Chapel Hill Transit: Strategic and Financial Plan

Capital Plan

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NELSON
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Table of Contents

Table of Figures

PREFERRED CAPITAL FUNDING PLAN

INTRODUCTION

CHT is a very successful system carrying more riders than any other transit agency in North Carolina, excluding the Charlotte Area Transit System. Much of the CHT's growth has occurred over the past decade, after deciding to operate as a fare-free system in 2002. Transit has been—and continues to be—a cornerstone of the community by providing efficient travel for the University of North Carolina-Chapel Hill (UNC-Chapel Hill) and accommodating growth at both the UNC-Chapel Hill campus and in the communities of Carrboro and Chapel Hill. The success at CHT also reflects a commitment to both transit and a multimodal transportation system by the Town of Chapel Hill as well as CHT's Partners, the Town of Carrboro and UNC-Chapel Hill.

Success, however, has come with struggles. Consistent with experience nationally, traditional funding sources for transit agencies are stagnating while the cost to operate service increases. At the same time, the demand and need for transit is growing as transit services are increasingly viewed as important tools to stimulate economic development, protect the environment, offer viable travel options, and, specific to the situation in Chapel Hill, are an integral part of the parking plan for the UNC-Chapel Hill campus.

Beyond these national trends, CHT is at a turning point as an agency and service. What began as a shuttle service to and from the UNC-Chapel Hill campus has grown into a much bigger system, reflecting growth not only at UNC-Chapel Hill but also the broader region. However, as the system has grown, investment in the agency's infrastructure has not kept pace—staffing and capital investment have lagged relative to ridership and relative to the useful life-cycle of the transit fleet. Limited capital and operating funds, as well as uncertainty surrounding future sources, will have significant negative impacts on the system if appropriate measures are not taken.

This Preferred Capital Funding Plan provides a roadmap for the future financial sustainability of the CHT's services given these unknowns[1]. Financial sustainability underpins the plan, which includes three primary goals:

1. Updating the fleet and continually replacing old vehicles.
2. Investing in operators, mechanics, and supervisors.
3. Developing a transparent, predictable, and manageable funding formula for CHT partners.

The remainder of this section outlines the Preferred Capital Funding Plan, including general assumptions and projected expenses. Further, it outlines the implications of this plan for future contributions from UNC-Chapel Hill, Carrboro, and Chapel Hill.

[1] The Town of Chapel Hill and CHT Partners will continue to have flexibility to update this plan as circumstances dictate

ASSUMPTIONS

The nine assumptions below form the basis of the rest of the Preferred Capital Funding Plan.

1. **Cost-Efficient Fixed-Route Vehicles.** CHT will purchase the most economic vehicles possible: initially this will be 40-foot clean diesel very low emissions buses, at a base cost of roughly $440,000 each and with a useful life of 15 years. CHT will conduct ongoing review and evaluation of evolving bus and alternative fuel technologies to guide future vehicle purchases.
2. **Vehicle Procurement.** Vehicle procurement will occur in concert with GoTriangle and GoDurham in accordance with federal guidelines and regulations.
3. **No Change in Service Levels.** Vehicle replacement needs reflect no changes in transit service levels. If service levels change (up or down), operating and capital shares would be impacted.
4. **Debt Finance.** Debt financing vehicles will carry 10-year terms at an estimated 1.8% interest, with yearly payments of roughly $50,000-$60,000 per vehicle[2].
5. **Inflation.** The Preferred Plan assumes a 2% annual inflation and operating cost increase; associated costs are anticipated to increase from approximately $450,000 in FY 2018 to $4.7 million in FY 2027.
6. **Fixed-Route Vehicle Acquisition.** In FY 2016, CHT will purchase approximately two transit vehicles and debt finance an additional 12. In FY 2017, CHT will purchase approximately six transit vehicles and debt finance an additional eight. Thereafter, CHT will acquire approximately six to seven vehicles annually, through a combination of debt financing and cash purchase. An early goal of vehicle acquisition will be to replace the oldest vehicles currently in the CHT fleet.
7. **Demand Response Vehicle Acquisition.** CHT will acquire approximately four demand response vans and light transit vehicles (LTVs) per year, at a total annual cost of approximately $350,000. The base cost is $44,000 for each van and $67,200 for each LTV.
8. **Passenger Amenities and Facilities Maintenance.** The financial model assumes approximately $300,000 per year for bus stop amenities and print information. Approximately $800,000 per year is assumed for ongoing passenger amenity maintenance, park-and-ride maintenance, and building/facility maintenance.
9. **Partner Contribution Split.** The Preferred Plan assumes the current Partner contribution split—that is to say, the proportion of the total Partner contribution paid by UNC-Chapel Hill, Chapel Hill, and Carrboro in any given year—remains constant. A determination of the future split will occur as a result of conversations among the Partners.

