ARTICLE II

Section 201: MODULAR CONSTRUCTION

201.1. GENERAL
The requirements of the N. C. State Building Code including Volume I - General Construction, Volume 1-C, Accessibility Code, Volume II - Plumbing, Volume III - Mechanical, Volume IV - Electrical and Volume VI - Gas shall apply to all buildings of modular construction with the exception of mobile homes and detached one and two family dwellings. Title VI of the Mobile Home Construction and Safety Standards of the Housing and Community Development Act of 1974, requires all mobile homes constructed after April 15, 1976, to comply with Mobile Home and Construction Safety Standards issued by HUD. Detached one and two family dwellings of modular construction shall comply with the Volume VII, Residential; Volume II - Plumbing; Volume III - Mechanical; Volume IV - Electrical and Volume VI - Gas.

201.2. DEFINITIONS
BUILDING SYSTEM - Plans, specifications and documentation for a system of manufactured buildings or for a type or a system of building components, which may include structural, electrical, mechanical, plumbing, and fire protection systems and other systems affecting health and safety, including variations which are submitted as part of the building systems.
CERTIFYING AGENCY - An approved organization, private or public, including a governmental agency, determined by the N. C. Building Code Council to be qualified by reason of facilities, personnel, experience and demonstrated reliability and independence of judgment, to investigate, evaluate and approve building systems and conduct or supervise compliance assurance programs and to issue labels.
COMMERCIAL MODULAR BUILDING - A manufactured building designed to be used as a multi-family dwelling unit (3 or more families) or a commercial structure which has been constructed and labeled indicating compliance with the North Carolina State Building Code.
COMPLIANCE ASSURANCE PROGRAM - The system, documentation and methods for assuring that manufactured buildings and building components including their manufacture, storage, transportation, assembly, handling and installation conform with N. C. State Building Code and the rules and regulations promulgated pursuant thereto.
CONSTRUCTION, CLOSED - Any building, building component, assembly or system manufactured in such a manner that all concealed parts or processes of manufacture cannot be inspected before installation at the building site without disassembly, damage or destruction.
CONSTRUCTION, OPEN - Any building, building component, assembly, or system manufactured in such a manner that all portions can be readily inspected at the building site without disassembly, damage or destruction.
DWELLING - A building occupied exclusively for residential purposes and having (1) one dwelling unit; or (2) two dwelling units; or (3) one dwelling unit with not more than five boarders or roomers served with meals or sleeping accommodations or both.
INDEPENDENCE OF JUDGMENT - Not being affiliated with or influenced or controlled by building manufacturers or by producers, suppliers or vendors of products or equipment used in manufactured buildings, prefabricated construction and building components which might affect capacity to render reports and findings objectively and without bias.
INSTALLATION - The process of affixing, or assembling and affixing modular construction or modular components on the building site, or to an existing building.
LABEL - An approved device or seal evidencing certification in accordance with the N. C. State Building Code and the rules and regulations promulgated pursuant thereto.
LOCAL ENFORCEMENT AGENCY - The agency or agencies of local government with authority to make inspections of buildings and to enforce the laws, ordinances and regulations enacted by the State and by the local government which establish standards and requirements applicable to the construction, alteration, repair, occupancy or demolition of buildings.
LOCAL GOVERNMENT - Any county, city, municipal corporation, town or other political subdivision of this State with authority to establish standards and requirements applicable to the construction, alteration, repair, occupancy or demolition of buildings.

MANUFACTURED BUILDING - A structure consisting of one or more transportable sections built and labeled within a manufacturing plant facility in accordance with the appropriate State or Federal Construction Code which governs the structure's intended usage when erected on a building site.

MANUFACTURED HOME (Mobile Home) - A manufactured building designed to be used as a single family dwelling unit which has been constructed and labeled indicating compliance with the HUD administered National Manufactured Housing Construction and Safety Standards Act of 1974.

MODULAR BUILDING - A manufactured building constructed in accordance with the North Carolina State Building Code.

MODULAR COMPONENT - Any sub-system, sub-assembly, or other system designed for use in or as part of a structure, which may include structural, electrical, mechanical, plumbing and fire protection systems and other systems affecting health and safety and is usually of "closed construction".

MODULAR CONSTRUCTION - includes, but is not limited to:
- Manufactured Building(s)
- Prefabricated Construction
- Manufactured Unit(s)
- Modular Dwelling(s)
- Modular Component(s)

MODULAR HOME - A manufactured building designed to be used as a one or two family dwelling unit which has been constructed and labeled indicating compliance with the North Carolina State Building Code, Volume VII - Residential.

PREFABRICATED CONSTRUCTION - Construction of prefabricated units of "open construction" which are fabricated prior to erection or installation in a building or structure and may be shipped to their final on site location either as individual prefabricated units or prefabricated subassemblies.

PREFABRICATED SUBASSEMBLY - A built up combination of more than one structural element designed and fabricated as an assembled section of the building or structure which is of "open construction" and is to be incorporated into the structure by field erection of two or more such assemblies.

PREFABRICATED UNIT - An individual element of the building or structure of "open construction" such as a beam, girder, plank, strut, column or truss the integrated parts of which are prefabricated prior to incorporation into the structure, including the necessary means for erection and connection at the site.

