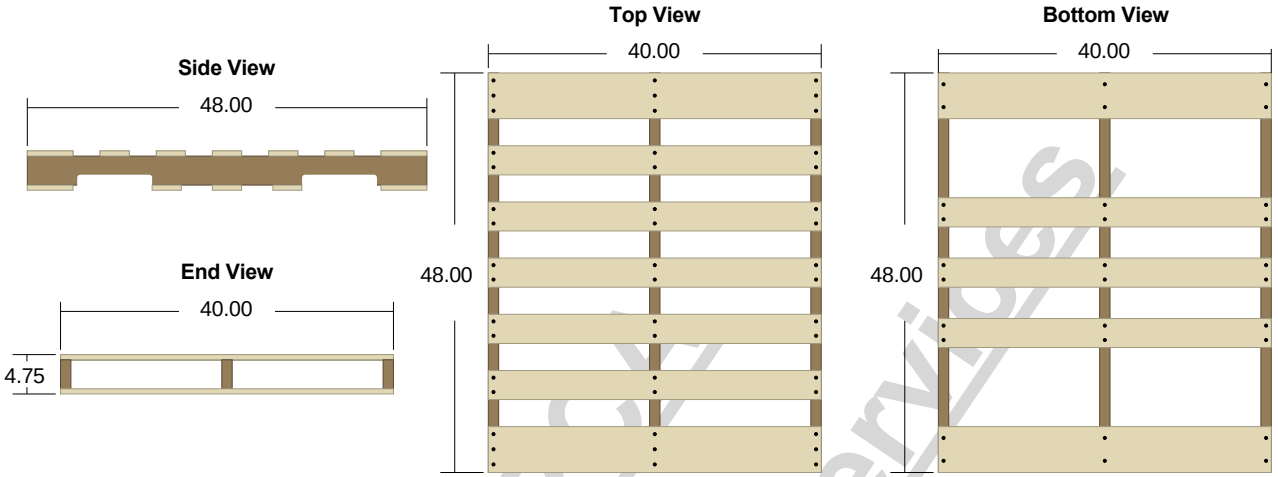
PALLET DESIGN SYSTEM Version 6.11
Pallet Specification Sheet

All dimensions in inches

Customer:
XYZ Company

Prepared by:
Atlanta Pallets & Services
3310 Colonial Parkway
Decatur, GA 30034
PDS License: 158 Printed: March 23, 2026

Pallet ID: GMA 48 x 40
Classification: 48.00 x 40.00, Stringer-Class, Double-Face Non-Reversible, Partial 4-Way, Reusable, New Manufacture



Components

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

Volume: 4.4 bd ft
Partial 4-way Entry Notch:
Depth: 1.250 Length: 9.00 Location: 6.00 Radius: 0.75

Materials

Fasteners:
Fastener ID:
Fastener Type: Helically Threaded Nail
Fastener Length: 2.00
Thread Length: 1.50
Thread Diameter: 0.120
Wire Diameter: 0.112
Head Diameter: 0.281
Flutes: 4
Helixes: 6.0
Pitch: 0.250
Thread Angle: 69
MIBANT Angle: 36
FWC: 1.70

Total Number: 78

New Lumber:
Lumber ID:

Species Class	Grade	Lumber Mix
Eastern Oaks	Standard	67 %
Southern Yellow Pine	Standard	33 %

Moisture Content (at manufacture and assembly): Green

Total New Lumber Volume: 13.1 bd ft

Spec Sheet Notes:

