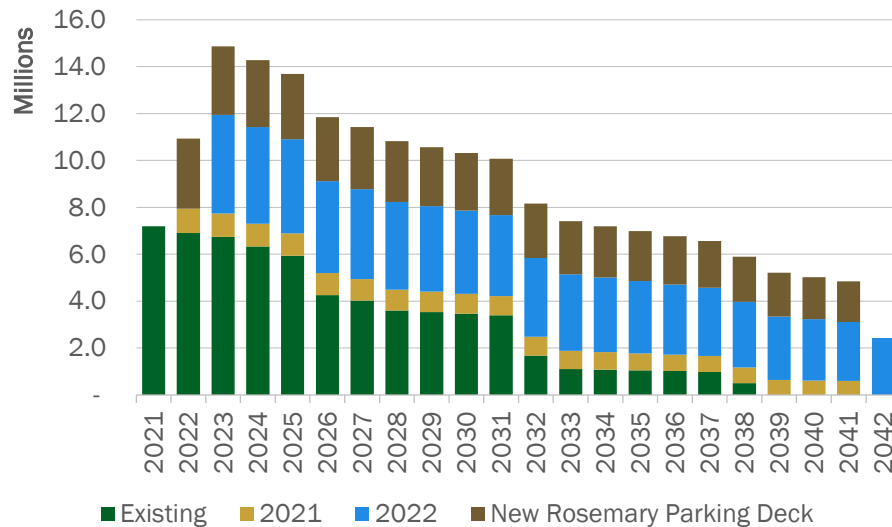
² Timing for MSC Project to be determined. Timing included in this analysis reflects the earliest potential timing.



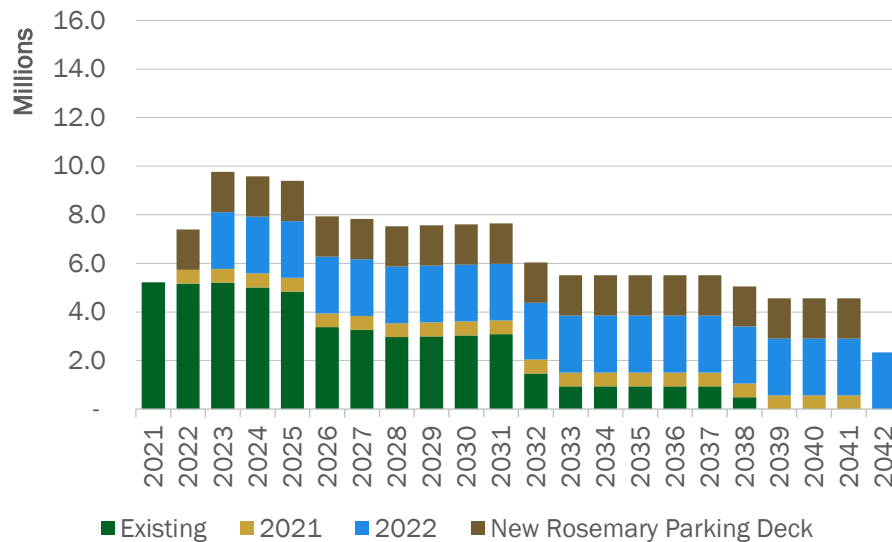
Existing and Proposed Debt Service

FY 2021 and FY 2022 Capital Projects

Existing and Proposed Debt Service



Existing and Proposed Principal



Assumptions

- Financing Assumptions:
 - Amortization: Level Principal
 - Term: 20 Years
 - Interest Rate: 4.00%
 - First Interest Payment: FY Following Issuance
 - First Principal Payment: FY Following Issuance

- Proposed Debt Issuance by Fiscal Year:
 - FY 2021: \$11,400,000
 - FY 2021 (Rosemary Deck): \$33,200,000
 - FY 2022: \$46,700,000
 - Total: \$91,300,000

- Proposed Debt Service by Fiscal Year:
 - FY 2021: \$16,188,000
 - FY 2021 (Rosemary Deck): \$47,144,000
 - FY 2022: \$66,314,000
 - Total: \$129,646,000

Current Market Estimated Interest Rates:

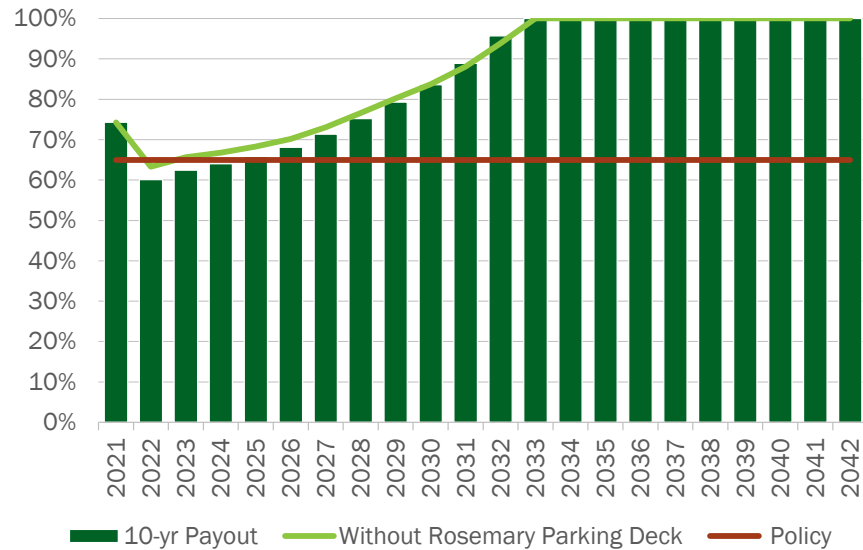
	TIC	Average Coupon	Total Debt Service
2021 GO Bonds	1.445%	3.121%	\$6,620,333
2021 LOBs	1.771%	2.931%	\$47,237,665
Total			\$53,857,998



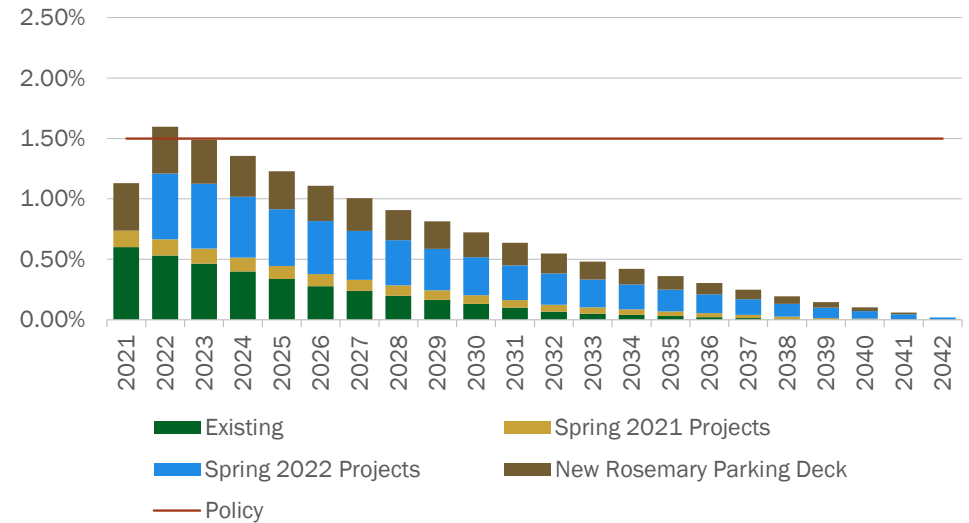
Key Debt Ratios

FY 2021 and FY 2022 Capital Projects

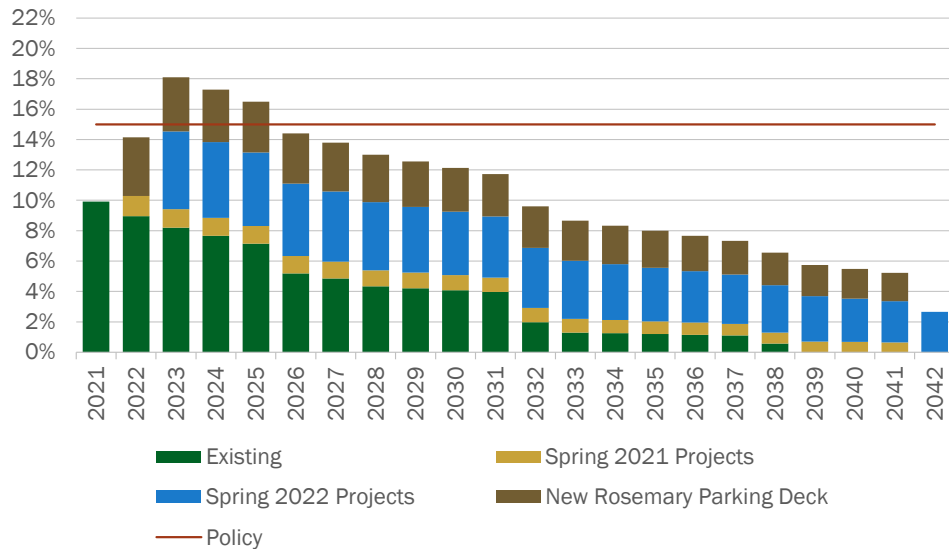
10-Year Payout



Debt to Assessed Value



Debt Service to Expenditures





Debt Affordability Analysis

FY 2021 and FY 2022 Capital Projects

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Debt Service Requirements				Revenue Available for DS				Debt Service Cash Flow Surplus (Deficit)					
FY	Existing Debt Service	CIP Debt Service	New Rosemary Parking Deck Debt Service	Total	Existing Revenue Sources ^{1,2}	Transfer from Parking for existing debt ³	New Rosemary Parking Deck Net Revenues ⁴	Total Revenues Available	Surplus/ (Deficit)	Revenue From Prior Tax Impact	Debt Fund Balance Utilized	Adjusted Surplus/ (Deficit)	Estimated Incremental Tax Equivalent	Debt Fund Balance
2021	7,189,646	-	-	7,189,646	8,239,566	914,831	-	9,154,397	1,964,751	-	-	1,964,751	-	11,530,433
2022	6,910,853	1,026,000	2,988,000	10,924,853	8,810,080	916,831	2,988,000	12,714,912	1,790,059	-	-	1,790,059	-	13,320,492
2023	6,737,535	5,206,200	2,921,600	14,865,335	8,990,454	912,081	2,921,600	12,824,135	(2,041,199)	-	(2,041,199)	-	-	11,279,292
2024	6,326,411	5,090,000	2,855,200	14,271,611	9,107,429	680,831	2,855,200	12,643,461	(1,628,150)	-	(1,628,150)	-	-	9,651,142
2025	5,932,881	4,973,800	2,788,800	13,695,481	9,276,633	464,331	2,788,800	12,529,765	(1,165,716)	-	(1,165,716)	-	-	8,485,426
2026	4,262,969	4,857,600	2,722,400	11,842,969	9,396,002	462,331	2,722,400	12,580,733	737,764	-	-	737,764	-	9,223,190
2027	4,027,269	4,741,400	2,656,000	11,424,669	9,536,370	465,350	2,656,000	12,657,720	1,233,051	-	-	1,233,051	-	10,456,241
2028	3,605,979	4,625,200	2,589,600	10,820,779	9,683,686	462,400	2,589,600	12,735,686	1,914,907	-	-	1,914,907	-	12,371,148
2029	3,536,647	4,509,000	2,523,200	10,568,847	9,839,845	462,200	2,523,200	12,825,245	2,256,399	-	-	2,256,399	-	14,627,547
2030	3,463,287	4,392,800	2,456,800	10,312,887	10,001,475	461,400	2,456,800	12,919,675	2,606,788	-	-	2,606,788	-	17,234,334
2031	3,399,462	4,276,600	2,390,400	10,066,462	10,168,694	465,000	2,390,400	13,024,094	2,957,633	-	-	2,957,633	-	20,191,967
2032	1,681,615	4,160,400	2,324,000	8,166,015	10,341,539	462,800	2,324,000	13,128,339	4,962,324	-	-	4,962,324	-	25,154,291
2033	1,103,363	4,044,200	2,257,600	7,405,163	10,536,580	-	2,257,600	12,794,180	5,389,018	-	-	5,389,018	-	30,543,309
2034	1,075,163	3,928,000	2,191,200	7,194,363	10,738,070	-	2,191,200	12,929,270	5,734,907	-	-	5,734,907	-	36,278,217
2035	1,045,788	3,811,800	2,124,800	6,982,388	10,945,232	-	2,124,800	13,070,032	6,087,644	-	-	6,087,644	-	42,365,861
2036	1,016,413	3,695,600	2,058,400	6,770,413	11,158,169	-	2,058,400	13,216,569	6,446,156	-	-	6,446,156	-	48,812,017
2037	986,475	3,579,400	1,992,000	6,557,875	11,376,971	-	1,992,000	13,368,971	6,811,096	-	-	6,811,096	-	55,623,113
2038	505,925	3,463,200	1,925,600	5,894,725	11,601,738	-	1,925,600	13,527,338	7,632,613	-	-	7,632,613	-	63,255,727
2039	-	3,347,000	1,859,200	5,206,200	11,837,071	-	1,859,200	13,696,271	8,490,071	-	-	8,490,071	-	71,745,797
2040	-	3,230,800	1,792,800	5,023,600	12,083,363	-	1,792,800	13,876,163	8,852,563	-	-	8,852,563	-	80,598,360
2041	-	3,114,600	1,726,400	4,841,000	12,335,700	-	1,726,400	14,062,100	9,221,100	-	-	9,221,100	-	89,819,460
2042	-	2,428,400	-	2,428,400	12,594,181	-	-	12,594,181	10,165,781	-	-	10,165,781	-	99,985,241
2043	-	-	-	-	12,864,602	-	-	12,864,602	12,864,602	-	-	12,864,602	-	112,849,842
2044	-	-	-	-	13,164,542	-	-	13,164,542	13,164,542	-	-	13,164,542	-	126,014,385
2045	-	-	-	-	13,470,052	-	-	13,470,052	13,470,052	-	-	13,470,052	-	139,484,437
2046	-	-	-	-	13,781,225	-	-	13,781,225	13,781,225	-	-	13,781,225	-	153,265,661
Total	62,807,678	82,502,000	47,144,000	192,453,678					Total		(4,835,066)	Total Tax Effect	0.00¢	

¹ Includes a 9.8 cent property tax revenue and a transfer from the General Fund based on incremental assessed value and resulting tax revenue in Blue Hill. Transfers may increase over time with additional development/ assessed value growth.