TEMPORARY CONSTRUCTION BUILDING - Any building or portion of a building used as a temporary field office for the coordination of a nearby construction project by the general contractor and/or subcontractors. No portion of a temporary construction building may be used as an accessory occupancy (such as a sales office) into which the general public would be allowed access.

Section 202: DESIGN LOADS
All design loads shall be in accordance with the design requirements as indicated in the applicable Building Code.

Section 203: STRUCTURAL DESIGN
203.1 DESIGN STANDARDS
Structural design shall be in accordance with the requirements of the N. C. State Building Code in conformance with "accepted engineering design standards" approved by the Building Code Council. Any deviations from "accepted engineering design standards" must be approved by the Building Code Council and published as amendments to "acceptable engineering design standards" for all designers to use.
203.2 DESIGN STANDARD ALTERNATE
Where the size and spacing of framing members on materials are in conflict with, or not covered by this Code, they will be acceptable if the assembly meets the load requirements of this Code, provided they conform to the requirements as set forth for tests under Section 204. A structural analysis by a Registered Architect or Registered Professional Engineer, registered in North Carolina, may be required.

Section 204: TESTS

204.1 TEST STANDARDS
All tests when used as an alternate to design, shall be performed by an independent testing laboratory or licensed architect or registered professional engineer in accordance with "nationally recognized testing standards" as approved by the Building Code Council.

204.2 APPROVAL OF TESTS FOR MODULAR CONSTRUCTION OF "CLOSED CONSTRUCTION"
All tests performed for manufactured buildings of "closed construction" must be witnessed by a "certifying agency" approved by the Building Code Council. Modular construction or modular components labeled by an agency approved by the Building Code Council must have "test frequency" and "monitoring inspection frequency" approved by the Council if the tests are to substitute for the engineering design.

204.3 APPROVAL OF TESTS FOR MODULAR CONSTRUCTION OF "OPEN CONSTRUCTION"
204.3.1 Every manufacturer of prefabricated construction shall file with the Certifying Agency, duplicate copies of a certificate from a recognized testing laboratory, which states that tests have been made on this particular type of prefabricated construction and showing the live, dead and wind load capacities in pounds per square foot, uniformly distributed, together with a detailed physical description of the panels tested.

204.3.2 Panels and other elements for load shall sustain, without failure, for a period of twenty-four (24) hours, a superimposed load equal to two (2) times the live load. Recovery within twenty-four (24) hours, after removal of the full test load, shall be not less than seventy-five (75) percent of the observed deflection. The measured deflection of any panel or element under full live load shall be not over one three hundred and sixty (1/360) of clear span.

Exception: The measured deflection of any wall or roof panel or element under full live load shall be not over one two hundred and forty (1/240) of clear span, providing they are not plastered.

Such load tests of construction are not intended to be used as a method for determination of acceptable allowable working stresses of a material as an alternate to the established standard method of determining such stresses.

Section 205: DESIGN APPROVALS AND INSPECTIONS

205.1 MODULAR BUILDING CONSTRUCTION:
205.1.1 "Closed Construction" - According to G.S. 143-139.1 manufacturers may have their designs of "building systems" evaluated and approved by an agency approved by the Building Code Council without further inspections except as may be required for the enforcement of the N.C. State Building Code relative to the connection of units and components and enforcement of local ordinances governing zoning, utility connections and foundations. Manufactured buildings of "closed construction" which do not have a label of an agency approved by the Building Code Council are subject to inspection by local authorities, and manufacturers may have to ship units so they are open enough so local inspection may be made in order to obtain local approval.
205.1.2 "Open Construction" - "Prefabricated construction" and "manufactured buildings of open construction" are not required to be labeled by an agency approved by the N.C. Building Code Council but they must be sufficiently open for inspection because they are subject to inspection in the same manner as on-site built construction.
Section 206: ERECTION AND INSTALLATION

206.1 HANDLING LOADS
All modular buildings and modular components shall be designed in such a manner to allow loading, transportation, unloading and assembly without over-stressing any portion of the component or unit.

206.2 ASSEMBLY PROCEDURES
During the progress of installation, caution shall be taken to be sure that temporary bracing, or other supports are provided to avoid collapse or partial collapse.

206.3 MANUFACTURED BUILDING

206.3.1 "Closed Construction" - Modular buildings and components which bear the label of an agency approved by the Building Code Council are only subject to inspection by local authorities to the extent if the unit as erected complies with the Code. Such inspections limited to inspection to determine "damage in transit" or "alterations and additions" made to the unit after they were inspected and labeled plus inspections to determine compliance with connection between units, zoning, utility connections and foundations.

206.3.2 "Open Construction" - Modular buildings of "open construction" and prefabricated construction shall be subject to the same erection and installation requirements as other buildings required by this Code.

206.4 SET-UP LICENSING REQUIREMENTS
In accordance with General Statutes G.S. 87-1 and G.S. 143-139.1 any person, firm or corporation that undertakes to erect a modular building must have either a valid North Carolina General Contractors License or provide a $5,000 surety bond for each modular building to be erected. (See Appendix C)