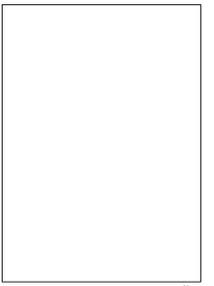
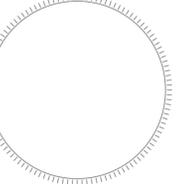


1 SITE PLAN  
SCALE: 3/32"=1'-0"

KEY PLAN



CONSULTING ENGINEER



ALIOSKAR GANEM P.E.  
FL. LIC. No. 74745

PROJECT NAME:  
NEW RESIDENCE

PROJECT ADDRESS:  
1405 BAY DRIVE,  
MIAMI BEACH, FL 33141

REVISIONS	DATE

Project No: AS NOTED  
Scale: 6-20-2017  
Date: A.G.  
Drawn: A.G.  
Checked:  
CAD File:

Drawing Title:

**SP-1**

# STRUCTURAL NOTES

## GENERAL NOTES:

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT ARCHITECTURAL DRAWINGS FOR SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS. AS A MINIMUM, CONSTRUCTION SHALL COMPLY WITH FLORIDA BUILDING CODE LAST EDITION, ACI 318-11, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 308, AISI MANJAL 2010, NORTH AMERICAN SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS S002-01, AND AISI SPECIFICATIONS. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUCTED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. DO NOT SCALE THE DRAWINGS. FOLLOW WRITTEN DIMENSIONS ONLY. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PART OF THE WORK. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCES TO INSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS WORK INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. THE CONTRACTOR SHALL SUPPLEMENT THE MINIMUM REQUIRED FOUNDATION AND SITE PREPARATION REQUIREMENTS AND SLAB-ON-GRADE THICKNESS TO HANDLE CONSTRUCTION LOADS.

## CODES:

- THE STRUCTURAL FRAMING WAS DESIGNED USING THE FOLLOWING CODES
- BUILDING CODE : FLORIDA BUILDING CODE 2014
  - CONCRETE : ACI 318-11
  - STEEL : AISI 360-10 (14th Ed.)
  - MASONRY : ACI 308-11
  - WOOD : NDS 2012
  - WIND : ASCE 7-10

## SHOP DRAWING REVIEW:

SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE ENGINEER. DRAWINGS SUBMITTED WITHOUT REVIEW WILL BE RETURNED UNCHECKED. SHOP DRAWINGS IN THE FORM OF REPRODUCIBLE SEPIAS OF STRUCTURAL DRAWINGS (CONTRACT DOCUMENTS) ARE PROHIBITED WITHOUT THE EXPRESS WRITTEN PERMISSION FROM THE ENGINEER. IN ALL INSTANCES, THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER.

## DESIGN LOADS:

THE STRUCTURAL FRAMING WAS DESIGNED USING THE FOLLOWING SUPERIMPOSED LOADS. DESIGN WIND LOADS WERE DETERMINED IN ACCORDANCE WITH ASCE 7-10.

**ROOF:**

LIVE LOAD.....	.30 PSF	LIVE LOAD.....	40 PSF
DEAD LOAD.....	.15 PSF	DEAD LOAD.....	25 PSF

**WIND:**

DESIGN WIND SPEED = 175 MPH      EXPOSURE D  
RISK CATEGORY = II      INTERNAL PRESSURE COEFFICIENT = + 0.18/- 0.18

## CONCRETE:

CONCRETE SHALL ACHIEVE MINIMUM 28 DAY COMPRESSIVE STRENGTHS AS FOLLOWS:  
5,000 PSI REGULAR WEIGHT FOR FOOTINGS, AND SLAB-ON-GRADE  
5,000 PSI REGULAR WEIGHT FOR BEAMS, AND COLUMNS  
CONTRACTOR SHALL SUBMIT PROPOSED MIX DESIGNS, WITH HISTORICAL STRENGTH DATA FOR EACH SEPARATE MIX PRIOR TO CONCRETE PLACEMENT. CONCRETE SLUMP SHALL NOT EXCEED 4" ± 1" PRIOR TO THE ADDITION OF PLASTICIZER. CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ACI 301 AND ASTM C-94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME-STAMPED WHEN CONCRETE IS BATCHED. THE MAXIMUM TIME ALLOWED FROM WHEN WATER IS ADDED TO THE MIX UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED 90 MINUTES. IF FOR ANY REASON THERE IS A DELAY SUCH THAT A BATCH IS HELD FOR LONGER THAN 90 MINUTES, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LABORATORY TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE. ALL CONCRETE SHALL BE CURED USING A CURING COMPOUND MEETING ASTM STANDARD C-309, TYPE I. CURING COMPOUNDS SHALL HAVE A FUGITIVE DYE. THE CURING COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE VISIBLE WATER HAS LEFT THE UNFINISHED CONCRETE. ALL SCUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY. CALCIUM CHLORIDES SHALL NOT BE UTILIZED IN THE WORK. OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER. REQUIRED CONCRETE COVERAGE OVER REBAR SHALL BE AS FOLLOWS:  
A. 3" FOR CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH  
B. FOR CONCRETE EXPOSED TO EARTH AND/OR WEATHER:  
1/2" FOR #5 AND SMALLER  
2" FOR #6 AND LARGER  
C. FOR CONCRETE NOT EXPOSED TO EARTH OR WEATHER:  
3/4" FOR SLABS, WALLS, AND JOISTS  
1-1/2" FOR BEAM AND COLUMN PRIMARY REINF., TIES, STIRRUPS

THE REINFORCEMENT FOR FOOTINGS AND OTHER PRINCIPAL STRUCTURAL MEMBERS IN WHICH CONCRETE IS DEPOSITED AGAINST THE GROUND SHALL HAVE NOT LESS THAN 3 INCHES OF CONCRETE BETWEEN THE REINFORCEMENT AND THE GROUND CONTACT SURFACE. IF CONCRETE SURFACES AFTER REMOVAL OF THE FORM ARE TO BE EXPOSED TO THE WEATHER OR BE IN CONTACT WITH THE GROUND, THE REINFORCEMENT SHALL BE PROTECTED WITH NOT LESS THAN 2 INCHES OF CONCRETE FOR BARS LARGER THAN #5 AND 1-1/2" FOR #5 OR SMALLER BARS. EXCAVATIONS FOR CONTINUOUS FOOTINGS SHALL BE CUT TRUE TO LINE AND GRADE AND THE SIDES OF FOOTINGS SHALL BE FORMED, EXCEPT WHERE SOIL CONDITIONS ARE SUCH THAT THE SIDES OF THE EXCAVATION STAND FIRM AND SQUARE. EXCAVATIONS SHALL BE MADE TO FIRM, CLEAN BEARING SOIL. WHEN POLYETHYLENE SHEETS ARE USED AS A VAPOR BARRIER BENEATH A GROUND FLOOR SLAB, THE SUB GRADE FOR THAT SLAB SHALL BE CONSIDERED A FORMED SURFACE FOR THE PURPOSE OF REINFORCING STEEL COVERAGE.

