

NPEDC MEETING

3/15/2021

AGENDA ITEM VI.D

**CONTRACTS FOR BUILD-OUT ANALYSIS
PHASE I USING 2021 DLTA FUNDS**

Town of Nantucket

Build-Out Study

Scope of Services

A Build-Out Study provides a numerical and spatial projection for future development based on current regulatory, environmental and site constraints. Build-Out Studies inform and support comprehensive land use planning, economic development, and facilities and service planning. They also enable communities to test alternative development scenarios, such as increased densities or conservation areas, to better understand the physical impact of contemplated regulatory changes.

Weston & Sampson completed an analysis of developable and redevelopable land within the Town Sewer District and the 2014 CWMP Needs Areas as part of the 2020 Sewer Master Plan, as well as the Sconset Sewer District as part of the Sconset CWMP Update. That effort involved sorting tax assessor parcel data by zoning district, identifying non-buildable lots, determining the build-out capacity of the remaining lots and the size of existing or potential structures in terms of bedrooms, and projecting a future wastewater flow in gallons per day. The build out analysis for the Sewer Master Plan and the Sconset CWMP Update included approximately 4,000 buildable parcels.

This project builds on that analysis by looking at Nantucket townwide using updated and refined tax assessor parcel data to project development and redevelopment through 2045. Population growth models will be developed for the last 25 years (though 1995). Data will be formatted by map and parcel numbers.

Background

Three prior build-out studies have been completed. With the 1997 Build Out Study, completed by the Nantucket Planning and Economic Development Commission et al, the Town sought to substantiate prior build-out studies given changes in zoning. This effort involved a lot-by-lot analysis, presumably without GIS, and before wetland maps or other data readily available today. At the time of the analysis, only 12% of Nantucket's total dwelling units were secondary dwelling units on a single parcel, a number which has likely increased significantly. This build-out projected a maximum of 23,760 new dwelling units on 12,311 lots (27% of which are secondary dwellings).

In 2000, the Commonwealth conducted a Build-Out Analysis. According to the Master Plan, this study discounted large swaths of the island as unbuildable due to various development constraints, and only considered by-right development (not potential Chapter 40B housing). As a result, this study concluded a conservative 2,128 new dwelling units in its build-out.

In 2018, students from Worcester Polytechnic Institute completed a third build-out study using tax assessor data to identify parcels with one or more residential structures in each district and then calculated an average number of dwellings per parcel. Separately, they used tax assessor data to categorize parcels that are buildable and/or subdividable to determine a hypothetical maximum buildout

scenario. Based on this data and input from Town and development stakeholders, the students developed a low and high growth scenario for 2030. They concluded that Nantucket currently has 10,456 dwelling units with a maximum build-out of 5,431 new units (15,887 total).

Scope of Services

Task 1 – Collect Existing Conditions Data

- 1.1 The ENGINEER will plan and conduct work sessions with town representatives to review tax assessor data, zoning, and growth rates. The budget for this task includes up to four (4) virtual work sessions.
- 1.2 The ENGINEER will collect relevant GIS data illustrating constraints to development (current and projected with sea-level rise).
- 1.3 The ENGINEER will determine population growth rates from 1960 to 2010 based on the most updated available U.S. Census data. The ENGINEER will summarize data in a table that includes the population rates over time compared to Massachusetts overall and the annual compounded annual growth rates over a 30-year, 20-year, and 10-year period.
- 1.4 The ENGINEER will prepare a technical memo summarizing findings.

Task 2 – Analyze Parcel Data to Determine Buildable Area

- 2.1 The ENGINEER will review GIS and parcel data development constraints and their impacts on land development potential. Based on available Assessor's and GIS data, Nantucket has approximately 13,600 parcels, of which approximately 11,600 parcels are considered buildable and 2,000 parcels are considered non-buildable. The build out analysis completed for the Sewer Master Plan and the Sconset CWMP Update included approximately 4,000 buildable parcels. This task is budgeted to include the analysis of the remaining 7,600 buildable parcels. The evaluation for the buildable area will include the following considerations:
 - 2.1.1 Permanently conserved land parcels will be treated as non-buildable unless advised otherwise by Town staff.
 - 2.1.2 Base zoning districts will be identified and categorized based on their potential for subdivisions under current standards for minimum lot size and building setbacks. The minimum allowable lot size for each zoning district will be counted as a potential "future lot." The evaluation will include rights-of-way. Lots that are impractical for dwellings will be discussed with Town staff and can be removed.
 - 2.1.3 Parcels with existing buildings will be reviewed with Town staff to determine if they are underutilized and represent development potential.