[2] Depending on final interest rate and year of acquisition

VEHICLE ACQUISITION

In FY 2016, the Preferred Plan calls for the purchase of two transit vehicles and debt financing of an additional 14. In FY 2017, CHT will purchase approximately six transit vehicles and debt finance an additional eight. Thereafter, CHT will acquire approximately six to seven vehicles, primarily through debt financing; the plan also recommends certain vehicles be purchased with cash[3]. An early goal of vehicle acquisition will be to replace the oldest vehicles currently in the CHT fleet. Figure 1 presents the number of vehicles acquired through purchase and debt finance, as well as the average fleet age for CHT.

Figure 1 Vehicles Acquired and Average Fleet Age (Preferred Plan)

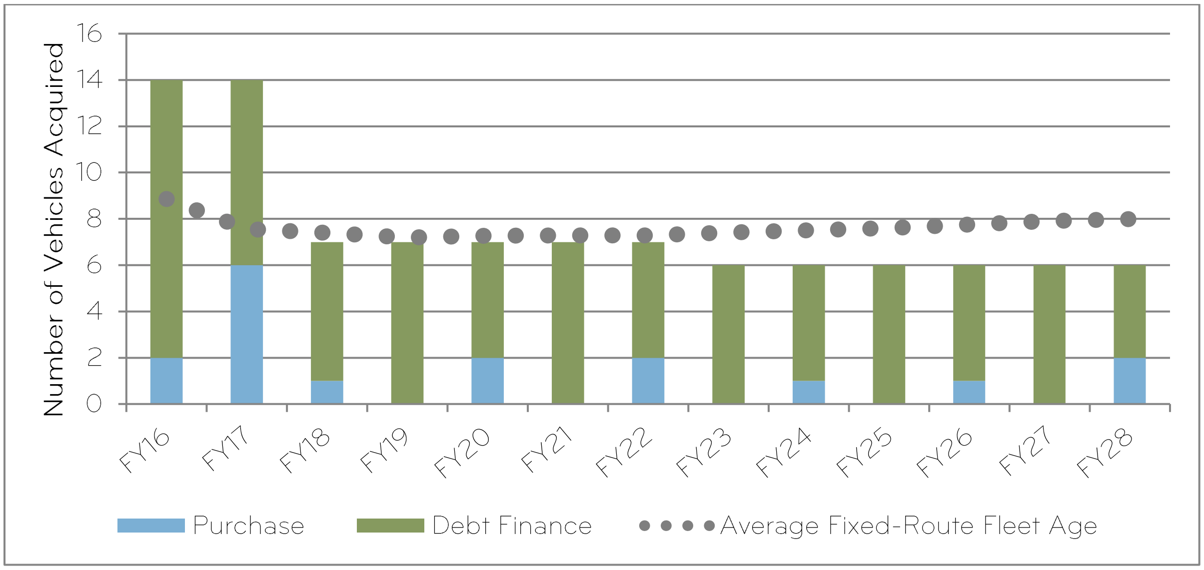
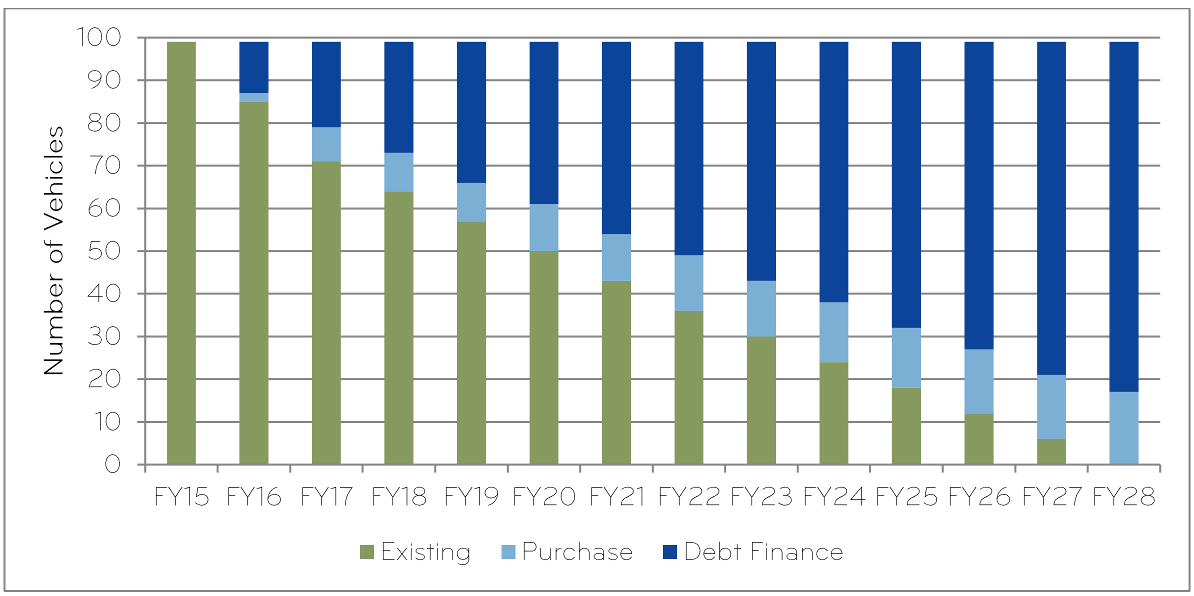


