

# SOUTHERNMOST CABANA RESORT

## Redevelopment Project

SOUTHERNMOST CABANA RESORT L.L.C.  
1015 - 1027 SIMONTON STREET KEY WEST,  
FLORIDA 33040

### MAJOR DEVELOPMENT PLAN 1 MAY 2013

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#### TEAM

##### ARCHITECT:

Thomas E. Pope P.A. Architect  
610 White Street  
Key West, Florida 33040  
305.296.3611

##### CIVIL ENGINEER:

Annalise Mannix  
Engineering & Consulting LLC  
3739 Paula Avenue  
Key West, Florida 33040  
305.292.5299

##### LANDSCAPE ARCHITECT:

Ladd E. Roberts  
Ecoscapes  
1120 Seminary Street  
Key West, Florida 33040  
305.294.7013

#### SUBMISSIONS

DRC PLANNING REVIEW - 1 MARCH 2013 FOR REVIEW  
DRC PLANNING REVIEW - 10 APRIL 2013 FOR REVIEW  
NOT FOR CONSTRUCTION  
HARC REVIEW 30 APRIL 2013  
POST DRC PLANNING REVIEW 1 MAY 2013

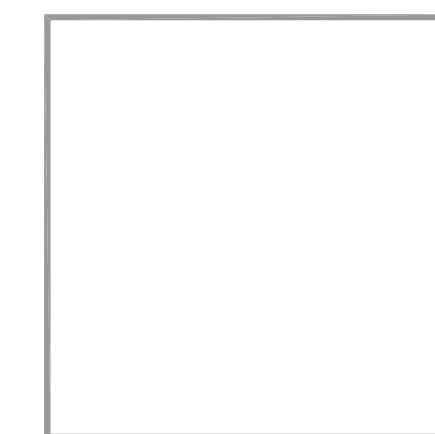
I HEREBY CERTIFY THAT THE PORTION OF THIS TECHNICAL  
SUBMISSION DESCRIBED BELOW WAS PREPARED BY ME OR  
UNDER MY DIRECT PERSONAL SUPERVISION, I AM A DULY  
LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF  
FLORIDA.

SIGNATURE: \_\_\_\_\_

NAME: ANNALISE MANNIX

DATE: \_\_\_\_\_

LICENSE RENEWAL DATE: 2/28/2015

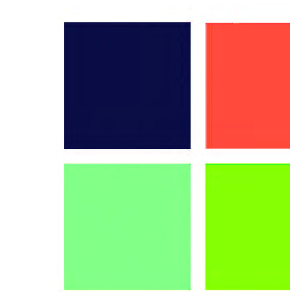


THESE PLANS ARE DESIGNED TO CONFORM WITH THE 2010  
FLORIDA BUILDING CODE W/REVISIONS. THIS PROJECT IS  
DESIGNED IN CONFORMANCE WITH ASCE 7-10 WIND LOAD  
PROVISIONS AND ASCE 24-05 FLOOD PROVISIONS.

## SOUTHERNMOST CABANA RESORT

REDEVELOPMENT PROJECT

### MAJOR DEVELOPMENT PLAN 1 MAY 2013



**Annalise Mannix**  
Engineering & Consulting, LLC

Home Design - Sustainability - Wind Mitigation - Inspections - Project Management

[mannixengineering.com](http://mannixengineering.com)

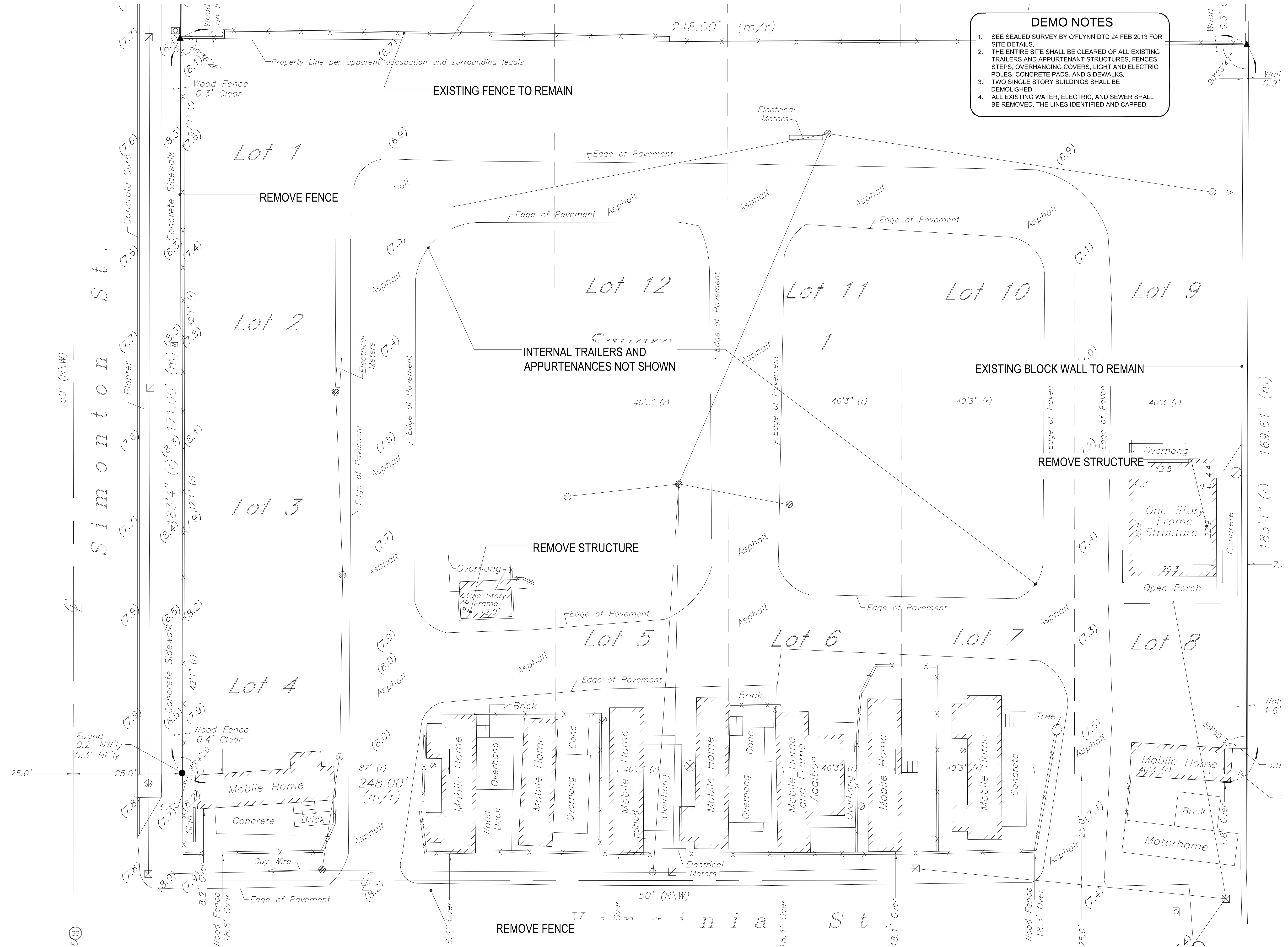
305-797-0463

3739 Paula Avenue  
Key West, Florida 33040  
Florida Reg. P.E. #57533  
CA # 27779









**DEMO NOTES**

1. SEE SEALED SURVEY BY OFLYNN DTD 24 FEB 2013 FOR SITE DETAILS.
2. THE ENTIRE SITE SHALL BE CLEARED OF ALL EXISTING TRAILERS AND APPURTENANT STRUCTURES, FENCES, STEPS, OVERHANGING COVERS, LIGHT AND ELECTRIC POLES, CONCRETE PADS, AND SIDEWALKS.
3. TWO SINGLE STORY BUILDINGS SHALL BE DEMOLISHED.
4. ALL EXISTING WATER, ELECTRIC, AND SEWER SHALL BE REMOVED, THE LINES IDENTIFIED AND CAPPED.