² Investment earnings are assumed to be equal to 0.10% of prior years ending Debt Fund Balance in FY 2021-2022, 0.50% in FY2023-2024 and 1.00% in FY 2025 and beyond.

³ The Parking Fund is assumed to transfer an amount equal to annual debt service on existing Parking Fund debt (Included in Column B). The Parking Fund's ability to make this transfer will depend on actual results.

⁴ Rosemary Deck Debt Service is assumed to be paid from net parking revenues generated from the facility and UNC-Chapel Hill upfront purchase of 100 spaces (~\$2.9 Million). To the extent revenues are not sufficient to pay the debt service, additional revenue will be required from the Debt Management Fund and/or other sources.

- FY 2021 Value of a Penny: \$839,796
- FY 2022 & Beyond: 1.50% (consistent with Town planning model)



Debt Capacity Analysis

- In order to provide perspective on additional funding capacity in the debt management fund for Fiscal Years 2021-2026, the following scenarios have been analyzed:
 - Issue the maximum amount of debt as soon as possible.
 - Issue Two-Thirds GO Bonds in FY 2021 and then issue a level amount every other year from FY 2022 to FY 2026.
 - Utilize Pay-as-you-Go Capital Funding instead of debt issuance.
- The following debt assumptions have been included:
 - Term: 20 Years
 - Amortization: Level Principal
 - Interest Rate: 4.00%
 - First Interest: FY Following Issuance
 - First Principal: FY Following Issuance
- This capacity could be used to fund:
 - Two-Thirds GO Bonds
 - Authorized/Unissued GO Bonds
 - Future GO Refunding Bonds
 - Future LOBs/IPC's
 - Pay-as-you-Go Capital
- The impact on the Town's key debt ratios and debt management for each scenario is shown on the following page.

Debt Capacity Analysis



A	B	C	D	E	F	G	H	I	J	
Case		Case 1		Case 2		Case 3		Case 4		
		Planned FY 2021 and FY 2022 Debt Issuances		Full Debt Capacity with Maximum Upfront Financings		Full Debt Capacity with Staggered Financings		Full Debt Capacity with Pay-Go Financing		
1	Key Assumptions:									
2	Amortization	Level Principal		Level Principal		Level Principal		Level Principal		
3	Term	20 Years		20 Years		20 Years		20 Years		
4	Interest Rate	4.00%		4.00%		4.00%		4.00%		
5										
6	Planned Debt Issuances (Slides 14-18)									
7	New Rosemary Parking Deck	\$33,200,000		\$33,200,000		\$33,200,000		\$33,200,000		
8	Other Town Projects	\$58,100,000		\$58,100,000		\$58,100,000		\$58,100,000		
9	Total Debt Issuances	\$91,300,000		\$91,300,000		\$91,300,000		\$91,300,000		
10										
11	Additional Capacity									
12	FY 2021			\$20,030,000		\$3,205,000		\$8,309,713		
13	FY 2022			\$0		\$9,440,000		\$0		
14	FY 2023			\$0		\$0		\$0		
15	FY 2024			\$0		\$9,440,000		\$0		
16	FY 2025			\$0		\$0		\$0		
17	FY 2026			\$0		\$9,440,000		\$652,910		
18	Total Additional Capacity			\$20,030,000		\$31,525,000		\$8,962,623		
19										
20	Debt Ratios without Rosemary Deck	Policy	Worst Shown	Years out of Compliance	Worst Shown	Years out of Compliance	Worst Shown	Years out of Compliance	Worst Shown	Years out of Compliance
21	10-Year Payout	65.00%	63.31%	1	61.15%	3	61.46%	3	63.31%	1
22	Debt to Assessed Value	1.50%	1.21%	0	1.44%	0	1.36%	0	1.21%	0
23	Debt Service to Expenditures	15.00%	14.54%	0	16.34%	2	15.70%	2	14.54%	0
24										
25	Debt Ratios with Rosemary Deck	Policy	Worst Shown	Years out of Compliance	Worst Shown	Years out of Compliance	Worst Shown	Years out of Compliance	Worst Shown	Years out of Compliance
26	10-Year Payout	65.00%	60.08%	3	58.79%	4	58.91%	5	60.08%	3
27	Debt to Assessed Value	1.50%	1.60%	1	1.83%	3	1.75%	3	1.60%	1
28	Debt Service to Expenditures	15.00%	18.10%	3	19.82%	6	19.21%	7	18.10%	3



Observations

- The Town has Aaa / AAA ratings from Moody's and S&P respectively, which are the highest credit ratings that a local government can achieve.
 - The Town received its Aaa rating from Moody's in 1998 and its AAA rating from S&P in 2006.
- The Town has managed its debt issuance activities in a responsible fashion and has a Debt Profile that compares favorably to other highly rated Cities and Towns.
- As measured by certain key Debt Ratios and rating agency guidelines, the Town can fund its planned projects while largely remaining compliant with its financial policies. The Town's resulting debt profile would be on the higher end when compared to its Aaa-rated peers. If the Rosemary Deck is not able to be operated on a self-supporting basis (including debt service), the Town's debt ratios would be further pressured and its resulting Debt Capacity would be limited.
- The Town has well established and sustainable debt service budgeting practices which provide for additional Debt Affordability beyond current debt levels. The ability of the Parking Fund to continue supporting its existing debt service and to operate the Rosemary Deck on a self-supporting basis will be important factors in determining future Debt Affordability within the Debt Management Fund.



Appendix A

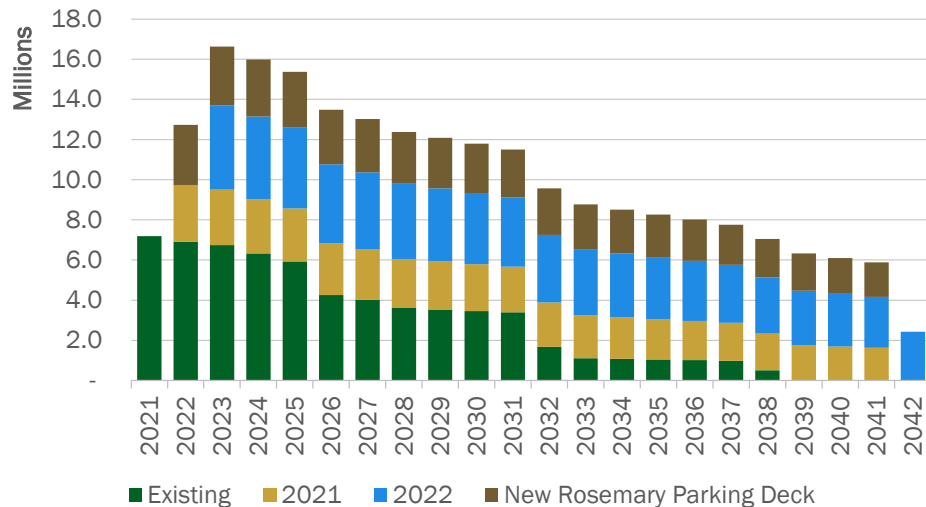
Additional Capacity Case Details



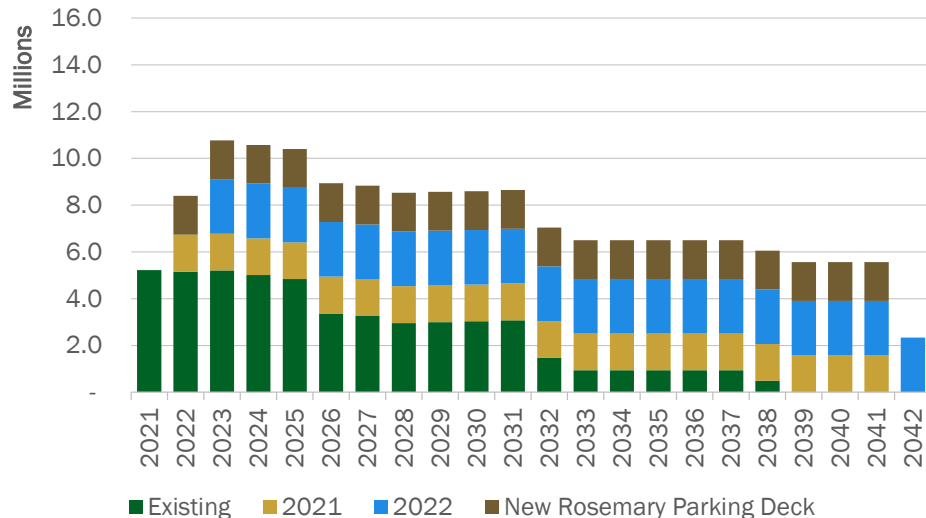
Existing and Proposed Debt Service

Full Debt Capacity – Maximum Upfront Financing

Existing and Proposed Debt Service



Existing and Proposed Principal



Assumptions

Financing Assumptions:

Amortization:	Level Principal
Term:	20 Years
Interest Rate:	4.00%
First Interest Payment	FY Following Issuance
First Principal Payment:	FY Following Issuance

Proposed Debt Issuance by Fiscal Year:

FY 2021:	\$31,430,000
FY 2021 (Rosemary Deck):	\$33,200,000
FY 2022:	\$46,700,000
Total:	\$111,330,000

Proposed Debt Service by Fiscal Year:

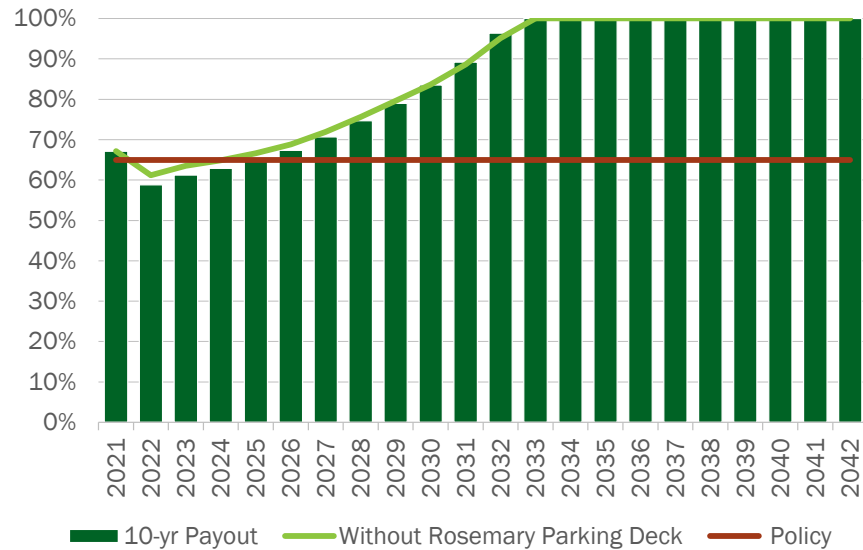
FY 2021:	\$44,630,600
FY 2021 (Rosemary Deck):	\$47,144,000
FY 2022:	\$66,314,000
Total:	\$158,088,600



