

PALLET DESIGN SYSTEM Version 4.0

Pallet Specification Sheet

All dimensions in inches

Customer:

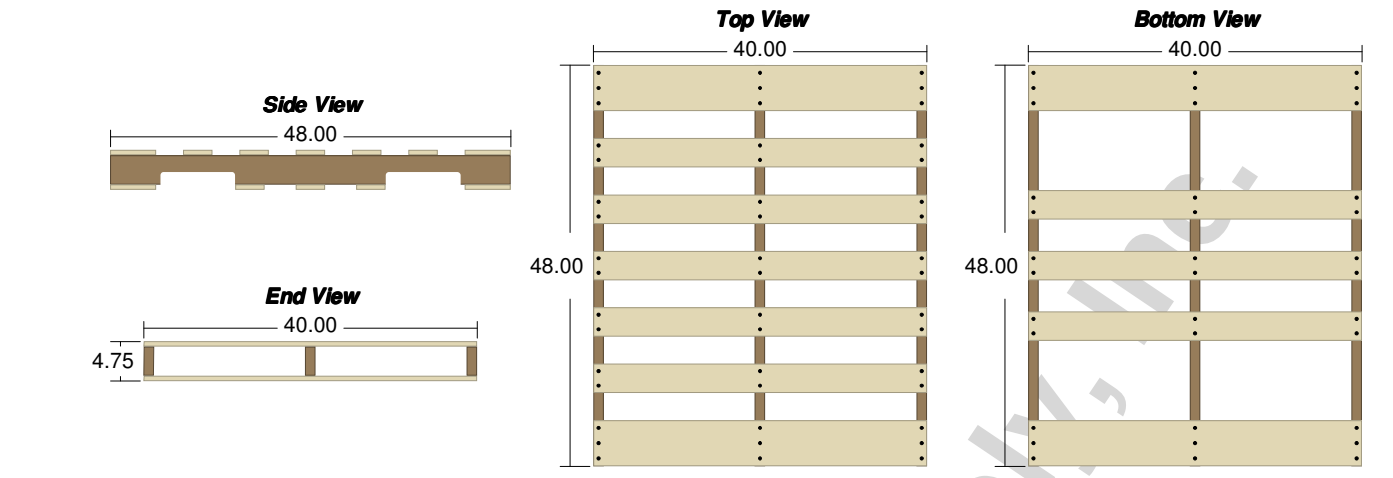
Prepared by:

Universal Pallet Supply Inc.

PDS License: 451 Date: June 17, 2008

Pallet ID: GMA 48 x 40 Pallet

Classification: 48.00 x 40.00, Stringer-Class, Double-Face Non-Reversible, Partial 4-Way, Limited-Use, New Manufacture



Components

Materials

Top Deck:

Style: Deckboard **Type:** New Lumber

Number	Thickness	Width	Length
5	0.625	3.500	40.00
2	0.625	5.500	40.00

Volume: 4.9 bd ft

Bottom Deck:

Style: Deckboard **Type:** New Lumber

Number	Thickness	Width	Length
3	0.625	3.500	40.00
2	0.625	5.500	40.00

Volume: 3.7 bd ft

Stringers:

Type: New Lumber

Number	Width	Height	Length
3	1.250	3.500	48.00

Partial 4-way Entry Notch:

Depth: 1.500 Length: 9.00 Location: 6.00 Radius: 0.75

Volume: 4.4 bd ft

Fasteners:

Fastener ID: 2-1/4 x .112 SS

Fastener Type: Helically Threaded Nail

Fastener Length: 2.25

Thread Length: 1.79

Thread Diameter: 0.142

Wire Diameter: 0.120

Head Diameter: 0.281

Helixes: 10.0

Flutes: 5

Thread Angle: 64

MIBANT Angle: 36

FWI: 115

FSI: 74

Total Number: 84

New Lumber:

Lumber ID: Hardwood

Species Class	Grade	Lumber Mix
High Density Eastern Hardwoods	Standard &BTR	50 %
Medium Density Eastern Hardwoods	Standard &BTR	50 %

Moisture Content (at manufacture and assembly): Green

Total New Lumber Volume: 13.1 bd ft

Custom Notes and Information:

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Pallet Structural Analysis

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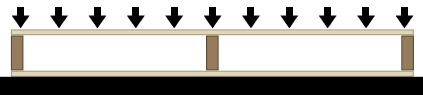
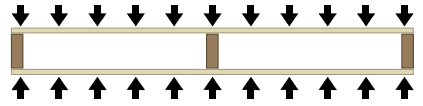
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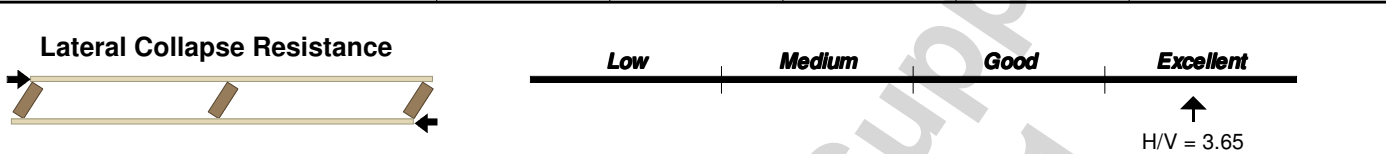
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Unit Load Type: Uniformly Distributed - Full Pallet Coverage

Unit Load Weight Variability: Medium

Service Environment: Dry Environment (EMC <= 19%)

Support Condition	Safe Maximum Load	Deflection at Maximum Load	User Specified Deflection Limit	Maximum Load for Deflection Limit	Critical Member
<p>Stacked 1 Unit Load High</p> 	6692 lbs.	0.28 in.	----	----	Top Deckboard
<p>Stacked 2 Unit Loads High</p> 	4183 lbs. (each pallet)	0.28 in.	----	----	Top Deckboard



Pallet Design System (PDS)

Developed by:

National Wooden Pallet and Container Association (NWPCA)

In cooperation with:

Pallet and Container Research Laboratory, Virginia Tech Department of Wood Science and Forest Products;
 U.S.D.A. Forest Service and Forest Products Laboratory; APA - The Engineered Wood Association;
 Software Technologies Laboratory, Virginia Tech Department of Industrial and Systems Engineering

The recommendations from PDS are based on the NWPCA's continuing program of laboratory and field research. They represent the best available engineering information compiled to date. However, the quality of workmanship, the input data, and the conditions in which pallets are used may vary widely. Therefore, the Association cannot accept responsibility for pallet performance or design as actually constructed. Wood pallets manufactured to this PDS design are for the sole purpose of storing and/or transporting material. Under no circumstance should any person stand, step, or lean upon them or otherwise use them for support.

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National Wooden Pallet and Container Association, 1421 Prince Street, Suite 340, Alexandria, Virginia 22314-2805

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Pallet Physical Property Analysis

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Average Pallet Weight	At Manufacture	At 25% MC	At 19% MC	At 15% MC	At 12% MC
	59 lbs.	42 lbs.	40 lbs.	39 lbs.	38 lbs.



Component	Original Dimension	Shrinkage from Manufacture to 19% MC	Shrinkage from Manufacture to 15% MC
Top Deckboards	0.625 in. Thickness	0.015 in. (+/- 0.004 in.)	0.021 in. (+/- 0.006 in.)
	3.500 in. Width	0.081 in. (+/- 0.023 in.)	0.117 in. (+/- 0.034 in.)
	5.500 in. Width	0.128 in. (+/- 0.037 in.)	0.184 in. (+/- 0.053 in.)
Stringers	3.500 in. Height	0.081 in. (+/- 0.023 in.)	0.117 in. (+/- 0.034 in.)
	1.250 in. Width	0.029 in. (+/- 0.008 in.)	0.042 in. (+/- 0.012 in.)
Bottom Deckboards	0.625 in. Thickness	0.015 in. (+/- 0.004 in.)	0.021 in. (+/- 0.006 in.)
	3.500 in. Width	0.081 in. (+/- 0.023 in.)	0.117 in. (+/- 0.034 in.)
	5.500 in. Width	0.128 in. (+/- 0.037 in.)	0.184 in. (+/- 0.053 in.)