**ANNALISE MANNIX ENGINEERING AND CONSULTING, LLC**  
 3739 Paula Avenue  
 Key West, Florida 33040  
 Tel: 305-797-0463  
 Email: amannix@aol.com  
 FLORIDA REG. P.E. #57533  
 CA #27779

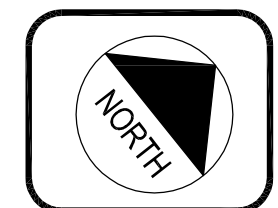
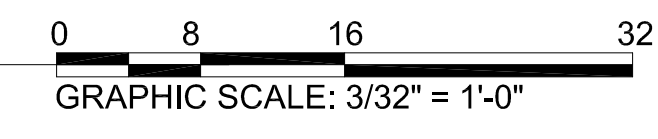
**Submissions:**  
 DRC PLANNING REVIEW 10 APR 2013  
 HARC REVIEW 30 APR 2013  
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 FOR REVIEW  
 NOT FOR CONSTRUCTION

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 1015 - 1027 Simonton Street  
 Key West 33040

Title:  
**EXISTING SITE PLAN**

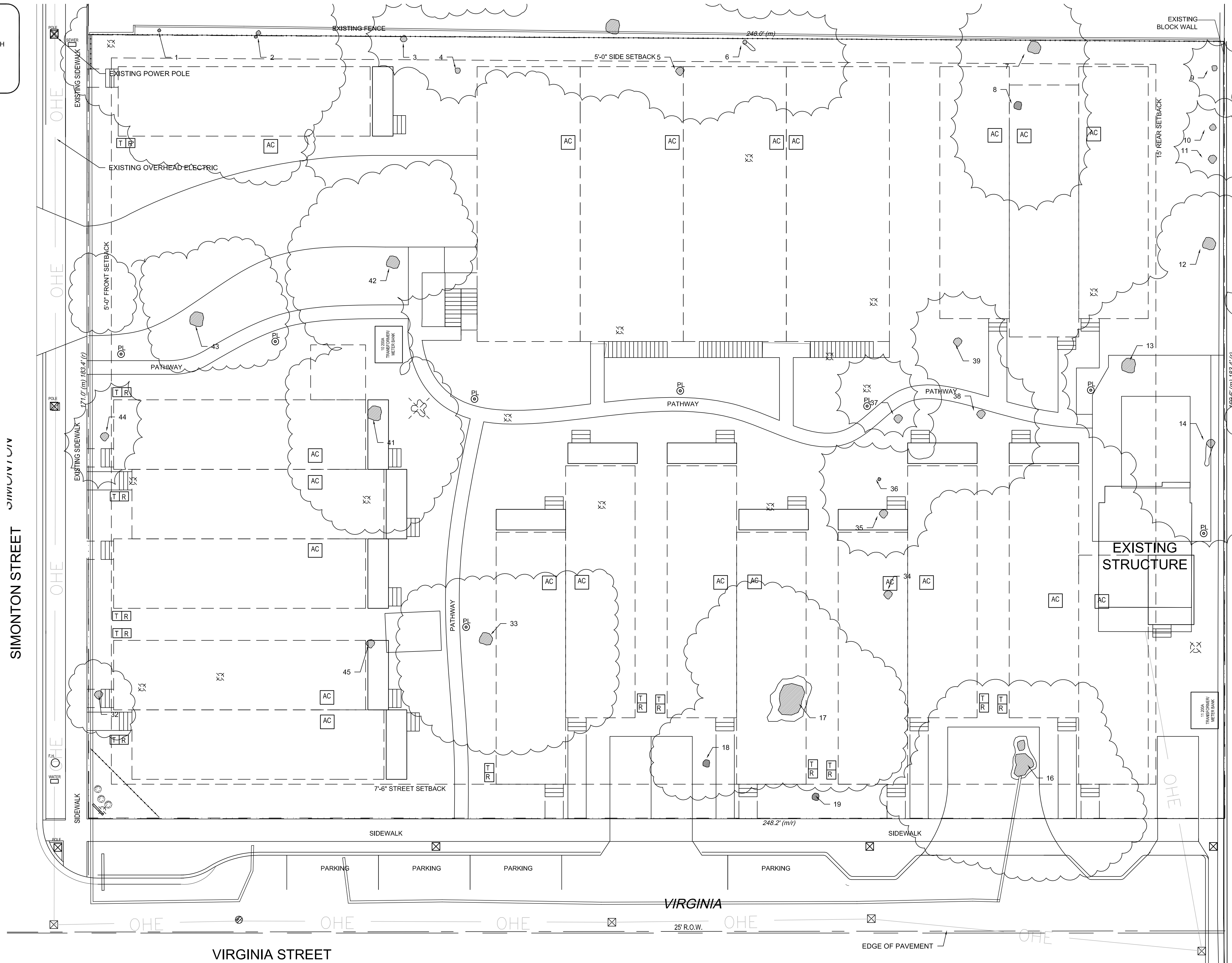
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**AE1.1.2**  
 Date: 1 MAY 2013

**1** EXISTING SITE PLAN  
 SCALE: 3/32" = 1'-0"



**NOTES**

1. SEE REPORT FOR KEY TO TREE NUMBERS
2. DRAWING SHOWS EXISTING TREES WITHIN LOT WITH PROPOSED SITE PLAN.
3. BUILDING OUTLINES SHOWN FOR CLARITY.



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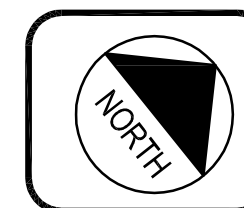
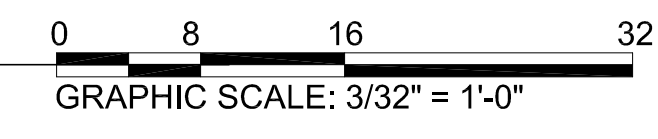
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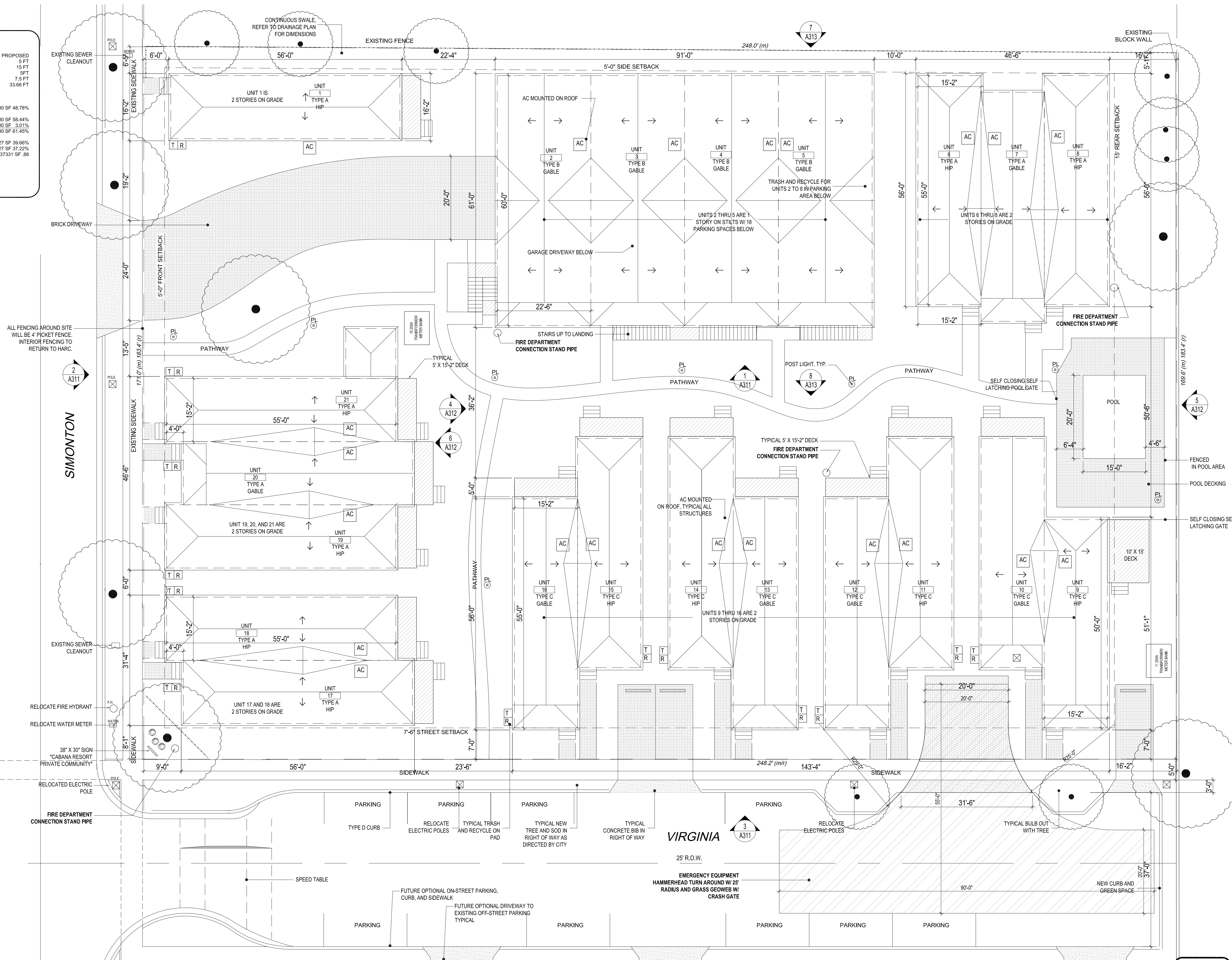
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**EXISTING  
TREE PLAN**