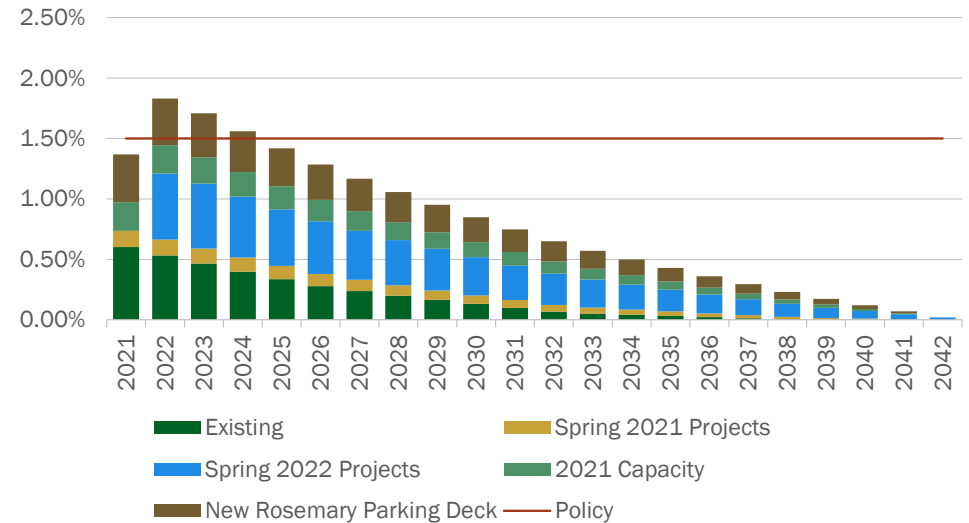
Key Debt Ratios

Full Debt Capacity – Maximum Upfront Financing

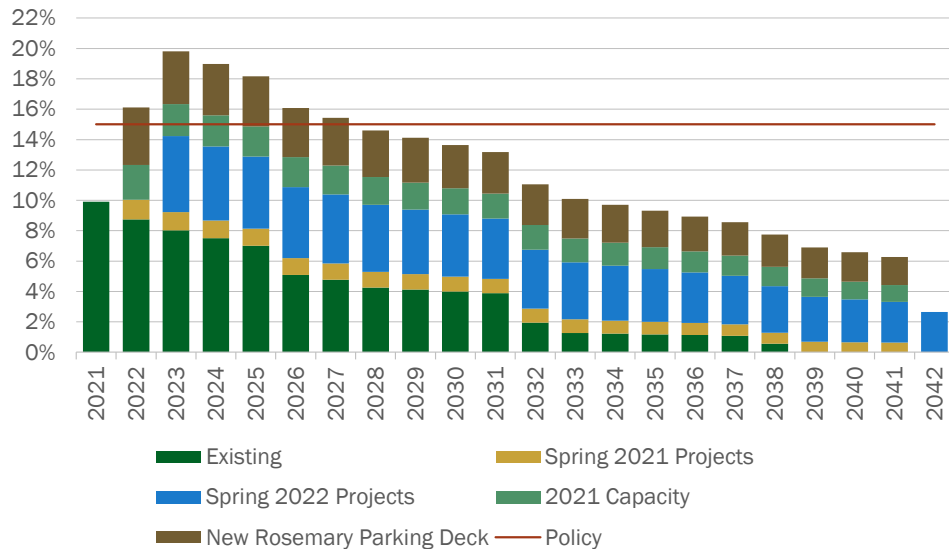
10-Year Payout



Debt to Assessed Value



Debt Service to Expenditures





Debt Affordability Analysis

Full Debt Capacity – Maximum Upfront Financing

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Debt Service Requirements				Revenue Available for DS				Debt Service Cash Flow Surplus (Deficit)					
FY	Existing Debt Service	CIP Debt Service	New Rosemary Parking Deck Debt Service	Total	Existing Revenue Sources ^{1,2}	Transfer from Parking for existing debt ³	New Rosemary Parking Deck Net Revenues ⁴	Total Revenues Available	Surplus/ (Deficit)	Revenue From Prior Tax Impact	Debt Fund Balance Utilized	Adjusted Surplus/ (Deficit)	Estimated Incremental Tax Equivalent	Debt Fund Balance
2021	7,189,646	-	-	7,189,646	8,239,566	914,831	-	9,154,397	1,964,751	-	-	1,964,751	-	9,565,682
2022	6,910,853	2,828,700	2,988,000	12,727,553	8,810,080	916,831	2,988,000	12,714,912	(12,641)	-	(12,641)	-	-	11,517,792
2023	6,737,535	6,968,840	2,921,600	16,627,975	8,981,441	912,081	2,921,600	12,815,122	(3,812,853)	-	(3,812,853)	-	-	7,704,939
2024	6,326,411	6,812,580	2,855,200	15,994,191	9,089,558	680,831	2,855,200	12,625,589	(3,368,602)	-	(3,368,602)	-	-	4,336,337
2025	5,932,881	6,656,320	2,788,800	15,378,001	9,223,485	464,331	2,788,800	12,476,617	(2,901,384)	-	(2,901,384)	-	-	1,434,952
2026	4,262,969	6,500,060	2,722,400	13,485,429	9,325,497	462,331	2,722,400	12,510,228	(975,201)	-	(975,201)	-	-	459,751
2027	4,027,269	6,343,800	2,656,000	13,027,069	9,448,736	465,350	2,656,000	12,570,086	(456,983)	-	(456,983)	-	-	2,768
2028	3,605,979	6,187,540	2,589,600	12,383,119	9,579,151	462,400	2,589,600	12,631,151	248,033	-	-	248,033	-	250,801
2029	3,536,647	6,031,280	2,523,200	12,091,127	9,718,642	462,200	2,523,200	12,704,042	612,915	-	-	612,915	-	863,716
2030	3,463,287	5,875,020	2,456,800	11,795,107	9,863,837	461,400	2,456,800	12,782,037	986,930	-	-	986,930	-	1,850,645
2031	3,399,462	5,718,760	2,390,400	11,508,622	10,014,857	465,000	2,390,400	12,870,257	1,361,636	-	-	1,361,636	-	3,212,281
2032	1,681,615	5,562,500	2,324,000	9,568,115	10,171,743	462,800	2,324,000	12,958,543	3,390,428	-	-	3,390,428	-	6,602,709
2033	1,103,363	5,406,240	2,257,600	8,767,203	10,351,065	-	2,257,600	12,608,665	3,841,462	-	-	3,841,462	-	10,444,171
2034	1,075,163	5,249,980	2,191,200	8,516,343	10,537,078	-	2,191,200	12,728,278	4,211,936	-	-	4,211,936	-	14,656,107
2035	1,045,788	5,093,720	2,124,800	8,264,308	10,729,011	-	2,124,800	12,853,811	4,589,503	-	-	4,589,503	-	19,245,610
2036	1,016,413	4,937,460	2,058,400	8,012,273	10,926,966	-	2,058,400	12,985,366	4,973,094	-	-	4,973,094	-	24,218,703
2037	986,475	4,781,200	1,992,000	7,759,675	11,131,038	-	1,992,000	13,123,038	5,363,363	-	-	5,363,363	-	29,582,067
2038	505,925	4,624,940	1,925,600	7,056,465	11,341,328	-	1,925,600	13,266,928	6,210,463	-	-	6,210,463	-	35,792,530
2039	-	4,468,680	1,859,200	6,327,880	11,562,439	-	1,859,200	13,421,639	7,093,759	-	-	7,093,759	-	42,886,288
2040	-	4,312,420	1,792,800	6,105,220	11,794,768	-	1,792,800	13,587,568	7,482,348	-	-	7,482,348	-	50,368,636
2041	-	4,156,160	1,726,400	5,882,560	12,033,403	-	1,726,400	13,759,803	7,877,243	-	-	7,877,243	-	58,245,879
2042	-	2,428,400	-	2,428,400	12,278,445	-	-	12,278,445	9,850,045	-	-	9,850,045	-	68,095,924
2043	-	-	-	-	12,545,708	-	-	12,545,708	12,545,708	-	-	12,545,708	-	80,641,632
2044	-	-	-	-	12,842,460	-	-	12,842,460	12,842,460	-	-	12,842,460	-	93,484,092
2045	-	-	-	-	13,144,749	-	-	13,144,749	13,144,749	-	-	13,144,749	-	106,628,841
2046	-	-	-	-	13,452,669	-	-	13,452,669	13,452,669	-	-	13,452,669	-	120,081,510
Total	62,807,678	110,944,600	47,144,000	220,896,278					Total		(11,527,665)	Total Tax Effect	0.00¢	

¹ Includes a 9.8 cent property tax revenue and a transfer from the General Fund based on incremental assessed value and resulting tax revenue in Blue Hill. Transfers may increase over time with additional development/ assessed value growth.

² Investment earnings are assumed to be equal to 0.10% of prior years ending Debt Fund Balance in FY 2021-2022, 0.50% in FY2023-2024 and 1.00% in FY 2025 and beyond.

³ The Parking Fund is assumed to transfer an amount equal to annual debt service on existing Parking Fund debt (Included in Column B). The Parking Fund's ability to make this transfer will depend on actual results.

⁴ Rosemary Deck Debt Service is assumed to be paid from net parking revenues generated from the facility and UNC-Chapel Hill upfront purchase of 100 spaces (~\$2.9 Million). To the extent revenues are not sufficient to pay the debt service, additional revenue will be required from the Debt Management Fund and/or other sources.

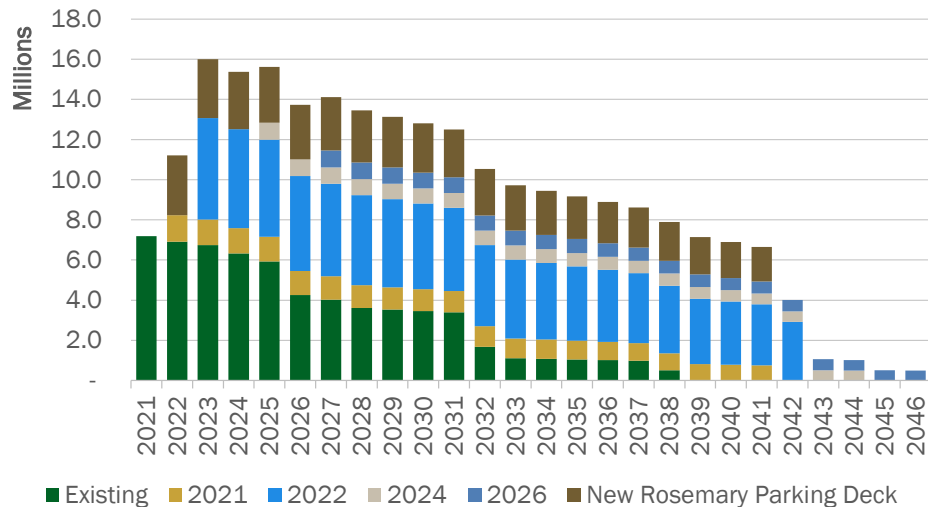
- FY 2021 Value of a Penny: \$839,796
- FY 2022 & Beyond: 1.50% (consistent with Town planning model)



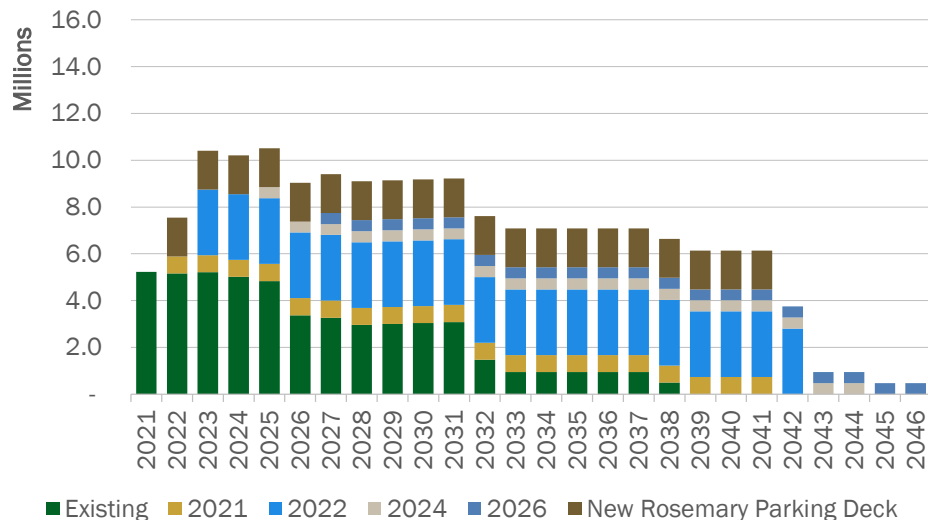
Existing and Proposed Debt Service

Full Debt Capacity – Staggered Financings

Existing and Proposed Debt Service



Existing and Proposed Principal



Assumptions

■ Financing Assumptions:

— Amortization:	Level Principal
— Term:	20 Years
— Interest Rate:	4.00%
— First Interest Payment	FY Following Issuance
— First Principal Payment:	FY Following Issuance

■ Proposed Debt Issuance by Fiscal Year:

— FY 2021:	\$14,605,000
— FY 2021 (Rosemary Deck):	\$33,200,000
— FY 2022:	\$56,140,000
— FY 2024:	\$9,440,000
— FY 2026:	\$9,440,000
Total:	\$122,825,000

■ Proposed Debt Service by Fiscal Year:

