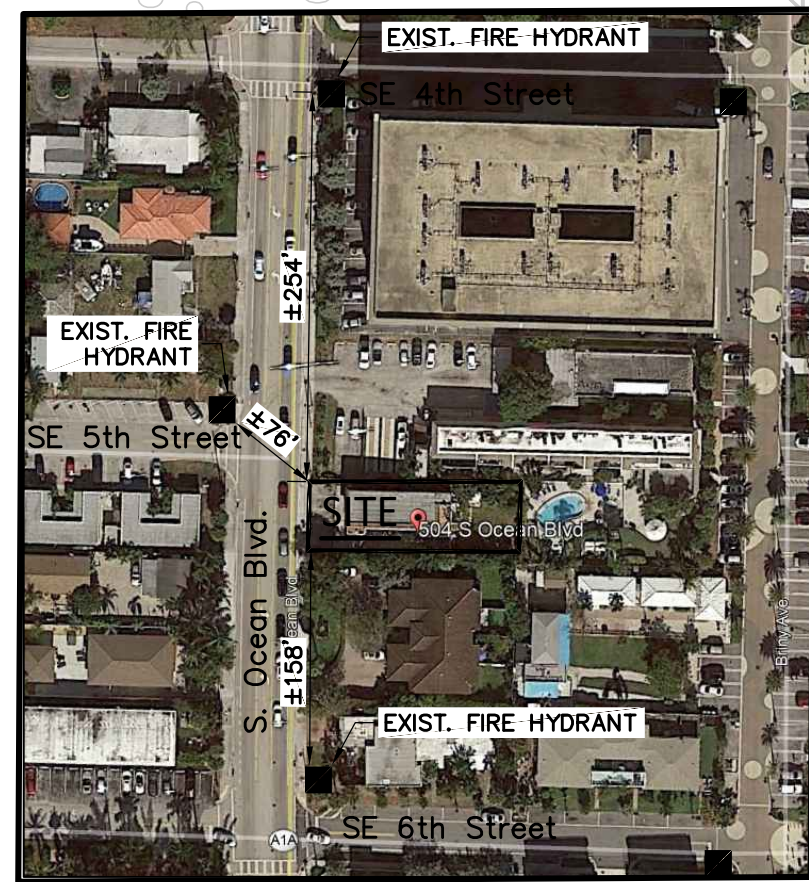
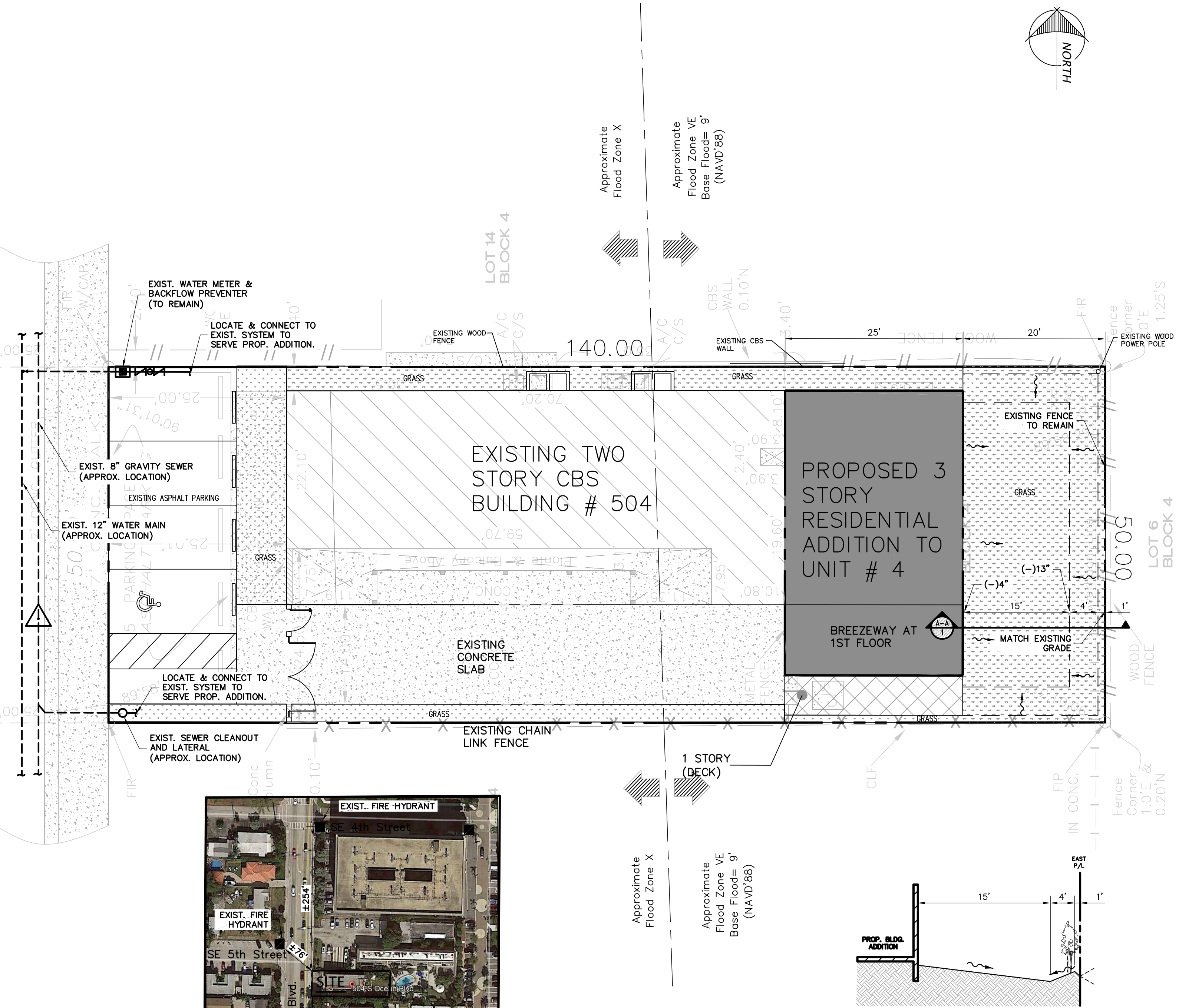
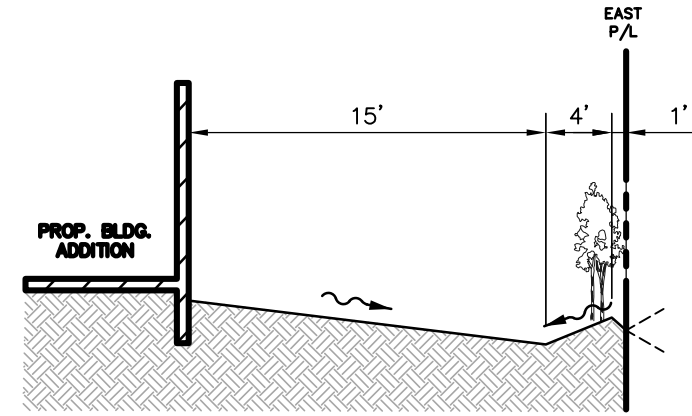