- 2.1.4 The ENGINEER will map and assess environmental constraints, including streams, coastal buffers, hydric soils (although these may be developable), wetlands, conservation areas, and associated buffers. Smaller wetlands or other development constraints not noted in available data but observed in site reconnaissance may impact parcel development.
- 2.2 The ENGINEER will prepare a technical memo summarizing the amount of buildable land after all constraints have been considered.

Task 3 – Build Out Summary

The Build-Out Analysis will summarize potential development numerically and spatially. The numerical build-out reflects the number of total projected buildings based on minimum lot size on buildable land. The spatial build-out places the project buildings on a map and accounts for building size, shapes of lots, distances from lot lines, setbacks, natural features, and other constraints.

- 3.1 The ENGINEER will determine the projected increase in the number of buildings (based on buildable area). Buildable area and the projected increase in buildings will be organized in tables at the town scale and for each zoning district. Each table will be accompanied by a narrative explanation.
- 3.2 The ENGINEER will prepare GIS maps illustrating the spatial build-out. Maps include existing buildings before 1995 (25-year look back), buildable area by zoning district, and projected buildings through 2045 (25-year look forward).
- 3.4 The ENGINEER will compile data, maps, and narratives into a compendium.

Task 4 – Prepare the Build-Out Study Report

- 4.1 The ENGINEER will prepare the Build Out Study Report summarizing the findings of Tasks 1 through 3. Electronic versions of the draft report will be submitted to the Town for review and comment. The ENGINEER will meet with the Town to present the draft report and discuss any comments. The ENGINEER will revise the draft report based on the comments from the Town and submit electronic and printed versions of the final report.

Task 5 – Project Administration and Meetings

- 5.1 The ENGINEER will provide project coordination and management, maintenance of project records and documentation, control of budget and schedule, preparation of monthly progress reports outlining the budget, and project status.
- 5.2 The ENGINEER will prepare for and conduct virtual progress meetings with the Town staff to review project status and address the technical aspects of the work. We have budgeted for up to four (4) virtual progress meetings.
- 5.3 The ENGINEER will present the Build-Out Study Report at public hearings/meetings. We have budgeted for one (1) public hearings/meetings.

ATTACHMENT A - NANTUCKET BUILD-OUT STUDY
PROJECT BUDGET BY TASK
Estimated Level of Effort for Weston & Sampson

Task	Description	Principal \$/hour	Team Leader \$/hour	Project Manager \$/hour	Engineer \$/hour	GIS \$/hour	TOTAL HOURS	TOTAL LABOR DOLLARS (BARE)	TOTAL INDIRECT COSTS (OH)	TOTAL LABOR & INDIRECT DOLLARS	OTHER DIRECT COSTS	FIXED FEE	TOTAL DOLLARS
		Field	\$0.00	\$0.00	\$0.00	\$0.00			168.000%			12%	
		Office	\$92.50	\$78.23	\$56.66	\$34.79	\$34.37		186.000%			12%	
1.0	Collect Existing Conditions Data	4	20	28	26	8	86	\$4,701	\$8,743	\$13,444	\$0	\$1,613	\$15,057
2.0	Analyze Parcel Data		26	92	164	26	308	\$13,846	\$25,753	\$39,599	\$0	\$4,752	\$44,351
3.0	Build-Out Summary		20	44	56	24	144	\$6,831	\$12,705	\$19,536	\$50	\$2,344	\$21,930
4.0	Report	4	12	24	16	8	64	\$3,500	\$6,510	\$10,011	\$180	\$1,201	\$11,392
5.0	Project Administration and Meetings	8	40	44	8		100	\$6,640	\$12,351	\$18,992	\$1,000	\$2,279	\$22,271
	Total: Tasks 1 through 5	16	118	232	270	66	702	\$35,518	\$66,063	\$101,581	\$1,230	\$12,190	\$115,000
	GRAND TOTAL	16	118	232	270	66	702	\$35,518	\$66,063	\$101,581	\$1,230	\$12,190	\$115,000