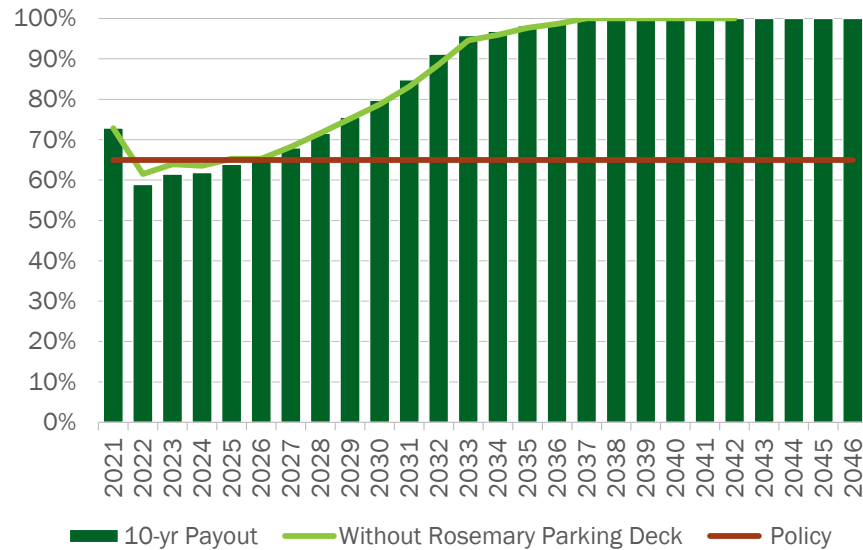
— FY 2021:	\$20,739,100
— FY 2021 (Rosemary Deck):	\$47,144,000
— FY 2022:	\$79,718,800
— FY 2024:	\$13,404,800
— FY 2026:	\$13,404,800
Total:	\$174,411,500



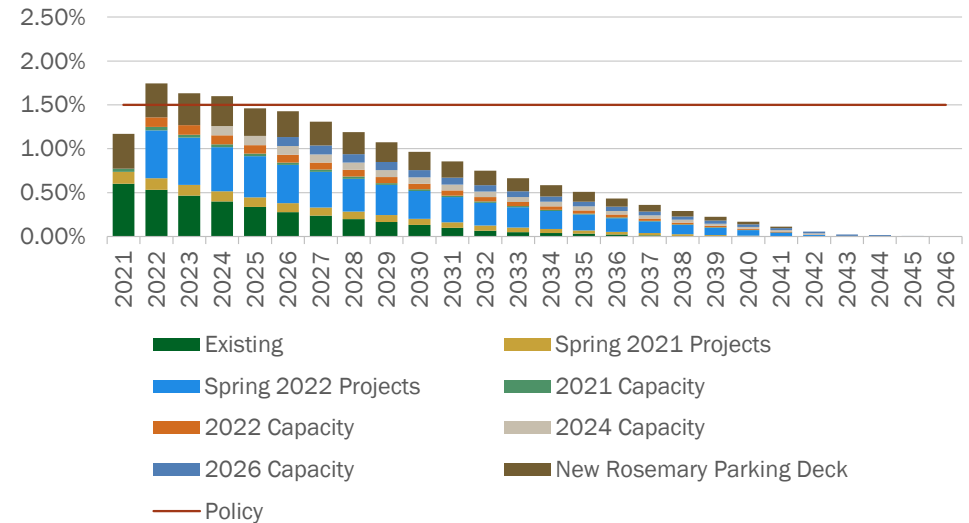
Key Debt Ratios

Full Debt Capacity – Staggered Financings

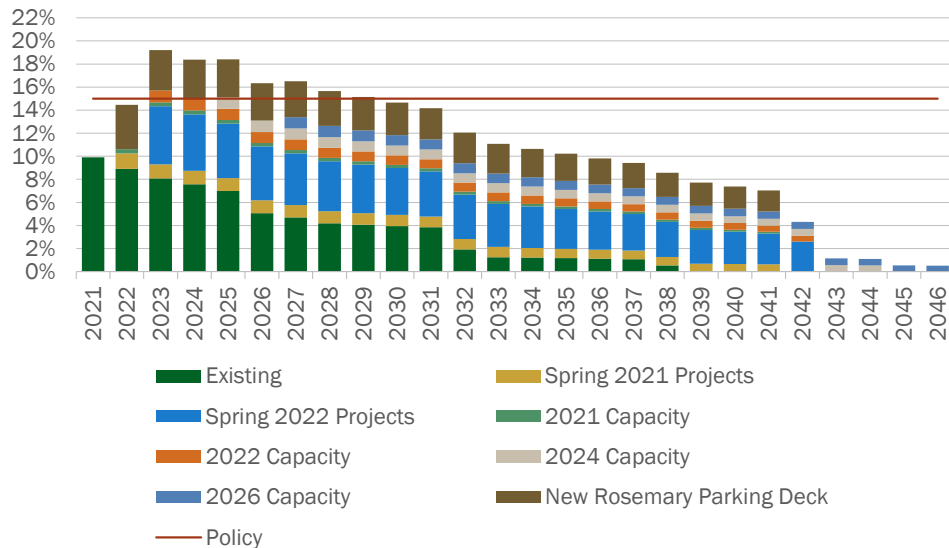
10-Year Payout



Debt to Assessed Value



Debt Service to Expenditures





Debt Affordability Analysis

Full Debt Capacity – Staggered Financings

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Debt Service Requirements				Revenue Available for DS				Debt Service Cash Flow Surplus (Deficit)					
FY	Existing Debt Service	CIP Debt Service	New Rosemary Parking Deck Debt Service	Total	Existing Revenue Sources ^{1,2}	Transfer from Parking for existing debt ³	New Rosemary Parking Deck Net Revenues ⁴	Total Revenues Available	Surplus/ (Deficit)	Revenue From Prior Tax Impact	Debt Fund Balance Utilized	Adjusted Surplus/ (Deficit)	Estimated Incremental Tax Equivalent	Debt Fund Balance
2021	7,189,646	-	-	7,189,646	8,239,566	914,831	-	9,154,397	1,964,751	-	-	1,964,751	-	9,565,682
2022	6,910,853	1,314,450	2,988,000	11,213,303	8,810,080	916,831	2,988,000	12,714,912	1,501,609	-	-	1,501,609	-	11,530,433
2023	6,737,535	6,337,840	2,921,600	15,996,975	8,989,012	912,081	2,921,600	12,822,693	(3,174,282)	-	(3,174,282)	-	-	13,032,042
2024	6,326,411	6,196,350	2,855,200	15,377,961	9,100,322	680,831	2,855,200	12,636,353	(2,741,608)	-	(2,741,608)	-	-	9,857,760
2025	5,932,881	6,904,460	2,788,800	15,626,141	9,251,284	464,331	2,788,800	12,504,415	(3,121,726)	-	(3,121,726)	-	-	7,116,152
2026	4,262,969	6,744,090	2,722,400	13,729,459	9,351,092	462,331	2,722,400	12,535,823	(1,193,636)	-	(1,193,636)	-	-	3,994,426
2027	4,027,269	7,433,320	2,656,000	14,116,589	9,472,146	465,350	2,656,000	12,593,496	(1,523,093)	-	(1,523,093)	-	-	2,800,790
2028	3,605,979	7,254,070	2,589,600	13,449,649	9,591,901	462,400	2,589,600	12,643,901	(805,748)	-	(805,748)	-	-	1,277,697
2029	3,536,647	7,074,820	2,523,200	13,134,667	9,720,853	462,200	2,523,200	12,706,253	(428,413)	-	(428,413)	-	-	471,949
2030	3,463,287	6,895,570	2,456,800	12,815,657	9,855,635	461,400	2,456,800	12,773,835	(41,822)	-	(41,822)	-	-	43,535
2031	3,399,462	6,716,320	2,390,400	12,506,182	9,996,368	465,000	2,390,400	12,851,768	345,586	-	-	345,586	-	1,713
2032	1,681,615	6,537,070	2,324,000	10,542,685	10,143,093	462,800	2,324,000	12,929,893	2,387,208	-	-	2,387,208	-	347,299
2033	1,103,363	6,357,820	2,257,600	9,718,783	10,312,383	-	2,257,600	12,569,983	2,387,208	-	-	2,387,208	-	2,734,507
2034	1,075,163	6,178,570	2,191,200	9,444,933	10,488,494	-	2,191,200	12,679,694	2,851,200	-	-	2,851,200	-	5,585,707
2035	1,045,788	5,999,320	2,124,800	9,169,908	10,670,654	-	2,124,800	12,795,454	3,234,761	-	-	3,234,761	-	8,820,469
2036	1,016,413	5,820,070	2,058,400	8,894,883	10,858,970	-	2,058,400	12,917,370	3,625,547	-	-	3,625,547	-	12,446,015
2037	986,475	5,640,820	1,992,000	8,619,295	11,053,536	-	1,992,000	13,045,536	4,022,488	-	-	4,022,488	-	16,468,503
2038	505,925	5,461,570	1,925,600	7,893,095	11,254,455	-	1,925,600	13,180,055	4,426,241	-	-	4,426,241	-	20,894,744
2039	-	5,282,320	1,859,200	7,141,520	11,466,330	-	1,859,200	13,325,530	5,286,960	-	-	5,286,960	-	26,181,704
2040	-	5,103,070	1,792,800	6,895,870	11,689,562	-	1,792,800	13,482,362	6,184,010	-	-	6,184,010	-	32,365,714
2041	-	4,923,820	1,726,400	6,650,220	11,919,239	-	1,726,400	13,645,639	6,586,492	-	-	6,586,492	-	38,952,206
2042	-	4,014,320	-	4,014,320	12,155,462	-	-	12,155,462	6,995,419	-	-	6,995,419	-	45,947,625
2043	-	1,057,280	-	1,057,280	12,155,462	-	-	12,155,462	8,141,142	-	-	8,141,142	-	54,088,767
2044	-	1,019,520	-	1,019,520	12,405,637	-	-	12,405,637	8,141,142	-	-	8,141,142	-	65,437,124
2045	-	509,760	-	509,760	12,690,415	-	-	12,690,415	11,348,357	-	-	11,348,357	-	77,108,019
2046	-	490,880	-	490,880	12,980,988	-	-	12,980,988	11,670,895	-	-	11,670,895	-	89,579,247
2047	-	-	-	-	13,282,173	-	-	13,282,173	12,471,228	-	-	12,471,228	-	102,370,540
	-	-	-	-	13,481,405	-	-	13,481,405	12,791,293	-	-	12,791,293	-	115,851,946
	-	-	-	-	-	-	-	-	13,481,405	-	-	13,481,405	-	-
Total	62,807,678	127,267,500	47,144,000	237,219,178					Total		(13,030,329)	Total Tax Effect	0.00¢	

¹ Includes a 9.8 cent property tax revenue and a transfer from the General Fund based on incremental assessed value and resulting tax revenue in Blue Hill. Transfers may increase over time with additional development / assessed value growth.

² Investment earnings are assumed to be equal to 0.10% of prior years ending Debt Fund Balance in FY 2021-2022, 0.50% in FY2023-2024 and 1.00% in FY 2025 and beyond.

³ The Parking Fund is assumed to transfer an amount equal to annual debt service on existing Parking Fund debt (Included in Column B). The Parking Fund's ability to make this transfer will depend on actual results.

⁴ Rosemary Deck Debt Service is assumed to be paid from net parking revenues generated from the facility and UNC-Chapel Hill upfront purchase of 100 spaces (~\$2.9 Million). To the extent revenues are not sufficient to pay the debt service, additional revenue will be required from the Debt Management Fund and/or other sources.

- FY 2021 Value of a Penny: \$839,796
- FY 2022 & Beyond: 1.50% (consistent with Town planning model)



Appendix B

Financial Policies

I, Amy T. Harvey, Deputy Town Clerk of the Town of Chapel Hill, North Carolina, hereby certify that the attached is a true and correct copy of (2019-06-12/R-2) adopted by the Chapel Hill Town Council on June 12, 2019.

This the 13th day of June, 2019.

Amy T. Harvey

**Amy T. Harvey
Deputy Town Clerk**



A RESOLUTION FOR THE ADOPTION OF FINANCIAL POLICY GUIDELINES (2019-06-12/R-2)

WHEREAS, financial policies are central to a strategic, long-term approach to financial management; and

WHEREAS, the Government Finance Officers Association (GFOA) has recognized financial policies as an essential part of public financial management; and

WHEREAS, formal, written financial policies help governments promote financial stability and continuity, manage financial risks, promote long-term strategic thinking, and support the Town's excellent bond ratings;

NOW, THEREFORE, BE IT RESOLVED by the Council of the Town of Chapel Hill that the Council hereby adopts the Financial Policy Guidelines which includes: Debt Policy, Fund Balance Reserve Policy, Cash Management and Investment Policy, and Other Post-Employment Benefit (OPEB) Pre-Funding Policy.

This the 12th day of June, 2019.

Financial Policy Guidelines

For:



Town of Chapel Hill, North Carolina

Adopted: June 12, 2019

**Maurice Jones, Town Manager
Amy Oland, Business Management Director**

FISCAL POLICY GUIDELINES

<u>Section Contents:</u>	<u>Page:</u>
• Objectives	2
• Debt Policy	3
• Fund Balance Reserve Policy	4
• Cash Management and Investment Policy	5
• Other Post Employment Benefit (OPEB) Pre-Funding Policy	6

OBJECTIVES

This fiscal policy is a statement of the guidelines and goals that will influence and guide the financial management practice. A fiscal policy that is adopted, adhered to, and regularly reviewed is recognized as the cornerstone of sound financial management. Effective fiscal policy:

- Contributes significantly to the Town's ability to insulate itself from fiscal crisis;
- Enhances short-term and long-term financial credit ability by helping to achieve the highest credit and bond ratings possible;
- Promotes long-term financial stability by establishing clear and consistent guidelines;
- Directs attention to the total financial picture of the Town rather than single issue areas;
- Promotes the view of linking long-run financial planning with day to day operations;
- Provides the Council, community and management a framework for measuring the fiscal impact of government services against established fiscal parameters and guidelines.

