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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.
SUNSHINE AVE., SUITE 305
WEST PALM BEACH, FL 33401
PHONE: 561.312.2841
office@gruberengineers.com

Project Information				
Project No.	2022-0123	Issue Date	11/02/2022	Scale
Scale	1/8" = 1'-0"	Drawn By	KM	Checked By
			CG	

Conceptual Site Grading & Drainage Plan For:
Proposed Renovation
128 Seabreeze Avenue
Palm Beach, Florida

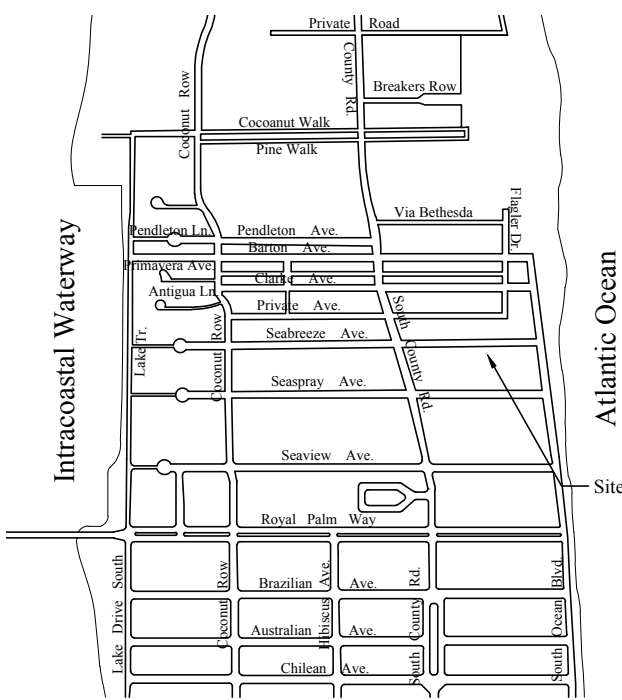
Revisions	
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Chad M. Gruber

FL P.E. No. 57466

Sheet No.

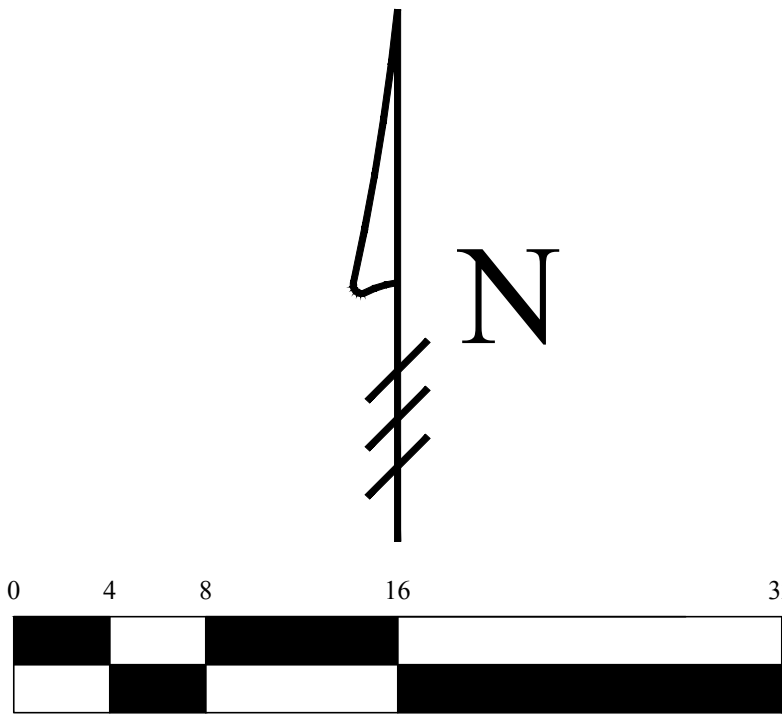
C-1



Location Map
N.T.S.

Legend

- 5.7' +
6.0'
PROPOSED ELEVATION (NAVD-88)
- 7.00' - - - -
PROPOSED ELEVATION CONTOUR (NAVD-88)
- ~ ~ ~
FLOW DIRECTION
- EXFILTRATION TRENCH
- AREA DRAIN
- 24" NYLOPLAST DRAIN BASIN WITH BAFFLE



Scale: 1/8" = 1'-0"

STORMWATER RETENTION CALCULATIONS

A. SITE INFORMATION

Total Property Area = 6,125 sq.ft.

Drainage Area Impervious Surface = 3,526 sq.ft.