STRUCTURAL CONCRETE SHALL CONFORM WITH ACI-301 IT SHALL REACH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 28 DAYS FOR SLABS FOR BEAMS AND COLUMNS. AGGREGATES SHALL BE CLEAN AND GRADED MAXIMUM SIZES 3/4" CONCRETE ASTM C-33 SHALL CONFORM TO ASTM C-94  
CONCRETE TESTING IS REQUIRED AS FOLLOWS: 1 SET OF 5 CYLINDERS FOR EVERY 50 CU. YDS. OF CONCRETE AS PER ASTM C-94  
MAXIMUM PERMISSIBLE SLUMP IS 5-6" IN STRUCTURAL CONCRETE WITH THE EXCEPTION BEING SAND CEMENT GROUT  
REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60. REINFORCING STEEL SHALL BE DETAILED AND FABRICATED ACCORDING TO THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES". HOOK ALL DISCONTINUOUS TOP REINFORCING. PROVIDE CORNERS WITH 2# 5 X 5'-0" BEND. CLEAR COVER FOR REINFORCING BARS SHALL BE:  
G. BEAMS..... 3" UNFORMED FACES ..... 3"  
SLABS..... 3/4" FORMED FACES  
BEAMS/COLUMNS..... 1-1/2" CONTACT WEARTH..... 2"

## REINFORCING STEEL:

REBAR SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE, AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF THE ACI STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL SUBMIT REBAR SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. HORIZONTAL AND VERTICAL BARS SHALL LAP 6 X BAR NO., UNLESS OTHERWISE NOTED. UNSCHEDULED FIELD LAPS ARE SUBJECT TO ENGINEER'S REVIEW. PROVIDE 3" X 3" CORNER BARS LAPPED AND TIED TO EACH BEAM REBAR, TYPICAL AT ALL CORNERS. THESE CORNER BARS SHALL BE THE SAME SIZE AS LONGITUDINAL BEAM BARS. SEE DETAILS FOR ADDITIONAL INFORMATION.

## WELDED WIRE MESH:

WELDED WIRE MESH SHALL BE ASTM A-185, GRADE 65, FREE FROM OIL, SCALE, AND RUST, AND SHALL BE PLACED IN ACCORDANCE WITH THE ACI TYPICAL DETAILS. MINIMUM LAP SHALL BE ONE SPACE PLUS TWO INCHES.

## FORMWORK:

FORMWORK, SHORING, AND BRACING FOR ALL CONCRETE BEAMS, SLABS, COLUMNS, WALLS, AND FOOTINGS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ACI 347, "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK".

## WOOD:

- ALL WOOD FOR BEAMS, BEARING WALLS, SOLE PLATES, TOP PLATES, BLOCKING, BRACING, LEDGERS, CRIPPLES, SILLS, ETC., SHALL BE SOUTHERN PINE NO. 2, KD-15, OR BETTER.
- MICRO-LAM BEAMS SHALL BE MANUFACTURED BY TRUS-JOIST CORP. OR APPROVED EQUAL, AND SHALL PROVIDE A MODULES OF ELASTICITY OF 2,000,000 PSI, A MIN. FLEXURAL STRESS OF 2,925 PSI, AND A MIN. HORIZONTAL SHEAR STRESS OF 285 PSI.
- ALL WOOD IN CONTACT WITH CONCRETE OR CONCRETE BLOCK SHALL BE PRESSURE-TREATED WOOD FOR NON-STRUCTURAL USES SHALL BE RATED TO RETENTION LEVELS OF 0.25 PCF OF CHROMIATED COPPER ARSENATE (CCA). WOOD FOR STRUCTURAL USE THAT SHALL BE TREATED FOR ANY REASON SHALL BE RATED TO RETENTION LEVELS OF 0.4 PCF OF CCA OR MORE.
- FOR STRUCTURAL USES, AVOID BUYING TREATED LUMBER THAT CONTAINS MORE THAN 1/2" OF HEARTWOOD.
- AVOID INHALATION OF SAWDUST PRODUCED BY PRESSURE TREATED WOOD. WEAR A DUST MASK AND WORK OUTDOORS. DISPOSE OF DUST AND SCRAP BY ORDINARY TRASH COLLECTION. DO NOT BURN IT. PRESSURE TREATED WOOD MAY PRODUCE VERY TOXIC FUMES.
- IN HIGHLY CORROSIVE ENVIRONMENTS, ALL WIND RESISTING HARDWARE INCLUDING THE HURRICANE STRAPS, SHALL BE MADE OF STAINLESS STEEL, OR SHALL BE DIPPED (AND SCRATCHES RE-PAINTED) IN COAL-TAR EPOXY PAINT.
- WOOD PREVIOUSLY USED AS FORMWORK SHALL NOT BE USED AS ROOF FRAMING OR SHEATHING.
- HURRICANE STRAPS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
- HANGERS OR STRAPS THAT DO NOT MATCH EXACTLY THE ONES SPECIFIED ON THE DRAWINGS IN STEEL YIELD OR ULTIMATE STRENGTH, STEEL DIMENSIONS (LENGTH AND WIDTH), NUMBER AND DIAMETER OF HOLES FOR THE SAME SIZES OF NAILS OR BOLTS, AND/OR DO NOT HAVE THE SAME GENERAL SHAPE, WILL NOT BE ACCEPTABLE.
- NO POCKETS WILL BE ALLOWED IN CONCRETE OR STEEL MEMBERS FOR CONNECTION OF WOOD MEMBERS UNLESS THE CONNECTION DETAIL IS IN WRITING PRIOR TO INSTALLATION.
- ALL NAILS, SCREWS, AND BOLTS SHALL BE HOT-DIPPED GALVANIZED.
- ALL WOOD TRUSSES IN CONTACT WITH THE CONCRETE BEAMS OR ANY OTHER CONCRETE ELEMENT MUST BE PROTECTED WITH MOISTURE BARRIER.