To these ends, the following fiscal policy statements are presented.

DEBT POLICIES

General

1. The Town will confine long-term borrowing to capital improvements or projects that cannot be financed from current revenues except where approved justification is provided.
2. The Town will utilize a balanced approach to capital funding utilizing debt financing, draws on capital reserves and/or fund balances in excess of policy targets, and current-year pay-as-you-go appropriations.
3. When the Town finances capital improvements or other projects by issuing bonds or entering into capital leases, it will repay the debt within a period not to exceed the expected useful life of the project. Target debt ratios will be annually calculated and included in the review of financial trends.
4. Where feasible, the Town will explore the usage of special assessment, revenue, or other self-supporting bonds instead of general obligation bonds.
5. Where feasible, the Town will limit the amount of debt issued each calendar year to remain Bank Qualified eligible per Internal Revenue Service (IRS) guidelines (currently \$10,000,000).

Tax Supported Debt

1. Net Debt as a percentage of total assessed value of taxable property should not exceed 1.5%. Net Debt is defined as any and all debt that is tax supported.
2. The ratio of debt service expenditures as a percent of total governmental fund expenditures should not exceed 15% with an aggregate ten-year principal payout ratio target of 65% or better.

FUND BALANCE RESERVE POLICIES

1. Unassigned Fund Balances will mean funds that remain available for appropriation by the Council after all commitments for future expenditures, required reserves defined by State statutes, and previous designations have been calculated. The Town will define these remaining amounts as “available fund balances.”
2. The Town will strive to maintain a targeted Unassigned Fund Balance, as defined by the Governmental Accounting Standards Board, at the close of each fiscal year equal to 22% of General Fund Expenditures. Unassigned Fund Balance in excess of 22% of General Fund Expenditures may be appropriated from time to time for pay-as-you-go capital and other one-time uses.
3. In the event that funds are available over and beyond the targeted amount, those funds may be transferred to the Capital Reserve Fund at the Council discretion.
4. The Town Council may, from time-to-time, utilize fund balances that will reduce Unassigned Fund Balance below the 22% target for the purposes of a declared fiscal emergency or other such purpose as to protect or enhance the long-term fiscal security of the Town. In such circumstances, the Council will adopt a plan to restore the Unassigned Fund Balance to the target level within 24 months. If restoration cannot be accomplished within such time period without severe hardship to the Town, then the Council will establish a different but appropriate time period.

CASH MANAGEMENT AND INVESTMENT POLICIES & STRATEGIES

1. It is the intent of the Town that public funds will be invested to the extent possible to reduce the need for property tax revenues. Funds will be invested with the chief objectives of safety of principal, liquidity, and yield, in that order. All deposits and investments of Town funds will be in accordance with N.C.G.S. 159.
2. The Town will use a Central Depository to maximize the availability and mobility of cash for all funds that can be legally and practically combined.
3. Cash Flows will be forecasted and investments will be made to mature when funds are projected to be needed to meet cash flow requirements.
4. Liquidity: No less than 20% of funds available for investment will be maintained in liquid investments at any point in time.
5. Maturity: All investments will mature in no more than 36 months from their purchase date.
6. Custody: All investments will be purchased “payment versus delivery” and if certificated will be held by the Finance Officer in the name of the Town. All non-certificated investment will be held in book-entry form in the name of the Town with the Town’s third party Custodian (Safekeeping Agent).
7. Authorized Investments: The Town may deposit Town funds into: Any Council approved Official Depository, if such funds are secured in accordance with N.C.G.S. 159-31. The Town may invest Town funds in: the North Carolina Capital Management Trust, U.S. Treasuries, U.S. Agency Securities specifically authorized in G.S. 159 and rated no lower than “AAA”, and Commercial Paper meeting the requirements of N.C.G.S. 159 plus having a national bond rating.
8. Diversification: No more than 5% of the Town’s investment funds may be invested in a specific company’s commercial paper and no more than 20% of the Town’s investment funds may be invested in commercial paper. No more than 25% of the Town’s investments may be invested in any one U.S. Agency’s Securities.
9. Allocation: Investment income will be allocated to each participating fund or account based on a fair and equitable formula determined by the Finance Director.

OTHER POST-EMPLOYMENT BENEFIT PRE-FUNDING POLICIES & STRATEGIES

1. By ordinance of the Town Council, the Town administers the Healthcare Benefits Plan (HCB Plan), a single-employer defined benefit plan that is used to provide postemployment benefits for all retirees of the Town who were hired before July 1, 2010, participate in the North Carolina Local Government Employees' Retirement System, and have at least five years of creditable service with the Town.
2. Retirees who qualify for coverage receive the same benefits as active employees, wherein the Town pays all or a portion of the costs of coverage for the benefits based on years of service.
3. Actuarial Valuation: The total other post-employment benefit (OPEB) liability is determined by an actuary on an annual basis. The actuary bases this calculation on several actuarial assumptions: inflation rate, salary increases, investment rate of return and healthcare cost trend rates.
4. Pay-Go Contributions: The Town is required to pay annually the projected pay-as-you-go financing requirements for the retiree healthcare benefits.
5. Pre-Funding Contributions: The Town may contribute an additional amount to prefund benefits contributed to the trust annually as determined by the Council.
6. Benefits of Pre-Funding: Multiple outside entities use the actuary information that resides in the Comprehensive Annual Financial Report to assess the creditworthiness and financial soundness of the Town. The amount of pay-go and pre-funding contributions helps reduce the total OPEB liability.
7. The Town will contribute annually to the OPEB trust to help fund the Annually Required Contribution and work towards reducing the overall OPEB liability. In the event that funds are available over the General Fund 22% targeted fund balance amount, the Council may choose to contribute a portion of this amount to the OPEB trust.



Appendix C

Existing Tax Supported Debt



Existing Tax Supported Debt

By Credit

Tax Supported Debt



Total Tax Supported Debt Service

FY	Principal	Interest	Total
Total	50,811,000	11,996,678	62,807,678
2021	5,224,000	1,965,646	7,189,646
2022	5,161,000	1,749,853	6,910,853
2023	5,207,000	1,530,535	6,737,535
2024	5,013,000	1,313,411	6,326,411
2025	4,836,000	1,096,881	5,932,881
2026	3,371,000	891,969	4,262,969
2027	3,265,000	762,269	4,027,269
2028	2,960,000	645,979	3,605,979
2029	2,998,000	538,647	3,536,647
2030	3,036,000	427,287	3,463,287
2031	3,080,000	319,462	3,399,462
2032	1,470,000	211,615	1,681,615
2033	940,000	163,363	1,103,363
2034	940,000	135,163	1,075,163
2035	940,000	105,788	1,045,788
2036	940,000	76,413	1,016,413
2037	940,000	46,475	986,475
2038	490,000	15,925	505,925

LOBs

FY	Principal	Interest	Total
Total	12,305,000	2,379,638	14,684,638
2021	1,980,000	583,331	2,563,331
2022	2,010,000	484,331	2,494,331
2023	2,040,000	383,831	2,423,831
2024	1,840,000	281,831	2,121,831
2025	1,650,000	189,831	1,839,831
2026	355,000	107,331	462,331
2027	370,000	95,350	465,350
2028	380,000	82,400	462,400
2029	395,000	67,200	462,200
2030	410,000	51,400	461,400
2031	430,000	35,000	465,000
2032	445,000	17,800	462,800
2033	-	-	-
2034	-	-	-
2035	-	-	-
2036	-	-	-
2037	-	-	-
2038	-	-	-

GO Bonds

FY	Principal	Interest	Total
Total	30,851,000	8,589,257	39,440,257
2021	2,547,000	1,207,932	3,754,932
2022	2,447,000	1,107,179	3,554,179
2023	2,456,000	1,004,564	3,460,564
2024	2,455,000	905,806	3,360,806
2025	2,460,000	797,804	3,257,804
2026	2,284,000	692,106	2,976,106
2027	2,237,000	591,228	2,828,228
2028	1,915,000	503,025	2,418,025
2029	1,930,000	426,193	2,356,193
2030	1,945,000	346,118	2,291,118
2031	1,960,000	270,363	2,230,363
2032	1,025,000	193,815	1,218,815
2033	940,000	163,363	1,103,363
2034	940,000	135,163	1,075,163
2035	940,000	105,788	1,045,788
2036	940,000	76,413	1,016,413
2037	940,000	46,475	986,475
2038	490,000	15,925	505,925

IPCs

FY	Principal	Interest	Total
Total	7,655,000	1,027,784	8,682,784
2021	697,000	174,383	871,383
2022	704,000	158,342	862,342
2023	711,000	142,139	853,139
2024	718,000	125,774	843,774
2025	726,000	109,246	835,246
2026	732,000	92,532	824,532
2027	658,000	75,690	733,690
2028	665,000	60,554	725,554
2029	673,000	45,254	718,254
2030	681,000	29,770	710,770
2031	690,000	14,099	704,099
2032	-	-	-
2033	-	-	-
2034	-	-	-
2035	-	-	-
2036	-	-	-
2037	-	-	-
2038	-	-	-

General Obligation Bonds



\$4,655,000

General Obligation Refunding Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		1,070,000	88,950	1,158,950
2021	3.000%	305,000	32,100	337,100
2022	3.000%	195,000	22,950	217,950
2023	3.000%	195,000	17,100	212,100
2024	3.000%	190,000	11,250	201,250
2025	3.000%	185,000	5,550	190,550
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/5/2012 Next Call: 4/1/2022

Purpose: Refunding Insurance: n/a

Coupon Dates: Apr 1 / Oct 1 Maturity Date: Apr 1

\$1,700,000

General Obligation Public Improvement Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		1,020,000	159,630	1,179,630
2021	2.000%	85,000	23,248	108,248
2022	2.000%	85,000	21,548	106,548
2023	2.000%	85,000	19,848	104,848
2024	2.000%	85,000	18,148	103,148
2025	2.100%	85,000	16,448	101,448
2026	2.200%	85,000	14,663	99,663
2027	2.300%	85,000	12,793	97,793
2028	2.450%	85,000	10,838	95,838
2029	2.500%	85,000	8,755	93,755
2030	2.550%	85,000	6,630	91,630
2031	2.600%	85,000	4,463	89,463
2032	2.650%	85,000	2,253	87,253
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 7/3/2012 Next Call: 4/1/2022

Purpose: Public Improvement Insurance: n/a

Coupon Dates: Apr 1 / Oct 1 Maturity Date: Apr 1

\$3,050,000

General Obligation Refunding Bond, Series 2013 (SunTrust)

FY	Coupon	Principal	Interest	Total
Total		1,771,000	119,864	1,890,864
2021	1.770%	277,000	31,347	308,347
2022	1.770%	272,000	26,444	298,444
2023	1.770%	266,000	21,629	287,629
2024	1.770%	260,000	16,921	276,921
2025	1.770%	255,000	12,319	267,319
2026	1.770%	249,000	7,806	256,806
2027	1.770%	192,000	3,398	195,398
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 2/28/2013 Next Call: 2/28/2020

Purpose: Refunding Insurance: n/a

Coupon Dates: May 1 / Nov 1 Maturity Date: May 1

General Obligation Bonds



\$1,460,000

General Obligation Public Safety Bonds, Series 2017

FY	Coupon	Principal	Interest	Total
Total		1,015,000	150,800	1,165,800
2021	5.000%	145,000	42,050	187,050
2022	5.000%	145,000	34,800	179,800
2023	5.000%	145,000	27,550	172,550
2024	5.000%	145,000	20,300	165,300
2025	3.000%	145,000	13,050	158,050
2026	3.000%	145,000	8,700	153,700
2027	3.000%	145,000	4,350	149,350
2028	-	-	-	-
2029	-	-	-	-
2030	-	-	-	-
2031	-	-	-	-
2032	-	-	-	-
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 2/21/2017 Next Call: Noncallable

Purpose: Equipment Insurance: n/a

Coupon Dates: Feb 1 / Aug 1 Maturity Date: Feb 1

\$9,000,000

General Obligation Public Improvement Bonds, Series 2017

FY	Coupon	Principal	Interest	Total
Total		7,650,000	2,402,438	10,052,438
2021	3.000%	450,000	282,375	732,375
2022	4.000%	450,000	268,875	718,875
2023	3.000%	450,000	250,875	700,875
2024	5.000%	450,000	237,375	687,375
2025	5.000%	450,000	214,875	664,875
2026	5.000%	450,000	192,375	642,375
2027	5.000%	450,000	169,875	619,875
2028	4.000%	450,000	147,375	597,375
2029	4.000%	450,000	129,375	579,375
2030	3.000%	450,000	111,375	561,375
2031	3.000%	450,000	97,875	547,875
2032	3.000%	450,000	84,375	534,375
2033	3.000%	450,000	70,875	520,875
2034	3.125%	450,000	57,375	507,375
2035	3.125%	450,000	43,313	493,313
2036	3.250%	450,000	29,250	479,250
2037	3.250%	450,000	14,625	464,625
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 2/22/2017 Next Call: 2/1/2027

Purpose: Land, Streets, and Parks & Rec Insurance: n/a

Coupon Dates: Feb 1 / Aug 1 Maturity Date: Feb 1

\$9,800,000

General Obligation Public Improvement Bonds, Series 2018 (No Stormwater)

FY	Coupon	Principal	Interest	Total
Total		8,820,000	2,740,325	11,560,325
2021	5.000%	490,000	321,563	811,563
2022	5.000%	490,000	297,063	787,063
2023	5.000%	490,000	272,563	762,563
2024	5.000%	490,000	248,063	738,063
2025	5.000%	490,000	223,563	713,563
2026	5.000%	490,000	199,063	689,063
2027	2.500%	490,000	174,563	664,563
2028	2.500%	490,000	162,313	652,313
2029	3.000%	490,000	150,063	640,063
2030	2.875%	490,000	135,363	625,363
2031	2.875%	490,000	121,275	611,275
2032	3.000%	490,000	107,188	597,188
2033	3.000%	490,000	92,488	582,488
2034	3.125%	490,000	77,788	567,788
2035	3.125%	490,000	62,475	552,475
2036	3.125%	490,000	47,163	537,163
2037	3.250%	490,000	31,850	521,850
2038	3.250%	490,000	15,925	505,925
2039	-	-	-	-

Dated Date: 4/19/2018 Next Call: 5/1/2026

Purpose: Parks & Rec and Streets & Sidewalks Only Insurance: n/a

Coupon Dates: May 1 / Nov 1 Maturity Date: May 1

Note: Excludes Stormwater Component of issuance.

