



Site Analysis Memorandum

Date:June 27, 2023Re:Town of Palm Beach
Marina Site Refuse Layout UpdateCMA Project No. :23-431.00042

Background

The purpose of this memorandum is to update the site analysis performed for the relocation of the refuse compactor that services the marina at the Town of Palm Beach. Currently, the compactor is located on the west side of S Lake Drive on a concrete pad that is roughly 726 square feet in size, between the intersections with Australian Avenue and Chilean Avenue. The Town is proposing the relocation of the compactor to the pump station site located within the Town of Palm Beach Marina Park at the southwest corner of Royal Palm Way and S Lake Drive. It is anticipated that the relocation of the compactor will reduce the visibility of the waste management activities.

Analysis Summary

The pump station site is located within the Town of Palm Beach Marina Park and is a fenced in and landscaped facility that is approximately 20,300 SF. This site consists of parking areas on the west and south side of 11,500 SF and a building that is 3,400 SF. The remainder of the site is used for staging areas and walkways. There are fire hydrants on the west side. The site is screened by a landscape buffer approximately 15 feet wide, with a 6-foot-tall hedge consisting of various types of shrubs and trees. Previous site analysis considered several configurations for relocating the compactor. These alternatives were presented to the Town Council in June of 2022. Subsequently, a temporary alternative was piloted using small waste trucks staged within the pump station property. This option was found to not be the optimal operational approach.

Based on feedback from the Town Council at the May 2023 Council meeting and information provided by the Town Staff, one option from the previous analysis is being evaluated further. Reviewing the current operations at the existing waste management area it was determined that the proposed compactor and recycling bin pad will require a 20' x 12' area to accommodate the relocation of the existing refuse equipment. To evaluate the required turning radius and operations of the proposed compactor location, a refuse truck from the AutoCAD library was modified to the refuse truck that currently services the compactor at the marina. Survey data for the marina was used to locate existing site features and a site visit was conducted to confirm the existing conditions. See Appendix A for the Vehicle Tracking Analysis of the selected Alternative 1B with modifications as requested by Town Staff.

I. Modified Alternative 1B – The compactor is proposed on the southwest corner of the pump station site, and the parking space for the truck turn around is placed further east, adjacent to the existing pump truck parking. Based on this configuration, the refuse truck will travel in reverse (approximately 80-feet) before it can turn around. At 5 mph this reverse travel time is approximately 10 seconds. This duration of reversal time can also be shortened if the waste bin is rolled out and moved toward the turnaround zone. This option does require four palms to be relocated or removed. See Table 2 for land use changes as a result of Modified Alternative 1B.

SITE DATA TABLE				
	REMOVED (SF)	ADDITIONAL (SF)		
CONCRETE	0	495		
PAVEMENT	0	1,037		
SHRUBS	1,407	0		
GRASS	125	0		

Table 1: Modified Alternative 1B Land Use Changes

NET CHANGE IN GREEN SPACE = - 1,532 SF

Conclusions

Based on the analysis performed, Modified Alternative 1B results in the centralization of municipal services into one location at the marina, with a modest footprint for the compactor base, a short and adjustable duration of refuse truck reverse time, and limited relocation of the landscape buffer resulting in a low visual impact. Additionally, the location of waste management in this centralized location allows for a permanent maintenance access to the site from the west. It is assumed that the material used for this access will be resilient such as concrete and will complement the aesthetics of the area. Currently, the compactor and recycling bins are screened from the weather and also from view by a green canvas awning structure. The proposed plan would construct a similar structure in the southwest corner of the pump station site. The proposed plan does require the modification of the existing landscape buffer. To the maximum extent possible the existing vegetation will be relocated to re-establish the landscape buffer. Where the plant material cannot be relocated similar size and species will be specified to maintain the appearance of the park. This approach can only be implemented if the Town policy allows for a reduction of pervious area within the park of 1,532 SF. At this time it is assumed that the existing concrete pad for the compactor adjacent to Chilean Avenue will be repurposed for marina storage a non-waste management activity. If the existing pad was removed, then 140 square feet of green space could be maintained in the park resulting in a smaller net change in green space.







APPENDIX A



REFUSE TRUCK SPECIFICATIONS:



TOPB Front Loader Refuse Truck Overall Length Overall Width Overall Body Height Min Body Ground Clearance Track Width Lock—to—lock time Curb to Curb Turning Radius

00 6174	
20.01311	
8.000ft	
10.510ft	
1 3104	
0.10/II	
6.00s	
30 500ft	
30.30010	

SITE DATA TABLE			
	REMOVED	ADDITIONAL	
CONCRETE (SF)	0	495	
ASPHALT (SF)	0	1037	
SHRUBS (SF)	1407	0	
GRASS (SF)	125	0	



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SUB-CONSULTANT

CLIENT



PROJECT INFORMATION

TOWN OF PALM BEACH MARINA REFUSE LAYOUT

TOWN OF PALM BEACH

PROJECT NUMBER

22-431.0042

CLIENT PROJECT NUMBER

VERIFY SCALES

DATE OF ISSUE

DESIGNED BY

DRAWN BY

CHECKED BY

DRAWING TITLE

DRAWING NUMBER

EX-1

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

6/19/2023

DC

DM

BW

MODIFIED

ALTERNATIVE 1B