

DESIGN LOADS:

ROOF LIVE LOADS:	30 PSF
ROOF DEAD LOADS:	30 PSF
FLOOR LIVE LOADS:	40 PSF
FLOOR DEAD LOADS:	25 PSF
BALCONY LIVE LOADS:	60 PSF

WIND LOADS:

WIND DESIGN PER ASCE 7-22	
RISK CATEGORY	II
DIRECTIONALITY (Kd)	0.85
MEAN ROOF Ht (h)	31.34
EXPOSURE CATEGORY	D
ENCLOSURE CLASSIF.	ENCLOSED BUILDING
INTERNAL PRESSURE	0.18
a =	5.9'
ROOF ANGLE	0.0 DEG
TYPE OF ROOF	MONOSLOPE
WIND SPEED	170 MPH (BASIC)

CONCRETE AND REINFORCING

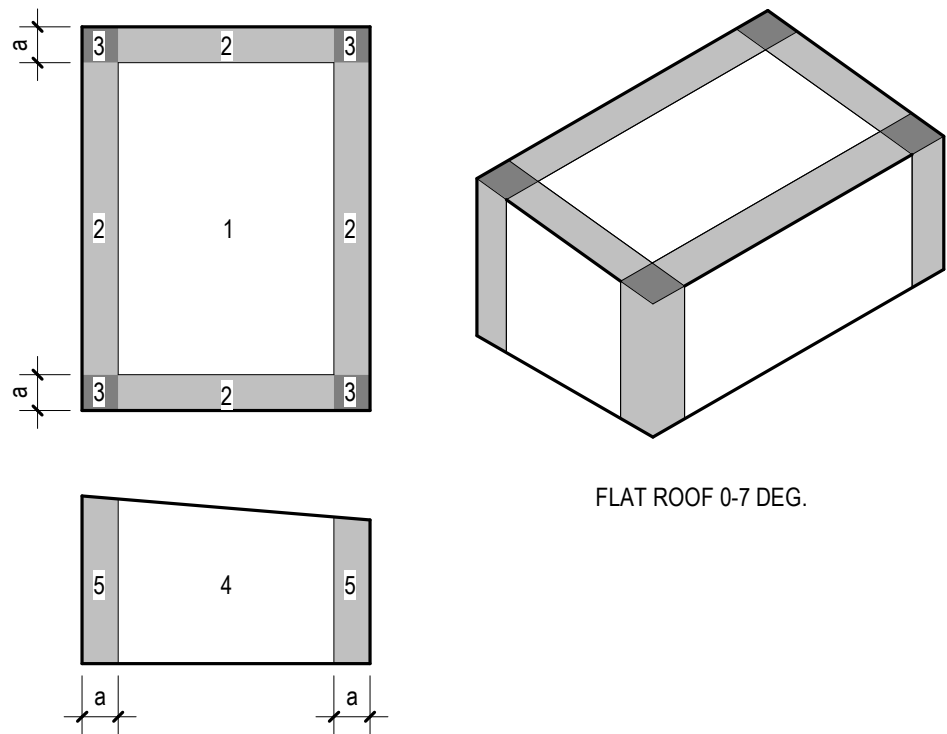
- CONCRETE WORK SHALL CONFORM TO ACI SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR STRUCTURES & BUILDINGS, ACI 301, ACI 318, AS REFERENCED PER GENERAL BUILDING CODE
- CAST-IN-PLACE CONCRETE 28-DAY MIN. COMPRESSIVE STRENGTHS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED: SLAB & FOUNDATIONS: 5000 psi, TIE BEAMS: 4000 psi (MIN.)
- PROVIDE CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS, U.O.N.:

BEAMS	1 - 1/2"
SLABS	3/4"
FOOTINGS	3" BOT. BARS & 2" TOP BARS

- REINFORCING BARS SHALL CONFORM TO ASTM A-615, GRADE 60, LATEST REVISION, WITH SUPPLEMENT (S1), MARKED "S".
- WHERE BEAM REINFORCING IS SHOWN CONTINUOUS IF REQUIRED, SPLICE BOTTOM BARS OVER SUPPORT AND TOP BARS AT CENTER OF SPAN
- PROVIDE STANDARD HOOKS AT DISCONTINUOUS ENDS OF TOP BARS.
- LENGTH OF LAP SPLICES AND BAR EMBEDMENT SHALL BE CLASS "B" IN ACCORDANCE WITH LAP SPLICE ACI 318 STANDARDS. SEE TABLE BELOW AS A GUIDE:

UNLESS OTHERWISE SHOWN, ALL CONCRETE REINFORCEMENT LAPS, UNLESS NOTED OTHERWISE, SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENTS:

COMPONENTS & CLADDING ZONES



COMPONENTS & CLADDING

ULTIMATE LOADS:

Roof	Ultimate Wind speed 170 mph (LRFD)		
	Base pressure (qh) = 73.6 psf (LRFD)		
	Surface Pressure (psf)		
Area	10 sf	50 sf	100 sf
Negative Zone 1	-86.9 psf	-81.8 psf	-79.5 psf
Negative Zone 2	-145.8 psf	-109.8 psf	-94.3 psf
Negative Zone 3	-219.5 psf	-132.0 psf	-94.3 psf
Positive All Zones	35.3 psf	30.2 psf	28.0 psf
Overhang Zone 2	-125.2 psf	-120.0 psf	-117.8 psf
Overhang Zone 3	-206.2 psf	-103.3 psf	-58.9 psf

Walls	Surface Pressure (psf)		
	10 sf	100 sf	500 sf
Area	-86.2 psf	-74.5 psf	-66.3 psf
Negative Zone 4	-106.0 psf	-82.6 psf	-66.3 psf
Negative Zone 5	79.5 psf	67.8 psf	59.7 psf