General Obligation Bonds



\$9,505,000

General Obligation Refunding Bonds, Series 2019

FY	Coupon	Principal	Interest	Total
Total		9,505,000	2,927,250	12,432,250
2021	5.000%	795,000	475,250	1,270,250
2022	5.000%	810,000	435,500	1,245,500
2023	5.000%	825,000	395,000	1,220,000
2024	5.000%	835,000	353,750	1,188,750
2025	5.000%	850,000	312,000	1,162,000
2026	5.000%	865,000	269,500	1,134,500
2027	5.000%	875,000	226,250	1,101,250
2028	5.000%	890,000	182,500	1,072,500
2029	5.000%	905,000	138,000	1,043,000
2030	5.000%	920,000	92,750	1,012,750
2031	5.000%	935,000	46,750	981,750
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 12/10/2019

Next Call: Noncallable

Purpose: Refunding

Insurance: n/a

Coupon Dates: Apr 1 / Oct 1

Maturity Date: Apr 1



\$28,800,000

Limited Obligation Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		6,570,000	984,250	7,554,250
2021	5.000%	1,320,000	328,500	1,648,500
2022	5.000%	1,315,000	262,500	1,577,500
2023	5.000%	1,315,000	196,750	1,511,750
2024	5.000%	1,310,000	131,000	1,441,000
2025	5.000%	1,310,000	65,500	1,375,500
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/27/2012 Next Call: 6/1/2022

Purpose: Refunding - Chapel Hill Portion Insurance: n/a

Coupon Dates: Jun 1 / Dec 1 Maturity Date: Jun 1

\$28,800,000

Limited Obligation Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		1,400,000	162,250	1,562,250
2021	5.000%	380,000	70,000	450,000
2022	5.000%	400,000	51,000	451,000
2023	5.000%	415,000	31,000	446,000
2024	5.000%	205,000	10,250	215,250
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/27/2012 Next Call: 6/1/2022

Purpose: Refunding - Parking Portion Insurance: n/a

Coupon Dates: Jun 1 / Dec 1 Maturity Date: Jun 1

\$28,800,000

Limited Obligation Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		4,335,000	1,233,138	5,568,138
2021	5.000%	280,000	184,831	464,831
2022	5.000%	295,000	170,831	465,831
2023	5.000%	310,000	156,081	466,081
2024	5.000%	325,000	140,581	465,581
2025	5.000%	340,000	124,331	464,331
2026	3.375%	355,000	107,331	462,331
2027	3.500%	370,000	95,350	465,350
2028	4.000%	380,000	82,400	462,400
2029	4.000%	395,000	67,200	462,200
2030	4.000%	410,000	51,400	461,400
2031	4.000%	430,000	35,000	465,000
2032	4.000%	445,000	17,800	462,800
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/27/2012 Next Call: 6/1/2022

Purpose: New Money - 140 West Portion Insurance: n/a

Coupon Dates: Jun 1 / Dec 1 Maturity Date: Jun 1

\$2,395,000

2015 IPC (Bank of NC)

FY	Coupon	Principal	Interest	Total
Total		1,755,000	215,784	1,970,784
2021	2.239%	160,000	37,503	197,503
2022	2.239%	160,000	33,921	193,921
2023	2.239%	160,000	30,338	190,338
2024	2.239%	160,000	26,756	186,756
2025	2.239%	160,000	23,174	183,174
2026	2.239%	160,000	19,591	179,591
2027	2.239%	159,000	16,020	175,020
2028	2.239%	159,000	12,460	171,460
2029	2.239%	159,000	8,900	167,900
2030	2.239%	159,000	5,340	164,340
2031	2.239%	159,000	1,780	160,780
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/4/2015 Next Call: Current

Purpose: Equipment / Buildings Insurance: n/a

Coupon Dates: Feb 1 / Aug 1 Maturity Date: Aug 1

\$7,984,000

2016 IPC (Raymond James)

FY	Coupon	Principal	Interest	Total
Total		5,900,000	812,000	6,712,000
2021	2.320%	537,000	136,880	673,880
2022	2.320%	544,000	124,422	668,422
2023	2.320%	551,000	111,801	662,801
2024	2.320%	558,000	99,018	657,018
2025	2.320%	566,000	86,072	652,072
2026	2.320%	572,000	72,941	644,941
2027	2.320%	499,000	59,670	558,670
2028	2.320%	506,000	48,094	554,094
2029	2.320%	514,000	36,354	550,354
2030	2.320%	522,000	24,430	546,430
2031	2.320%	531,000	12,319	543,319
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 3/10/2016 Next Call: 3/1/2026

Purpose: Capital / Fire Station / EF / Town Hall Insurance: n/a

Coupon Dates: Mar 1 / Sep 1 Maturity Date: Mar 1



Existing Tax Supported Debt

By Fund



Tax Supported Debt

Total Tax Supported Debt Service

FY	Principal	Interest	Total
Total	50,811,000	11,996,678	62,807,678
2021	5,224,000	1,965,646	7,189,646
2022	5,161,000	1,749,853	6,910,853
2023	5,207,000	1,530,535	6,737,535
2024	5,013,000	1,313,411	6,326,411
2025	4,836,000	1,096,881	5,932,881
2026	3,371,000	891,969	4,262,969
2027	3,265,000	762,269	4,027,269
2028	2,960,000	645,979	3,605,979
2029	2,998,000	538,647	3,536,647
2030	3,036,000	427,287	3,463,287
2031	3,080,000	319,462	3,399,462
2032	1,470,000	211,615	1,681,615
2033	940,000	163,363	1,103,363
2034	940,000	135,163	1,075,163
2035	940,000	105,788	1,045,788
2036	940,000	76,413	1,016,413
2037	940,000	46,475	986,475
2038	490,000	15,925	505,925

Debt Management Fund (Excluding Parking Fund)

FY	Principal	Interest	Total
Total	45,076,000	10,601,291	55,677,291
2021	4,564,000	1,710,815	6,274,815
2022	4,466,000	1,528,021	5,994,021
2023	4,482,000	1,343,454	5,825,454
2024	4,483,000	1,162,580	5,645,580
2025	4,496,000	972,550	5,468,550
2026	3,016,000	784,638	3,800,638
2027	2,895,000	666,919	3,561,919
2028	2,580,000	563,579	3,143,579
2029	2,603,000	471,447	3,074,447
2030	2,626,000	375,887	3,001,887
2031	2,650,000	284,462	2,934,462
2032	1,025,000	193,815	1,218,815
2033	940,000	163,363	1,103,363
2034	940,000	135,163	1,075,163
2035	940,000	105,788	1,045,788
2036	940,000	76,413	1,016,413
2037	940,000	46,475	986,475
2038	490,000	15,925	505,925

Parking Fund

FY	Principal	Interest	Total
Total	5,735,000	1,395,388	7,130,388
2021	660,000	254,831	914,831
2022	695,000	221,831	916,831
2023	725,000	187,081	912,081
2024	530,000	150,831	680,831
2025	340,000	124,331	464,331
2026	355,000	107,331	462,331
2027	370,000	95,350	465,350
2028	380,000	82,400	462,400
2029	395,000	67,200	462,200
2030	410,000	51,400	461,400
2031	430,000	35,000	465,000
2032	445,000	17,800	462,800
2033	-	-	-
2034	-	-	-
2035	-	-	-
2036	-	-	-
2037	-	-	-
2038	-	-	-

Debt Management Fund



\$4,655,000

General Obligation Refunding Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		1,070,000	88,950	1,158,950
2021	3.000%	305,000	32,100	337,100
2022	3.000%	195,000	22,950	217,950
2023	3.000%	195,000	17,100	212,100
2024	3.000%	190,000	11,250	201,250
2025	3.000%	185,000	5,550	190,550
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

\$1,700,000

General Obligation Public Improvement Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		1,020,000	159,630	1,179,630
2021	2.000%	85,000	23,248	108,248
2022	2.000%	85,000	21,548	106,548
2023	2.000%	85,000	19,848	104,848
2024	2.000%	85,000	18,148	103,148
2025	2.100%	85,000	16,448	101,448
2026	2.200%	85,000	14,663	99,663
2027	2.300%	85,000	12,793	97,793
2028	2.450%	85,000	10,838	95,838
2029	2.500%	85,000	8,755	93,755
2030	2.550%	85,000	6,630	91,630
2031	2.600%	85,000	4,463	89,463
2032	2.650%	85,000	2,253	87,253
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

\$3,050,000

General Obligation Refunding Bond, Series 2013 (SunTrust)

FY	Coupon	Principal	Interest	Total
Total		1,771,000	119,864	1,890,864
2021	1.770%	277,000	31,347	308,347
2022	1.770%	272,000	26,444	298,444
2023	1.770%	266,000	21,629	287,629
2024	1.770%	260,000	16,921	276,921
2025	1.770%	255,000	12,319	267,319
2026	1.770%	249,000	7,806	256,806
2027	1.770%	192,000	3,398	195,398
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/5/2012

Next Call: 4/1/2022

Purpose: Refunding

Insurance: n/a

Coupon Dates: Apr 1 / Oct 1

Maturity Date: Apr 1

Dated Date: 7/3/2012

Next Call: 4/1/2022

Purpose: Public Improvement

Insurance: n/a

Coupon Dates: Apr 1 / Oct 1

Maturity Date: Apr 1

Dated Date: 2/28/2013

Next Call: 2/28/2020

Purpose: Refunding

Insurance: n/a

Coupon Dates: May 1 / Nov 1

Maturity Date: May 1

Debt Management Fund



\$1,460,000

General Obligation Public Safety Bonds, Series 2017

FY	Coupon	Principal	Interest	Total
Total		1,015,000	150,800	1,165,800
2021	5.000%	145,000	42,050	187,050
2022	5.000%	145,000	34,800	179,800
2023	5.000%	145,000	27,550	172,550
2024	5.000%	145,000	20,300	165,300
2025	3.000%	145,000	13,050	158,050
2026	3.000%	145,000	8,700	153,700
2027	3.000%	145,000	4,350	149,350
2028	-	-	-	-
2029	-	-	-	-
2030	-	-	-	-
2031	-	-	-	-
2032	-	-	-	-
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 2/21/2017 Next Call: Noncallable

Purpose: Equipment Insurance: n/a

Coupon Dates: Feb 1 / Aug 1 Maturity Date: Feb 1

\$9,000,000

General Obligation Public Improvement Bonds, Series 2017

FY	Coupon	Principal	Interest	Total
Total		7,650,000	2,402,438	10,052,438
2021	3.000%	450,000	282,375	732,375
2022	4.000%	450,000	268,875	718,875
2023	3.000%	450,000	250,875	700,875
2024	5.000%	450,000	237,375	687,375
2025	5.000%	450,000	214,875	664,875
2026	5.000%	450,000	192,375	642,375
2027	5.000%	450,000	169,875	619,875
2028	4.000%	450,000	147,375	597,375
2029	4.000%	450,000	129,375	579,375
2030	3.000%	450,000	111,375	561,375
2031	3.000%	450,000	97,875	547,875
2032	3.000%	450,000	84,375	534,375
2033	3.000%	450,000	70,875	520,875
2034	3.125%	450,000	57,375	507,375
2035	3.125%	450,000	43,313	493,313
2036	3.250%	450,000	29,250	479,250
2037	3.250%	450,000	14,625	464,625
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 2/22/2017 Next Call: 2/1/2027

Purpose: Land, Streets, and Parks & Rec Insurance: n/a

Coupon Dates: Feb 1 / Aug 1 Maturity Date: Feb 1

\$9,800,000

General Obligation Public Improvement Bonds, Series 2018 (No Stormwater)

FY	Coupon	Principal	Interest	Total
Total		8,820,000	2,740,325	11,560,325
2021	5.000%	490,000	321,563	811,563
2022	5.000%	490,000	297,063	787,063
2023	5.000%	490,000	272,563	762,563
2024	5.000%	490,000	248,063	738,063
2025	5.000%	490,000	223,563	713,563
2026	5.000%	490,000	199,063	689,063
2027	2.500%	490,000	174,563	664,563
2028	2.500%	490,000	162,313	652,313
2029	3.000%	490,000	150,063	640,063
2030	2.875%	490,000	135,363	625,363
2031	2.875%	490,000	121,275	611,275
2032	3.000%	490,000	107,188	597,188
2033	3.000%	490,000	92,488	582,488
2034	3.125%	490,000	77,788	567,788
2035	3.125%	490,000	62,475	552,475
2036	3.125%	490,000	47,163	537,163
2037	3.250%	490,000	31,850	521,850
2038	3.250%	490,000	15,925	505,925
2039	-	-	-	-

Dated Date: 4/19/2018 Next Call: 5/1/2026

Purpose: Parks & Rec and Streets & Sidewalks Only Insurance: n/a

Coupon Dates: May 1 / Nov 1 Maturity Date: May 1

Note: Excludes Stormwater Component of issuance.

