

General Requirements - All Plans

General Information: Include the project name, address, and legal description. All drawings shall be drawn to scale and include drawing numbers, titles and pages along with revision dates. Include name and contact information for the applicant, owner, contractors and designer of the project.

Description of work: Summarizes the proposed work. May include description of construction, scope and extent of work.

Plot Plan

Dimensions of the new building or project on the property, from each property line & other structures. For fences indicate where installing new fencing.

Property Lines: Show and label all property lines with dimensions.

Setback Lines: Show and label all required and proposed setback lines.

Easements: Show and label all existing and proposed easements, including the type of easement.

POOLS: Show existing and proposed drainage patterns, including roof drains and area drains.

RETAINING WALLS: Show location, height and complete details of all proposed site retaining walls.

Structural Plans

Provide dimensions and layout of each level. Indicates size, spacing, type, and location of all framing members and connection details. Identify the location and sizes of load bearing walls, beams, and columns, footings/piers. Indicates floor/roof opening dimensions. Provides roof and wall projection attachment and support details.

The structural plan package includes schedules and construction specifications, foundation plans, framing plans and structural details.

Nailing Schedule: When the construction involves wood components, provide a complete nailing schedule consistent with the 2015 International Building Code or the 2015 International Residential Code.

Construction Specifications: Provide complete construction specification for materials used on the project. The materials may include concrete, wood, steel, masonry, etc.

FOUNDATIONS/FOOTINGS

Foundation/Footings: Show completely dimensioned foundations or footings. The foundation plan must incorporate the foundation system as recommended in the Geotechnical Investigation Report if applicable. Show continuous and spread footings and grade beams. Include dimensions, reinforcement size and spacing.

Anchors/Bolts: Show location, size and spacing of hold down anchors and anchor bolts.

Slab Details: Show slab thickness, size and spacing of reinforcing steel.

FRAMING PLANS - FLOOR, ROOF & CEILING

Framing Members: Show the material, size, spacing and location of all framing members. The framing members include headers, beams, girders, floor joists and/or trusses and ceiling framing.

Posts/Columns: Identify posts and columns on the plans by size, type, location and spacing.

Diaphragms: Specify type and thickness of floor and roof diaphragms.

Roof framing: Identify all ridge, hip and valley members by size and framing system.

Braced, Bearing, Shear Walls: Identify bearing walls, and shear walls above and below floor/roof levels.

Braced, Bearing, Shear Wall Schedule: Show shear wall schedule, if applicable (wood construction) and identify all shear walls specifications, and nailing requirements.

Nailing: Identify nailing patterns. Shows nail type, size and spacing.

Lateral Load Resisting Elements: Identify by type and location of all lateral load resisting elements on the plans.

Solar Photovoltaic (PV) System: Show support system for ground and roof PV installations. Show method of attachment to the supporting system.

STRUCTURAL DETAILS

Details shown on the construction documents should be specific to the project. All details not applicable to the project must be either removed from the project documents or be noted as being “not applicable.”

Cross Section: Provide cross section details of all free standing walls, structures, and fences.

Framing Detail: Provide framing detail of all walls, floors, roofs, stairs. Specify size, type, spacing of all members.

Shear Transfer Details: Provide shear transfer details (show blocking, nailing, bolts).

Connection Details: Provide connection details representative of the assumed framing and support elements used in the structural system of the project. (Examples: DO NOT show TJI framing details when framing is of sawn lumber, DO NOT provide masonry details when walls are of concrete or wood construction, etc.) The connection details should include connection for all structural elements such as columns, beams, walls, floor framing elements. Show all hardware, nails, welds, and reinforcing bars.

Architectural Plans

This package consists of floor plans, elevations, building sections, door & window schedules, and architectural details.

FLOOR PLAN

Provide a floor plan of all floors; indicate use of all rooms (existing and proposed); show all balconies.

Dimensions: Show dimensions on floor plans.

Floor Levels: Indicate all floor levels (i.e. ground floor, second, third, etc.).

Doors and Windows: Identify and show all doors and windows. Cross reference doors and windows to the door and window schedule.

Demolition Floor Plan: Where portions of any structure are to be demolished or altered, provide a demolition floor plan. Submit a clear, fully dimensioned demolition sheet for each floor that shows all walls, windows and doors changed, exterior walls enclosed by new construction, areas where top/bottom plates, and studs have been removed, changed and/or modified.

Plumbing Fixtures: When present, show all existing, proposed and relocated plumbing fixtures.

Plumbing & Mechanical Equipment: For single dwelling unit projects, show location, size, make and model of proposed heating equipment and water heater. (May be shown on separate mechanical plans.)

Electrical Smoke Detectors/ Carbon Monoxide Alarms: show all existing, proposed and relocated smoke detectors and carbon monoxide alarms.