## TERMITE PROTECTION:

ALL BUILDINGS SHALL HAVE PRE-CONSTRUCTION TREATMENT PROTECTION AGAINST SUBTERRANEAN TERMITES. THE RULES AND LAWS AS ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES SHALL BE DEEMED AS APPROVED WITH RESPECT TO PRE-CONSTRUCTION SOIL TREATMENT FOR PROTECTION AGAINST SUBTERRANEAN TERMITES. A CERTIFICATE OF COMPLIANCE SHALL BE ISSUED TO THE BUILDING DEPARTMENT BY THE LICENSED PEST CONTROL COMPANY THAT CONTAINS THE FOLLOWING STATEMENT:

"THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES. TREATMENT IS IN ACCORDANCE WITH RULES AND LAWS ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES."

## FOUNDATION/SITE PREPARATION:

ALL FOUNDATION ACCORDING WITH RECOMMENDATIONS OF GEOTECHNICAL REPORT DONE BY:  
DYNATECH ENGINEERING CORP. SIGN AND SEALED BY WISSAM SAAD NAAMANI, P.E. FLORIDA PROFESSIONAL ENGINEER LICENSE NO. 39584.

## 4" Ø SCH 80 HELICAL PILE

### PILE CAPACITIES:

24" \* 5 TONS COMPRESSION, 2 TONS TENSION

### \*BELOW EXISTING LAND SURFACE

LARGE VOLUMES, POSSIBLY UP TO TWICE (OR MORE) OF THE THEORETICAL PILE VOLUME, MAY BE REQUIRED FOR PROPER AUGER CAST PILE INSTALLATION. A MINIMUM OF THREE (3) PILES SHOULD INITIALLY BE DRIVEN (INSTALLED) AT STRATEGIC LOCATIONS IN ORDER TO VERIFY THE SUGGESTED PILE LENGTH. THE ENTIRE PILE DRIVING (INSTALLATION) OPERATION SHOULD BE MONITORED AND PERFORMED IN ACCORDING WITH THE RELEVANT LOCAL AND STATE REQUIREMENTS.

## PRODUCT CONTROL APPROVAL AND SHOP DRAWING NOTES

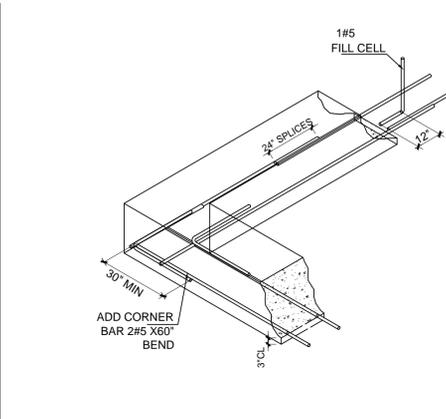
ALL APPROVED SHOP DRAWINGS SHALL BE REVIEWED BY THE ENG. OF RECORD AND SUBMITTED AND PROCESSED AT THE BUILDING DEPARTMENT. PRODUCT CONTROL APPROVAL AND SEPARATE BUILDING PERMITS SHALL BE REQUIRED FOR THE FOLLOWING ITEMS:  
WALL SHEATHING /WINDOWS & DOORS.

## NOTE:

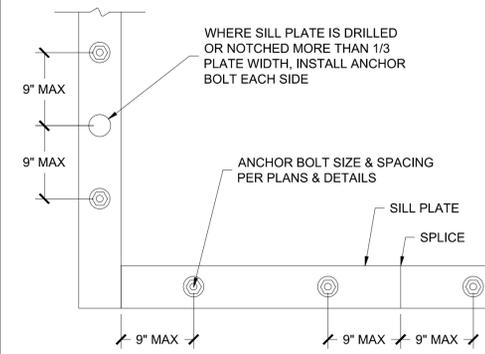
NO OTHER UNDERGROUND UTILITIES WERE LOCATED BUT MAY BE PRESENT - DIG WITH CAUTION - CALL UTILITY LOCATION CENTER BEFORE YOU DIG.

## DEBRIS PROTECTION NOTE

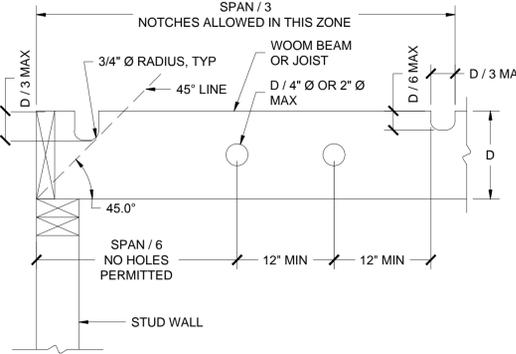
ALL SYSTEMS USED IN THIS PROPERTY USED FOR DEBRIS PROTECTION MUST BE HIGH MISSILE IMPACT RATED, CONTRACTOR MUST VERIFY PRIOR INSTALLATION THE ADEQUACY OF SUCH SYSTEM



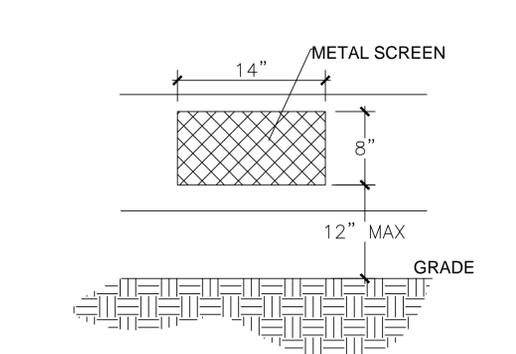
## 1 CORNER REINFORCING DETAIL FOR ALL FOUNDATION NTS



## 2 HOLES & NOTCHES IN STUDS NTS



## 3 HOLES & NOTCHES IN SILL PLATES NTS



## 4 SILL PLATE BOLTING NTS

AREA (ft²)	ZONE	PRES. (+)	PRES. (-)
10	1	21.46	-52.75
10	2	21.46	-88.51
10	3	21.46	-133.21
10	4	48.28	-52.30
10	5	48.28	-64.37
20	1	20.11	-51.40
20	2	20.11	-79.09
20	3	20.11	-110.33
20	4	46.14	-50.16
20	5	46.14	-60.09

