North Liberty Building Department
Commercial/Industrial/Multi-Family Submittal Requirements

This checklist contains the standard information required on submittals for commercial construction projects. For additional information, please contact Department of Building Safety, 1 Quail Circle, North Liberty IA 52317 (319) 626-5713

Commercial building plans should be appropriately scaled and should provide the following information:

Project Description

- New Building
- New Shell Building
- Addition
- Remodel (verify existing occupancy)
- Tenant Improvement (T.I.)
- Miscellaneous Work
- Complete description of business operation
- Provide a hazardous material data for storage and manufactured

Project Location

- State the actual address of the project and legal description of the property. If an address has not been established, the City will assign a permanent or temporary address.

Owner/Applicant/Information

- Owner's Name
- Owner's Mailing Address
- Contact Person (Owner or Owner's Rep.)
- Phone Number
- Email Address

Contractor Information: Required prior to Permit Issuance

- Contractor Names
- Contractor Addresses
- Phone Numbers
- Email Addresses

One complete set of plans, drawn to scale, are to be submitted for a plan review.

The plans required are as follows:

SITE PLAN

Site plan in accordance with the North Liberty Zoning Code.

GENERAL CODE ANALYSIS DATA

The code information required on plans:

- Provide a building information block containing:

Occupancy Type	Fire alarms / Yes or No
Separated use or non-separated use	Emergency lighting / Yes or No
Type of construction	Number of exits required
Square footage (of each building/tenant space)	Exits provided
Allowable area calculation	Number of floors in the building
Floor number on which work is being performed	Sprinklers / Yes or No
	Governing Codes

ARCHITECTURAL PLAN

Sealed by a registered architect in State of Iowa (see Iowa Code 544A.18 for exceptions)

- Provide complete architectural floor plans, roof plans and reflected ceiling plans:
- Show complete floor layout including equipment.
- Identify the use of each room.
- Identify the complete exiting system, including the occupant load of each room.
- Provide a wall schedule to identifying walls to be new/existing, bearing/non-bearing, and different height walls.
- Provide dimensions of rooms, corridors, doors, etc.
- State the occupancy classification of the adjoining suites.
- Provide energy code requirement for the building envelope and related details.
- Identify fire rated assemblies (if applicable) and provide architectural details, referred UL/Gypsum Board Association number and standard details.
- Show accessibility information to include:
  the location and dimensions of the accessible restroom facilities
  the location and dimensions of elevators (if applicable)
- Provide four sides building elevations.
- Provide building cross-sectional views.
- Provide general architectural details.
- Provide wall details (top and bottom connection details with approved listed anchors).
- Provide window schedule, door schedule and hardware schedule.
- Provide floor/wall finish schedule.
- Performance requirements.

MECHANICAL PLAN

Sealed by a registered mechanical engineer in State of Iowa (when applicable)

- Complete mechanical floor plan for the entire project area.
- Mechanical energy conservation code compliance.
- Mechanical layout (ductwork, A/C units, air-handlers, diffusers, etc.).
- Mechanical equipment listings, specifications and weight.
- Outside air ventilation calculations.
- Air-balance schedule.
- Air-balance report note.
- HVAC equipment specifications.
- HVAC duct detector automatic shutoffs.
- HVAC duct detector audible/visual alarms and trouble lights.
- HVAC automatic shutoff test report note.
- Restroom exhaust ventilation systems.
- Hazardous exhaust ventilation systems (if applicable).
- Make-up air openings [sizes and locations] (if applicable).
- Combustion-air openings [sizes and locations] (if applicable).