Figure 2 shows the cumulative fleet composition between the years in question. It illustrates how, under the Preferred Plan, the fleet becomes increasingly debt-financed between FY 2016 and FY 2028.

Figure 2 Fleet Composition Over Time (Preferred Plan)



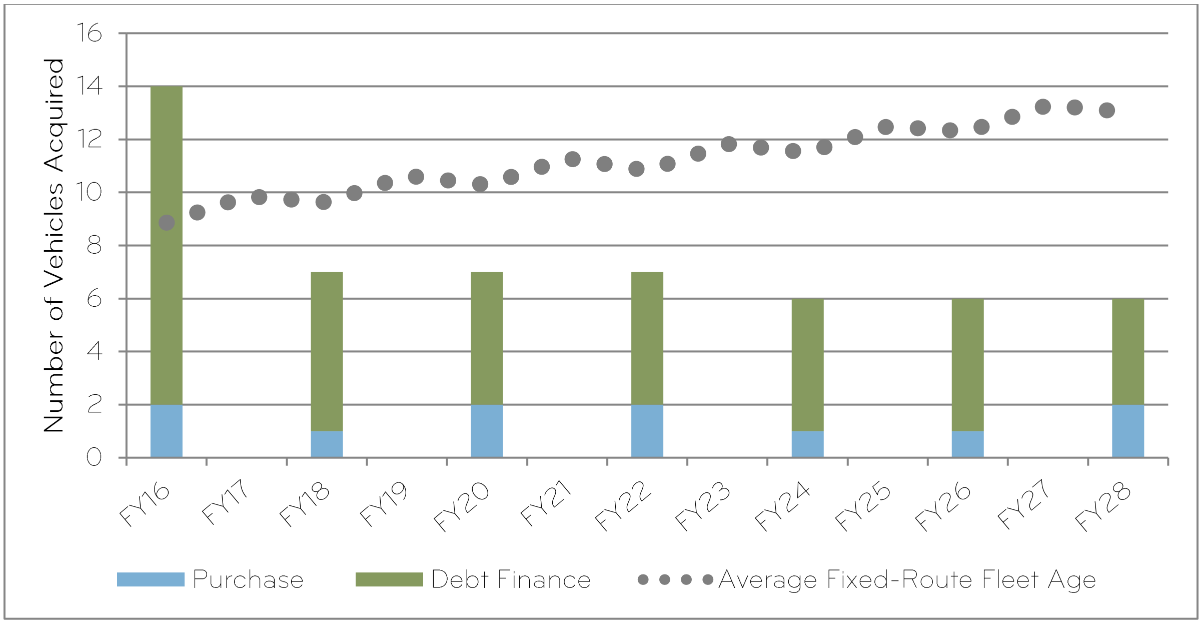
[3] CHT will continue to pursue cash options whenever they are available