Sheet Number:  
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Date: 1 MAY 2013

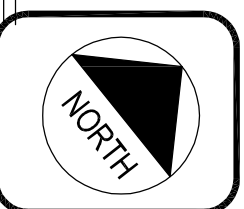
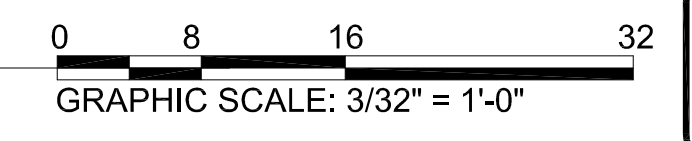
**1** EXISTING TREE PLAN AND PROPOSED SITE PLAN  
SCALE: 3/32" = 1'-0"



ZONING		
ZONE	HNC-1	
SETBACKS	REQUIRED	PROPOSED
FRONT	5 FT	5 FT
REAR	15 FT	15 FT
SIDE	5 FT	5 FT
STREET SIDE	7.5 FT	7.5 FT
MAX. HEIGHT	35 FT	33.66 FT
LOT CALCULATIONS		
LOT SIZE	42224.67 FT	
BLDG. COVERAGE	50% MAX	20559.00 SF 48.78%
IMPERV. SURFACE	60% MAX	24678.00 SF 58.44%
BRICK PAVING, MISC		1270.00 SF 3.01%
PATHWAYS		25948.00 SF 61.45%
IMPERV. SURFACE TOTALS		
OPEN SPACE	35% MIN	16747.27 SF 39.66%
LANDSCAPE AREA	20% MIN	15717.27 SF 37.22%
FLOOR AREA RATIO	1	37331 SF .88
UNITS EXISTING 44 PROPOSED 21		
PARKING	21 REQUIRED	21 PROVIDED
		BIKE PARKING IN OWNER YARDS



**1** PROPOSED SITE PLAN  
SCALE: 3/32" = 1'-0" ARCH D



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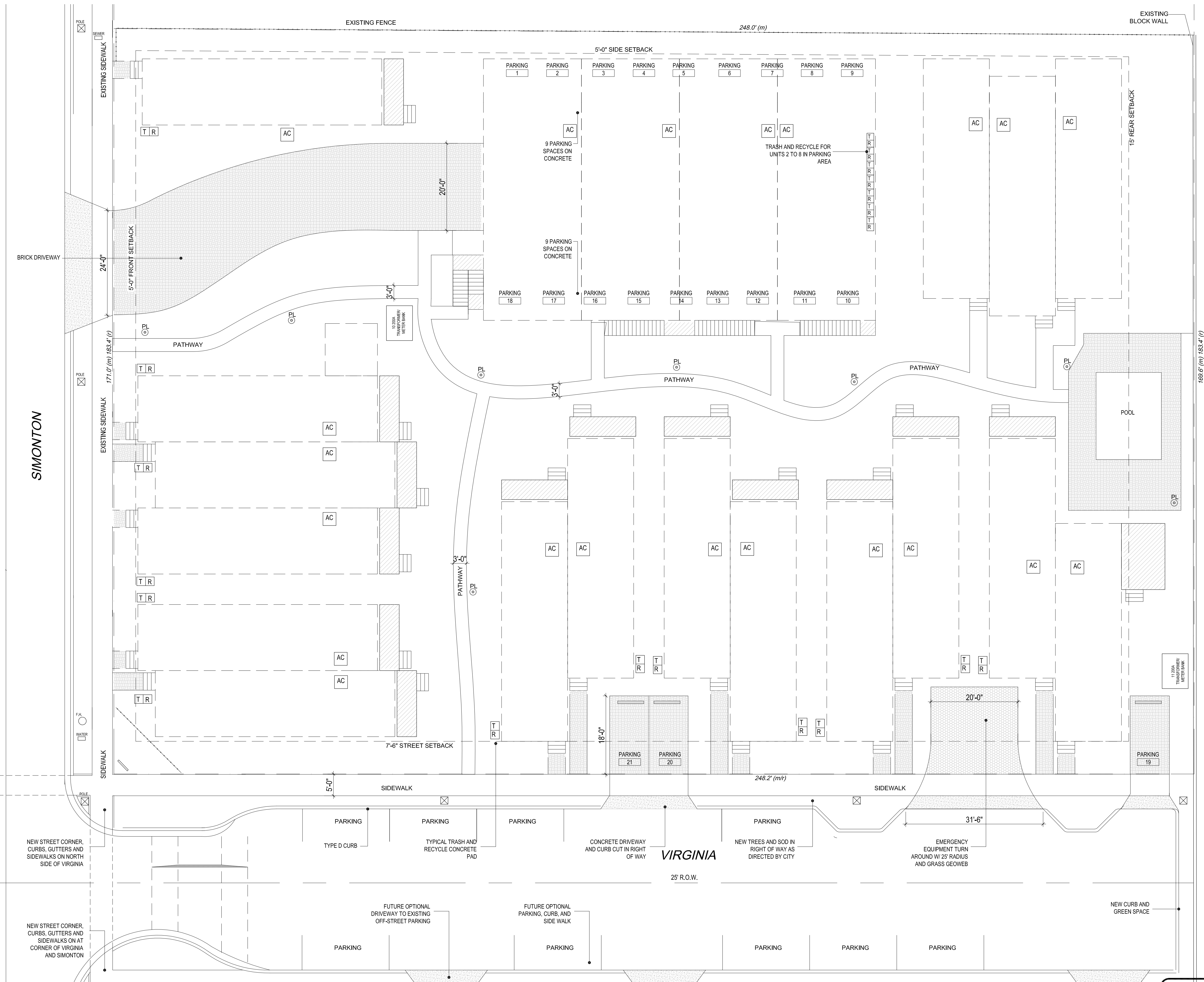
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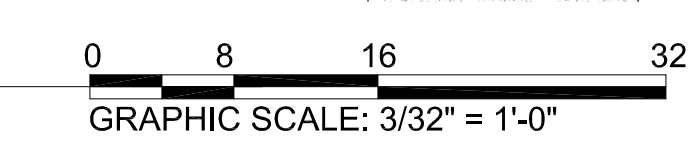
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**PROPOSED  
SITE PLAN**

