



RACKING SHELVING CONVEYOR CONSTRUCTION CODE COMPLIANCE GUIDELINES

Plan review and permitting requirements for storage systems such as storage racks, storage shelving, pallet racks, movable shelf racks, and conveyors.

Permitting Procedure

A Building Permit (BLD) is required if any of the following conditions apply:

- 1**
 - Racks/Shelving/Conveyors have a storage level more than 7 feet above the supporting floor.
 - Racks/Shelving/Conveyors occupy a floor area (excluding aisles) greater than 1200 sq ft.
 - Racks/Shelving have a rated load capacity per storage level greater than 500 lbs.
 - Conveyors have associated electrical work.
 - Relocated Racks/Shelving/Conveyors (previously installed at another location) satisfy one or more of conditions above.
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Design documents prepared by a Georgia Registered Professional Engineer are required if any of the following apply:

- 2**
 - Racks/Shelving/Conveyors have a storage level more than 10 feet above the supporting floor.
 - Racks/Shelving occupy a floor area (excluding aisles) greater than 3000 sq ft.
 - Relocated Racks/Shelving/Conveyors (previously installed at another location) satisfy one or more of conditions above.
 - Existing Racks/Shelving (satisfying any of the conditions above) will be used by a new tenant and the space occupied by the new tenant will have a different occupancy classification than it had under the previous tenant.
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- 3** Submit two (2) complete sets of the required documentation in order to begin the review process.
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- 4** Once the permit documents have been authorized by Building Plan Review and Fire Plan Review, the contractor will turn in the documents stamped "County Copy" and the completed Building Permit Application form (available at the permits counter or on the county website) to the Building Permits Counter. The building permit fee, due at the time that the permit is pulled, is assessed at a rate of \$.005 multiplied by the installation costs. An additional fee of fifty (50) dollars will be required for the Certificate of Completion (C.C.). Fire fees will also be assessed from Fire Plan Review.
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Drawing and Document Submittal Requirements

- 5** Provide a tenant floor plan with a building key plan for the floor area affected by the proposed racks/conveyors/shelving. The key plan shall schematically identify the specific floor area within the overall building footprint. The tenant floor plan shall locate and identify the proposed racks/conveyors/shelving within the space. Tenant floor plan shall also include dimensions for aisle widths and provide rack/conveyor/shelving distances from permanent fixtures such as walls, other equipment, and exit doors.

 - 6** Provide rack configuration drawings for storage racks and elevation drawings for conveyors/shelving. Drawings shall indicate the material, size, location, and orientation for each structural component of the rack/conveyor/shelving. Drawings shall also provide details for the connections between all structural components, including required base anchorage. Base anchorage shall specify the type, size, spacing, and embedment depth of the required anchors. Rack configuration or elevation shall include the maximum weight of contents for each level.

 - 7** Electrical drawings, which identify the source of power for the equipment, are required for conveyors.

 - 8** Drawings are required to have a seal and signature from a professional engineer registered in the state of Georgia if the racking/shelving/conveyor project has a construction cost of \$100,000 or greater or if the project complies with any of the conditions under item 2 of this document.
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Provide design calculations which have been sealed and signed by a professional engineer registered in the state of Georgia for racks/conveyors/shelving which require engineering design per item 2 of this document.

Calculation requirements are as follows:

- Design shall be in compliance with IBC 2012 Sections 15.3, 15.4, and 15.5.3 and in compliance with ANSI/MH 16.1-12 (Specification for the Design, Testing, and Utilization of Industrial Steel Storage Racks)
 - 9** -Unless otherwise substantiated by a site specific seismic hazard analysis report, prepared by a registered engineer or geologist, seismic calculations shall be based upon spectral response acceleration coefficients SDS and SD1 of at least 0.22g and 0.15g, respectively, and an assumed sites classification of Site Class D.
 - Calculations shall demonstrate the structural adequacy of the applicable racks/conveyors/shelving (including structural members and connections) to support the superimposed weight of contents and to resist the required seismic design forces.
 - Calculations shall document the required size of each structural framing component (including but not limited to posts, beams, and bracing) and specify the corresponding member connections (including but not limited to beam-post, post-base plate, brace-post).
 - Calculations shall indicate the maximum weight of contents for each level of racks/conveyors/shelving.
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Helpful Information

Current Construction Codes:

- The Gwinnett County Construction Code (2015 Version)
- International Building Code, 2012 Edition with 2014, 2015, 2017, & 2018 Georgia State Amendments
- International Mechanical Code, 2012 Edition with 2014 & 2015 Georgia State Amendments
- International Plumbing code, 2012 Edition with 2014 & 2015 Georgia State Amendments and IPC Appendix F
- International Fuel Gas Code, 2012 Edition with 2014 & 2015 Georgia State Amendments
- NFPA National Electrical Code, 2014 Edition
- International Energy Conservation Code, 2009 Edition with 2011, 2012 Georgia State Amendments
- International Existing Building Code, 2012 Edition with 2015 Georgia State Amendments

Building Code Compliance Review Checklist:

For additional information, refer to the Building Code Compliance Checklist available at:
www.gwinnettcountry.com/portal/gwinnett/Departments/PlanningandDevelopment/PlanReviewSections/BuildingPlanReview

Contact Information



Building Plan Review - Department of Planning and Development



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