Illustrative Example: Impacts of Reduced Vehicle Purchases

This section illustrates the impact of a reduction in vehicle purchases. Instead of accounting for six to seven vehicle purchases yearly, it calls for this number of vehicle purchases every two years following FY 2016. The purpose of doing so is to show the impact in terms of fixed-route fleet age of purchasing approximately half of the vehicles required to maintain a consistent vehicle replacement plan.

In this case, CHT fleet age increases to 13.0 years by FY 2028 (instead of 8.0 years under the Preferred Plan) and is nearly two years older per average bus than today's fleet. Figure 3 shows the average fleet age and number of vehicles purchased each year assuming six-vehicle acquisition every two years (rather than yearly).

Figure 3 Average Fleet Age, Vehicles Purchase with Cash, and Vehicles Debt Financed (for Illustration Only)

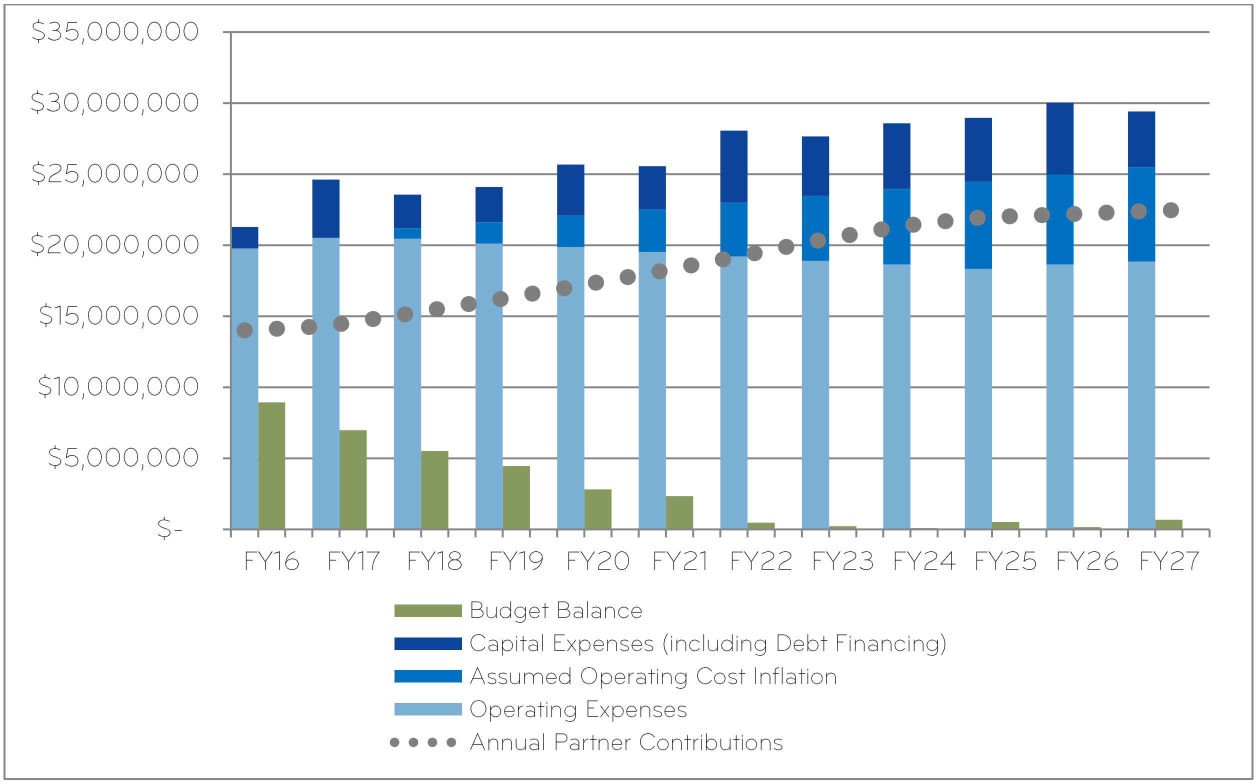


PROJECTED EXPENSES