PLUMBING PLAN

Sealed by a registered mechanical engineer in State of Iowa (when applicable)

- Complete on-site water & sewer plans.
- Complete plumbing floor plan and roof drainage systems for the entire project area.
- Minimum plumbing fixture analysis.
- Plumbing fixture specifications.
- Plumbing fixture connection schedule.
- Drain, waste, and vent sizing isometrics.
- Water pipe and meter sizing calculations.
- Backflow Devices [as required] – Type(s) and Location(s).
- Expansion Tanks [as required] -- Size(s) and Location(s).
- Gas pipe sizing calculations and isometric (if applicable).
- Provide a scaled site plan clearly denoting project location and gas meter locations.
- Provide a floor/roof plan documenting ALL appliance types and locations.

- Provide a one-line gas pipe, sizing diagram:
  - Identify ALL second stage regulators (if applicable).
  - Identify ALL appliance locations and Btu/hr input ratings.
  - Identify on the one-line, ALL branch pipe lengths and sizes.
  - Identify the total developed length of piping from the gas meter, or LPG tank, to the most remote appliance on the entire system.
  - Identify ALL gas pipe materials and locations, i.e., underground, building wall, roof, etc.
  - Specify gas pipe support method and spacing.
  - Address gas venting and combustion air.

ELECTRICAL PLAN

Sealed by a registered engineer registered in Iowa (when applicable)

- Provide a symbol schedule of all symbols and abbreviations used.
- Provide complete electrical site plans showing utility transformer(s) and SES location(s) and all exterior lighting or other wiring.
- Provide a one-line drawing of the complete electrical system showing:
  - System voltage, phase configuration, and available fault current.
  - All subpanels and feeders with conductor sizes and types.
  - Fault current calculations from SES to lowest rated overcurrent device or equipment.
  - Ampere rating of all overcurrent devices.
  - Grounding detail(s).
  - Provide a lighting floor plan including fixture types & wattage.
  - Provide a power floor plan showing receptacle, switches, outlets, etc. (identify if new, existing, relocated).
  - Label all rooms/areas on all floor plans.
  - Show the location of all electrical equipment (IE, SES, panels, transformers, etc).
  - Provide nameplate ratings of all motors, elevators, AC units, and equipment.
- Provide a schedule for each panel showing:
  - Voltage, phase configuration, and interrupting rating.
  - NEMA enclosure type.
  - Ampere rating of all overcurrent devices.
  - Load calculations for the SES and all panels.
  - Identify any hazardous or classified areas by NEC type.
  - Provide lighting power calculations and controls per IECC or ASHRAE 90.1.

STRUCTURAL DRAWINGS

Sealed by a registered engineer registered in the State of Iowa (when applicable)

- General structural notes.
- Design dead loads.
- Design live loads.
- Wind design data.
- Seismic design data.
- Special Loads (if applicable) that are specified by the code.
- Identify all Deferred Submittal Items.
- Identify all special inspection and structural observation requirements.
- Material Specifications
- Geotechnical Information, i.e. Soils Class, Allowable Bearing Pressure, Reference to Geotechnical

- Foundation Plan:
  - Indicate shear wall and hold down locations.
  - Include separate sheets for “mirrored” plans.
  - Footing bearing or top of footing elevations.
  - Reinforcement size and placements.
  - Anchor size and placements.

- Floor Framing Plan:
  - Indicate shear wall and hold down locations

Include separate sheets for “mirrored” plans
Framing floor layout and sizes
Section and detail cuts
Fire rated assemblies

- Wall Framing Information and Details:
  Shear wall details.
  Brace wall details.
  Header details.
  Section and detail cuts.
  Fire rated assemblies.
  Performance requirements.

- Roof Framing Plan:
  Framing roof layout and sizes.
  Section and detail cuts.
  Fire rated assemblies.
  Performance requirements.

- Structural Details:
  General structural details, connection details and all cut structural details called out from structural.

- Geotechnical Investigation Report:
  Provide one copy of soil report sealed by the geotechnical engineer of record (if applicable).

- Prefabricated Metal Building:
  Provide separate manufacturer’s construction drawings and calculations that are sealed by the structural engineer of record for the prefabricated metal building.

- Additional drawings may be required depending on the complexity of the project.