

Sims Quality Engr-Const Consultant PLLC

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6/26/25

TO:
Harnett County Inspections Department
420 McKinney Parkway
Lillington, NC 27546

Reference: Mezzanine Design for 62 S. Harnett Lane, Bunnlevel

Property Owner Xian Santiago has hired me to design a simple wood-built structure mezzanine inside his already constructed Pre-Engineered Metal Building and inspected by myself. See letter to your office dated 6/13/25 signing off on the inspection.

Mr. Santiago took the 6/13/25 inspection letter to your office and filed for a building permit and was told he needed a design document signed and sealed by a licensed PE which I am providing herein.

Please see attached design sketch signed and sealed by me with photos marked up with the general design concept and sketches of list of materials and various details to help envision the design. The sealed drawing overrides the other documents.

All work to be constructed IAW the 2018 NC Residential Building Code and the AF & PA Wood Frame Construction Manual.

Please let me know if you have any questions.



Carl P Sims

Sims Quality Engr-Const Consultant PLLC





Xian Santiago
62 S. Harnett Lane
Bunnlevel, NC
910-658-5797

DETAILS

W1 Wall = 2x4 with Bottom Plate. 8' high
anchored to floor every 16" oc within 6" of Stud.
and studs 16" oc with double top plate, Insulate

Guard Rail = 2x4 with Top Rail 38" Above
Finnish Floor spaced 2' oc with
Kickers every 6'.

6"x6" Posts Placed
on top of 12"x12" minimum
Concrete Footings with 2 each
1" wide 3"x3" steel L Brackets
Bolted to Post with 3/8" Galv Bolts 3" embedment

Footings to be 12"x12"x12"
Flush with slab 3000 psc concrete
with 2 #4 REBAR Mat on
compacted soil.