Under the Preferred Plan, capital expenses will be roughly $1.5 million in FY 2016 and increase to $4.1 million in FY 2017[4]. Thereafter, capital expenses are anticipated to range from $2.5 million in FY 2018 to $5.1 million in FY 2024, before decreasing again to $3.9 million in FY 2027. By contrast, operating expenses are expected to increase gradually between FY 2016 and FY 2027, due in large part to inflation[5].

Figure 4 presents operating expenses (including the predicted effect of inflation), capital expenses, and budget balance between FY 2016 and FY 2027. Annual operating inflation costs are anticipated to increase from approximately $450,000 in FY 2018 to $4.7 million in FY 2027. Total annual Partner contributions range from approximately $14 million in FY 2016 to $22.4 million in FY 2027.

Figure 4 Operating Expenses, Capital Expenses, and Budget Balance (Preferred Plan)



[4] CHT budgeted $967,000 in FY 2017 for debt finance payments. This amount is assumed to carry through the rest of the model; Partner contribution increases account for debt financing payments above $967,000.

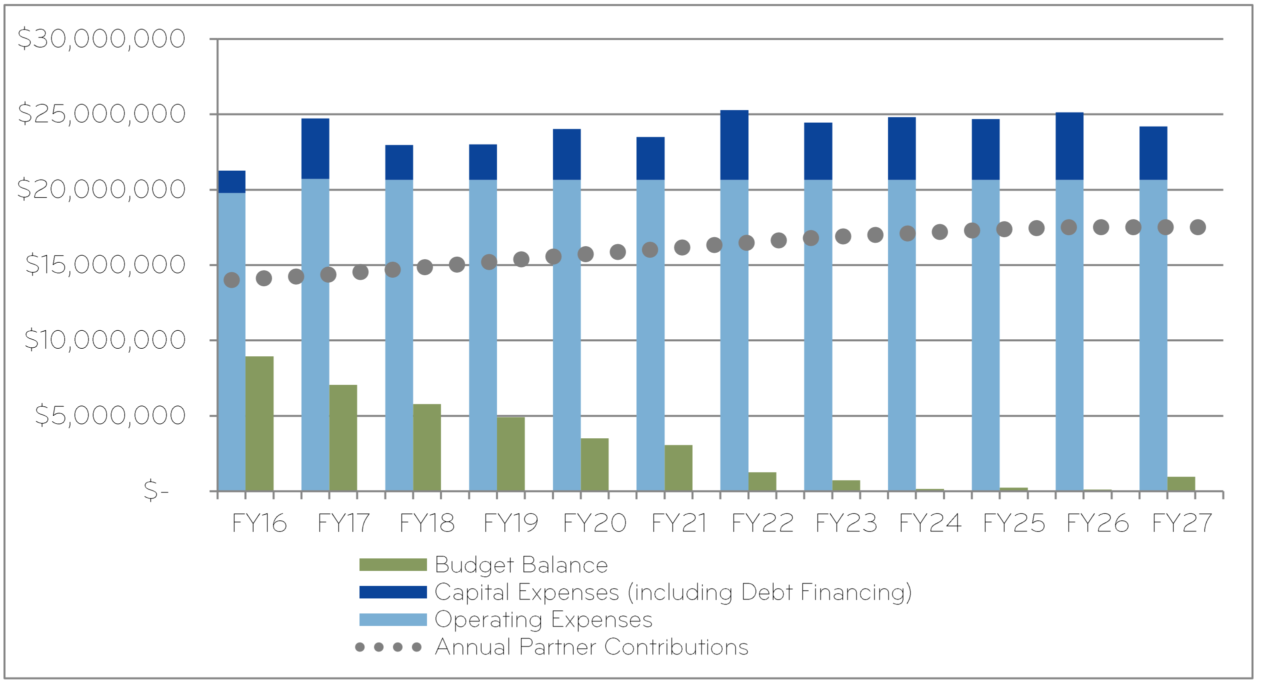
[5] Inflation is assumed to be 2% per year