PALLET DESIGN SYSTEM Version 6.11
2-D Pallet Drawings

All dimensions in inches

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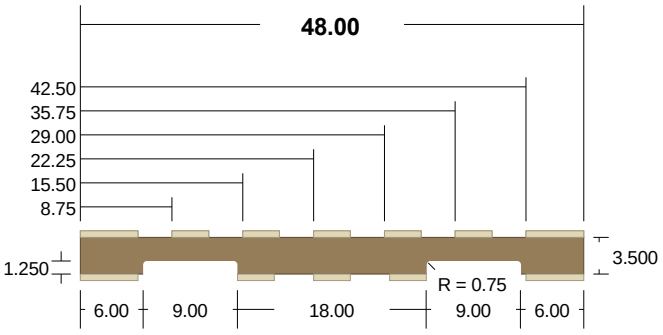
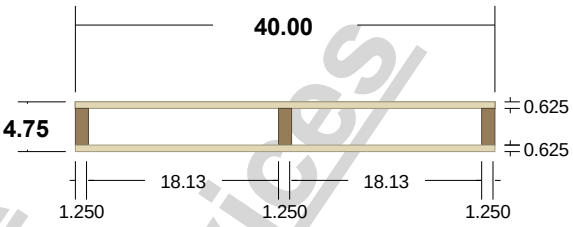
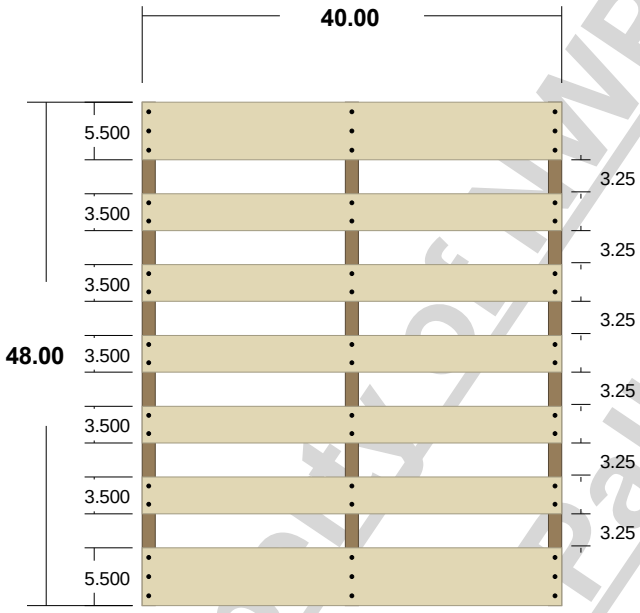
Side View



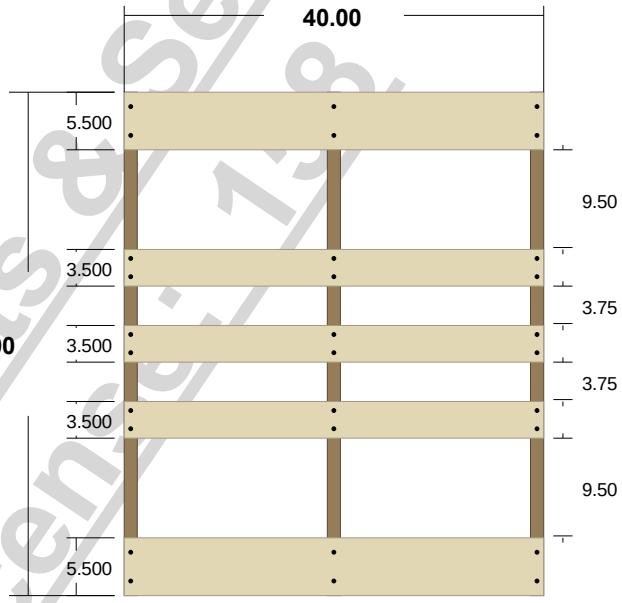
End View



Top View



Bottom View



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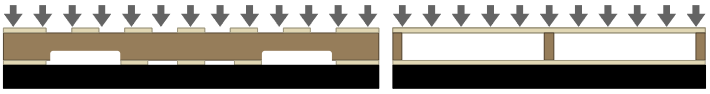
PALLET DESIGN SYSTEM Version 6.11
Pallet Structural Analysis

Customer:
XYZ Company

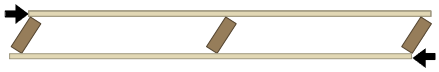
Prepared by:
Atlanta Pallets & Services
PDS License: 158 **Printed: March 23, 2026**

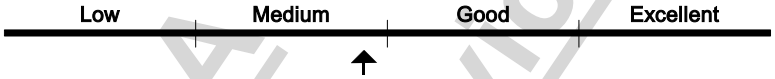
Pallet ID: GMA 48 x 40
Classification: 48.00 x 40.00, Stringer-Class, Double-Face Non-Reversible, Partial 4-Way, Reusable, New Manufacture

General Load Type: Uniformly Distributed - Full Pallet Coverage
Service Environment: Dry Environment (EMC <= 19%)

Support Condition (Side View / End View)	Safe Maximum Load	Deflection at Maximum Load	User Specified Deflection Limit	Maximum Load for Deflection Limit	Critical Member or Connection
Warehouse Storage Stacked 1 Unit Load High 	5474 lbs.	0.29 in.	----	----	Interior Top Deckboard

Lateral Collapse Resistance





LCR Indicator = 0.95

Pallet Design System (PDS)
Developed and owned by:
National Wooden Pallet and Container Association (NWPCA)

Research and development for early versions of PDS were conducted in cooperation with:
Center for Unit Load Design, 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

PALLET DESIGN SYSTEM Version 6.11
Pallet Physical Property Analysis

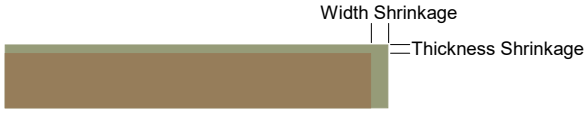
Customer:
XYZ Company

Prepared by:
Atlanta Pallets & Services
PDS License: 158 Printed: March 23, 2026

Pallet ID: GMA 48 x 40
Classification: 48.00 x 40.00, Stringer-Class, Double-Face Non-Reversible, Partial 4-Way, Reusable, New Manufacture

	At Manufacture	At 25% MC	At 19% MC	At 15% MC	At 12% MC
Average Pallet Weight	52 lbs.	39 lbs.	37 lbs.	36 lbs.	35 lbs.

