# 6'-0" x 8'-0" (ACTUAL SIZE) 68 O/A GUARD BOOTH PLAN B - VERONA MODEL Twin Modular Services Inc.

1001 Lower Landing Road Suit 607, Blackwood, NJ

State/Jurisdiction Illinois	
	2006 International Building Code
Plumbing Code	2006 Illinois Plumbing Code
Electrical Code	2008 National Electrical Code
Mechanical Code	2006 International Mechanical Code

	STRUCTURAL DE	SIGN CRITERIA	
GRAVITY LOADS		SEISMIC (IBC)	
Floor Live	50 psf	Seismic Design Category	В
Floor Dead	10 psf	Site Class	D
Roof Live	40 paf	Importance Category	1.0
Roof Dead	10 psf	Occupancy Category	If
Exterior Wall Dead	5 psf	Mapped Accelerations	
SNOW		S <sub>4</sub>	0.19
Ground Snow Load	25 psf	S,	0.06
Flat-Roof Snow, P,	20 psf	Spectral Response	
MIND		Sps	0.19
Wind Speed (3 Second Gust)	90 mph	Spi	D.09
Exposure Category	C	Seismic Force Resisting System	A13
Internal Pressure, GC	+/-0.2	Design Base Shear	0.03W
Base Wind Pressure, P	26.6 psf	Response Modification Factor	8.5
Mean Roof Height	15 ft	Analysis Procedure	ASCE 7-05
WIND	1011		Sec. 12.8
Setback	Greater than 10 feet to a common or assumed property line.	FLOOD  Building shall not be located, in a flood hazard area as estable authority having jurisdiction unle foundation designed in accorder.	shed by the ss set on a
Building shall not be placed on half of a hill or escarpment exc feet in height.		ASCE/SEI 25. The flood resists shall be designed by a registere professional and constructed to loads without transferring loads structure.	nt foundation d design resist all flood

Component	End Zone (psf)	Interior Zone (psf)
Windows & Siding	+17.7/-23.7	+17.7/-19.2
Doors	+15/-18.4	+.8/9
Roof Cladding	+10/-44.6	+10/-17.7
Roof Overhangs	-41.9	-25.6

	LIFE S	AFETY SUMA	MARY
	Sprinkle		VB 1.00 1.00 900 tt <sup>2</sup> 2 stories 40 ft
LEVEL	OCCUPANCY	AREA	OCCUPANT LOAD
1	В	48 ft <sup>2</sup>	1

	DRAWING INDEX	
1.	Cover Sheet	
1.1	General Notes	
1.2	Specifications	
2.	Elevations	
3.	Floor Plan	' 1
3.1	Strapping Detaits	
3.2	Strapping Details	
4.	Electrical Pian	
6.	Cross Section	
6.	Blocking Pian	

# THIS PLAN MAY BE REVERSED OR MIRRORED.

# ACCESSIBILITY EXCEPTIONS

1103.2.7 Raised areas. Raised areas used primarily for purposes of security, life safety, or fire safety including but not limited to, observation galleries, prison guard towers, fire towers or life guard stands are not required to be accessible or to be served by an accessible rout.

1103.2.10 Single occupant sinutures. Single occupant structures accessed only by passageways below grade or elevated above ground including but not limited to, toll boothe that are accessed by underground turnels are not required to be accessed.

Note: Single occupant guard structures will be placed on and elevated entrance island to the park. that does not have an accessible rout.

## SPECIAL LIMITATIONS

SPECIAL LIMITATIONS
Adequate handicapped restroom facilities to handle this additional occupant load created by the addition of this building to a site shall be provided in an adjacent building on the same property. The local official having jurisdiction shall verify the existing facilities.

THERMAL ZONE This buildings design complies with or exceeds the minimum requirements for thermal zone 4.

# ATTENTION LOCAL BUILDING OFFICIAL

All work to be completed on-site is to be in compliance with all state and local codes and is subject half work to be confined our earlier to be an outsigned when a state feath outs Tooks after its own of the owner, approval, and inspection by the local authority having jurisdiction. This building is designed for installation on a permanent foundation and is not intended to be moved once installation. All on-site work shall be performed by a licensed contractor with experience in the setup of modular. buildings. The following list is not all inclusive, nor does it limit the items of work or materials that may be required for complete installation.