Debt Management Fund



\$9,505,000

General Obligation Refunding Bonds, Series 2019

FY	Coupon	Principal	Interest	Total
Total		9,505,000	2,927,250	12,432,250
2021	5.000%	795,000	475,250	1,270,250
2022	5.000%	810,000	435,500	1,245,500
2023	5.000%	825,000	395,000	1,220,000
2024	5.000%	835,000	353,750	1,188,750
2025	5.000%	850,000	312,000	1,162,000
2026	5.000%	865,000	269,500	1,134,500
2027	5.000%	875,000	226,250	1,101,250
2028	5.000%	890,000	182,500	1,072,500
2029	5.000%	905,000	138,000	1,043,000
2030	5.000%	920,000	92,750	1,012,750
2031	5.000%	935,000	46,750	981,750
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 12/10/2019

Next Call: Noncallable

Purpose: Refunding

Insurance: n/a

Coupon Dates: Apr 1 / Oct 1

Maturity Date: Apr 1

Debt Management Fund



\$2,395,000

2015 IPC (Bank of NC)

FY	Coupon	Principal	Interest	Total
Total		1,755,000	215,784	1,970,784
2021	2.239%	160,000	37,503	197,503
2022	2.239%	160,000	33,921	193,921
2023	2.239%	160,000	30,338	190,338
2024	2.239%	160,000	26,756	186,756
2025	2.239%	160,000	23,174	183,174
2026	2.239%	160,000	19,591	179,591
2027	2.239%	159,000	16,020	175,020
2028	2.239%	159,000	12,460	171,460
2029	2.239%	159,000	8,900	167,900
2030	2.239%	159,000	5,340	164,340
2031	2.239%	159,000	1,780	160,780
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/4/2015 Next Call: Current

Purpose: Equipment / Buildings Insurance: n/a

Coupon Dates: Feb 1 / Aug 1 Maturity Date: Aug 1

\$7,984,000

2016 IPC (Raymond James)

FY	Coupon	Principal	Interest	Total
Total		5,900,000	812,000	6,712,000
2021	2.320%	537,000	136,880	673,880
2022	2.320%	544,000	124,422	668,422
2023	2.320%	551,000	111,801	662,801
2024	2.320%	558,000	99,018	657,018
2025	2.320%	566,000	86,072	652,072
2026	2.320%	572,000	72,941	644,941
2027	2.320%	499,000	59,670	558,670
2028	2.320%	506,000	48,094	554,094
2029	2.320%	514,000	36,354	550,354
2030	2.320%	522,000	24,430	546,430
2031	2.320%	531,000	12,319	543,319
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 3/10/2016 Next Call: 3/1/2026

Purpose: Capital / Fire Station / EF / Town Hall Insurance: n/a

Coupon Dates: Mar 1 / Sep 1 Maturity Date: Mar 1

Debt Management Fund



\$28,800,000

Limited Obligation Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		6,570,000	984,250	7,554,250
2021	5.000%	1,320,000	328,500	1,648,500
2022	5.000%	1,315,000	262,500	1,577,500
2023	5.000%	1,315,000	196,750	1,511,750
2024	5.000%	1,310,000	131,000	1,441,000
2025	5.000%	1,310,000	65,500	1,375,500
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034				-
2035				-
2036				-
2037				-
2038				-
2039				-

Dated Date: 6/27/2012 Next Call: 6/1/2022

Purpose: Refunding - Chapel Hill Portion Insurance: n/a

Coupon Dates: Jun 1 / Dec 1 Maturity Date: Jun 1

Parking Fund



\$28,800,000

Limited Obligation Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		1,400,000	162,250	1,562,250
2021	5.000%	380,000	70,000	450,000
2022	5.000%	400,000	51,000	451,000
2023	5.000%	415,000	31,000	446,000
2024	5.000%	205,000	10,250	215,250
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/27/2012

Next Call: 6/1/2022

Purpose: Refunding - Parking Portion

Insurance: n/a

Coupon Dates: Jun 1 / Dec 1

Maturity Date: Jun 1

\$28,800,000

Limited Obligation Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		4,335,000	1,233,138	5,568,138
2021	5.000%	280,000	184,831	464,831
2022	5.000%	295,000	170,831	465,831
2023	5.000%	310,000	156,081	466,081
2024	5.000%	325,000	140,581	465,581
2025	5.000%	340,000	124,331	464,331
2026	3.375%	355,000	107,331	462,331
2027	3.500%	370,000	95,350	465,350
2028	4.000%	380,000	82,400	462,400
2029	4.000%	395,000	67,200	462,200
2030	4.000%	410,000	51,400	461,400
2031	4.000%	430,000	35,000	465,000
2032	4.000%	445,000	17,800	462,800
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/27/2012

Next Call: 6/1/2022

Purpose: New Money - 140 West Portion

Insurance: n/a

Coupon Dates: Jun 1 / Dec 1

Maturity Date: Jun 1



Appendix D

Rating Reports

ISSUER COMMENT

4 May 2020

✓ Rate this Research

RATING

General Obligation (or GO Related) ¹

Aaa Stable

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CLIENT SERVICES

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Town of Chapel Hill, NC

Annual Comment on Chapel Hill

Issuer Profile

The town of Chapel Hill is located in Orange County in north central North Carolina, just southwest of the Durham metro area and approximately 25 miles northwest of Raleigh. The county has a population of 142,938 and a moderate population density of 357 people per square mile. The county's median family income is \$96,664 (1st quartile) and the February 2020 unemployment rate was 2.9% (1st quartile) ². The largest industry sectors that drive the local economy are state government, retail trade, and accommodation/food services.

We regard the coronavirus outbreak as a social risk under our environmental, social and governance framework, given the substantial implications for public health and safety. We do not see any material immediate credit risks for Chapel Hill. However, the situation surrounding coronavirus is rapidly evolving and the longer term impact will depend on both the severity and duration of the crisis. If our view of the credit quality of Chapel Hill changes, we will update our opinion at that time.

Credit Overview

Chapel Hill's credit position is exceptional, and its Aaa rating far surpasses the median rating of Aa3 for US cities. Key credit factors include a healthy financial position, a very strong wealth and income profile and a substantial tax base. It also reflects an extremely small debt burden and a mid-ranged pension liability.

Finances: The town has a healthy financial position, which is consistent with the assigned rating of Aaa. The cash balance as a percent of operating revenues (38.7%) is roughly equivalent to the US median. Yet, this percentage declined modestly from 2015 to 2019. Furthermore, Chapel Hill's fund balance as a percent of operating revenues (45.4%) exceeds other Moody's-rated cities nationwide.

Economy and Tax Base: The coronavirus pandemic is driving an unprecedented economic slowdown. We currently forecast real US GDP to decline significantly over the first and second quarters of 2020, but a more moderate decline for the full year. Local governments with the highest exposure to the tourism, health care, consumer and international trade sectors could suffer particularly severe impacts.

The economy and tax base of the town are very healthy, yet the factor is slightly weak when compared to its Aaa rating. The median family income equals a robust 170.2% of the US level. Furthermore, the full value per capita (\$130,161) is stronger than the US median, and grew modestly from 2015 to 2019. Lastly, the total full value (\$8.2 billion) is materially above other Moody's-rated cities nationwide.

Debt and Pensions: Chapel Hill has light debt and pension burdens overall, yet they are weak when compared to the assigned rating of Aaa. The town's net direct debt to full value (0.7%) is slightly below the US median, and remained flat between 2015 and 2019. Also, the Moody's-adjusted net pension liability to operating revenues (1.5x) is consistent with the US median.

Management and Governance: North Carolina cities have an institutional framework score ³ of "Aaa," or very strong. Revenues are highly predictable as cities primarily rely on property taxes. Economically sensitive revenues typically account for less than a sixth of operating revenues. Cities have a high ability to increase revenues through virtually unlimited property tax increases. Expenditures are highly predictable and cities have a high ability to reduce costs quickly if needed given a modest fixed cost burden and no collective bargaining units.

Sector Trends - North Carolina Cities

North Carolina cities will generally benefit from an improving state economy, although areas transitioning from a high reliance on textile, furniture and tobacco employment will lag the rest of the state. Sales tax collections are increasing and an improving housing market has bolstered property tax revenues. The growing tourism sector is also helping support many localities in the state. Pensions are well funded and not expected to have an outsized negative impact on the credit quality of cities as a whole.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

EXHIBIT 1

Key Indicators ⁴ ⁵ Chapel Hill

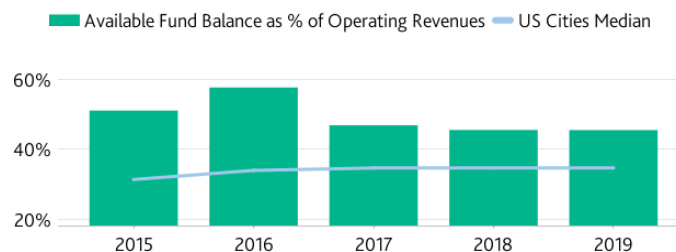
	2015	2016	2017	2018	2019	US Median	Credit Trend
Economy / Tax Base							
Total Full Value	\$7,447M	\$7,539M	\$7,532M	\$8,034M	\$8,223M	\$1,904M	Improved
Full Value Per Capita	\$126,726	\$127,782	\$127,169	\$134,898	\$130,161	\$94,106	Stable
Median Family Income (% of US Median)	174%	170%	170%	170%	170%	111%	Stable
Finances							
Available Fund Balance as % of Operating Revenues	51.0%	57.6%	46.8%	45.5%	45.4%	34.6%	Weakened
Net Cash Balance as % of Operating Revenues	43.1%	48.7%	39.3%	38.0%	38.7%	39.6%	Stable
Debt / Pensions							
Net Direct Debt / Full Value	0.7%	0.7%	0.9%	0.8%	0.7%	1.1%	Stable
Net Direct Debt / Operating Revenues	0.84x	0.84x	0.99x	0.98x	0.81x	0.84x	Stable
Moody's-adjusted Net Pension Liability (3-yr average) to Full Value	0.8%	0.7%	1.0%	1.2%	1.3%	1.9%	Weakened
Moody's-adjusted Net Pension Liability (3-yr average) to Operating Revenues	0.94x	0.83x	1.13x	1.35x	1.49x	1.56x	Weakened

	2015	2016	2017	2018	2019	US Median
Debt and Financial Data						
Population	58,766	59,005	59,234	59,561	63,178	N/A
Available Fund Balance (\$000s)	\$32,592	\$38,698	\$30,903	\$31,197	\$32,706	\$8,028
Net Cash Balance (\$000s)	\$27,509	\$32,689	\$25,926	\$26,108	\$27,836	\$9,530
Operating Revenues (\$000s)	\$63,851	\$67,191	\$66,033	\$68,627	\$72,003	\$23,172
Net Direct Debt (\$000s)	\$53,592	\$56,398	\$65,260	\$66,943	\$58,558	\$19,139
Moody's Adjusted Net Pension Liability (3-yr average) (\$000s)	\$59,919	\$55,610	\$74,843	\$92,428	\$107,488	\$35,448

Source: Moody's Investors Service

EXHIBIT 2

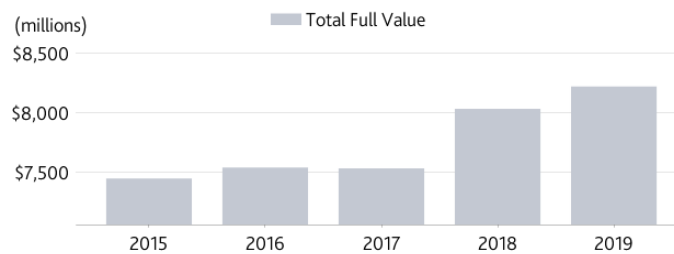
Available fund balance as a percent of operating revenues decreased from 2015 to 2019