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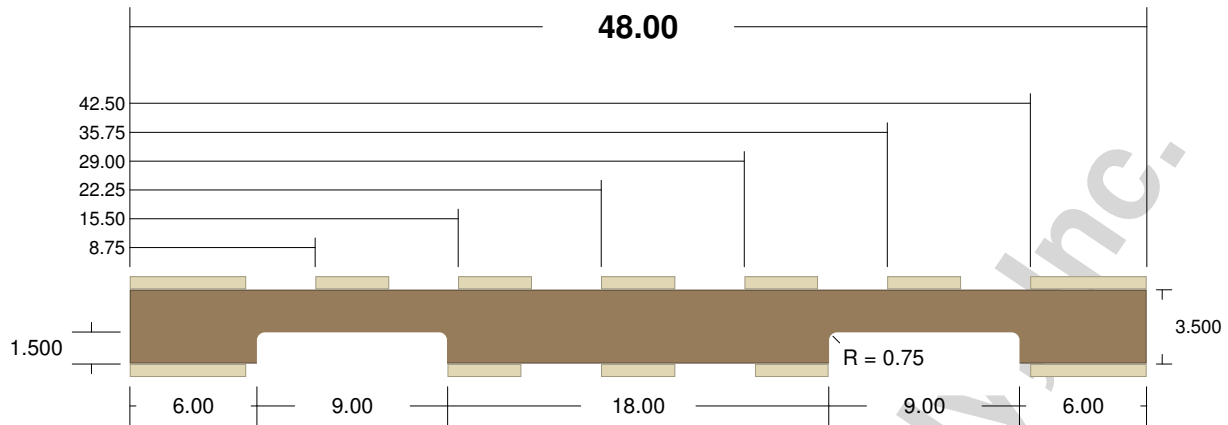
Pallet Drawing - Side and End View

All dimensions in inches

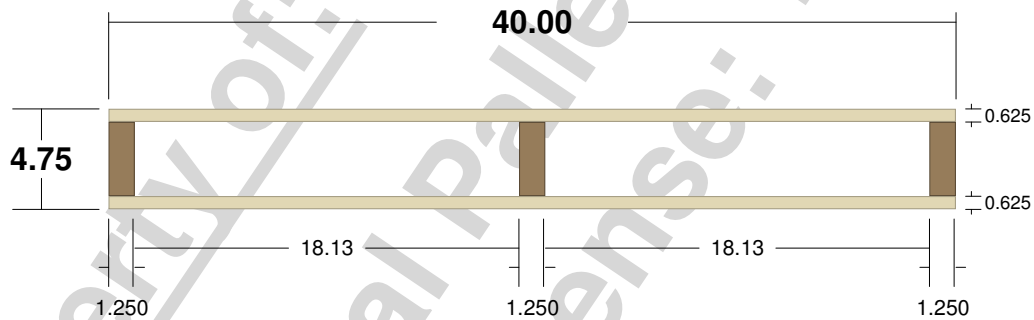
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Side View



End View



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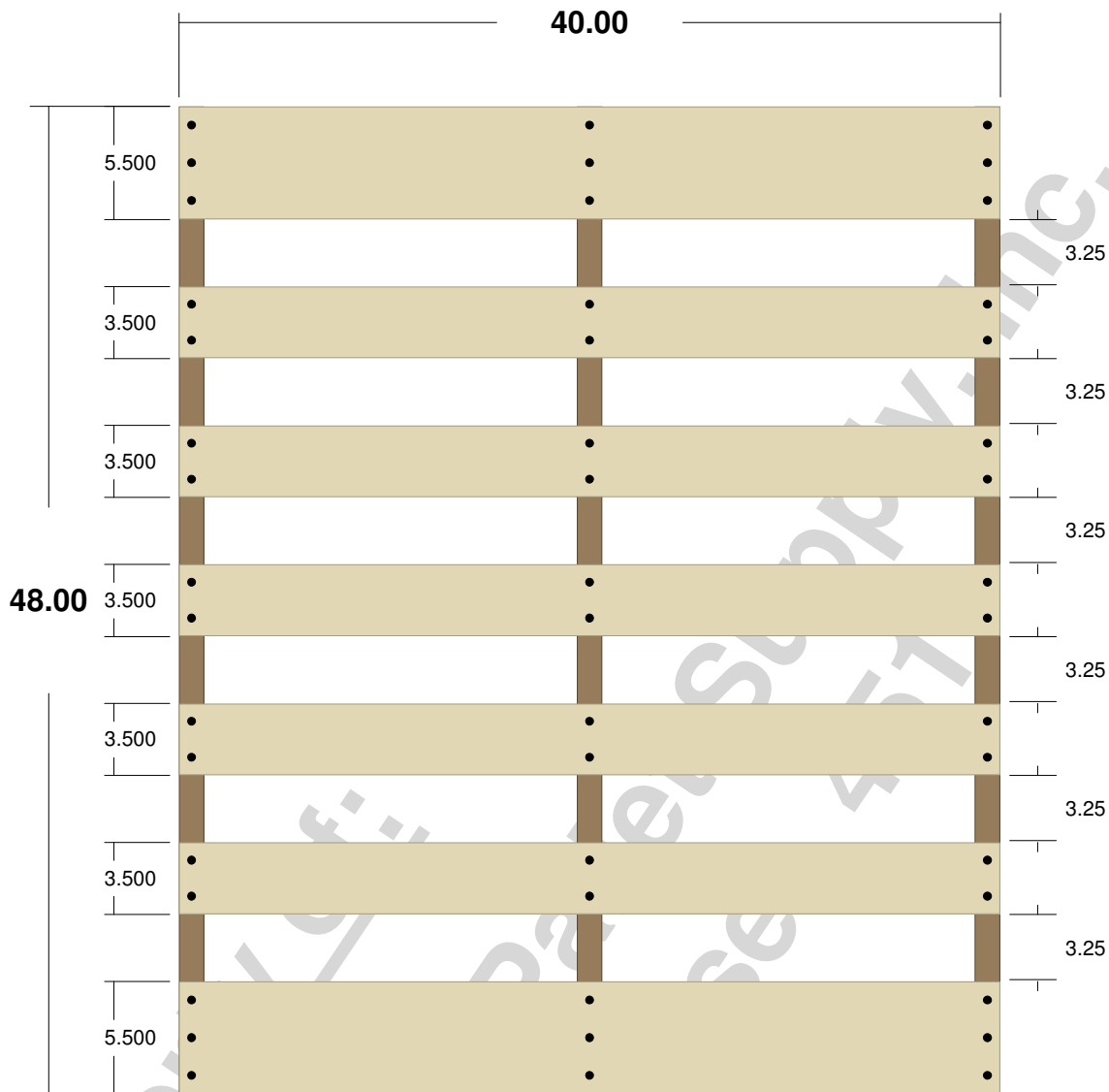
Pallet Drawing - Top View