- Complete foundation support and anchorage system
- Remps, stairs and general access to building.
   Electrical service connection (including feeders) to the building.

NTA, Inc., 305 N Oakland Ave Engineering COA No. 184005670

. 0104 2003-05-28						
REVISIONS:	SCALE:	APPROVED BY:		TITLE:	JOB NO:	
	NTS		Twin Modular Services Inc.	COVER SHEET	TMS120511-22	
	DATE:	DRAWN BY:		MODEL:	DRAWING NO:	
	12/08/11	R. Knowles	Blackwood , NJ	68 O/A GUARD BOOTH	1	

These drawings are applicable only to the elements and loading criteria specifically provided herein. These drawings shall not be construed in any way to specify, certify or design any aspects of the building not contained herein. Elements not contained herein are to be constructed in accordance with the prescriptive requirements of the adopted building code or designed by other registered design professionals, as applicable. Specified design criteria are based solely on information provided by the client and must be verified and approved by the local authority having jurisdiction. NTA, Inc. is not responsible for fabrication or erection. If it is suspected that these drawings have been modified, substituted or altered in any way, contact NTA, Inc. directly to obtain a file copy.

# WOOD FRAMING

- Structural sawn lumber shall be identified by a grade mark in accordance with DCC PS 20.

  Approved end-jointed lumber may be use interchangeably with
- solid-sawn member of the same species and grade except in fire rated assembles.

  3. Structural sheething shall be rated and labeled for compliance with
- DOC PS 1 or DOC PS 2.

  4. LVL members shall have the following minimum properties, E=2.0,
- F<sub>h</sub>=2800 psi, unless noted otherwise.
- 6. All wood shall have a moisture content of 19% or less at the time of
- construction. 6. Wood framing members, including wood sheathing, that rest on exterior foundation walls and are less than 8" from exposed earth each shall be naturally durable or preservative treated.
- Wood members shall be cut and joined so no gap targer than 1/8\* exists between members.
   Wood in contact with concrete or masonry shall be naturally durable.
- or preservative treated in accordance with AWPA use category
  UC4C and properly identified as preservative treated.

  9. Nails and staples shall conform to ASTM F1667, Nails with shank
- claims and suppose shall continue to As the Floot, Yeals was shall asked, and the state of the s
- Fasteners shall be driven so their head or crown is flush with the surface of the wood member or sheathing. Overcriven fasteners shall be replaced. 12. Bolts shall conform to ASTM A307 meeting the requirements of
- ANSI/ASME B18.2.1 for full-body diameter bolts. Screws and lag screws shall conform to ANSI B18.2.1 and ANSI B18.6.1,
- respectively.

  13. Bolt holes shall be at least a minimum of 1/32" and no more than a maximum of 1/16" larger than the boil diameter.
- Bott nuts shall be tinger-tight plus 1/3 to 1/2 turn with a hand wrench.
   Connection hardware shall be the brand and model specified. Alternate connectors shall be submitted to the design engineer for
- approval.

  15. Unless otherwise noted, connectors shall be installed with the maximum number and size of fasteners as required in the manufacturer's installation instructions.
- 17. Prefabricated wood I-joist and structural composite lumber shall not be notched or drilled except where permitted by the manufacturer's recommendations.

  18. Plywood beams shall be detailed and fabricated in accordance with
- the latast adition of APA Plywood Design Specification Supplement 5 Design & Fabrication of Ali-Plywood Bearns.
- 19. Douglas Fir, Hem Fir, or Southern Yellow Pine may be substituted for Spruce-Pine-Fir using an equal size and grade

## CORROSION PROTECTION

- Metal framing, connectors, fasteners, and flashing in contact with preservative treated or fire retardant treated wood members shall be hot-dinned zinc coated galvanized steel, stainless steel, silicon bronze, copper, or otherwise protected from the corrosive action of the wood member.
- 2. A barrier between the treated members can be used when approved by the design engineer.
  Selection of the appropriate connector and fastener coating shall be
- based on the intended end use of the connector or fastener and the chemical preservative used in the the treatment of the member for which it is in contact.
- Where connection hardware is used, such as joint hangers, fasteners used shall be made of the same material as the connection hardware.
- Corrosion protection of metal connectors, fasteners, and flashing based on galvanized or stainless steel materials shall be in accordance with the table below.