Sheet Number:  
**A1.1.1**  
Date: 1 MAY 2013





**1** PAVING PLAN  
SCALE: 3/32" = 1'-0" ARCH D



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**Key West 33040**

Title:  
**PAVING  
PLAN**

Sheet Number:  
**A1.2.1**  
Date: 1 MAY 2013

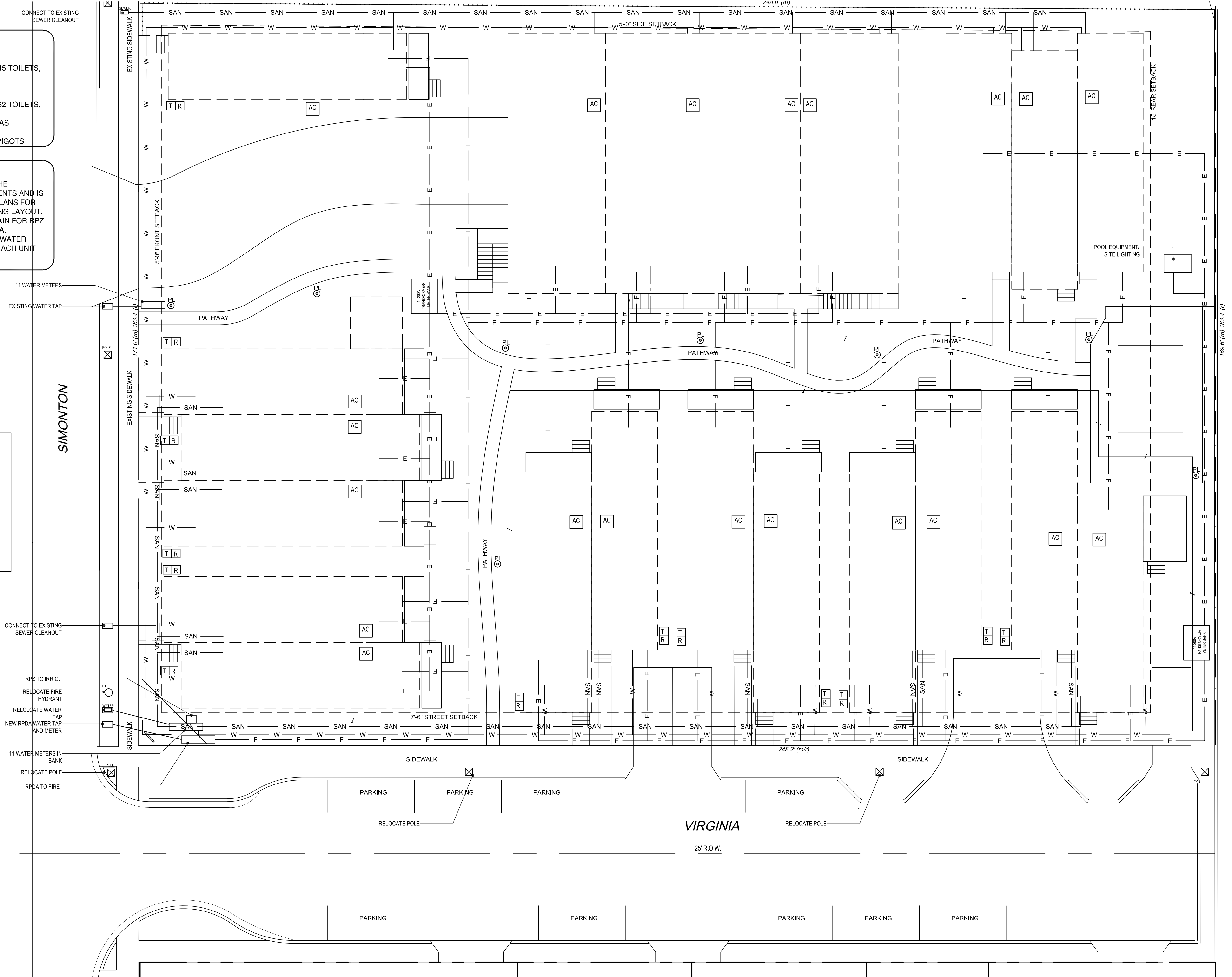
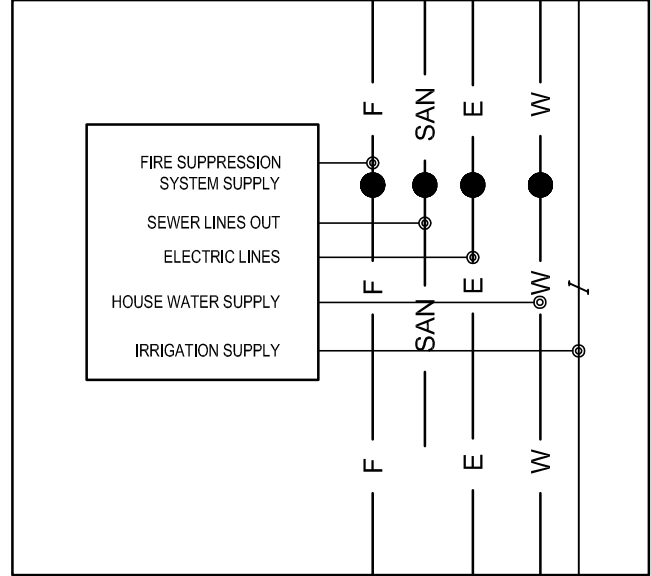
**SEWAGE REQUIREMENT COMPARISON:**

**EXISTING UNITS**  
 45 KITCHEN SINKS, 45 LAV BATH, 45 TOILETS,  
 45 SHOWER BATH,

**PROPOSED UNITS**  
 21 KITCHEN SINKS, 62 LAV BATH, 62 TOILETS,  
 62 SHOWER BATH, 21 WASHERS  
 21 FIRE SUPPRESSION SYSTEMS AS  
 REQUIRED,  
 SITE IRRIGATION, POOL, AND 6 SPIGOTS

**NOTES:**

1. THIS DRAWING REPRESENTS THE PROPOSED UTILITY REQUIREMENTS AND IS DIAGRAMMATICAL. SEE SITE PLANS FOR SITE INFORMATION AND BUILDING LAYOUT.
2. RELOCATE EXISTING WATER MAIN FOR RPZ AND ADD ADDITIONAL FOR RPDA.
3. LINE DRAWINGS INDICATE ONE WATER SERVICE ONLY FOR CLARITY. EACH UNIT HAS SEPARATE SERVICE.



CONNECT TO EXISTING SEWER CLEANOUT

RPZ TO IRRIG.

RELOCATE FIRE HYDRANT

RELOCATE WATER TAP

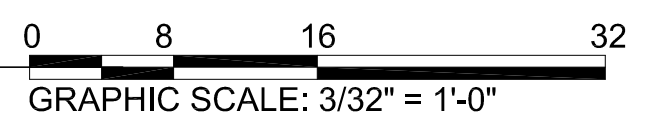
NEW RPDA WATER TAP AND METER

11 WATER METERS IN BANK

RELOCATE POLE

RPDA TO FIRE

**1** **SITE UTILITY PLAN**  
 SCALE: 3/32" = 1'-0" ARCH D



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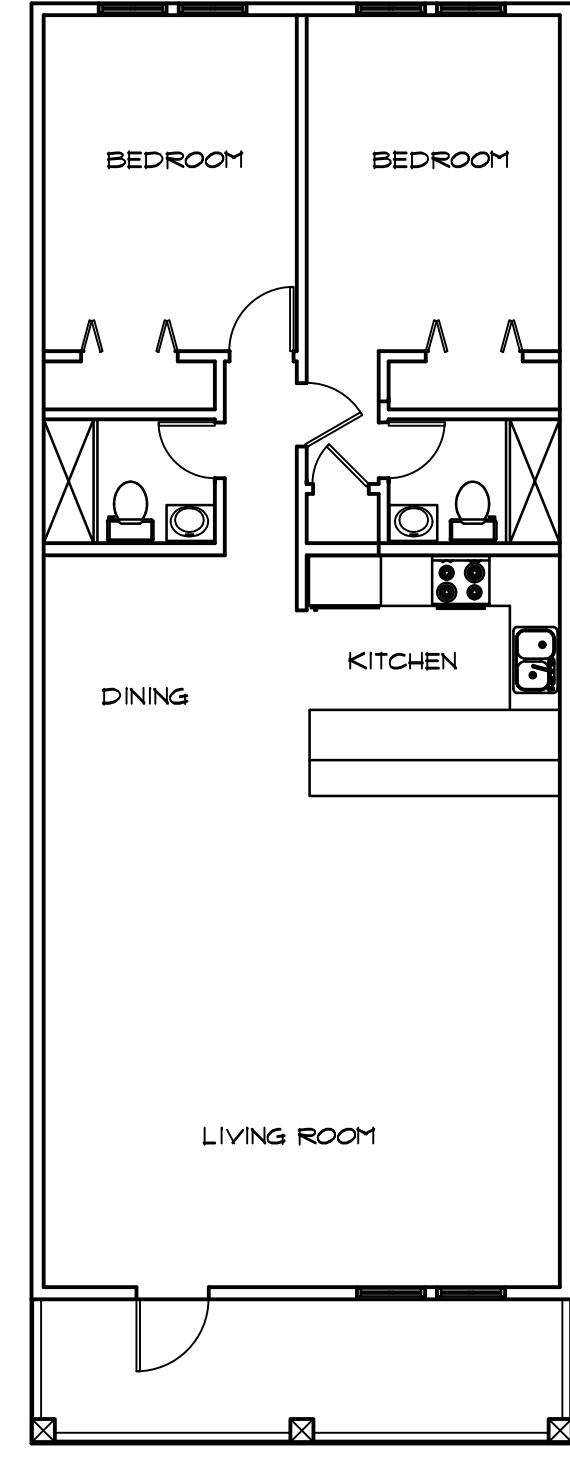
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**SITE UTILITY PLAN**