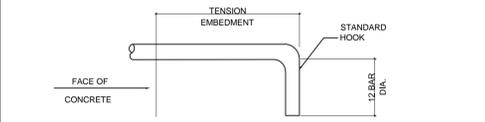
PRESSURE BASED ON ASCE 7-10 ASD CODE

## 5 HOLES & NOTCHES IN JOIST & BEAMS NTS

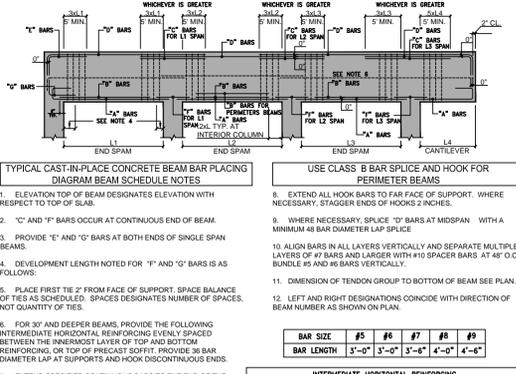
BAR SIZE	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT
#3	9"	6"	8"	6"	7"	6"	6"	6"
#4	12"	8"	10"	7"	9"	6"	9"	6"
#5	14"	10"	13"	9"	12"	8"	10"	7"
#6	17"	12"	14"	10"	13"	9"	12"	8"
#7	20"	14"	17"	12"	16"	11"	14"	10"
#8	23"	16"	20"	14"	17"	12"	16"	11"
#9	26"	18"	21"	15"	20"	14"	19"	13"
#10	28"	20"	24"	17"	23"	16"	20"	14"
#11	31"	22"	27"	19"	24"	17"	23"	16"

## 7 ROOF PRESSURE DIAGRAM NTS

BAR SIZE	fc = 3000 PSI		fc = 4000 PSI		fc = 5000 PSI		fc = 6000 PSI		fc = 7000 PSI		fc = 8000 PSI	
	TOP	BOT										
#3	9"	6"	8"	6"	7"	6"	6"	6"	6"	6"	6"	6"
#4	12"	8"	10"	7"	9"	6"	9"	6"	9"	6"	9"	6"
#5	14"	10"	13"	9"	12"	8"	10"	7"	10"	7"	10"	7"
#6	17"	12"	14"	10"	13"	9"	13"	9"	12"	8"	12"	8"
#7	20"	14"	17"	12"	16"	11"	14"	10"	13"	9"	13"	9"
#8	23"	16"	20"	14"	17"	12"	16"	11"	16"	11"	14"	10"
#9	26"	18"	21"	15"	20"	14"	19"	13"	17"	12"	16"	11"
#10	28"	20"	24"	17"	23"	16"	20"	14"	19"	13"	17"	12"
#11	31"	22"	27"	19"	24"	17"	23"	16"	21"	15"	20"	14"



## 8 WIND PRESSURE FOR GENERAL CALCULATIONS DETAIL NTS



## 9 PILE DETAIL NTS



## TENSION EMBEDMENT DETAIL SCALE: N.T.S.

## 10 TENSION EMBEDMENT NTS

## TYPICAL CAST-IN-PLACE CONCRETE BEAM BAR DIAGRAM & SCHEDULE NOTES NTS

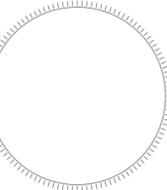
## 11 TYPICAL CAST-IN-PLACE CONCRETE BEAM BAR DIAGRAM & SCHEDULE NOTES NTS



## KEY PLAN



## CONSULTING ENGINEER



ALIOSKAR GANEM P.E.  
FL. LIC. No. 74745

## PROJECT NAME:

NEW RESIDENCE

## PROJECT ADDRESS:

1405 BAY DRIVE,  
MIAMI BEACH, FL 33141

## REVISIONS DATE

1 01-18-18

Project No: AS NOTED

Scale: 6-20-2017

Date: A.G.