Stairways: Indicate the location and travel direction of all stairways.

Roof Access: When present, show location of roof access stairs and ladders.

Fire Resistive Construction: Where fire resistive construction is proposed, show fire resistive construction components of the building on the floor plans. These components may include occupancy separation walls, rated shafts, fire walls, fire barrier, fire partitions, and other rated means of egress systems.

ELEVATIONS - Required for new construction or alterations that impact the exterior of the buildings and shall include the following:

Elevation Labels: Drawings must be separate and labeled North Elevation, South Elevation, East Elevation and West Elevation. All elevation plans must be drawn accurately to scale and fully dimensioned.

Grades: Clearly show and label existing and proposed grades.

Floor Elevations: Indicate all finished floor elevations.

Building Height: Indicate building heights

Architectural Details: Show and label exterior architectural details and location of all windows, doors, balconies, and other architectural features.

Label Buildings: If more than one building is located on the project site, clearly label each building elevation to distinguish one from the other.

BUILDING SECTIONS

Required for new construction and shall include the following information:

Framing: Show sections across floors, walls, and roof and include the insulation R values.

Elevations: Show finish floor and roof level elevations.

Ceilings: Show ceiling framing, height of ceiling, suspended ceiling, dropped ceilings and soffits.

Architectural Projections: Show all interior and exterior architectural projections. Include stairs, balconies and eave overhangs.

Stories: Provide cross section views of the building such that the numbers of stories are clearly identified. Cross reference building sections to architectural floor and site plans.

Stairs, Shafts, and Elevators: Show stairs, shafts, elevators in the building cross section.

DOOR AND WINDOW SCHEDULES

Door and Window Schedules: The schedule should include size, type, hardware, fire and Sound Transmission Class (STC), U value (overall coefficient of thermal transmission), and SHGC (Solar Heat Gain Coefficient) for all fenestration.

Finish Schedule: Provide a finish schedule. This schedule should include finishes for walls, ceilings, and floors.

ARCHITECTURAL DETAILS

Stairs, Handrails and Guardrails: Provide dimensioned architectural details of all stairs, handrails and guardrails.

Fire Resistive Details: When proposed construction involves fire resistive details, provide fire resistive assemblies of walls, ceilings, floors, roofs, shafts and penetrations.

Engineer sealed plans/Structural calculations

Calculations certified (signed and sealed) by a licensed engineer that show the project complies with wind speed and ground snow loading design requirements of building codes currently adopted by the City of O'Fallon MO may be required for new buildings and structures and for modifications to existing buildings and structures. Buildings that qualify as conventional construction as defined in the International Building Code or the International Residential Code may not require structural calculations.

Responsible Charge: First sheet of calculations shall include the name, stamp, and signature of the licensed engineer or architect who prepared or is responsible for the calculations.

Design Loads: Tabulate and itemize, on the first sheet of the calculations, the DESIGN LOADS used on the project. These loads will include dead loads, live loads, seismic and wind lateral loads. (Show summary of assumptions made in the engineering design.)

Construction Details: All construction details shown in the structural calculations must be on the plans and cross referenced to applicable locations on the roof, floor or foundation plans.

Truss Calculations and Roof Plans

TRUSS PLANS AND CALCULATIONS

When prefabricated trusses are proposed, plans must be accompanied by truss calculations and details and must meet the following submittal requirements.

Plans: The framing plan for the roof or floor shall include a complete layout of the trusses with the identification of the trusses.

Details: Shear transfer details compatible with the truss system must be shown on the plans.

Design Loads: A summary of the loading criteria for the design of the trusses must be shown on the plans.

Truss Calculation: Provide truss calculations, indicating loading criteria and member sizes.

Stamp and Signature: All sheets of truss calculations and truss drawings and details must meet the stamp and signature requirements as specified by the Professions and Business Code for architects and engineers.

Identification: Each truss shall be identified with a truss identification number which is referenced on floor or roof framing plans.

Building Code: Specify code year used for the design of the trusses.

ROOF PLAN:

Identifies roof slope, roof drain locations, roof covering type, material and fire classification.

Provides manufacturer's listings for roof materials being used. Identifies roof ventilation systems, size and location of roof access openings. Identifies parapet and penthouse dimensions/locations and the locations of all mechanical equipment, screening, enclosures, and guard rails. Required for all new construction or any modification to the existing roof and shall include

the following:

Spot Elevations: Show and label spot elevations for all roof peaks, ridges, low points.

Roof Detail: Show all hips, valleys and ridges, drains and overflow drains.

Material: Show roofing material with complete specifications.

Screening Elements: Indicate any mechanical equipment and details of any architectural screening element.