Product Coatings	Hot Dipped Galvanized (ASTM A153)		Steinless	
Preservative	G90	G185	Steel	
Untreated Wood SBX/DOT CCA-C	Yes	Yes	Yes	
ACQ-C & ACQ-B CBA-A & CA-B NON-DOT No Ammonia and Not Reted For Ground Contact	& CA-B -DOT No onia and	Yes	Yes	
Unknown Preservative, Contains Ammonia, Rated For Ground Contact or ACZA	. No	No	Yes	

SBX = DOT Sodium Borate, CCA-C = Chromated Copper Arsenate, ACQ-C & ACQ-D = Alkalins Copper Quat, CBA-A & CA-B = Copper Azote, Non-DOT = Other Borate, ACZA = Ammoniacal Copper Zinc Arsenate

### COASTAL CORROSION PROTECTION

- The corrosion protection requirements in this sections shall apply to all structures located within 3000' landward of the mean high-tide waterline for all metal components or connectors not contained within the pressure envelope of the structure. Fasteners or bolts less than 5/8° in diameter shall be Type 316L.
- stainless steel. Fasteners or bolts 5/8" or larger shall be not dip galvanized per ASTM A853 or ASTM A153 with a zinc coating thickness of 1.85 oz of zinc per square foot of surface area (G185).
- Connection hardware, such as pre-formed connectors, steel plates, or steel straps, exposed to weather and having a base metal thickness equal to or less than 1/8" shall be Type 303, 304, 305 or 316 stainless steel. Steel exposed to weather having a base metal thickness greater than 1/8" shall be not dip galvanized per ASTM A653 or ASTM A153 with a zinc coating thickness of 1.85 oz of zinc per square foot of surface area (G185) or painted using one of the following formulations:
- Epoxy-polyamide
   Coal-tar epoxy-polyamide
- Zinc chormate-vinvi butyral primer with asphatic mastic
- Contact between dissimilar materials (stainless steel and carbon steel) shall be avoided.

NTA, Inc., 305 N Oakland Ave Nappanee, Indiana 46550 Engin neering COA No. 184005670

06.04 2007-06-19						
REVISIONS:	SCALE:	APPROVED BY:	T : 54 !! O : !	TITLE:	JOB NO:	
	NTS		I win Modular Services Inc.		I WIN MODILIAR Services Inc. COVERSHEET	TMS120511-22
	DATE:	DRAWN BY:		MODEL:	DRAWING NO:	
	12/08/11	R. Knowles	Blackwood , NJ	68 O/A GUARD BOOTH	1.1	

CHASSIS

Type: Perimeter Main Beam: 6" C Channel 8.2 lbs per foot Cross Members: 6" C Channel at 24" o.c. Paint: Asphalt Based

FLOOR

Moisture Barrier: Tyvek or Equal Insulation: 2 Layers of 2" Ridged Insulation

Decking: 3/4" Plwood, 24" o.s. Secured Directly to Steel Frame
Covering: 1/8" ALUMINUM TREAD PLATE FLOOR OVER 3/4" PLYWOOD
Trim: 4" Vinyl Cove Base
Optionat: 3/16" Steel Plate Floor with Non-Skid Paint
STANDARD
1/8" Aluminum Tread Plate Over 3/4" Plywood

EXTERIOR WALLS Studs: 2x4 Stud Grade SPF at 16" o.c.