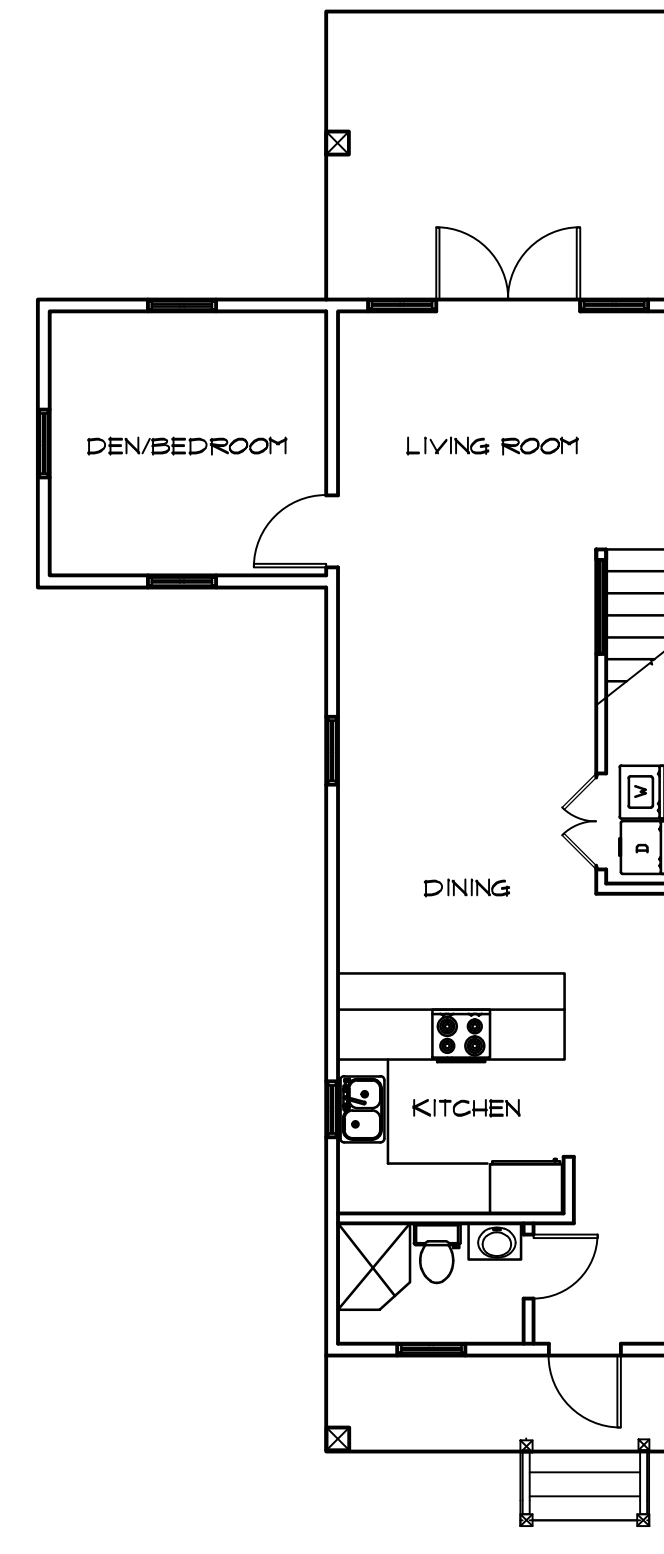
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 Date: 1 MAY 2013



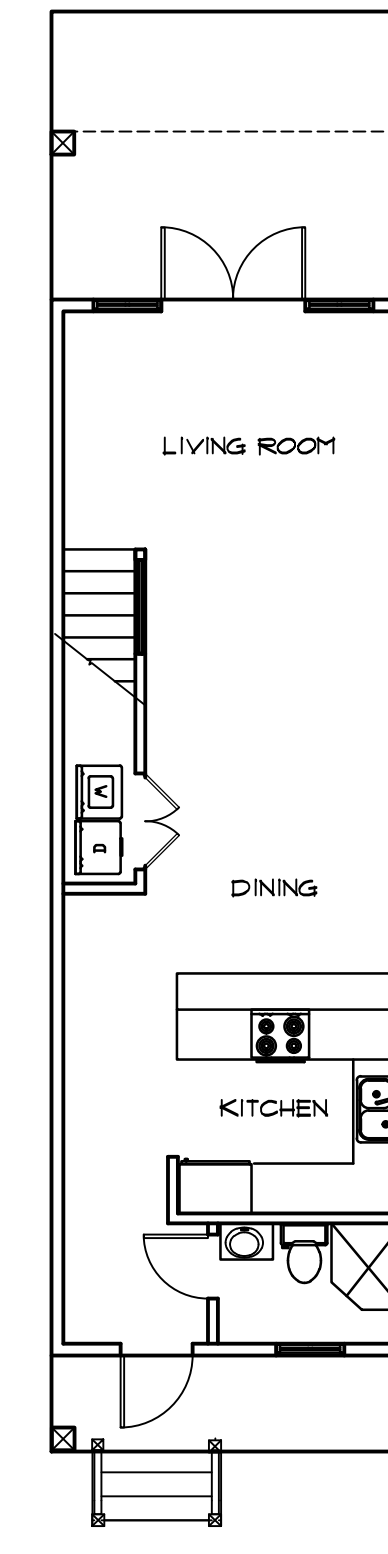
FIRST FLOOR

**Unit Type B  
Floor Plans**

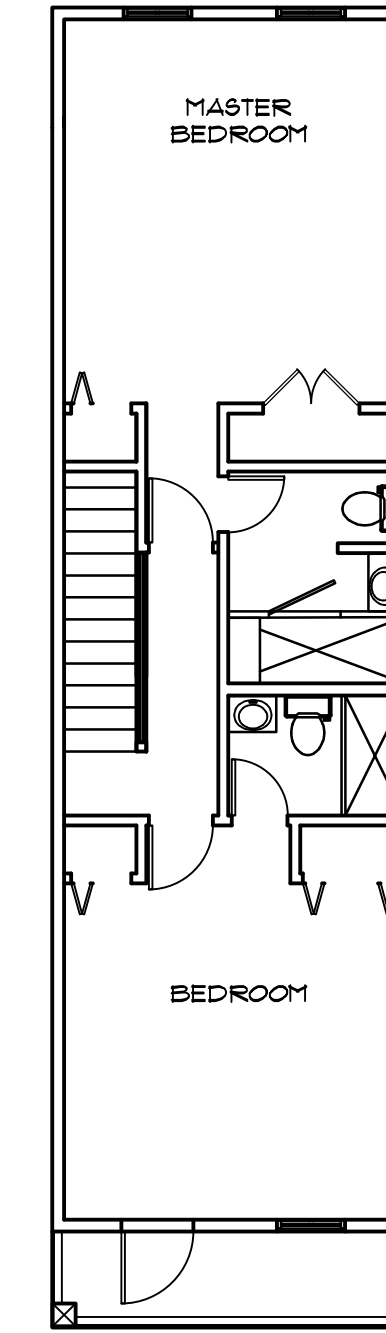
1/8" = 1' - 0"



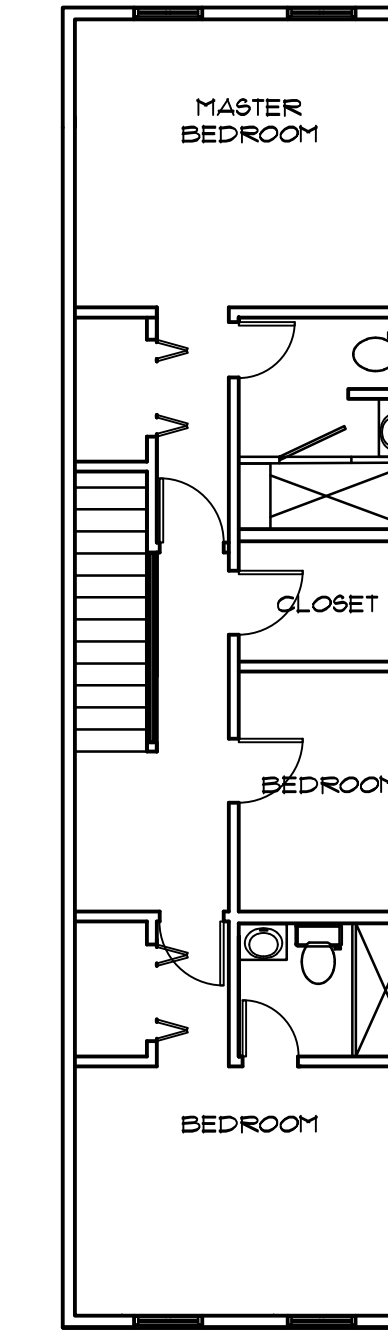
FIRST FLOOR



FIRST FLOOR



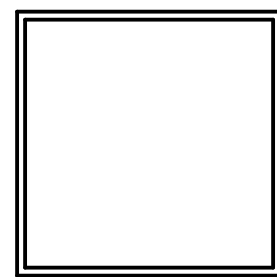
SECOND FLOOR



SECOND FLOOR (OPTION)

**Unit Type A/Type C  
Floor Plans**

1/8" = 1' - 0"



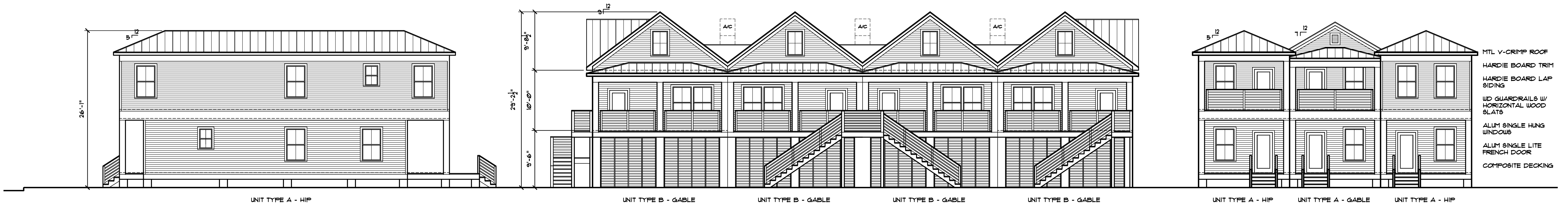
Southernmost Cabana Resort  
1010-1027 Simonton St Key West, FL