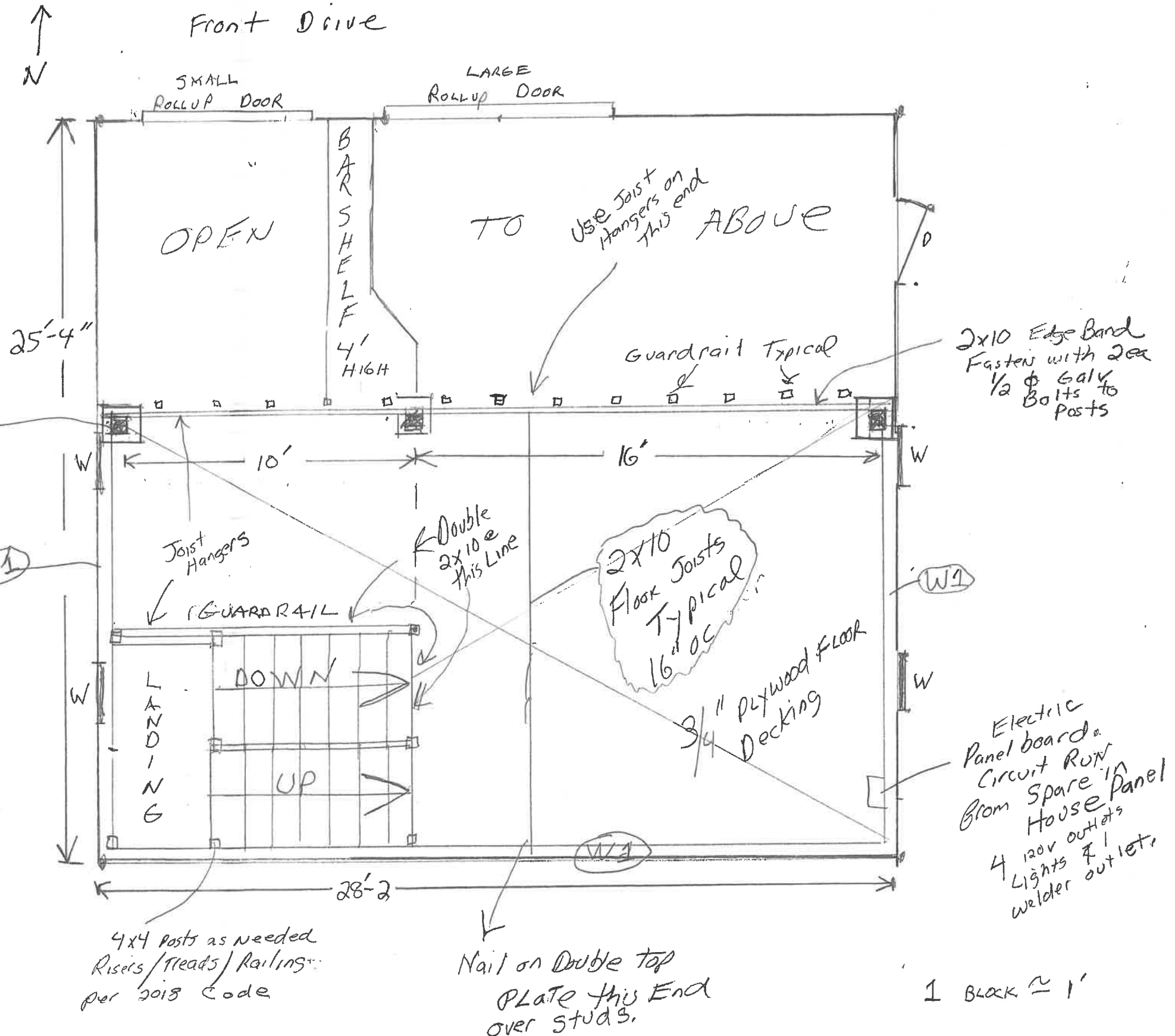
Electrical

1 120v outlet under each window 4 Total

1 Welders outlet

Minimal Lights

Permit By Electrical Contractor





Unlabeled

Joists Hangers

2x10 Rim Joist Typical

2x10 Floor Joists Typical

All 2x4's Kickers 6" on center

16" OC Over Double Top Plate Studs

Posts
Not
Shown

2 ea
1/2" ϕ
6ALV
Bolts
per
Post

Joist
Hanger

2x10
Joists
Typical

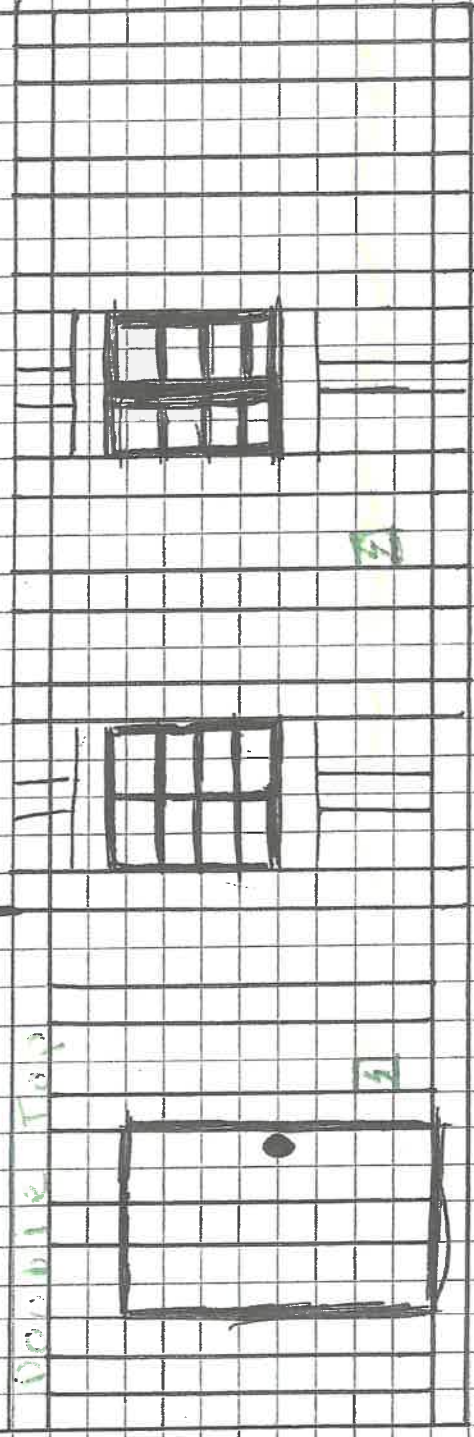
6" x 6"

Post

3' L - 2" wide x 1/8" thick
Shims at each Post
3/8" thru Bolt
exp. bolts to 4' depth
12x12x12 3000 psi
footings w/ #4 Rebar Post

(2x12) Outer Band Joist For Floor

Double Top



Bottom
Plate
Concrete
Anchor
in wall
every 4 ft
Wires can
be rough
and insulated

(2x12) Outer Band Joist For Floor

Double Top Plate



4 each
Electric Outlets
to Panel Box
one welding outlet

Fastened w/
3 in
Framing
Nails

Electric
Lining
(Running
to subpanel
against
Back
Wall)