Illustrative Example: Impacts of 0% Inflationary Factor

In this illustrative example, annual inflationary expenses and operating cost increases are estimated at 0%[6]. Without inflation, annual capital expenses range from approximately $1.5 million in FY 2016 to $3.5 million in FY 2027. In this illustrative example, operating expenses increase to approximately $20.6 million in FY 2018 and remain at that level until FY 2027.

Figure 5 presents operating expenses (without the predicted effect of inflation), capital expenses, and budget balance between FY 2016 and FY 2027. To keep CHT's budget balance above $0, total annual Partner contributions would increase by a range of 0.0% and 3.0% from FY 2018 through FY 2027. Total annual Partner contributions in this illustrative example start at approximately $14 million in FY 2016 and increase to $17.5 million in FY 2027.

Figure 5 Operating Expenses, Capital Expenses, and Budget Balance (for Illustration Only)



[6] Rather than 2% assumed in the Preferred Plan

PREFERRED PLAN PARTNER CONTRIBUTIONS

The Preferred Plan requires continued contributions from UNC-Chapel Hill, Chapel Hill, and Carrboro. It assumes that contributions will increase between 1.0% and 6.0% between FY 2018 and FY 2027. However, the current Partner contribution split—that is to say, the proportion of the total Partner contribution paid by the three organizations in any given year—will remain approximately constant. A determination of the future split will occur as a result of conversations among the Partners. Figure 6 presents the change in Partner contributions between FY 2016 and FY 2027.

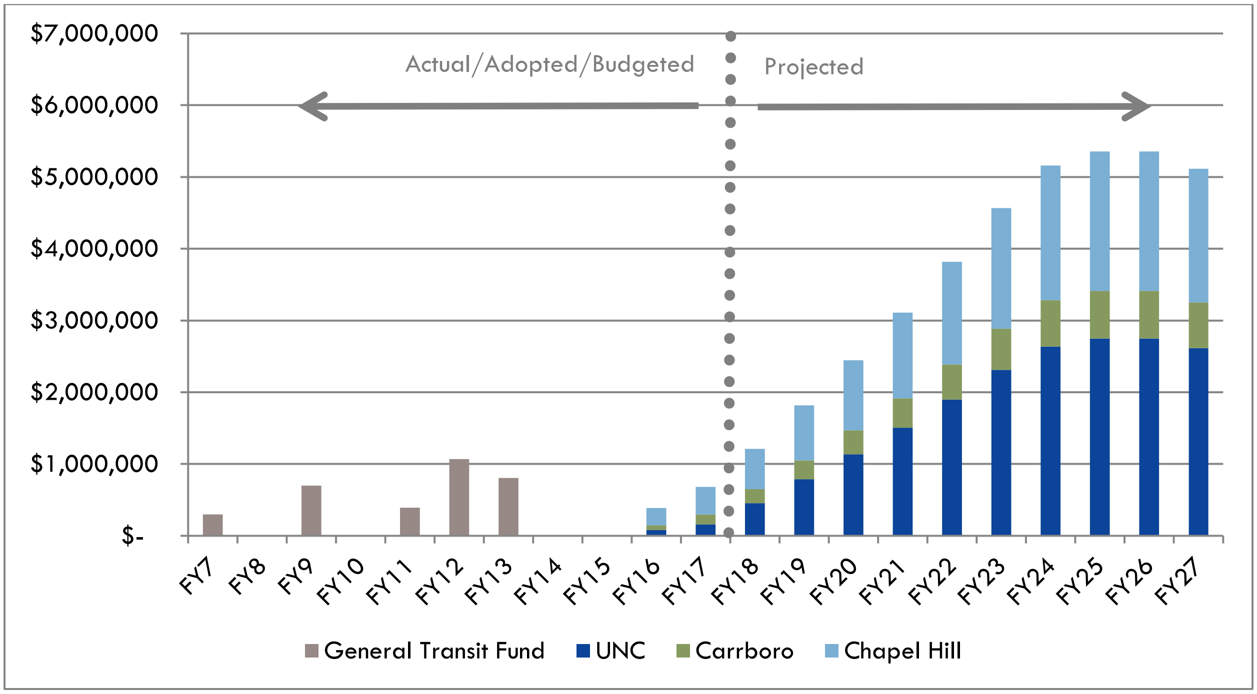
Figure 6 Preferred Plan Total Partner Contributions (FY 2016–FY 2027)