THOMAS E. POPE, P.A. ARCHITECT  
610 White Street, Key West FL  
(305) 296 3611  
TEPopePA@aol.com

date:  
4/30/13  
revision:

sheet:  
**A2.1.1**





UNIT TYPE A - HIP      UNIT TYPE B - GABLE      UNIT TYPE B - GABLE      UNIT TYPE B - GABLE      UNIT TYPE B - GABLE      UNIT TYPE A - HIP      UNIT TYPE A - GABLE      UNIT TYPE A - HIP

- MTL V-CRIMP ROOF
- HARDIE BOARD TRIM
- HARDIE BOARD LAP SIDING
- WD GUARDRAILS W/ HORIZONTAL WOOD SLATS
- ALUM SINGLE HUNG WINDOWS
- ALUM SINGLE LITE FRENCH DOOR
- COMPOSITE DECKING

**Courtyard Elevation**

1/8" = 1' - 0"

1  
A3.1.1



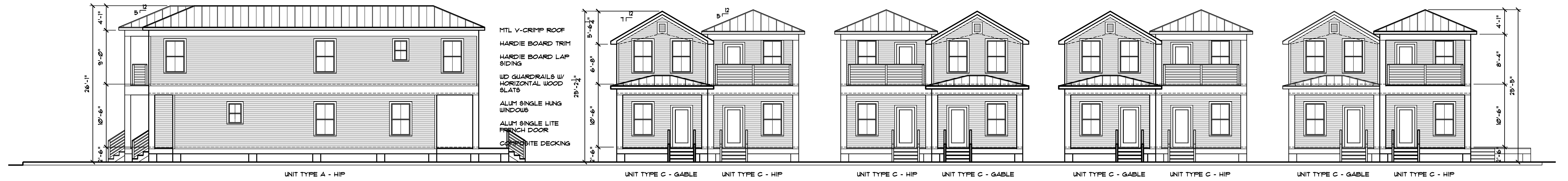
UNIT TYPE A - HIP      UNIT TYPE A - HIP      UNIT TYPE A - GABLE      UNIT TYPE A - HIP      UNIT TYPE A - HIP      UNIT TYPE A - HIP      UNIT TYPE A - HIP

- MTL V-CRIMP ROOF
- HARDIE BOARD TRIM
- HARDIE BOARD LAP SIDING
- WD GUARDRAILS W/ HORIZONTAL WOOD SLATS
- ALUM SINGLE HUNG WINDOWS
- ALUM SINGLE LITE FRENCH DOOR
- COMPOSITE DECKING

**Simonton St Elevation**

1/8" = 1' - 0"

2  
A3.1.1



UNIT TYPE A - HIP      UNIT TYPE C - GABLE      UNIT TYPE C - HIP      UNIT TYPE C - HIP      UNIT TYPE C - GABLE      UNIT TYPE C - GABLE      UNIT TYPE C - HIP      UNIT TYPE C - GABLE      UNIT TYPE C - HIP

- MTL V-CRIMP ROOF
- HARDIE BOARD TRIM
- HARDIE BOARD LAP SIDING
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- ALUM SINGLE HUNG WINDOWS
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- COMPOSITE DECKING

**Virginia St Elevation**

1/8" = 1' - 0"

3  
A3.1.1

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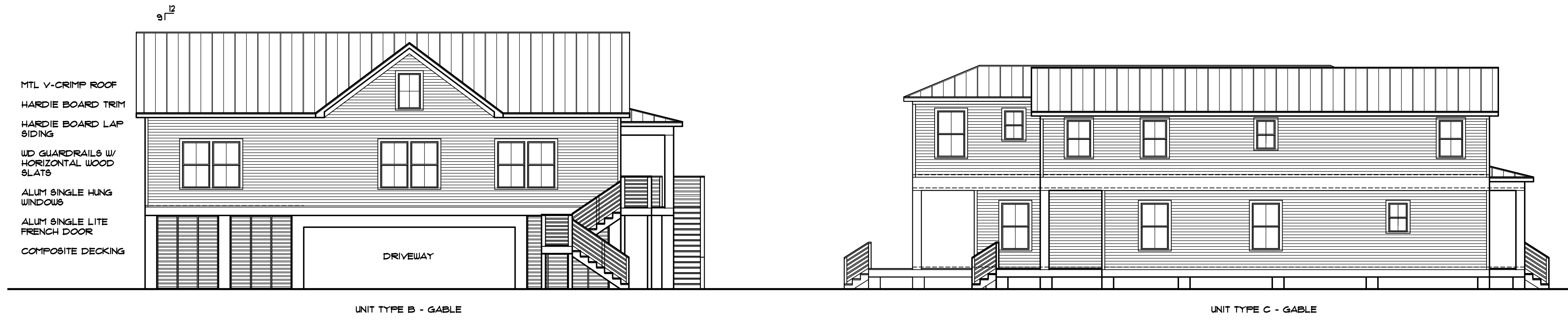
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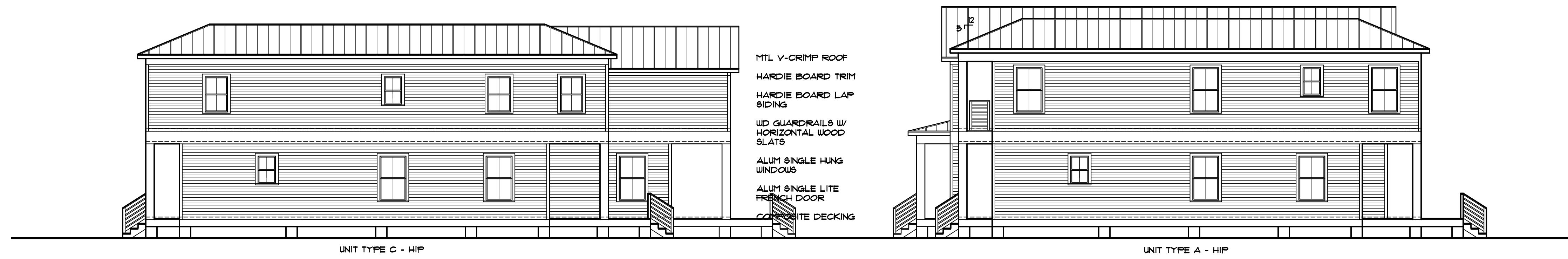
A3.1.1



**Courtyard Towards Church Elevation**

1/8" = 1' - 0"

4  
A3.1.2



**Rear Towards Simonton Elevation**

1/8" = 1' - 0"

5  
A3.1.2



**Courtyard Towards Simonton Elevation**

1/8" = 1' - 0"

6  
A3.1.2

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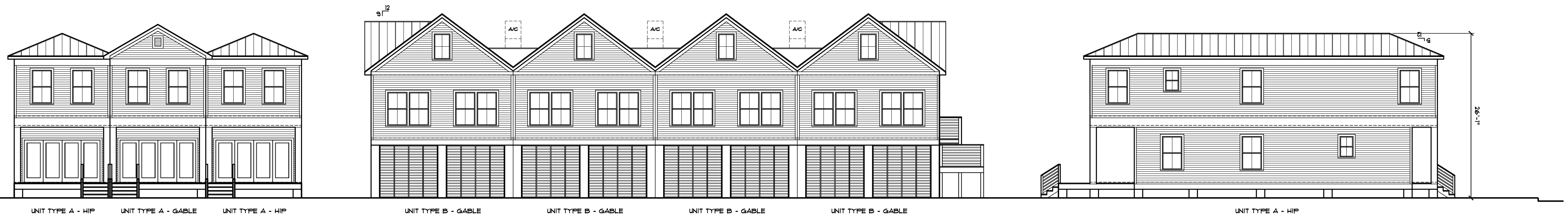
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4/30/13  
revision:

sheet:  
A3.1.2



MTL V-CRIMP ROOF  
 HARDIE BOARD TRIM  
 HARDIE BOARD LAP SIDING  
 WD GUARDRAILS W/  
 HORIZONTAL WOOD SLATS  
 ALUM SINGLE HUNG WINDOWS  
 ALUM SINGLE LITE FRENCH DOOR  
 COMPOSITE DECKING



North Side Towards Virginia Elevation

1/8" = 1' - 0"

7  
 A3.1.3

MTL V-CRIMP ROOF  
 HARDIE BOARD TRIM  
 HARDIE BOARD LAP SIDING  
 WD GUARDRAILS W/  
 HORIZONTAL WOOD SLATS  
 ALUM SINGLE HUNG WINDOWS  
 ALUM SINGLE LITE FRENCH DOOR  
 COMPOSITE DECKING



Courtyard Towards Virginia Elevation

1/8" = 1' - 0"

