



## RESIDENTIAL ADDITION AND ALTERATION PLAN REVIEW CHECKLIST

This list is provided as a guide to help you understand the information that must be contained on the construction drawing. This list is not all inclusive of all building codes but is used as a general guide for plan review. Please address the following items marked with an "X" in the box and submit needed revisions. Show all revisions with a cloud.

### GENERAL

- All construction documents shall be submitted in triplicate.
- All drawings shall be completely dimensioned.
- Drawn to scale not less than 1/8 inch = 1 foot
- Drawings must be clear and legible.
- Drawing shall be prepared on sheet paper no larger than 24" X 36".
- Complete scope of work must be clearly identified for all phases of construction, indicating compliance with Michigan Residential Code 2009 and Michigan Uniform Energy Code 2009.
- Architect or Engineer Certification is required for buildings 3,500 sq ft or larger.
- Structural Certification may be required depending on the project's complexity.
- All construction sites are required to be maintained in a safe condition and to be protected from unauthorized entry. All excavations exceeding 24 inches in depth, such as for basements, crawl spaces, pools, and spas must be secured through the use of a 4' high fence. Construction type fencing will be allowed for a period not to exceed 30 days. At such time, should the permitted work still physically be unable to be protected and secured, a chain link fence is required to be installed and must remain in place until its removal has been authorized by the Building Official. **2009 MRC-R 104.1 & 2006 MBC Chapter 33**

### GRADING PLANS

Site plans are required for additions and alterations that propose major grade change. (See the Grading Plan Review Checklist.) **NOTE: Grading plan and architectural proposed elevation must match.**

### FOUNDATION PLAN

- Foundation type showing width and depth, also indicating lead walls where needed and joining dowels, socked perimeter drain tile R401
- Footing, column support pad with layout.
- Beam size, column spacing



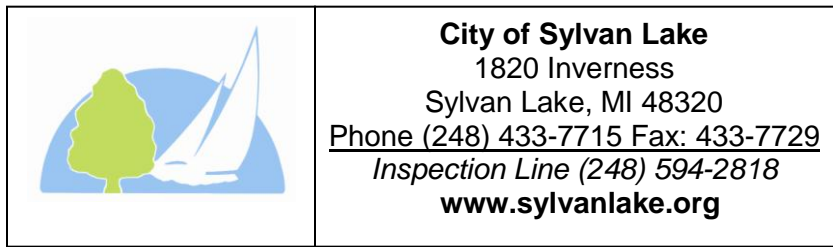
## RESIDENTIAL ADDITION AND ALTERATION PLAN REVIEW CHECKLIST

### FOUNDATION PLAN (CONTINUED)

- Size of support for all bearing walls, point loads above.
- Framing at stair opening, fireplace, cantilevers, etc...
- Floor joist direction, size, spacing, span R502
- Basement floor thickness, vapor barrier, 4 inch stone base R506
- Walkout and/or daylight wall areas with type and size of construction
- Crawl space size and location.
- Show ground water control indicating gravity discharge or sump pump with location. R405
- Mechanical equipment location indicating high efficiency or not and required floor drain. M1411.3
- Concrete-encased electrics are to be identified on the plans. E3508.1.2

### FLOOR PLANS

- Basement, first floor, second floor, attic storage, bonus room
- Intended use of each room or space
- Floor joist direction, size spacing, span R502
- Roof framing direction, size, spacing, span R802
- Size and location of all support for bearing walls an concentrated load
- Stairway locations with direction arrow and number of risers R311.5.8
- Location of all required smoke detectors R314
- Location of all required carbon monoxide alarms R315
- Layout of kitchen, bath, laundry
- Show all required access openings, calling out sizes R807.1/R408.3
- All sleeping rooms shall have at least one operable window or exterior door approved for emergency escape and rescue clearly shown on drawings. Finished basements proposed with areas of habitable space and areas of sleeping rooms shall meet emergency egress requirements. R310.



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### GARAGE

- Floor thickness. R506.
- 4 inch compacted sand base/vapor barrier
- Over-dig slab support
- Slab thickness and slope direction arrow. R309.3

### ROOF FRAMING

- Identify the location, direction, size, spacing and span of all roof and ceiling frame members. R802
- Identify all concentrated load points from ends of hip and valley rafters, ceiling joists, rafters, trusses, girder trusses, beams.
- Identify roof pitch for all portions of the roof and ceilings.

### BUILDING/WALL SECTION DETAILS

Depending on the complexity of your project, more sections or details may be required.