Bottom Plate: Single 2x4 #3 SPF Top Plate: Single 2x4 #3 SPF Wall Height; 8'-3" Finished Ceiling Height: 7'-9" AFF Insulation: R-13 Kraft-Backed Batts

Interior Wall Covering: 1/8" Vinyl Covered Panel (Class III)

Option: 1/2" Vinyl Covered Gyp, Wall Covering (Class I)
Option: 1/8" Fiber Reinforced Panel (FRP)
ROOF

Type: Rafter, 2x8 #3 SPF at 16" o.c.

Celling: 2'x4' T-Grid Drop Ceiling at 7'-9" AFF Insulation: R-30 Unfaced Fiberglass Batts

wg: 6" Roof Overhang

ELECTRICAL

Main Distribution Panel: Exterior Surface Mount Panel, 100 Amp. Single Phase, 3 wire, 60 HZ with Ground

Raceway: Minimum #14/2 with Ground 90 Deg. C Type MC Copper Interior Lights: 2'x4' Two Tube Lay-In Florescent Troffer Per Print

Exterior Lights: 150 Watt Quartz Halogen Security Light (Weatherproof)

Switches: 120V 15 Amp Duplex Recepts Per Print

Optional: Additional Recepts Optional; Extra Exterior Lighting

Optional: Interior Flush Mount 100 AMP 12/240 V Single Phase, 3 Wire, 60 HZ with Ground

Optional: Data Box with EMT and Fishline To Above Ceiling or Exterior-Wiring By Others On Site

Heating: SEE WALL HEAT BELOW

Air Conditioning: 110V (Dedicated Circuit) 8000 BTU Wall Mount Above Window Optional: Wall Mount 11,600 BTU Air Conditioner with Electric Heat Strip

WALL HEAT: 4000 Watt Electric Wall Heater with Fan, 20 AMP 240 Volt

EXTERIOR WINDOWS AND DOORS

Doors 36" x 80" STEEL DOOR WITH 22"X22" WISION, CLOSER AND LOCKSET
Ball Knob, Left or Right Hand Reverse Outswing.
Optional: 36x80 Steel Door with 22" x22" window (Safety Glazed) Ball Hardware Optional: 36x80 Steel Silding
Door with Heavy Duty Rollers 22"x30" Vision and Lock