8  
 A3.1.3

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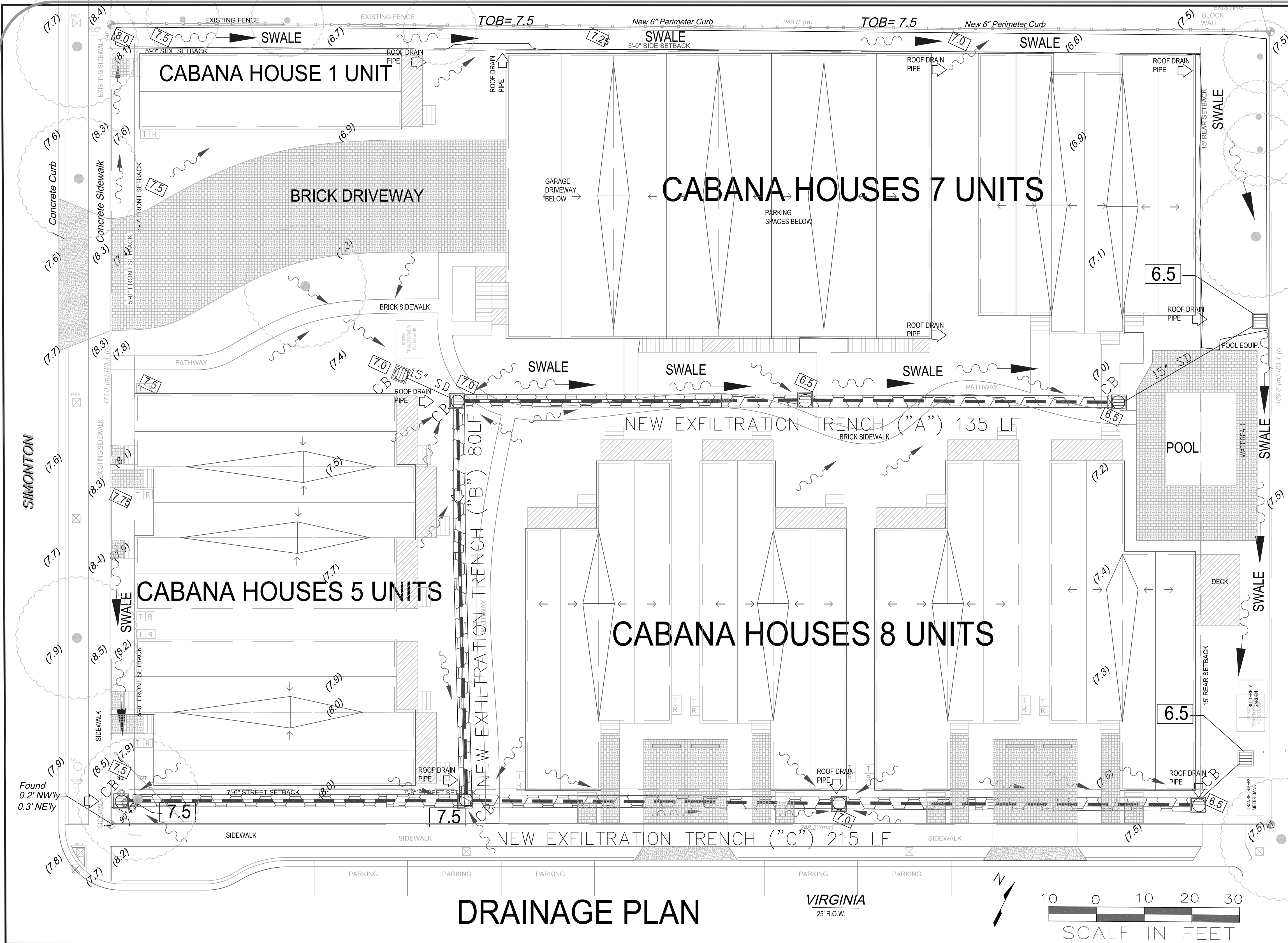
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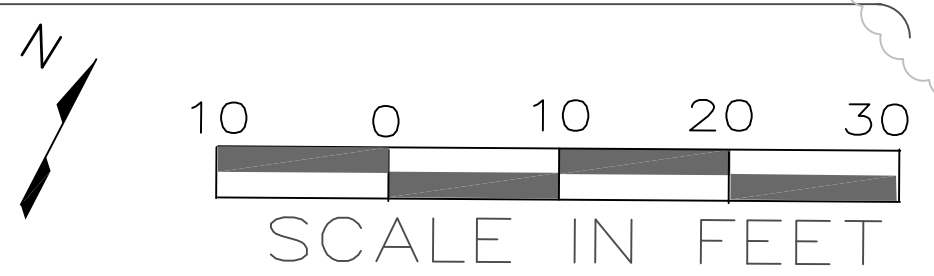
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A3.1.3



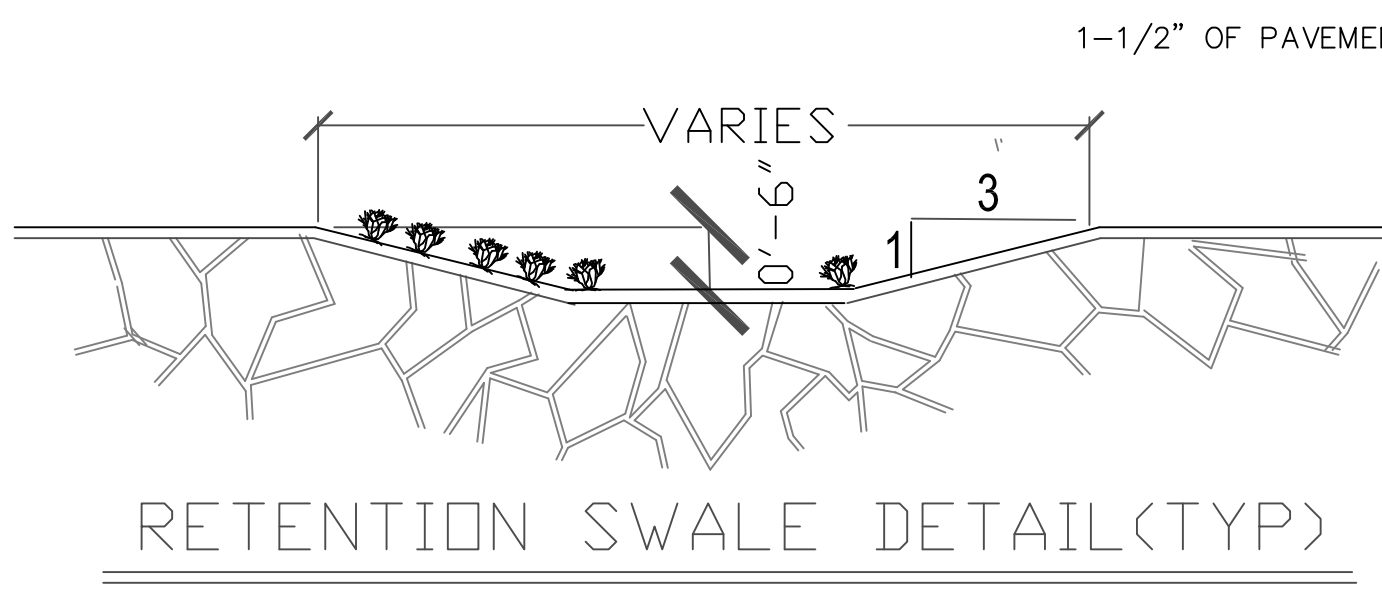
# DRAINAGE PLAN

VIRGINIA  
25 R.O.W.