Roof	SERVICE LOADS:		
	Nominal Wind speed 131.7 mph (ASD)		
Roof	Base pressure (qh) = 44.2 psf (ASD)		
	Surface Pressure (psf)		
Area	10 sf	50 sf	100 sf
Negative Zone 1	-52.1 psf	-49.1 psf	-47.7 psf
Negative Zone 2	-87.5 psf	-65.9 psf	-56.6 psf
Negative Zone 3	-131.7 psf	-79.2 psf	-56.6 psf
Positive All Zones	21.2 psf	18.1 psf	16.8 psf
Overhang Zone 2	-75.1 psf	-72.0 psf	-70.7 psf
Overhang Zone 3	-123.7 psf	-62.0 psf	-35.3 psf

Walls	Surface Pressure (psf)		
	10 sf	100 sf	500 sf
Area	-51.7 psf	-44.7 psf	-39.8 psf
Negative Zone 4	-63.6 psf	-49.6 psf	-39.8 psf
Negative Zone 5	47.7 psf	40.7 psf	35.8 psf

NOTE: PRESSURES LISTED ABOVE IN BOTH VALUES, ULTIMATE (LRFD) & SERVICE OR NOMINAL (ASD) WHICH HAVE BEEN OBTAINED BY MULTIPLYING ULTIMATE VALUES BY 0.6. USE SERVICE VALUES (ASD) FOR WIND RESISTANCE TESTING COMPLIANCE PER FBC 1609.1.5

CONCRETE LAP SPLICE TABLE					
LAP SPLICE TABLE - REINFORCEMENT TENSION LAPS, EMBEDMENT AND HOOK LENGTHS					
fy = 60000psi fc = 3000psi (SEE NOTE 10.)					
BAR SIZE	CLASS "A" LAP		CLASS "B" LAP		HOOKS
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	
#3	22	18	28	22	9
#4	29	22	37	29	10
#5	36	28	47	36	12
#6	43	34	56	43	15
#7	63	49	81	63	17
#8	72	72	93	72	19
#9	81	63	104	81	22
#10	89	70	116	89	24
#11	99	77	128	99	26

*NOTE: CLASS A SPLICES APPLY WHERE: (1) CLEAR SPACING IS NOT LESS THAN db (2) CLEAR COVER IS NOT LESS THAN db AND STIRRUPS OR TIES THROUGHOUT ARE NOT LESS THAN THE CODE MINIMUM (OR) CLEAR SPACING OF BARS OR WIRES BEING DEVELOPED OR SPLICED ARE NOT LESS THAN 2db AND CLEAR COVER IS NOT LESS THAN db

IN ALL OTHER CASES (CLASS B) THE ENGINEER OF RECORD MUST BE CONSULTED FOR SPLICE CONDITIONS.

NOTES FOR USE WITH LAP SPLICE TABLE

- LENGTH SHOWN IN INCHES CONFORMS TO NON-SEISMIC PROVISIONS OF ACI 318 FOR UNCOATED BARS ENCLOSED BY PROPERLY SPACED TIES OR STIRRUPS.
- CLASS "A" LAPS APPLY WHEN BAR LAPS ARE STAGGERED TO LAP HALF THE BARS AT ONE LOCATION OR WHEN BARS ARE LAPPED AT THE LOCATION OF MINIMUM STRESS IN THE BARS.
- CLASS "B" LAPS APPLY WHEN ALL BARS ARE LAPPED AT A LOCATION OF MAXIMUM STRESS IN THE BARS.
- TOP BARS SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BARS IN ANY SINGLE POUR.
- LAP AND EMBEDMENT LENGTHS HAVE THE SAME VALUE.
- CLEAR SPACING OF REINFORCING SHALL NOT BE LESS THAN 1" OR 1 BAR DIAMETER. IF THE CLEAR SPACING IS LESS THAN SPECIFIED, MULTIPLY THE ABOVE LENGTHS BY 1.5.
- CLEAR COVER FOR REINFORCING SHALL NOT BE LESS THAN 1 BAR DIAMETER OR AS SPECIFIED IN SECTION 7.7 OF ACI 318. IF THE CLEAR COVER IS LESS THAN SPECIFIED, MULTIPLY THE ABOVE LENGTHS BY 1.5.
- MULTIPLY THE ABOVE LENGTHS BY 1.3 FOR CONCRETE WITH LIGHTWEIGHT AGGREGATE.
- MULTIPLY THE ABOVE LENGTHS BY 1.5 FOR EPOXY COATED REINFORCING.
- MULTIPLY ABOVE LENGTHS BY SQRT of 3000 / SQRT of fc FOR CONCRETE STRENGTHS OTHER THAN 3000 PSI.
- UNLESS NOTED OTHERWISE ALL FOOTING REINFORCING BARS SHALL LAP AROUND CORNERS.

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PROJECT NAME:
TRIPLEX AT 1602 N RIVERSIDE DR.
PROJECT ADDRESS:
POMPANO BEACH, BROWARD COUNTY, FLORIDA

SEAL:

ROBERTO ARCHILA, PE
DATE 04/08/25

REVISIONS:		
NO.	DATE:	DESCRIPTION

DRAWN: MG	CHECKED: RA
APPROVED: RA	ISSUE DATE: 11-26-24

SHEET NAME:
**LOADING
CRITERIA &
CONCRETE
NOTES**
PROJECT NUMBER:
24-925
VISIONEERING NUMBER:
VN24-165
SHEET NUMBER:

S-102

SHEET OF

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