Drainage Area Pervious Surface = 2,599 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:

$1.0 \times 2 \text{ in/hr} \times 3,526 \text{ sq.ft.} \times 1 \text{ ft./12 in.} = 588 \text{ cu.ft.}$

Pervious Runoff Volume:

$0.2 \times 2 \text{ in/hr} \times 2,599 \text{ sq.ft.} \times 1 \text{ ft./12 in.} = 87 \text{ cu.ft.}$

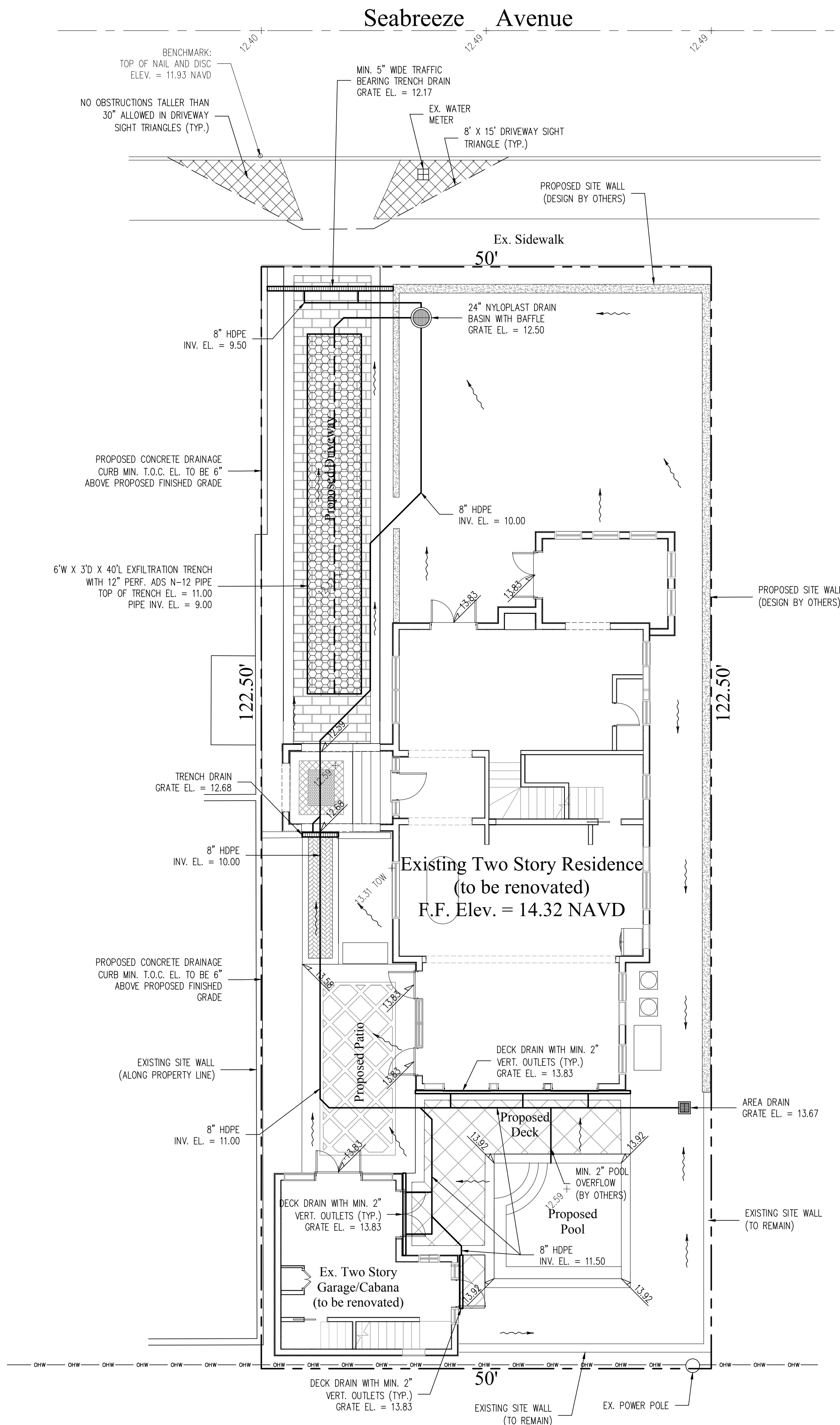
Total Volume to be Retained = 675 cu.ft.

C. PROPOSED EXFILTRATION TRENCH SIZING

L	=	Total Length of Trench Provided	=	40	ft
W	=	Trench Width	=	6	ft
K	=	Hydraulic Conductivity	=	0.00005 cfs/sq.ft./ft. of head	
H2	=	Depth to Water Table	=	6.00	ft
DU	=	Un-Saturated Trench Depth	=	3.00	ft
DS	=	Saturated Trench Depth	=	0.00	ft
V	=	Volume Treated	=	820	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.



This item has been electronically signed and sealed by Chad M. Gruber on the date adjacent to the seal using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

Plan Background from Hardscape Plan
by Todd Maclean Received 10/5/22

HSB-22-017
ZON-23-005

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Conceptual Construction Staging & Parking and Erosion Control Plan For:

128 Seabreeze Avenue
Palm Beach, Florida

Chad M. Gruber

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EC-1