OCEAN BOULEVARD  
STATE ROAD No. A-1-A

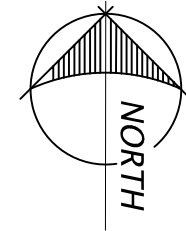
50.0' RIGHT OF WAY PER PLAT  
40.0' ASPHALT ROAD



FIRE HYDRANT LOCATION EXHIBIT  
SCALE = NTS



SECTION A-A  
SCALE = NTS



USMAN - 504 S. OCEAN BLVD.  
SURFACE WATER MANAGEMENT CALCULATIONS

HORIZONTAL SURFACE LAND USE BREAKDOWN		
LAND USE	AREA	PERCENT
EX BUILDING	0.04	24%
EX PAVEMENT	0.06	38%
EX GREEN	0.06	38%
TOTAL	0.16	100%
AFFECTED AREA		
PROP. BUILDING	0.024	51%
GREEN	0.023	49%
TOTAL	0.047	100%

Water Quality Calculations:

Water Quality Required

A. Compute the first inch of runoff from the entire site.

$$= 1 \text{ inch} \times \text{Total Area} \times (1 \text{ ft} / 12 \text{ in})$$
$$= 0.004 \text{ ac-ft} \quad \text{(CONTROLS)}$$

B. Compute 2.5 inches times the percentage of imperviousness.

a. Site Area (SA), for water quality pervious/impervious calculations only

$$SA = \text{Total Area} - (\text{Roof})$$
$$= 0.023 \text{ Acres}$$

b. Impervious Area (IA), for water quality pervious/impervious calculations only

$$IA = \text{Site Area(SA)} - \text{Pervious Area}$$
$$= 0.000 \text{ Acres}$$

c. Percentage of imperviousness for water quality

$$\%imp = (IA / SA) \times 100\%$$
$$= 0.000 \%$$

d. For 2.5 inches times percentage of imperviousness

$$= 2.5 \text{ inches} \times \%imp$$
$$= 0.000 \text{ inches}$$

e. Compute volume required for quality detention

$$= \text{inches to be treated} \times (\text{total site} - \text{lake}) \times (1 \text{ ft} / 12 \text{ in})$$
$$= 0.000 \text{ ac-ft}$$

C. Since the first inch of runoff over the entire site is greater than 2.5 inches times the percentage of impervious, the volume to be treated is:

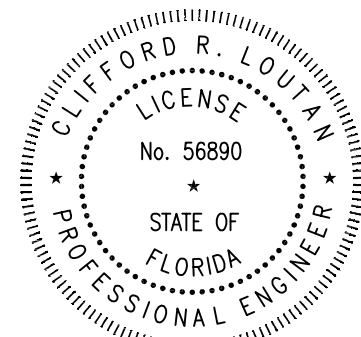
$$\text{Volume to be treated} = \frac{\text{ac-ft}}{0.004} = \frac{\text{Cubic feet (C.F.)}}{171} \quad \text{(required)}$$

Water Quality Provided

A. Dry retention area storage (Provided)

Area	L (ft)	W (ft)	D (ft)	Volume (c.f.)
	15	40	0.75	225

$$\text{VOLUME PROVIDED} = 225 \text{ C.F.}$$



Date: August 13, 2021

This item has been digitally signed and sealed by CLIFFORD R. LOUTAN, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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**Sun-Tech**  
Engineering, Inc.  
Engineers • Planners • Surveyors



REVISIONS BY

PROPERTY OWNER:  
**ANAM USMAN**  
PROPERTY ADDRESS:  
504 SOUTH OCEAN BLVD  
POMPANO BEACH FL

TITLE SHEET  
ENGINEERING PLAN

ARCHITECT:  
**LUIS URIARTE**  
Florida Architect License # AR 94107  
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786 290 9807 Email: invusa@ive.com

DRAWN BY:  
**LUIS URIARTE**  
DATE: **04.06.2021**  
SCALE: **AS NOTED**  
PROJECT:

SHEET  
**001**

OF PAGES

**DRC**

PZ21-12000018

9/15/2021