All dimensions in inches

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Top View



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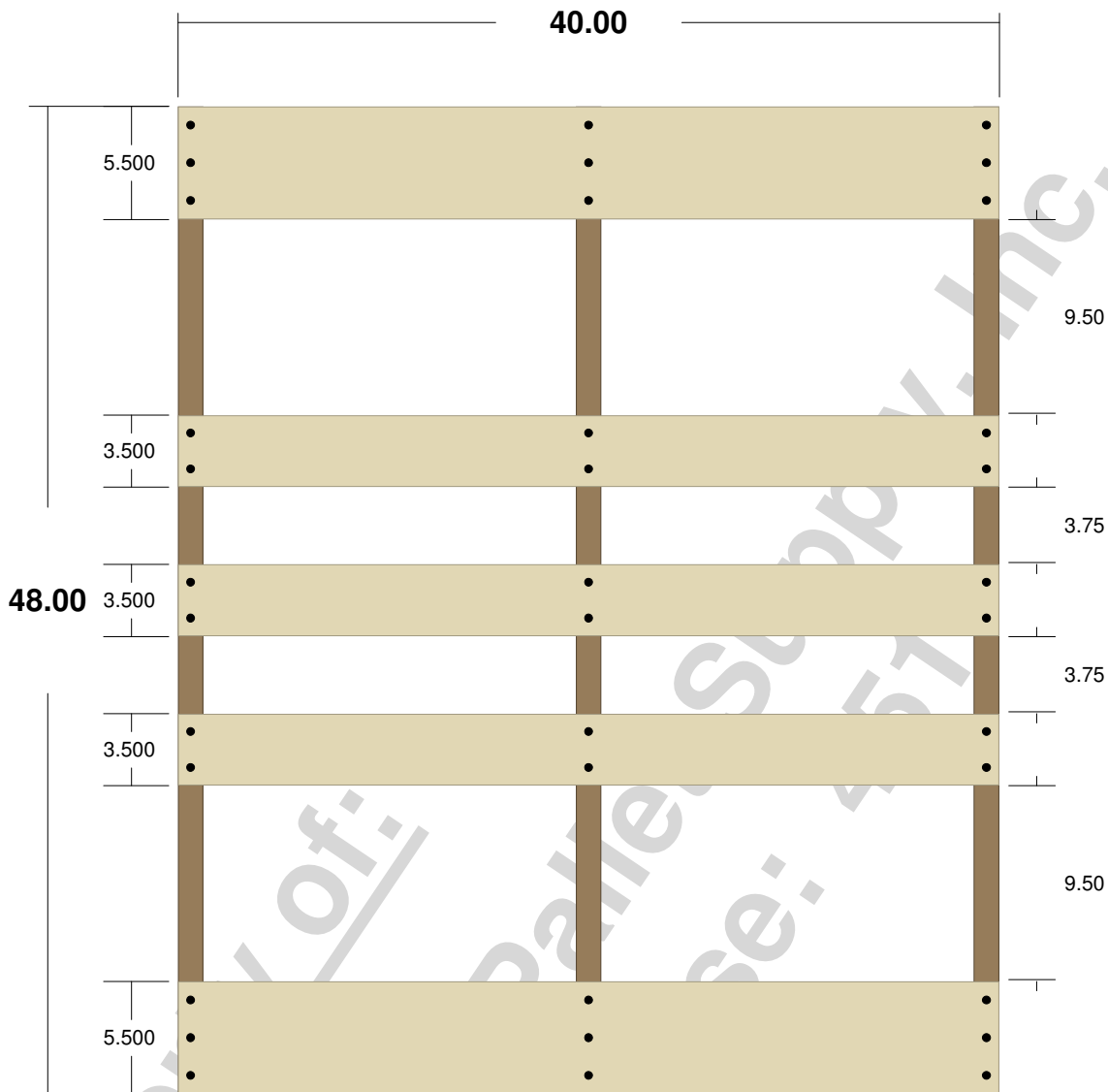
Pallet Drawing - Bottom View