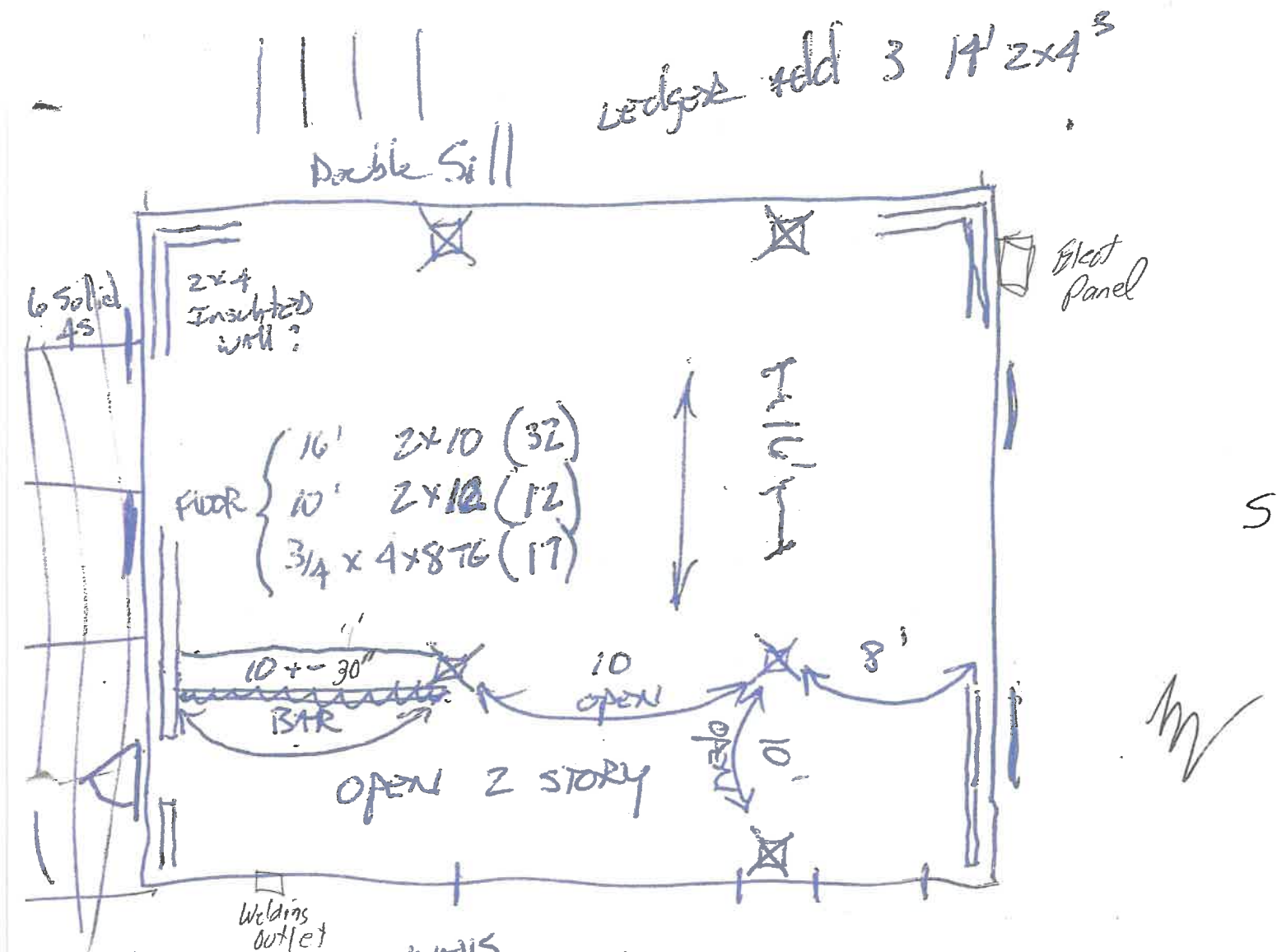
RIGHT WALL

(2x4) Studs Top Plate
& Bottom Plate
Window Framing

(PT) or
*PT
Pressure
Treated

List of materials Only

Sheet 3 of 3



WALLS		W	
4	28	75	(100)
16	16	25	(25)
16	8		
28			
44	8		
50			
32	530		
1st	2x4x93	75 walls	25 up
	2x4x14	Top plates	Ladders
	TR 2x4x14	Double sill	
2nd	2x4x93	Walls	
	2x4x14	Top plates + CS	

6x6 Post Size, Bar? Elect Panel outlets



Application # _____

Harnett County Central Permitting

PO Box 65 Lillington, NC 27546

910-893-7525 Fax 910-893-2793 www.harnett.org/permits

* Each section below to be filled out by whomever performing work. Must be owner/occupier or licensed contractor. Address, company name & phone must match information on license.

Application for Residential Building and Trades Permit

Owner's Name: Xian Lee Santiago Date: May 22nd 2025

Site Address: 62 S Harnett Ln Bennetts, NC 28323 Phone: 910-658-3797

Subdivision: _____ Lot: _____

Description of Proposed Work: Frame inside of Metal Bldg for Electrical Total Job Cost: \$5K

General Contractor Information

West Storage 910.497.3220
Building Contractor's Company Name Telephone

14298 NC 210 S.
Address Email Address

License # HEATED SQ FT _____ GARAGE SQ FT 850

Electrical Contractor Information

Description of Work _____ Service Size: _____ Amps T-Pole: ____ Yes ____ No

Electrical Contractor's Company Name Telephone

Address Email Address

License #

Mechanical/HVAC Contractor Information

Description of Work _____

Mechanical Contractor's Company Name Telephone

Address Email Address

License #

Plumbing Contractor Information

Description of Work _____ # Baths _____

Plumbing Contractor's Company Name Telephone

Address Email Address

License #

Insulation Contractor Information

Insulation Contractor's Company Name & Address Telephone

*NOTE: General Contractor / owner must fill out and sign the second page of this application.