Windows:36"x39" Horizontal Slider, Vinyl Clad Thermal Pane Tempered

36"x39" Fixed Glazing, Vinyl Clad Thermal Pane

Optional: Film Tint Windows

EXTERIOR FINISHES
Siding: 0.19 Aluminum Light Gray

Trim: 0.19 Aluminum Dark Gray

Wall Sheathing: 7/16" OSB, 16/C APA Span Index Rating

Roof Sheathing: 1/2" CDX Plywood, 16/0 Span Rating

Roof: 0.45 EPDM Rubber Roofing

Window Trim: Vinyl Tuff Board Trim All Windows

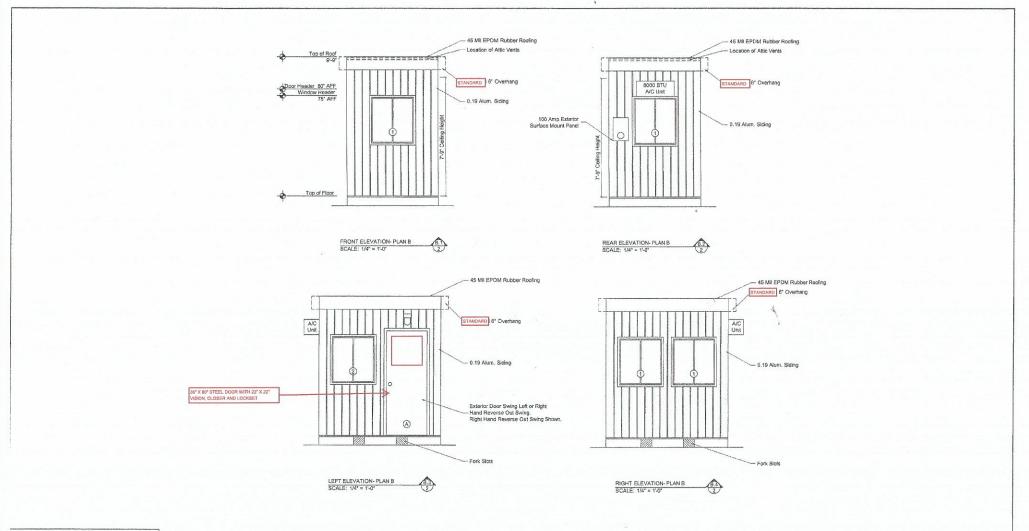
2'-0" x 5'-4" Countertop- White Mica

Optional: 1/8" Steel Counter Painted with File Cabinet

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08.04 2007-06-19

REVISIONS:	SCALE:	APPROVED BY:	T : M/     O :	TITLE:	JOB NO:
	NTS		Twin Modular Services Inc.	SPECIFICATIONS	TMS120511-22
	DATE:	DRAWN BY:	Blackwood . NJ		DRAWING NO:
	12/08/11	R. Knowles	Blackwood, NJ	68 O/A GUARD BOOTH	1.2



	DOOR SCHEDULE	
Mark	Description	
A	36" X 80" STEEL DOOR WITH 22" X 22" VISION	
	WINDOW SCHEDULE	
Mark	Description	1
①	36" x 39" Horizontal Slider, Vinyl Clad Thermal Pane	
2	36" x 39" Horizontal Thermal Pane, S	
REVISIONS:	SCALE:	

ATTIC VENTILATION
Vents shall be installed to provide a total net free ventilating area
not less than 1/150 of the area of the space being ventilated.
Vents shall be positioned to provide cross ventilation.

APPROVED BY:

R. Knowles

DRAWN BY

48 Area /150= 0.32 sq. ft. Ventilation Required

1/2" = 1'-0"

12/08/11

DATE:

SITE INSTALLED ITEMS
Steps, rails, and decks are to be designed by others and built
on-site in accordance with local codes and subject to approval by
the local authority having jurisdiction.
HEIGHT ABOVE FINISHED GRADE
Light having lighted stands with the activities of the property of

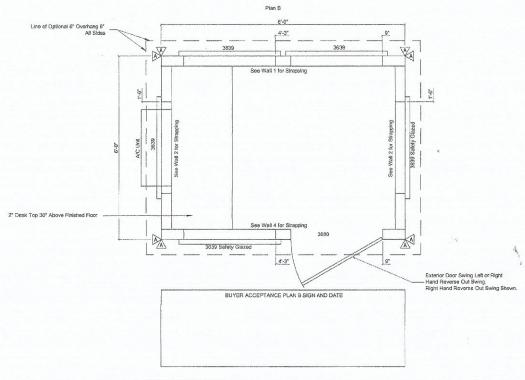
HEIGHT ABOVE FINISHED GRADE Height above finished grade shall be established by a site-specific foundation design or by the local authority having jurisdiction. In no case shall the bottom of the floor joilsts be doser then 18° to exposed ground.

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0105.1151 2008-12-02

Twin Modular Services Inc.

TITLE:	JOB NO: TMS120511-22	
ELEVATIONS PLAN B		
MODEL:	DRAWING NO:	
68 O/A GUARD BOOTH	28	



GENERAL

All glazing within 24° arc of doors, whose bottom edge is less than 60° above the floor, and all glazing in door shall be sefety glazed, tempered or early glazing the shall not be less than 30°. Exteror windows and silicing doors shall be labeled as conforming to AAMA/YDMA/CSA 101 II. S 2/A440. Windows in buildings located in windoorne debrier regions shall be protected in accordance with Section 301.2.1.2 of the residential

prot		

	DOC	OR SCHEDULE				
Mark	Description	R Ball Knob		Header	Jack Studs 0	Jamb Studs
A	38" X 80" STEEL DOOR WITH 22" X 22" VISION, CLOSEF			(1) 2x4 #2 SPF		
	AND COOKSE!	WINDOW SC	HEDULE			
Mark	Description	Glazed Area	Vent Area	Header	Jack Studs	Jamb Studs
1	36" x 39" Horizontal Silder, Vinyl Clad Thermal Pane	9.75 ft <sup>2</sup>	4.87 ft <sup>2</sup>	(1) 2x4 #2 SPF	0	1
2	36" x 39" Horizontal Slider, Vinyl Clad Thermal Pane, Safety Glazing	9.75 ft <sup>2</sup>	4.87 ft <sup>2</sup>	(1) 2x4 #2 SPF	0	1
VISIONS:	SCALE:			APPROVED BY:		