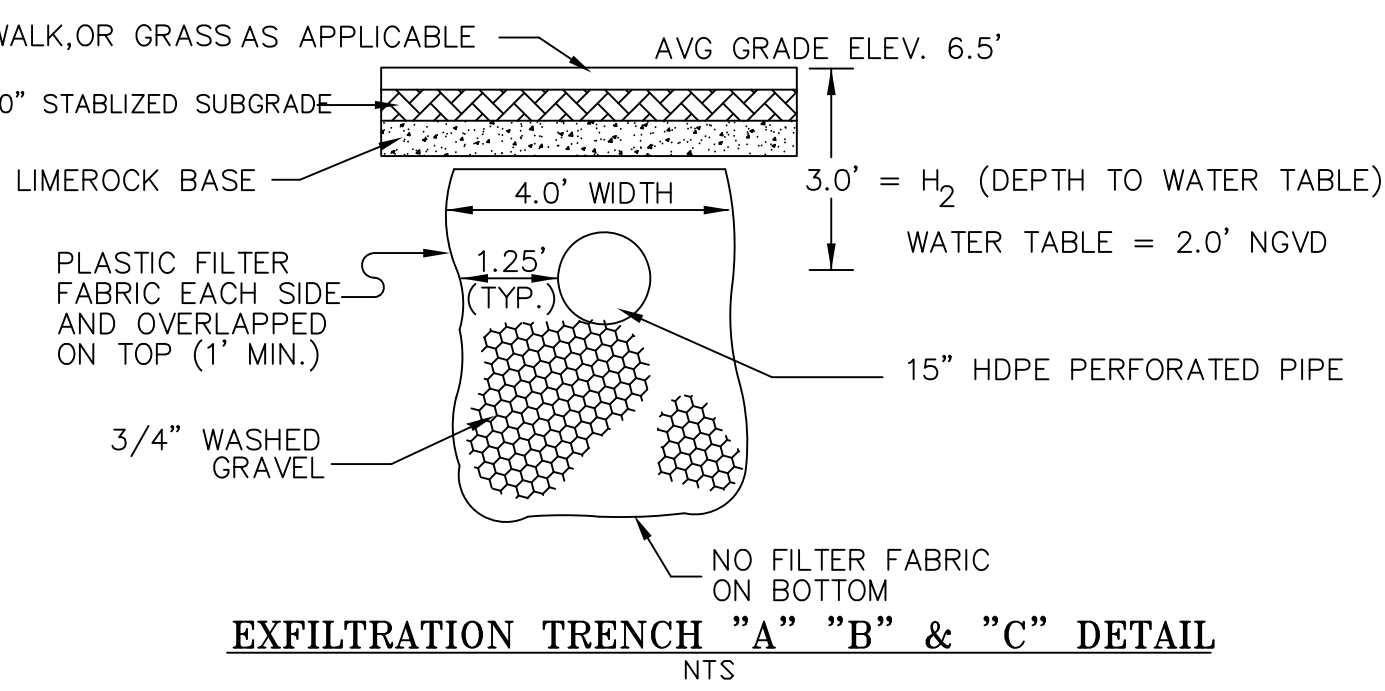
### LEGEND

- 5.0 PROPOSED GRADE
- 6.5 PROPOSED SPOT ELEVATION
- 7.5 PROPOSED CONTOUR LINE
- 15" SD 15" STORM DRAIN HDPE STORM PIPE
- EXFILTRATION TRENCH
- Stormwater Inlet
- Soil Boring Location
- Percolation Test Location
- 7 Elevation Contour Line (N.G.V.D) (Not all contours shown for clarity)
- 7.8 Existing Spot Elevation (N.G.V.D)
- 716.19TC PROPOSED SPOT ELEVATION
- 715.69G PROPOSED SPOT ELEVATION
- STORM WATER FLOW DIRECTION
- Cross Section, Elevation or Detail Location Number, Destination C-4 & Origin C-3
- STA 0+00 HORIZONTAL CONTROL
- STA 0+855 STATIONING IN FEET
- STA 2+85N



### DRAINAGE NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING ALL AREAS TO INSURE POSITIVE DRAINAGE AND TO PREVENT STANDING WATER.
2. DRAINAGE CALCULATIONS BASED ON SFWMD MANUAL VOLUME IV.



## DRAINAGE CALCULATIONS

### WATER QUANTITY - PRE DEVELOPMENT

TOTAL PROJECT AREA =	0.965 AC
LOT AREA =	42,225 SQ FT
ASPHALT, ROOF, CONCRETE	23,933 SQ FT
PERVIOUS AREA =	18,292 SQ FT
% PERVIOUS =	0.433 AC= 43%
IMPERVIOUS AREA =	0.53 AC
% IMPERVIOUS =	55%
RAINFALL FOR 25yr/24hr EVENT (P) =	9 IN
RAINFALL FOR 25yr/3day EVENT (P) =	12.23 IN
DEPTH TO WATER TABLE =	4 FT
DEVELOPED AVAILABLE STORAGE =	8.18 IN
SOIL STORAGE (S) =	3.418 IN
$Q_{pre} = \frac{(P-0.2S)^2}{(P+0.8S)} = \frac{(12.23-(0.2)(3.42))^2}{(12.23+(0.8)(3.42))} =$	8.9 IN

### WATER QUANTITY - POST DEVELOPMENT

PROJECT AREA =	0.965 AC
LOT AREA =	42,225 SQ FT
NEW ROOF, PAVING, POOL AREA =	25,333 SQ FT
PERVIOUS AREA =	16,890 SQ FT
IMPERVIOUS AREA =	0.58 AC
% IMPERVIOUS =	60.0%
RAINFALL FOR 25yr/24hr EVENT (P) =	9 IN
RAINFALL FOR 25yr/3day EVENT (P) =	12.23 IN
DEPTH TO WATER TABLE =	4 FT
DEVELOPED AVAILABLE STORAGE =	8.18 IN
SOIL STORAGE (S) =	2.49 IN
$Q_{post} = \frac{(P-0.2S)^2}{(P+0.8S)} = \frac{(12.23-(0.2)(3.27))^2}{(12.23+(0.8)(3.27))} =$	9.02 IN

### POSTDEVELOPMENT - PREDEVELOPMENT

$(Q_{post}) - (Q_{pre}) = 9.02 \text{ AC-IN} - 8.9 \text{ AC-IN} =$	0.12 AC-IN
WATER QUANTITY TREATMENT VOLUME =	0.12 AC-IN

### WATER QUALITY

DRAINAGE BASIN AREA =	0.965 AC
A) ONE INCH OF RUNOFF FROM DRAINAGE AREA =	0.965 AC-IN
B) 2.5 INCHES TIMES PERCENT IMPERVIOUS	
ROOF, PAVING, POOL AREA =	0.581 AC
PERVIOUS AREA =	0.387 AC
IMPERVIOUS = $\frac{\text{SITE(LOT)} - \text{PERVIOUS}}{\text{SITE(LOT)}}$	
% IMPERVIOUS =	60.0%
RUNOFF TREATMENT = 2.5" (%IMPERVIOUS) =	1.5 IN
VOLUME = (1.5 INCHES)(DRAINAGE AREA) =	1.45 AC-IN

### WATER QUANTITY ~vs~ WATER QUALITY

0.12 AC-IN <	1.45 AC-IN
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### RETENTION REQUIRED

VOLUME REQUIRED =	1.45 AC-IN
DETENTION REQUIRED =	5,263 CF
50% CREDIT FOR DRY DETENTION TO EXFILTRATION TRENCHES	
50% X 5,263 CF =	2,632 CF

### STORAGE VOLUME AVAILABLE FOR WATER QUALITY

SITE STORAGE AREA =	2,854 S.F.
AVERAGE ELEVATION OF STORAGE AREA =	6.50 FT
OVERFLOW ELEVATION OF STORAGE AREA =	7.00 FT
AVERAGE DEPTH OF STORAGE AREA =	0.5 FT
STORAGE VOLUME AVAILABLE FOR WATER QUALITY =	2,854 S.F. x 0.5 FT = 1,427 C.F. < 2,632 C.F. REQUIRED.

ADDITIONAL STORAGE IS REQUIRED. USE EXFILTRATION TRENCHES

### EXFILTRATION TRENCH VOLUME PER LF

EXFILTRATION TRENCH VOLUME (V) =  $L (K(H_2 W + 2H_2 D_U - D_U^2 + 2H_2 D_S) + 1.39 \times 10^{-4} (W)(D_U))$

WHERE:	
EXFILTRATION TRENCH PROVIDED =	100 L.F.
HYDRAULIC CONDUCTIVITY, K =	0.000015
DEPTH TO WATER TABLE, H <sub>2</sub> =	4.0 FT
TRENCH WIDTH, W =	4.0 FT
NON-SATURATED TRENCH DEPTH, D <sub>U</sub> =	4.0 FT
SATURATED TRENCH DEPTH, D <sub>S</sub> =	13 FT
VOLUME PER LF OF TRENCH =	0.43 AC-IN (1,546 CF/100LF)
VOLUME PER LF =	15.46 CF

### RETENTION PROVIDED BY EXFILTRATION TRENCHES

SAFETY FACTOR OF TWO (2) OR MORE IS REQUIRED (SFWMD MANUAL)	
EX. TRENCH "A" VOLUME @ 135LF x 15.46CF/LF =	2,087 CF
EX. TRENCH "B" VOLUME @ 80LF x 15.46CF/LF =	1,237 CF
EX. TRENCH "C" VOLUME @ 215 LF x 15.46CF/LF =	3,324 CF
TOTAL VOLUME =	6,648 CF
6,648 CF > 2 SF x 2632 CF = 5,263 CF; STORAGE IS ADEQUATE.	

**ANNALISE MANNIX  
ENGINEERING  
AND CONSULTING, LLC**  
3739 Paula Avenue  
Key West, Florida 33040  
  
Tel: 305-797-0463  
Email: amannix@aol.com  
FLORIDA REG. P.E. #57533

Revisions:

**SOUTHERNMOST CABANA RESORT**  
**1015 - 1027 Simonton Street**  
**Key West 33040**

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PLAN-DETAILS  
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& NOTES

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C-2

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NOT FOR  
CONSTRUCTION