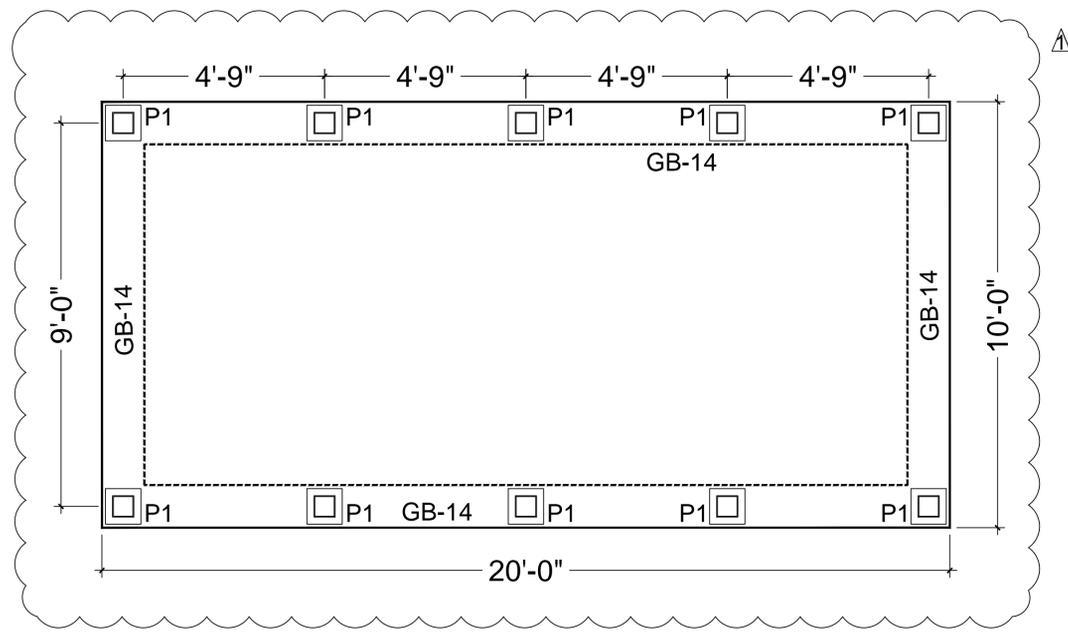
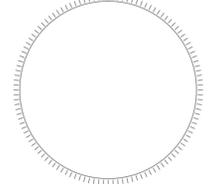
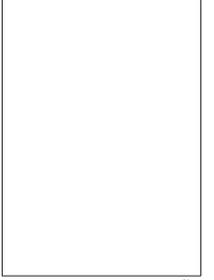
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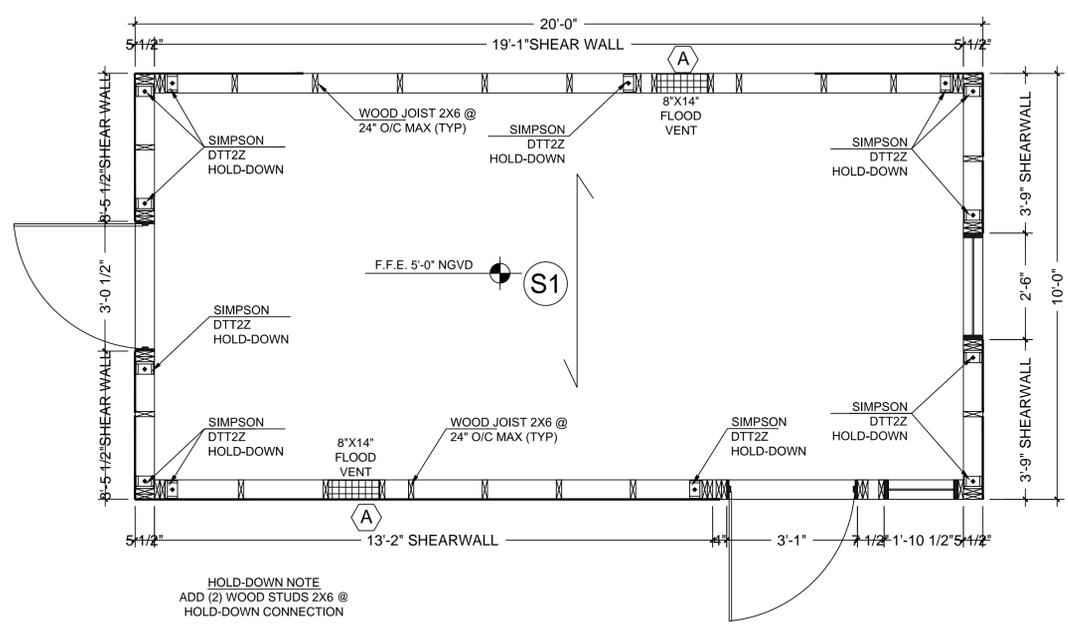
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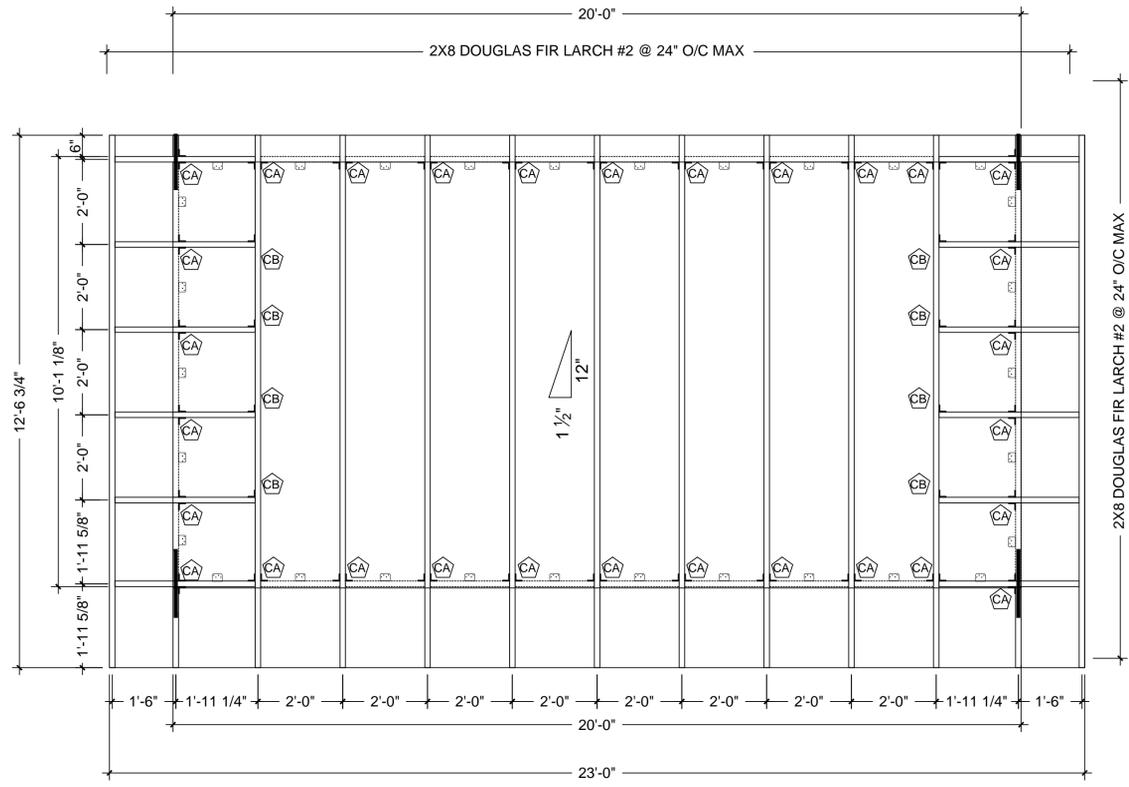
# S-1