R. Knowles

1/2" = 1'-0" 12/08/11

SHEARWALL CONSTRUCTION

ALL CONSTRUCTION

A holdsom shall be provided at each "shearwall mark" location on the plan above. The wall between marks shall be constructed as specified in the table above.

In corners, where two holdsoms are required (one in each orthogonal direction) the lower capacity holdsom may be omitted when the walls are interconnected to transfer the lower chord force to the larger anchor. Stagger all fasteners speced 2° or, or test, in multiple rows with the rows staggered not less than 1.5° spart. Truss(os) shall be placed over each interior shearwall and the truss(os) shall be sheathed in the same manner as the wall below.

Alternate holdsown of equal or greater capacity may be substituted for holdsowns specified. Holdsowns to be installed on-cordance with meanufacturer's installation instructions.

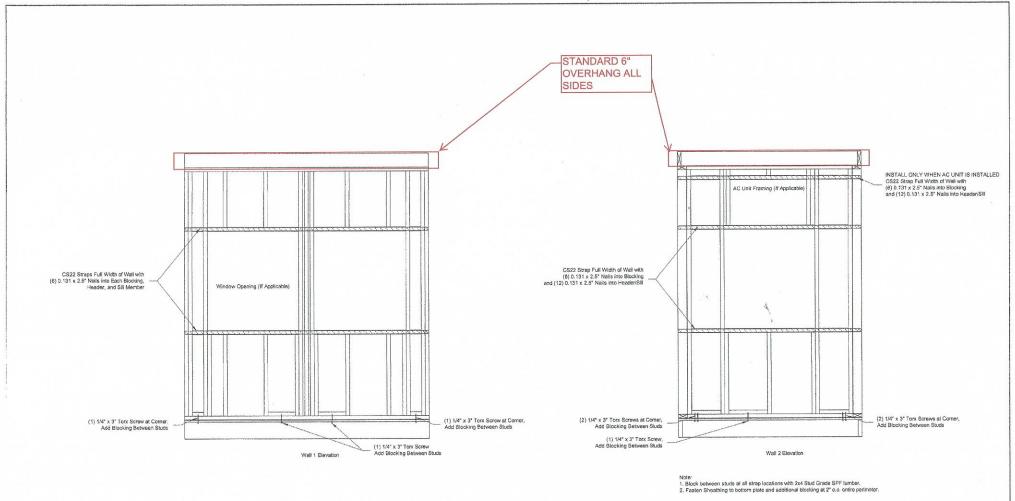
Where holdsowns are to be installed on-eite, a clearly marked access panel shall be provided.

SHEARWALL SCHEDULE							
Mark	Sheathing	Fastening	Framing				
A	7/16" Structural Sheathing, One Side, Blocked	0.113" x 2.5" nails 6/12 (edge/field)	2x4 SPF @ 16" oc				

NTA, Inc., 305 N Oakland Ave Nappanee, Indiana 46550 Engineering COA No. 184005670 0106 2008-09-23

Twin Modular Services Inc.

TITLE:	JOB NO:
FLOOR PLAN B	TMS120511-22
MODEL:	DRAWING NO:
68 O/A GUARD BOOTH	3B



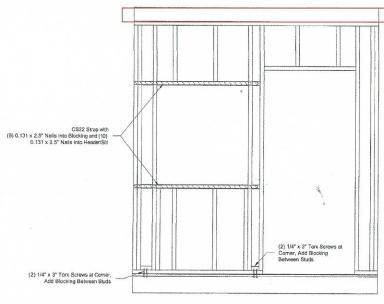
NTA, Inc., 305 N Oakland Ave Nappanee, Indiana 46550 Engineering COA No. 184005670 0106 2008-09-23