Dimensional Change due to Wood Drying



Component	Original Dimension	Shrinkage from Manufacture to 19% MC	Shrinkage from Manufacture to 15% MC
Top Deckboards	0.625 in. Thickness 3.500 in. Width 5.500 in. Width	0.014 in. (+/- 0.004 in.) 0.080 in. (+/- 0.025 in.) 0.125 in. (+/- 0.039 in.)	0.021 in. (+/- 0.006 in.) 0.115 in. (+/- 0.036 in.) 0.181 in. (+/- 0.057 in.)
Stringers	3.500 in. Height 1.250 in. Width	0.080 in. (+/- 0.025 in.) 0.028 in. (+/- 0.009 in.)	0.115 in. (+/- 0.036 in.) 0.041 in. (+/- 0.013 in.)
Bottom Deckboards	0.625 in. Thickness 3.500 in. Width 5.500 in. Width	0.014 in. (+/- 0.004 in.) 0.080 in. (+/- 0.025 in.) 0.125 in. (+/- 0.039 in.)	0.021 in. (+/- 0.006 in.) 0.115 in. (+/- 0.036 in.) 0.181 in. (+/- 0.057 in.)

PALLET DESIGN SYSTEM Version 6.11
Carbon Impact Declaration

Qualifications

The impacts presented in this report are developed directly from life-cycle assessment data(1) and the associated Environment Product Declaration on Wooden Pallets that were verified by UL in accordance with ISO 14025, 14040, and 14044.

Applicability

The results represent an industry average 48x40 footprint and are tabulated on a per pallet basis and assuming one repair. Actual impacts may vary based on wood species, pallet design, actual number of repairs, and manufacturer business practices.

Carbon Footprint

Basis	1 Pallet	550 Pallets
	(kg of CO2)	(kg of CO2)
Carbon Impact(2)	**4.88**	**2,684**
Carbon Impact(3) with Potential Offsets	**-0.51**	**-280**
Stored Carbon(4)	**-37.26**	**-20,493**
Impacts Breakdown:	(kg of CO2)	(kg of CO2)
Carbon Impact for a New Pallet(5):	4.51	2,481
Carbon Impact from Pallet Repair(6):	0.37	204
Benefits Breakdown:	(kg of CO2)	(kg of CO2)
Coproduct Thermal Recovery (Boiler):	-1.28	-704
End-of-Life Thermal Recovery (Boiler):	-3.33	-1,832
Boards Reused for Remanufactured Pallets:	-0.76	-418
Steel Fastener Recycled:	-0.02	-11
Equivalencies(7):	(gallons of gas)	(cars per year)
Carbon Impact:	0.60	0.60
Carbon Impact with Potential Offsets:	-0.03	-0.03
Stored Carbon	-4.20	-4.40

References

(1) Alanya-Rosenbaum, Sevda; Bergman, Richard D. 2020. Cradle-to-grave life-cylce assessment of wooden pallet production in the United States. Res. Pap. FPL-RP-707. Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory. 82 p. https://www.fs.usda.gov/treesearch/pubs/61866

(2) Sum of carbon impact required for manufacturing and one repair

(3) Sum of carbon impact and offsets determined from GWP in Table 11 in Module D of the Wooden Pallet EPD

(4) Determined from Biogenic Removal from Product (BCRP) in Table 9 of the Wooden Pallet EPD.

(5) Determined by summing GW impacts from Product Stage (A) in Table 6 of the Wooden Pallet EPD.

(6) Determined from GW impacts from Use Stage (B) in Table 6 of the Wooden Pallet EPD.

(7) One gallon of gasoline is equal to 8.887 kg of CO2, estimated fuel economy of 22 miles per gallon, and 11,500 miles driven per year. Environmental Protection Agency (EPA) document EPA-420-F-18-008.

All determinations are made by converting the functional unit of 100,000 lbs. of pallet load to a per pallet basis.The reported values in the EPD are divided by industry average number of pallets required to transport 100,000 lbs. of product, as reported in Table 4.