1 FOUNDATION PLAN SCALE: 1/2"=1'-0"

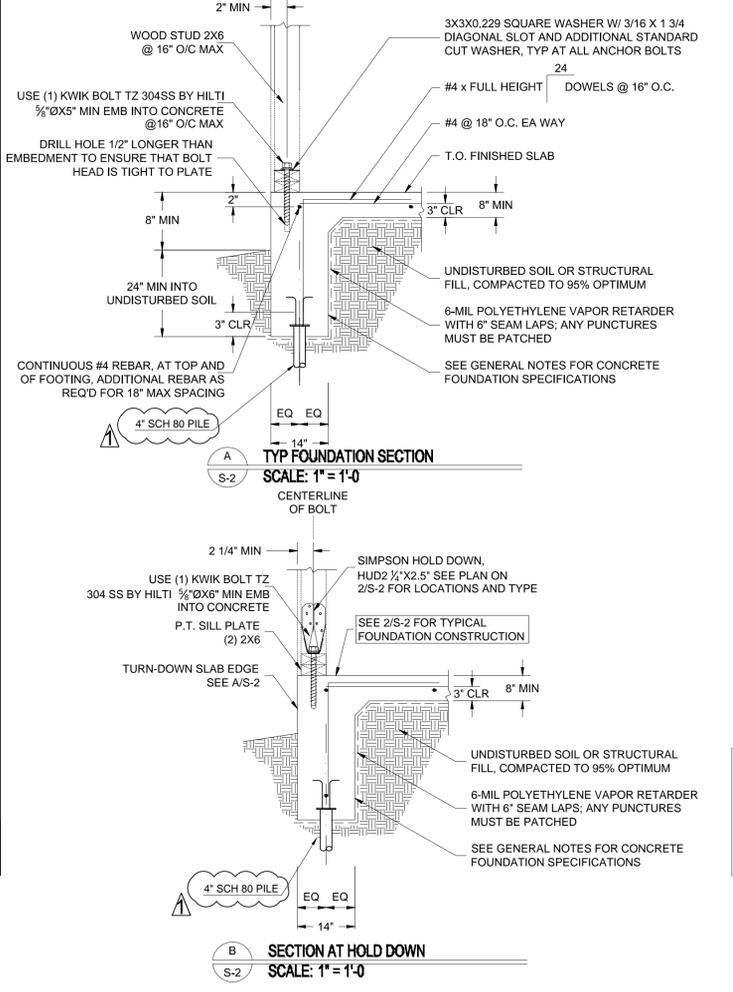


2 GROUND FLOOR SCALE: 1/2"=1'-0"



3 ROOF PLAN SCALE: 1/2"=1'-0"

**ALL WOOD MEMBERS MUST BE DOUGLAS FIR LARCH No 2 MIN**



**STRAP & HANGER SCHEDULE**

①	USE (1) H10A BY SIMPSON STRONG TIE W/(9) 10d X 1 1/2" INTO WOOD RAFTERS & (9) 10d X 1 1/2" INTO WOOD JOIST FL # 10446 ALLOWABLE UPLIFT = 1,140lb LATERAL 1 = 590 lb
②	USE (1) GA2 BY SIMPSON STRONG TIE W/(3) 10d X 1 1/2" INTO WOOD RAFTERS & (3) 10d X 1 1/2" INTO WOOD JOIST FL # 10446 ALLOWABLE GRAVITY = 355 lb ALLOWABLE UPLIFT = 550lb
③	USE (1) A23 BY SIMPSON STRONG TIE W/(4) 10d X 1 1/2" INTO WOOD RAFTERS & (4) 10d X 1 1/2" INTO WOOD JOIST FL # 10446 LATERAL 1 = 715lb LATERAL 2 = 565 lb

LATERAL 1 = LOAD PERPENDICULAR TO TRUSS  
 LATERAL 2 = LOAD PARALLEL TO TRUSS

**CONNECTOR LOAD SCHEDULE (REACTIONS)**

CONN. ID	GRAV	NET UPLIFT	L1	L2	STRAP #
CA	467 lb	664 lb	91 lb	n/a	1
CB	132 lb	187 lb	n/a	n/a	2
CC	n/a	n/a	91 lb	388 lb	3

**FOUNDATION SCHEDULE**

MARK	SIZE		REINFORCING		TIES	REMARKS
	WIDTH	HEIGHT	(B)BOTTOM	(T)TOP (S)MIDDLE		
GB-14	14"	24"	3#5	3#5	#3 @ 8"	

**S1** NEW 6" CONCRETE SLAB W. CENTERED REINFORCEMENT #4@12" E.W. AT SHORT LENGTH. & #4@16" AT LONG LENGTH BAR HOOKS @ ENDS (TYP) U.N.O.