All dimensions in inches

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Bottom View



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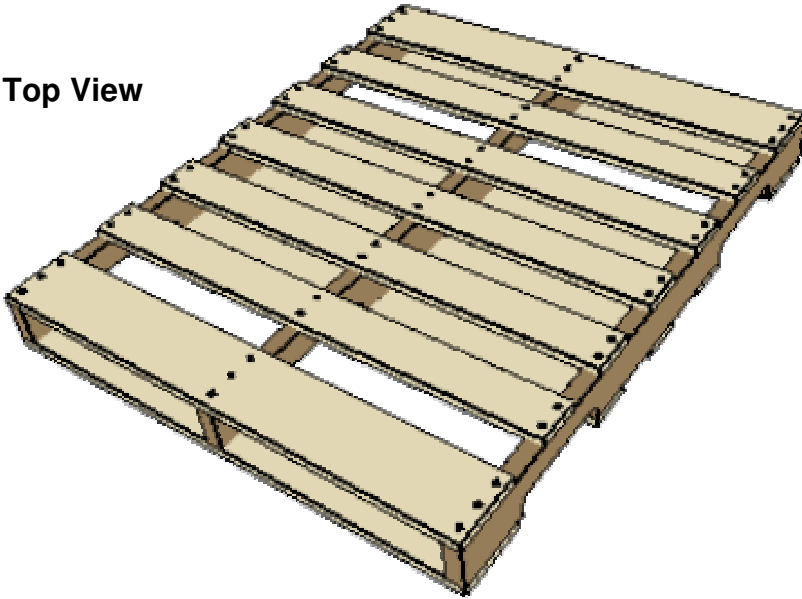
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3-D Pallet Drawings

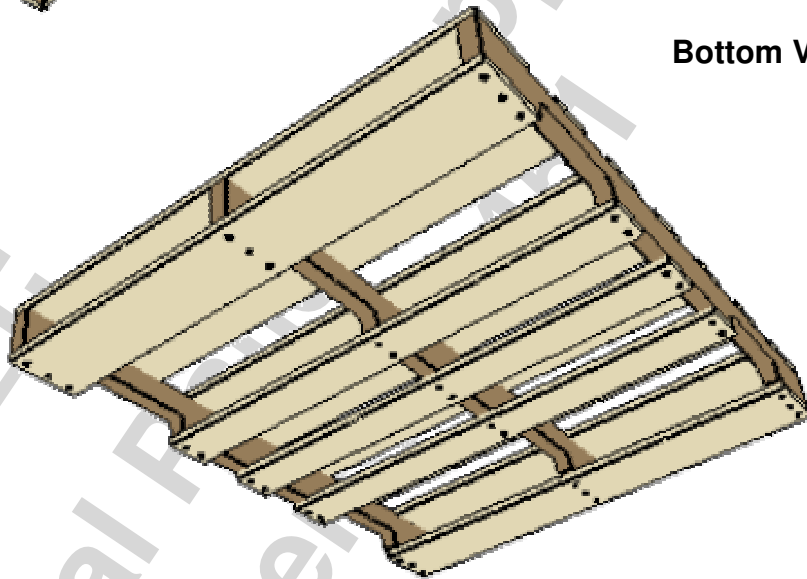
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Top View



Bottom View



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