Source: Issuer financial statements; Moody's Investors Service

EXHIBIT 3

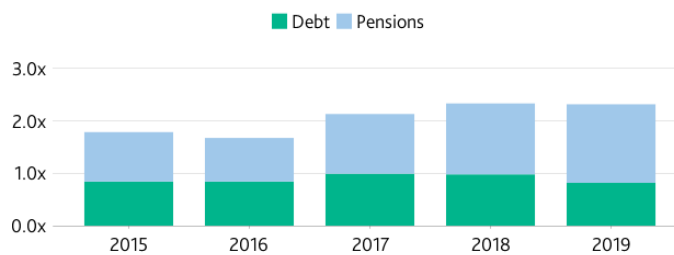
Full value of the property tax base increased from 2015 to 2019



Source: Issuer financial statements; Government data sources; Offering statements; Moody's Investors Service

EXHIBIT 4

Moody's-adjusted net pension liability to operating revenues increased from 2015 to 2019



Source: Issuer financial statements; Government data sources; Offering statements; Moody's Investors Service

Endnotes

- 1 The rating referenced in this report is the issuer's General Obligation (GO) rating or its highest public rating that is GO-related. A GO bond is generally backed by the full faith and credit pledge and total taxing power of the issuer. GO-related securities include general obligation limited tax, annual appropriation, lease revenue, non-ad valorem, and moral obligation debt. The referenced ratings reflect the government's underlying credit quality without regard to state guarantees, enhancement programs or bond insurance.
 - 2 The demographic data presented, including population, population density, per capita personal income and unemployment rate are derived from the most recently available US government databases. Population, population density and per capita personal income come from the American Community Survey while the unemployment rate comes from the Bureau of Labor Statistics.
- The largest industry sectors are derived from the Bureau of Economic Analysis. Moody's allocated the per capita personal income data and unemployment data for all counties in the US census into quartiles. The quartiles are ordered from strongest-to-weakest from a credit perspective: the highest per capita personal income quartile is first quartile, and the lowest unemployment rate is first quartile.
- 3 The institutional framework score assesses a municipality's legal ability to match revenues with expenditures based on its constitutionally and legislatively conferred powers and responsibilities. See [US Local Government General Obligation Debt \(December 2016\)](#) methodology report for more details.
 - 4 For definitions of the metrics in the Key Indicators Table, [US Local Government General Obligation Methodology and Scorecard User Guide \(July 2014\)](#). Metrics represented as N/A indicate the data were not available at the time of publication.
 - 5 The medians come from our most recently published local government medians report, [Medians - Tax base growth underpins sector strength, while pension challenges remain \(May 2019\)](#) which is available on Moody's.com. The medians presented here are based on the key metrics outlined in Moody's GO methodology and the associated scorecard.

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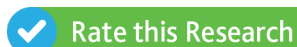
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CREDIT OPINION

14 November 2019



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Chapel Hill (Town of) NC

Update to analysis

Summary

The town of Chapel Hill (Aaa, stable) benefits from a sound financial position following multi-year General Fund surpluses. Reserves and cash balances remained strong despite a planned draw down on reserves for various pay-go capital improvements including parks and affordable housing as well as transfer to OPEB trust. The town's tax base continues to grow largely due to its advantageous location in the burgeoning Research Triangle region and is anchored by the strong institutional presence of the flagship campus of the University of North Carolina. Income and wealth levels are well above average despite the large student population. Lastly, the town's fixed costs will remain affordable despite future borrowing plans due to a conservatively constructed CIP and an average pension position.

Credit strengths

- » Sound financial position with healthy reserves
- » Stable economy with strong institutional presence
- » Affordable debt profile

Credit challenges

- » Slightly elevated debt compared to state median

Rating outlook

The stable outlook reflects the economic strength of the tax base as well as the town's sound financial position.

Factors that could lead to an upgrade

- » Not applicable

Factors that could lead to a downgrade

- » Multi-year trend of structural budget imbalance
- » Reduction of General Fund balance and other available reserves
- » Deterioration of the town's tax base

Key indicators

Exhibit 1

Chapel Hill (Town of) NC	2014	2015	2016	2017	2018
Economy/Tax Base					
Total Full Value (\$000)	\$7,463,254	\$7,447,206	\$7,539,775	\$7,532,719	\$8,034,649
Population	58,379	58,766	59,005	59,234	59,903
Full Value Per Capita	\$127,841	\$126,726	\$127,782	\$127,169	\$134,128
Median Family Income (% of US Median)	172.6%	174.2%	170.2%	169.7%	169.7%
Finances					
Operating Revenue (\$000)	\$61,975	\$63,851	\$67,191	\$66,033	\$68,627
Fund Balance (\$000)	\$26,450	\$32,592	\$38,698	\$30,903	\$31,197
Cash Balance (\$000)	\$23,201	\$27,509	\$32,689	\$25,926	\$26,108
Fund Balance as a % of Revenues	42.7%	51.0%	57.6%	46.8%	45.5%
Cash Balance as a % of Revenues	37.4%	43.1%	48.7%	39.3%	38.0%
Debt/Pensions					
Net Direct Debt (\$000)	\$56,620	\$53,592	\$56,398	\$65,260	\$66,943
3-Year Average of Moody's ANPL (\$000)	N/A	\$59,919	\$55,610	\$74,843	\$92,428
Net Direct Debt / Full Value (%)	0.8%	0.7%	0.7%	0.9%	0.8%
Net Direct Debt / Operating Revenues (x)	0.9x	0.8x	0.8x	1.0x	1.0x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	N/A	0.8%	0.7%	1.0%	1.2%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	N/A	0.9x	0.8x	1.1x	1.3x

Source: Moody's Investors Service, Town of Chapel Hill, NC, US Census

Profile

Located in the central portion of the state, the town sits within Orange County (Aaa stable). The town covers a land area of 21.6 square miles and has a population estimated at 63,178.

Detailed credit considerations

University and proximity to research triangle park support robust local economy

The town's tax base is expected to remain stable and healthy, given the stabilizing presence of the University of North Carolina (UNC) at Chapel Hill (Aaa stable) and the important role the town plays as one of the anchors of Research Triangle Park (RTP). The university enrolls over 29,000 students and employs approximately 20,000 people. UNC's footprint in the community is expected to increase substantially over the next 10 to 20 years with the construction of Carolina North, a major satellite research campus. The project will occupy over 250 acres in town and include new academic buildings, retail space, research facilities, businesses and public schools. At completion, the project is expected to include sizable employment and enrollment gains. Also of note, approximately half of the project is expected to be taxable. UNC Healthcare employs over 13,000 individuals. In addition to not-for-profit employment opportunities in surrounding communities including Duke University (Aa1 stable) and Duke University Health System (over 20,000 employees), the area is characterized by a robust and diverse private sector centered around RTP including several large employers including International Business Machines Corporation-IBM (A1 stable-11,500 employees), SAS (4,200 employees), and GlaxoSmithKline plc (A2 stable). Over 39,000 people are employed by RTP's various entities, producing an annual payroll of over \$2.8 billion.

Chapel Hill's \$8 billion tax base has grown at an average annual rate of almost 2% for the past five years. The relatively low growth rate is largely due to some major redevelopment projects downtown which temporarily lowered valuations in the interim. The high quality nature of the tax base is evidenced by a full value per capita of \$134,128. Despite the large student presence, wealth levels are well above those of the state and the U.S.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

Continued maintenance of healthy reserves and liquidity despite active pay-go capital funding

The town's financial position will likely remain healthy given a solid track record of positive operating results, conservative budgeting practices, and sound reserve levels. Positive fiscal 2018 results increased total Operating Fund balance to a strong \$31.8 million (46.4% of revenues). At these levels the town's reserve position remains in line with the national Aaa median and above the town's target minimum available General Fund balance of 22% of General Fund expenditures.

In fiscal 2017, officials had a planned spend-down of reserves for pay-go projects including parks & recreation, land acquisition, affordable housing as well as \$2.7 million for OPEB trust funding.

Officials report year-to-date fiscal 2019 results are positive.

LIQUIDITY

The town continues to carry a healthy amount of cash and investments with \$26.1 million in fiscal 2018, representing 38% of combined operating fund revenues

Fixed costs expected to remain affordable

The town's debt position will remain manageable given a slightly elevated direct debt burden of 0.8% of full value (North Carolina Aaa town median 0.6%) and debt service levels representing 11% of expenditure in fiscal 2018.

Further, the town employs an average repayment schedule with 91% of principal repaid within 10 years. The town's CIP totals \$58 million and anticipates an additional \$12.7 in GO borrowing.

DEBT STRUCTURE

The town's debt profile consists entirely of fixed rate borrowing.

DEBT-RELATED DERIVATIVES

The town has not entered into any swap agreements.

PENSIONS AND OPEB

The town contributes to the North Carolina Local Government Employees Retirement System (NCLGERS), defined benefit retirement plan administered by the State of North Carolina. Moody's uses the adjusted net pension liability to improve comparability of reported pension liabilities. The adjustments are not intended to replace the town's reported liability information, but to improve comparability with other rated entities. We determined the town's share of liability for the state-run plan in proportion to its contributions to the plan. In addition to participating in the state plan, the town has a separate plan for law enforcement and to which the town consistently makes over 100% of the annual required contribution. The three year average Moody's adjusted net pension liability (ANPL) for the town is an average 1.13 times operating revenues and 0.99% of full value.

In June of 2016, the town created an irrevocable trust exclusively for pre-funding assets of the Town's defined benefit OPEB Plan. In Fiscal 2018 and 2019 the town deposited \$840,000 into the trust, \$666,400 is included in the fiscal 2020 budget.

Town operations within a strong state institutional framework

Chapel Hill's management has a long-standing history of conservative budgetary practice and prudent policies. The town maintains an Unassigned Fund Balance target of 22% of General Fund expenditures or higher and utilizes overages for one time pay-go capital projects.

North Carolina towns have an institutional framework score of Aaa, which is high compared to the nation. Institutional framework scores measure a sector's legal ability to increase revenues and decrease expenditures. The sector's major revenue sources are subject to a cap, which can be overridden. However, the cap of 15%, still allows for significant revenue-raising ability. Unpredictable revenue fluctuations tend to be minor, or under 5% annually. Across the sector, fixed and mandated costs are generally less than 25% of expenditures. North Carolina is a "right to work" state, providing significant expenditure-cutting ability to local governments. Unpredictable expenditure fluctuations tend to be minor, under 5% annually

Rating methodology and scorecard factors

The US Local Government General Obligation Rating Methodology includes a scorecard, a tool providing a composite score of a local government's credit profile based on the weighted factors we consider most important, universal and measurable, as well as possible notching factors dependent on individual credit strengths and weaknesses. Its purpose is not to determine the final rating, but rather to provide a standard platform from which to analyze and compare local government credits.

Exhibit 2

Chapel Hill (Town of) NC

Rating Factors	Measure	Score
Economy/Tax Base (30%) ^[1]		
Tax Base Size: Full Value (in 000s)	\$8,034,649	Aa
Full Value Per Capita	\$134,128	Aa
Median Family Income (% of US Median)	169.7%	Aaa
Notching Factors: ^[2]		
Institutional Presence		Up
Finances (30%)		
Fund Balance as a % of Revenues	45.5%	Aaa
5-Year Dollar Change in Fund Balance as % of Revenues	9.8%	A
Cash Balance as a % of Revenues	38.0%	Aaa
5-Year Dollar Change in Cash Balance as % of Revenues	4.6%	A
Management (20%)		
Institutional Framework	Aaa	Aaa
Operating History: 5-Year Average of Operating Revenues / Operating Expenditures	1.0x	A
Debt and Pensions (20%)		
Net Direct Debt / Full Value (%)	0.8%	Aa
Net Direct Debt / Operating Revenues (x)	1.0x	A
3-Year Average of Moody's Adjusted Net Pension Liability / Full Value (%)	1.2%	Aa
3-Year Average of Moody's Adjusted Net Pension Liability / Operating Revenues (x)	1.3x	A
Scorecard-Indicated Outcome		Aaa
Assigned Rating		Aaa

[1]Economy measures are based on data from the most recent year available.

[2]Notching Factors are specifically defined in the US Local Government General Obligation Debt methodology dated September 27, 2019.

[3]Standardized adjustments are outlined in the GO Methodology Scorecard Inputs Updated for 2019 publication

Source: US Census Bureau, Issuer CAFRs, Moody's Investors Service

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REPORT NUMBER

1203060

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November 5, 2019

Town of Chapel Hill
Department of Business Management
405 Martin Luther King Jr Blvd
Chapel Hill, NC 27514
Attention: Ms. Amy Oland, Interim Director

**Re: *US\$9,565,000 Chapel Hill, North Carolina, General Obligation Refunding Bonds, Series 2019, dated:
Date of delivery, due: April 01, 2031***

Dear Ms. Oland:

Pursuant to your request for an S&P Global Ratings rating on the above-referenced obligations, S&P Global Ratings has assigned a rating of "AAA". S&P Global Ratings views the outlook for this rating as stable. A copy of the rationale supporting the rating is enclosed.

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Please send hard copies to:
S&P Global Ratings
Public Finance Department
55 Water Street
New York, NY 10041-0003

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cc: ***Mr. Ted Cole, Senior Vice President***
Davenport Public Finance

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