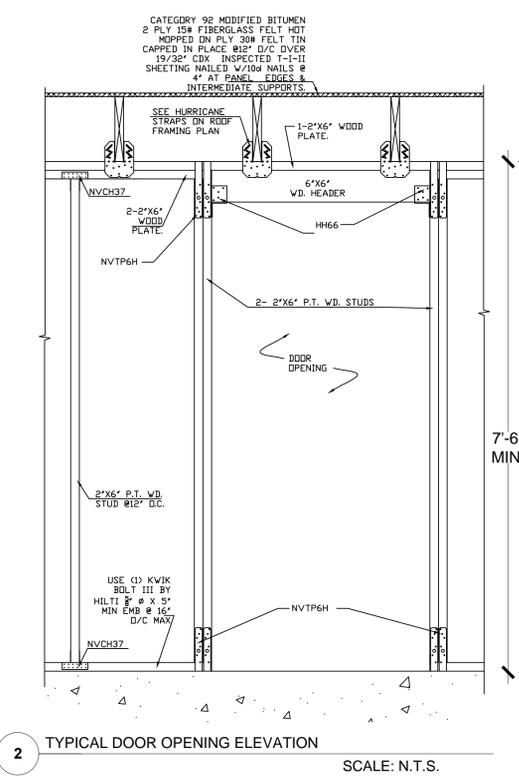
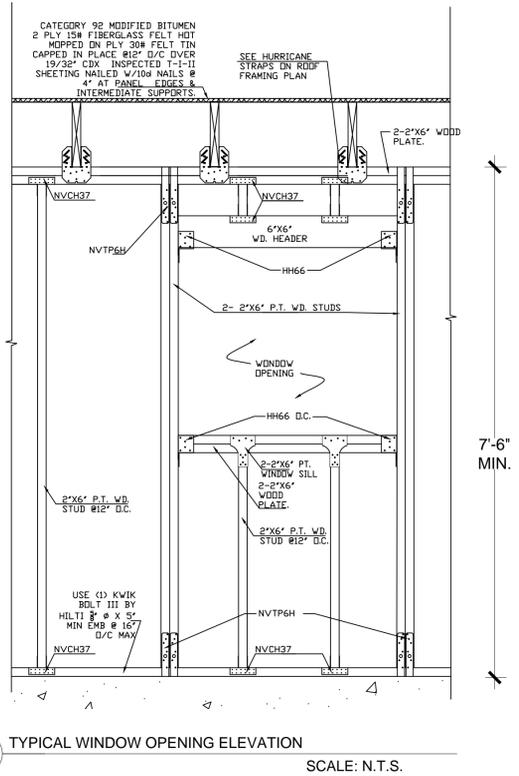
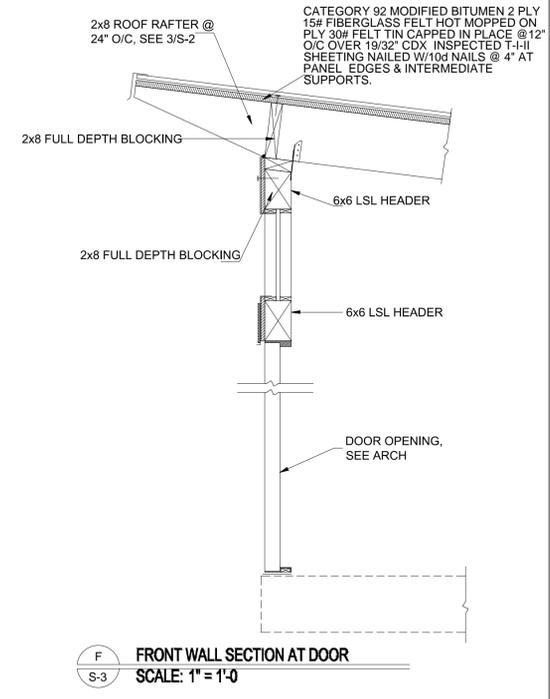
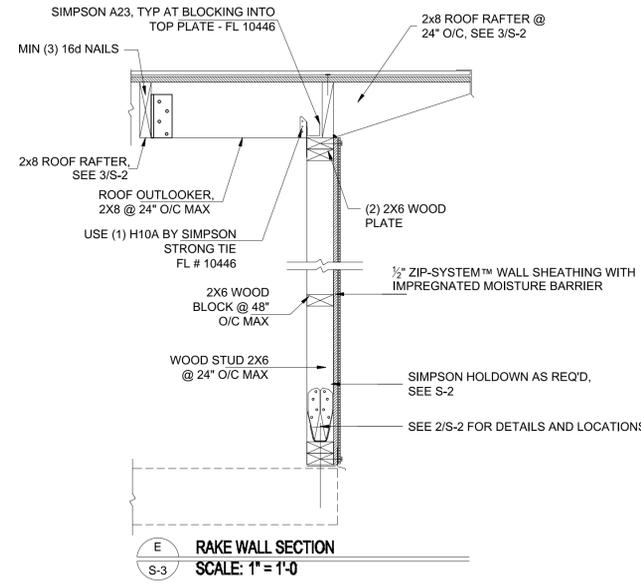
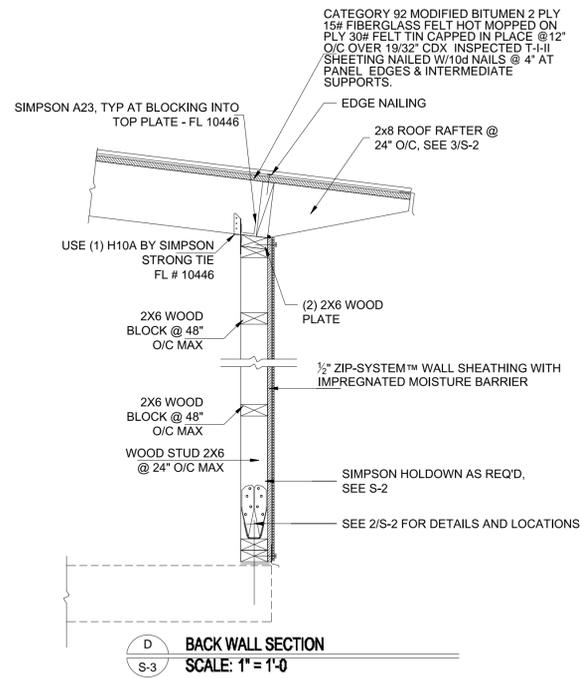
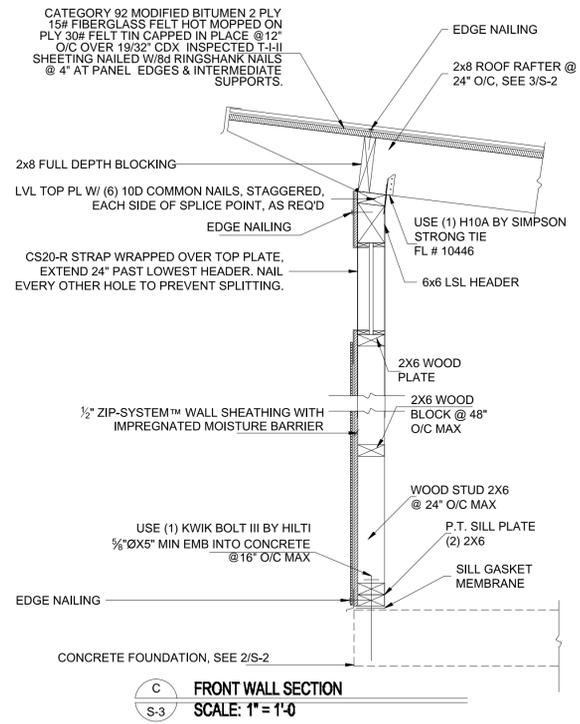
**PLAN NOTES:**  
 HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD-DOWNS SHALL BE FINGER TIGHT AND 1/2 WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS ON THE POST ON THE OPPOSITE SIDE OF THE ANCHORAGE DEVICE. PLATE SIZE SHALL BE A MINIMUM OF 0.229 INCH BY 3 INCHES BY 3 INCHES. (2305.5)  
 ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED. (11.1.2.2, 2012 NDS)  
 HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION

**CRAWL SPACE CALCULATION**

ID	FLOOR AREA	REQUIRED CRAWL AREA	TOTAL CRAWL AREA	No OPENINGS
CA	200 SF	NET = 1 in <sup>2</sup> PER @ FLOOR in <sup>2</sup>	200 in <sup>2</sup>	No >200 in <sup>2</sup> (8 X 14) in <sup>2</sup> = 1.79 USE (2)

**WALL CONNECTORS SCHEDULE**

PRODUCT	COMPANY	PRODUCT APP.	UPLIFT ^	GRAVITY	FASTENER
HOU2x2.5	SIMPSON	FL#10441	3,075 LBS	---	(6) SDS SCREWS TO POST (1) 5/8"x6" TO CONC.
NVHC37	NU-VUE	FL#16294	710 LBS	---	(16) 8d @ PLATE & (12) 10dX1.5" @ STUD
NVTP6H	NU-VUE	FL#16294	1207 LBS	---	(8) 10dX1.5" TO STUD
HH66	USP	FL #17244	1655 LBS	1655 LBS	(6)16d TO HEATHER & (12)16d INTO DINTEL