Vents/Skylights/Chimneys: Show location and type of all roof vents, chimneys and skylights if applicable.

Dimension distance to protected wall assemblies when applicable.

Licensed Contractor Signature(s)

Licensed contractors must provide their signature and license number on the permit. They may obtain a "contractor project signature sheet" from the City website and attach it to the file or download here

<http://www.ofallon.mo.us/images/pubs/building/Signature%20sheet-Contractor%20Project.pdf>

NOTE: Homeowners doing their own work do not need to have a licensed contractor for minor work.

Mechanical/Electrical/Plumbing Plans

MECHANICAL PLANS – Identify input rating of all equipment, location, size and type of all supply, return, exhaust and product conveying systems, volume of fresh and circulated air in each space, ventilation calculations for each use within the building, and capacity of the exhaust systems.

ELECTRICAL PLANS – Identify location of all lights, switches, panel boxes, receptacles, exit lights, emergency illumination, panel board ratings, transformer locations and ratings.

PLUMBING PLANS – Identify locations of all fixtures, location, size and type of all supply, waste, vent and drainage systems. Provide a schematic design of the system.

Fire Alarm

Identify type and location of panels, detection and notification devices. Provide annunciation and communications system details and operating descriptions. Identify supervising agency's name and location.

Fire Sprinkler

Identify piping size and type, sprinkler head type and locations, temperature rating and coverage area limits, flow calculations, and specifications.

Geotechnical Investigation Report (soils letter)

Project and Site Specific: The Geotechnical Investigation Report must be specific to the proposed project and project site.

Responsible Charge: Geotechnical Investigation Report and other geotechnical documents must be stamped and signed by appropriately licensed professionals as required by State law.

Date: Geotechnical Investigation Reports shall not be more than three years old unless accompanied by an addendum geotechnical investigations report or update letter less than three years old that states the finding, conclusions, and recommendations remain valid for the proposed project.

Other Technical Studies

Storm Water Quality Management Plan (SWQMP)

Others that may apply to your specific project

Commercial Site Plan

SITE PLAN PACKAGE

Property Lines: Show and label all property lines with dimensions.

Setback Lines: Show and label all required and proposed setback lines.

Easements: Show and label all existing and proposed easements, including the type of easement.

Street/Right of Way: Show and label all existing and proposed streets, sidewalk, curb cuts, driveways, curb to property line distances. Indicate any separate permit for proposed improvements in the public right of way or public service easements.

Off-Street Parking: Show all "off-street" parking spaces that are not within a structure. Identify any disabled parking spaces, and provide parking calculations.

Drainage: Show existing and proposed drainage patterns, including roof drains and area drains.

Structures and Hardscape: Show location and dimensions of all existing and proposed buildings and structures, including accessory structures such as fences, walls, trash enclosures, patio covers. Hardscape (pavement) shall be delineated and identified by a symbol/pattern. Show and label the dimensions between structures and to property lines. Label year constructed for all existing buildings.

Impervious Surface: Show all buildings, structures, and edges of all pavement and other impervious surfaces.

Separation Distances: Show the separation distance between adjoining buildings or structures and the distance from property lines to all buildings or structures.

Contours: Provide contour intervals at two feet (this may vary depending on the steepness of the grade and the scale of the drawing). Five and ten-foot contour intervals may be acceptable provided spot elevations are called out as necessary for the analyst to properly understand the character of the site. Show contours off-site within 50 feet of the property line.

Utilities: Show all existing and proposed utilities on the property and adjacent right of way, including hydrants, vault, transformers, electrical meter, electric sub-panels, poles, water meters, water and sewer lines etc. Also, include size and type of existing and proposed utility.

Refuse & Recycling Areas: Show and label the location and location, including dimensions of existing and proposed refuse and recycling materials storage areas.

Projections: Show all architectural projects such as stairs, balconies, ease overhangs etc.

Environmentally Sensitive Lands: Show, whenever applicable, the boundary lines of environmentally sensitive lands, such as steep hillsides, sensitive biological resources, Multiple Species Conservation Program Preserve Areas, 100-year flood plains, sensitive coastal bluffs, and setbacks from these boundaries.

Plumbing Site Plan: For new buildings, include the size and layout of the building sewer, point of connection to the public sewer, and clean outs.

Fire Access and Hydrant Drawing If the project has a previously approved fire access and hydrant plan as part of a prior Development Permit or Subdivision approval, a copy of the stamped and approved site plan must be submitted.

Erosion Control Plan: Show location of all construction BMP's. Reference Water Pollution Control Plan/Report.

Utility Disconnection letters

A letter issued from the specific utility company that they have observed the utility was correctly disconnected from the building or structure.

Manufacturers installation Instructions

Include descriptions, product information, model numbers and material specifications as applicable to your project.