REVISIONS:	SCALE: 1/2* = 1'-0"	APPROVED BY:	Twin Modular Services Inc.	TITLE: STRAPPING DETAILS	JOB NO: TMS120511-22
	DATE: 12/08/11	DRAWN BY: R. Knowles	Blackwood , NJ	MODEL: 68 O/A GUARD BOOTH	DRAWING NO: 3.1

Plan A

Plan A Not Used

Plan B



Wall 4 Elevation

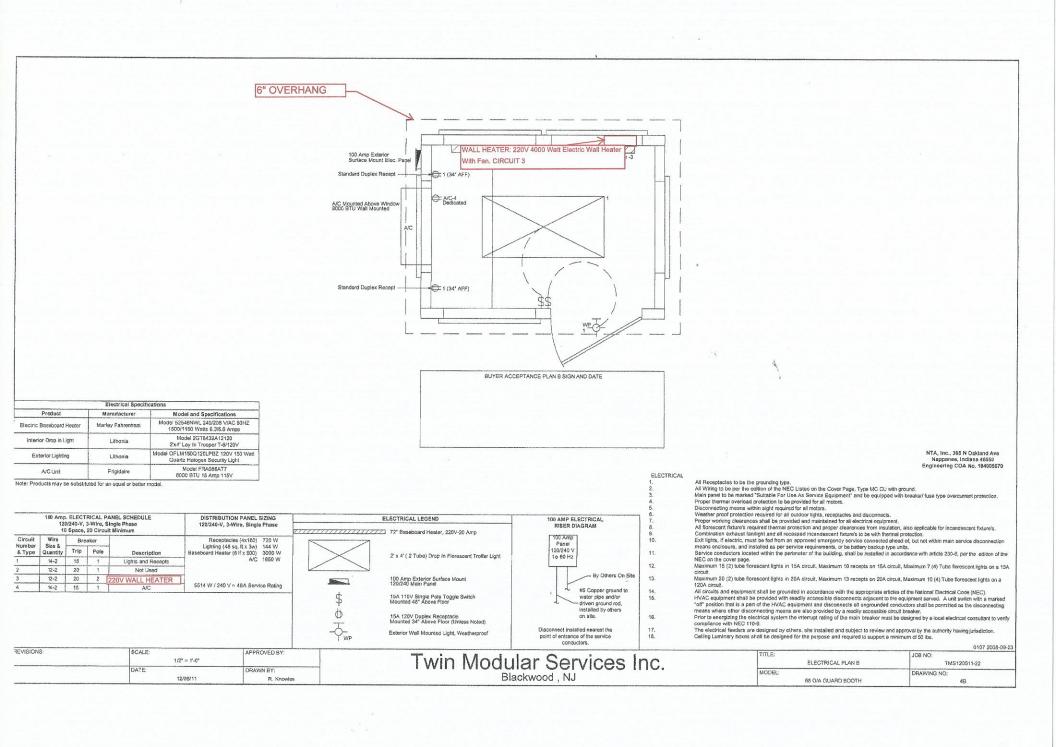
Note:

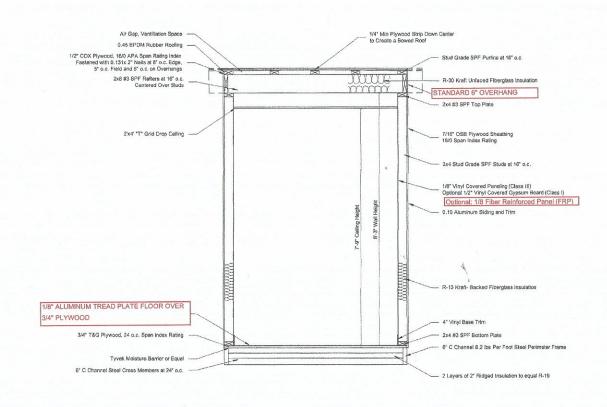
1. Block between studs at all strap locations with 2x4 Stud Grade SPF lumber.

