

48 HOURS BEFORE DIGGING
CALL
1-800-432-4770
SUNSHINE STATE ONE CALL
OF FLORIDA, INC.
Contractor is responsible for obtaining
location of existing utilities prior to
commencement of construction activities.



Gruber Consulting
Engineers, Inc.

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Project Information				
Project No.	2023-0018	Issue Date	09/19/2023	Scale
Scale	1" = 10'	Drawn By	KM	Checked By
			CG	

Conceptual Site Grading & Drainage Plan For:

Proposed Residence

Palm Beach, Florida

1186 North Ocean Way

Revisions

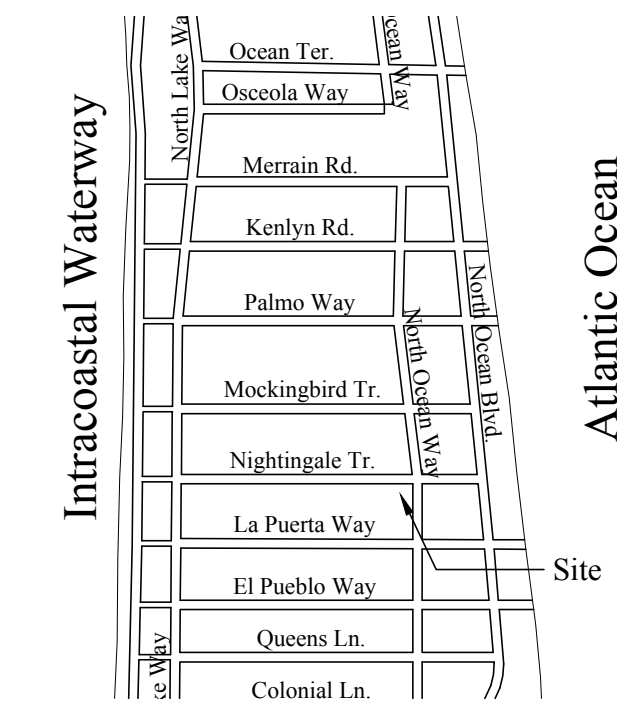
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Chad M. Gruber