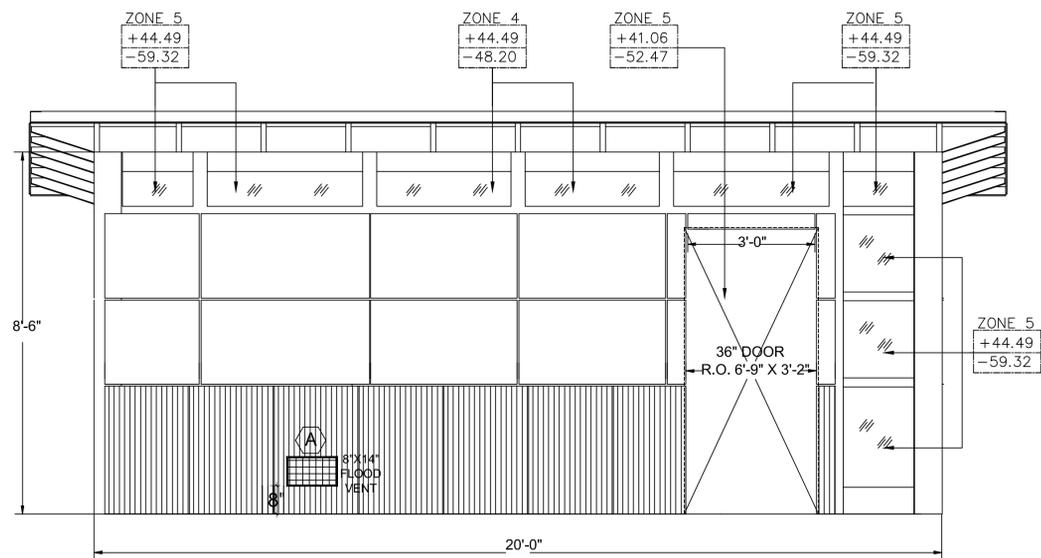


REVISIONS	DATE

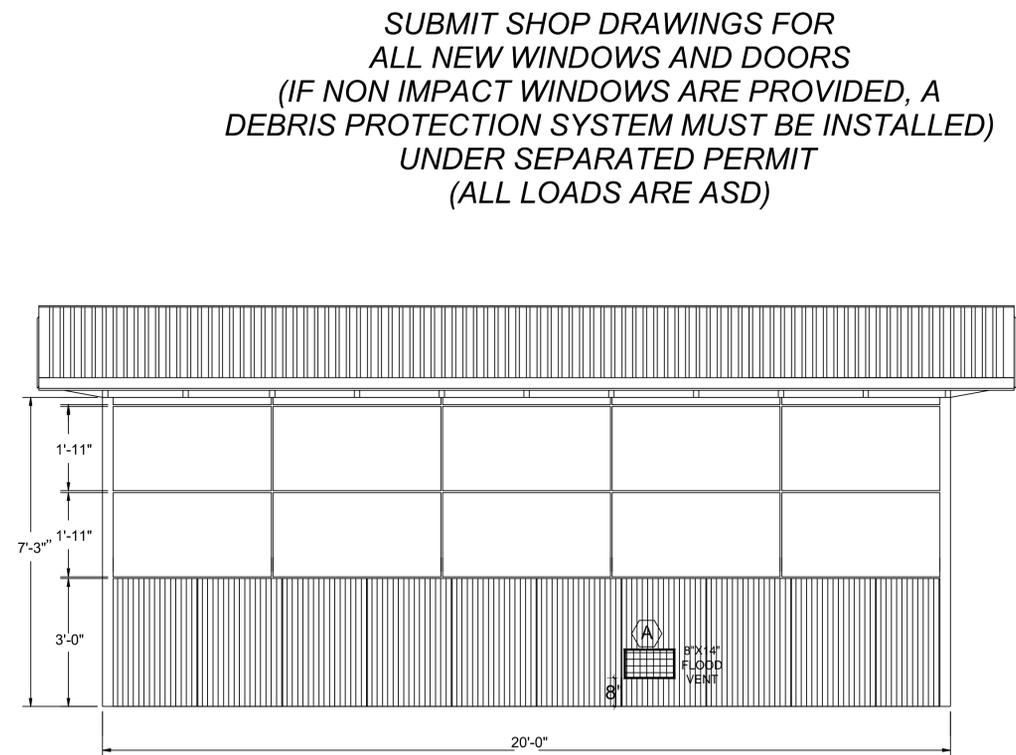
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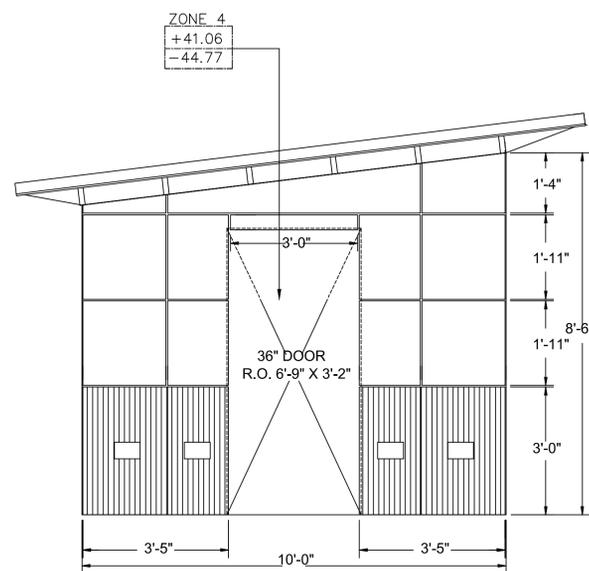
**S-3**



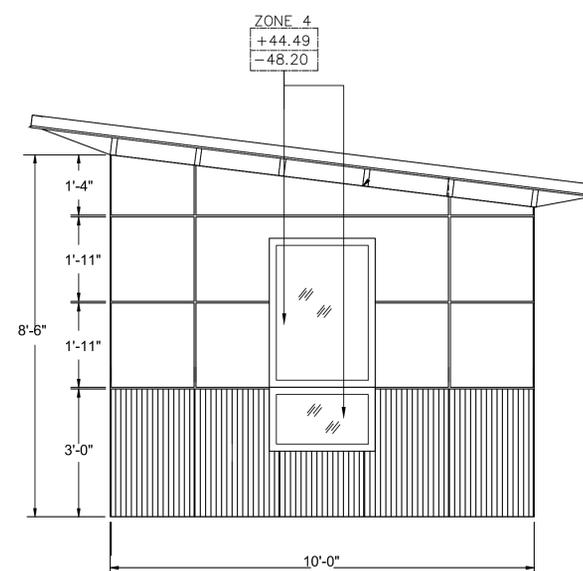
1 FRONT ELEVATION  
SCALE: 1/2":1'-0"



2 REAR ELEVATION  
SCALE: 1/2":1'-0"



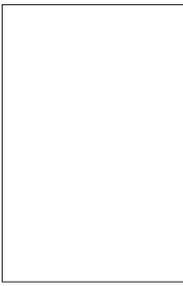
3 RIGHT ELEVATION  
SCALE: 1/2":1'-0"



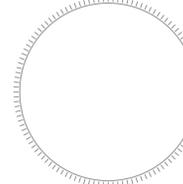
4 LEFT ELEVATION  
SCALE: 1/2":1'-0"



KEY PLAN



CONSULTING ENGINEER



ALIOSKAR GANEM P.E.  
FL. LIC. No. 74745

PROJECT NAME:  
NEW RESIDENCE

PROJECT ADDRESS:  
1405 BAY DRIVE,  
MIAMI BEACH, FL 33141

REVISIONS      DATE

REVISIONS	DATE

Project No: AS NOTED  
Scale: 6-20-2017  
Date: A.G.  
Drawn: A.G.  
Checked:  
CAD File:

Drawing Title:

**S-4**