	Contribution from UNC-Chapel Hill	Contribution from Carrboro	Contribution from Chapel Hill	Percent Increase
FY 16 (Adopted)	$7,844,040	$1,540,288	$4,626,184	-
FY 17 (Budgeted)	$7,923,860	$1,611,003	$4,770,592	2.1%
FY 18	$8,400,000	$1,708,000	$5,057,000	6.0%
FY 19	$8,904,000	$1,811,000	$5,361,000	6.0%
FY 20	$9,438,000	$1,919,000	$5,682,000	6.0%
FY 21	$10,004,000	$2,034,000	$6,023,000	6.0%
FY 22	$10,604,000	$2,156,000	$6,385,000	6.0%
FY 23	$11,241,000	$2,286,000	$6,768,000	6.0%
FY 24	$11,803,000	$2,400,000	$7,106,000	5.0%
FY 25	$12,157,000	$2,472,000	$7,319,000	3.0%
FY 26	$12,278,000	$2,497,000	$7,392,000	1.0%
FY 27	$12,401,000	$2,522,000	$7,466,000	1.0%

Note: These numbers are projected estimates based on model assumptions and assume no change to the relative proportion of the split in place in FY 17

Figure 7 highlights the recommended annual Partner contributions for capital purchases. This figure reveals the importance of an increase in Partner funding for CHT's financial sustainability and continued acquisition of vehicles.

Figure 7 Historic and Projected Total Partner Contributions for Capital (Preferred Plan)



PREFERRED CAPITAL FUNDING PLAN SUMMARY

The Preferred Capital Funding Plan allows CHT to remain financially sustainable while maintaining the current level of transit service and reflecting Partner preferences. Figure 8 presents a summary of the Preferred Plan elements.

Figure 8 Preferred Capital Funding Plan Summary

Topic	Summary
Assumptions	1. In the near-term, CHT will purchase the most economic vehicles possible. 2. Vehicle procurement will occur in concert with GoTriangle and GoDurham. 3. Vehicle replacement needs reflect no changes in transit service levels. 4. Debt financing vehicles will carry 10-year terms at approximately 1.8% interest, with yearly payments of roughly $50,000-$60,000 per vehicle. 5. The Preferred Plan assumes a 2% annual inflation and operating cost increase; associated costs are anticipated to increase from approximately $450,000 in FY 2018 to $4.7 million in FY 2027. 6. In FY 2016, CHT will purchase approximately two transit vehicles and debt finance an additional 14. In FY 2017, CHT will purchase approximately six transit vehicles and debt finance an additional eight. Thereafter, CHT will acquire approximately six to seven vehicles annually through a combination of cash purchase and debt financing. An early goal of vehicle acquisition will be to replace the oldest vehicles currently in the CHT fleet. 7. CHT will acquire approximately four demand response vans and LTVs per year, at an annual cost of approximately $350,000. 8. The financial model assumes approximately $300,000 per year for bus stop amenities and print information, as well as approximately $800,000 per year for ongoing passenger amenity maintenance, park-and-ride maintenance, and building/facility maintenance. 9. The current Partner contribution split is assumed to remain constant.
Projected Expenses	▪ Under the Preferred Plan, capital expenses will be roughly $1.5 million in FY 2016 and increase to $4.1 million in FY 2017. Thereafter, capital expenses are anticipated to range from $2.5 million in FY 2018 to $5.1 million in FY 2024, before decreasing again to $3.9 million in FY 2027. ▪ Operating expenses are expected to increase gradually between FY 2016 and FY 2027, due in large part to inflation.
Partner Contributions	▪ Contributions will increase between 1.0% and 6.0% annually between FY 2017 and FY 2027.