FL P.E. No. 57466

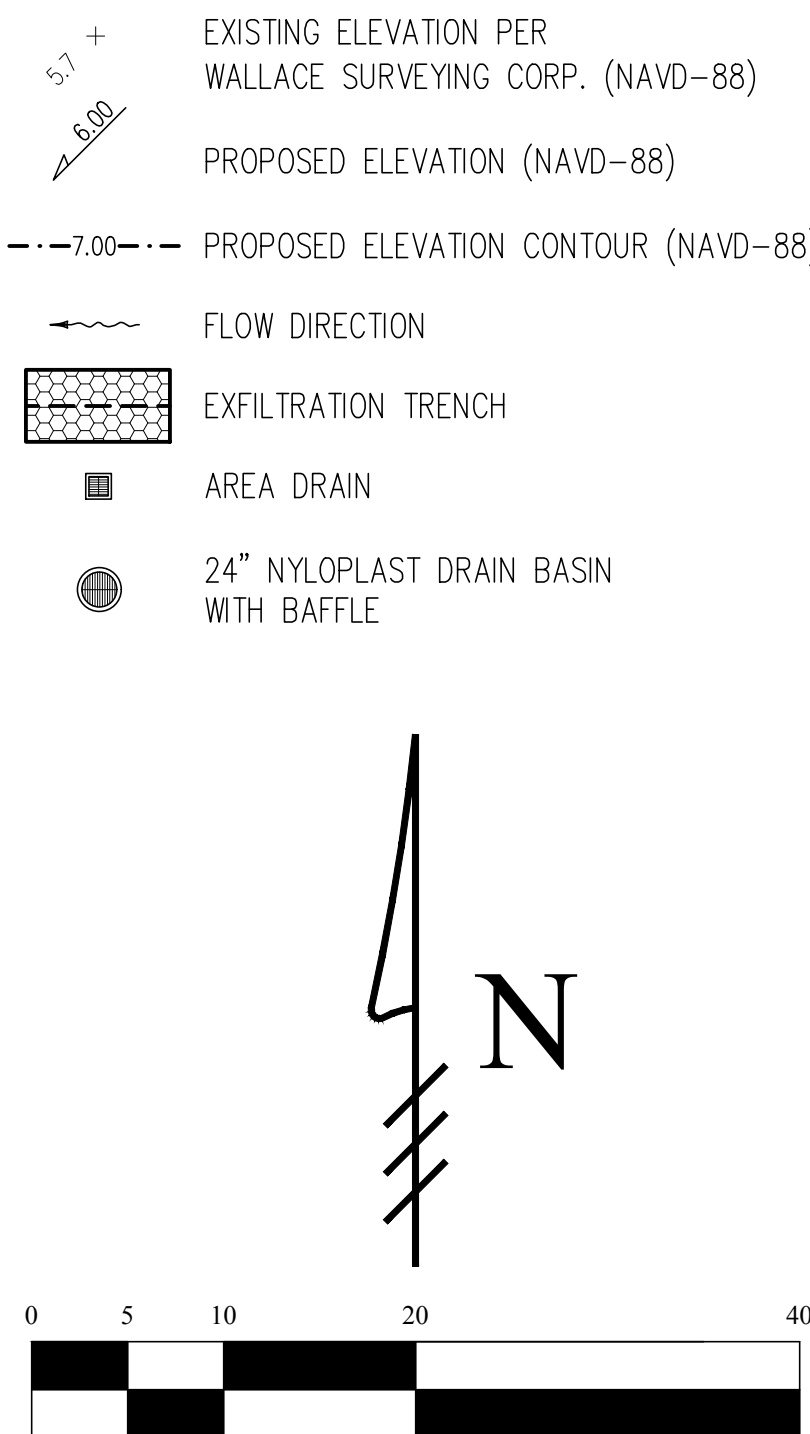
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C-1



Location Map
N.T.S.

Legend



Scale: 1" = 10'

STORMWATER RETENTION CALCULATIONS

A. SITE INFORMATION

Total Property Area = 18,742 sq.ft.

Drainage Area Impervious Surface = 10,186 sq.ft.

Drainage Area Pervious Surface = 8,556 sq.ft.

B. ESTIMATED STORMWATER RETENTION VOLUME

The retention volume is estimated using the Rational Method (Q=CIA) where:

C = 1.0 (impervious surface)

C = 0.2 (pervious surface)

i = 2 in/hr

Impervious Surface Runoff Volume:

1.0 x 2 in/hr x 10,186 sq.ft. x 1 ft./12 in. = 1,698 cu.ft.

Pervious Runoff Volume:

0.2 x 2 in/hr x 8,556 sq.ft. x 1 ft./12 in. = 285 cu.ft.

Total Volume to be Retained = 1,983 cu.ft.

C. PROPOSED EXFILTRATION TRENCH SIZING

L	=	Total Length of Trench Provided	=	62	ft
W	=	Trench Width	=	18	ft
K	=	Hydraulic Conductivity	=	0.00005	cfs/sq.ft./ft. of head
H2	=	Depth to Water Table	=	2.92	ft
DU	=	Un-Saturated Trench Depth	=	2.50	ft
DS	=	Saturated Trench Depth	=	0.50	ft
V	=	Volume Treated	=	2,126	cu.ft.

Notes:

- Exfiltration trenches and storm piping to be protected from roots with a root barrier.
- Roof drain downspouts are to be connected to the proposed drainage system. Contractor to provide engineer with downspout locations prior to installation of drainage system.
- Exfiltration trench design uses an assumed value of hydraulic conductivity. Client may obtain a site specific test for hydraulic conductivity prior to exfiltration trench installation.
- Contractor shall mill and overlay all roadway cuts a minimum of 50 ft. on either side of the excavation the entire width of each affected lane.
- Contractor is responsible for installing and maintaining erosion control measures during construction.
- Video inspection of storm drainage system required prior to installation of sod.