2. Fasten Sheathing to bottom piate and additional blocking at 2° o.c. entire perimeter.

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REVISIONS:	SCALE: 1/2" = 1'-0"	APPROVED BY:	Twin Modular Services Inc.	TITLE: STRAPPING DETAILS	JOB NO: TMS120511-22
	DATE: 12/08/11	DRAWN BY: R. Knowles	Blackwood , NJ	MODEL: 66 O/A GUARD BOOTH	DRAWING NO: 3.2





NTA, Inc., 305 N Oakland Ave Nappanee, Indiana 46550 Engineering COA No. 184005670

- NOTES

  1. Fireblocking shall be installed at the floor and ceiling level.
  Fireblocking material shall be as permitted in NC Building Code
  Exterior joints in the building envelope that are sources of air
  leakage, such as floor and ceiling lines. Accor and windows, or
  any other ponerations through the building envelope shall be
  caulted, gasketed, weather-stripped, wrapped or otherwise
  sealed to limit uncontrolled air movement. Stopping materials
  tended to quality are subtent to predig existing expension. installed on-site are subject to local review, approval and
- inspection.

  2. In all framed walfs, floors and roof/ceiling comprising elements of the building thermal envelope, a vapor retarder shall be installed on the warm-in-winter side of the insulation with the
  - following exceptions:

    A. Where the framed cavity or space is ventilated to allow moisture to escape.
- 3. Where required, the vapor retarder shall be comprised of any material (traft backing, polyethylene, spray applied) approved for such use and having a perm rating of 1 or less.

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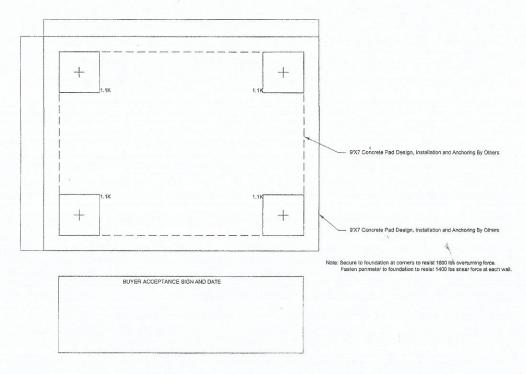
REVISIONS:	SCALE:	APPROVED BY:	
	1/2" = 1'-0"		
	DATE:	DRAWN BY:	٦
	12/08/11	D Knowles	- 1

Twin Modular Services Inc. Blackwood, NJ

BUYER ACCEPTANCE SIGN AND DATE

	TITLE:	JOB NO:
	CROSS SECTION	TMS120511-22
	MODEL:	DRAWING NO:
	68 O/A GUARD BOOTH	5
-		



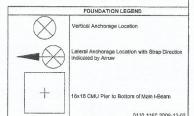


## Notas:

- Pler locations shown on this plan are for the purpose of identifying the location of the required blocking points and the loads applied at each point for this tuiding. Foundation requirements are not known due to varying soil conditions.
   Foundation Design by others. Foundation review and approval is to be performed by the local official having jurisdiction.
   Crawl space to be verifieded at 1 sq. ft, per each 150 sq. ft, of crawl space area to have verified.

- be ventilated.
  4. Provide positive drainage under unit.
  5. Provide minimum crawl space assess of 22" x 24".

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THIS DRAWING IS NOT FOR CONSTRUCTION. This drawing is intended to show the minimum foundation loads and minimum foundation support locations and is not to be used for construction or certification of any foundation for any building. The foundation for this modular building shall be designed and sealed by a local engineer for the conditions present on-site in accordance with local codes. Additionally, the foundation designed by others shall be reviewed and approved by the local authority having jurisdiction.

REVISIONS:	SCALE:	APPROVED BY		TITLE:	JOB NO:
	1/2" = 1'-0"		I win Modular Services Inc.	BLOCKING PLAN	TMS120511-22
	DATE:	DRAWN BY:		MODEL:	DRAWING NO:
	12/08/11	R. Knowles	Blackwood , NJ	68 O/A GUARD BOOTH	6