- Footing and basement wall size, type and height. R401.
- Foundation wall damp proofing/waterproofing. R406.1. Pea stone, 4 inch socked drain tile or fabric material over stone bed R405.
- Back-fill material type and finish grade elevation. R406.3.3
- Sill seal and treated sill plate. R317.1
- Anchor bolt size and spacing. R403.1.6
- Floor joist and sub-floor framing size, type
- Wall framing size, type, spacing and height including header sizes. R602.7
- Insulation R-Values for bond, wall, ceiling locations, floors over unconditioned spaces and under slab where required. Provide Michigan Energy Calculations. **Also provide documentation identifying 2009 MUEC compliance.**
- Interior finish drywall size, type including garage walls and ceiling. R309.2



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### BUILDING/WALL SECTION DETIALS (CONTINUED)

- Exterior sheathing size, type, including house wrap. R703.2
- Indicate fire stopping and sealing per MRC 2009. R602.8
- Roof construction details, size, type, sheathing, R802 felt paper, ice and water shield, shingles, drip edge. R905
- Location, size, type, amount of attic ventilation, to shown and proven with calculation R806 also crawl space ventilation. R408 & R806
- Brick veneer, size, type, weather-resistive barrier, brick wall ties, flashing, and weep holes 33 inches on center. R703.8. Flashing detail for all openings through wall.
- Draftstopping required. R502.12
- Construction details and plan for the creation of walkout framing and steel plan with engineering certification.

### 2009 MICHIGAN UNIFORM ENERGY CODE

- Provide documentation showing compliance. 2009 MUEC 201.2
- Energy star requires: Thermal Bypass Checklist and energy seal 1 at rough frame inspection; certification required with insulation certification. All homes require an approved air infiltration certification prior to the rough frame inspection and a second certification after the drywall installation to be submitted prior to scheduling the final building inspection. Blower door and duct blaster listing completed and approved prior to final building inspection.
- Upon final inspection certification to be provided as outlined. 2009 MUEC 401.3
- Fireplace doors to comply with 2009 MUEC 402.4.3

### STAIR DETAILS

- Stringer size and quantity. R311.5
- Tread width. R311.5.8
- Riser material and height. R311.5
- Handrail detail. R311
- Blauster and guardrail detail for all stairways, calling out material and spacing. R312



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### STAIR DETAILS (CONTINUED)

- Under stair protection. R311.2.2

### WINDOW/DOOR SCHEDULE

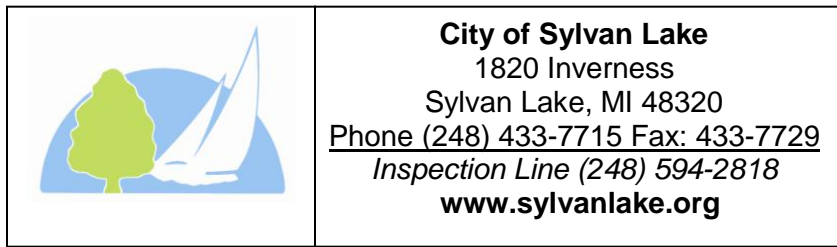
- Sizes. R310Locations
- Type and fire rating of door separating garage and house. R302.5.1
- Egress windows labeled, also call out size of window well if needed. R310
- Safety or tempered glazing in required areas must be labeled. R308
- Window sill height R612.2

### MASONRY FIREPLACE DETAIL

- Need complete section for masonry fireplace.
- Flue size and material.
- Hearth depth, width and means of support. R1001.9
- Hearth extension, size. R1001.10
- Call out type of fireplace to be installed, masonry/insert/prefab gas log unit.
- Material used for chimney chase. R1003
- Height of chimney above roofline. R1003.9
- Fireplace doors to comply with MUEC 402.4.3

### BUILDING ELEVATIONS

- Front, sides and rear elevation showing all retaining walls.
- Façade material, window and door locations.
- Existing and proposed grade elevations that matches proposed elevations on site plan, also include building height calculations, as shown on sample A.
- Floor Elevations



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### ORDINANCE

- Dimensions of property lines are inaccurate provide revisions.
- Provide a full dimensioned engineered site plan
- Construction/foundation plan must agree.
- Provide existing elevations for proposed addition.
- Proposed does not meet minimum floor area per unit required by ordinance.
- Provide dimension from lot to proposed building.
- Provide lakefront setbacks.
- Architectural projections(s) exceed maximum projection into required yard.
- A common roofline is required.

The following requires possible approval from the Zoning Board of Appeals:

- Encroachment(s): Required yard, lakefront, natural feature.
  - Insufficient lot square footage
  - Does not meet minimum distance between residential buildings – See Sylvan Lake Code section 78-609
  - Proposed exceeds the maximum percent lot coverage
  - Height of proposed exceeds the 30 foot allowed
  - Retaining walls – See Sylvan Lake Code Section 78-612.
    - Provide top and bottom wall elevations with cross section detail of the proposed wall construction identifying material type and dimensions drawn to scale.
  - Accessory Use.
  - Accessory structure: Sylvan Lake Code Section 78-610. Ground mounted mechanical or electrical equipment (AC and Generators)
  - Encroachment into required side yard setback for a corner lot
  - Open, unenclosed paved terrace may project into a required front or rear yard setback for a distance not exceeding 10 feet, cannot exceed 10% of the required setback area and cannot exceed an average of three feet in height above existing grade.
  - Other \_\_\_\_\_
- Floodplain issues.
  - Future compliance issues.



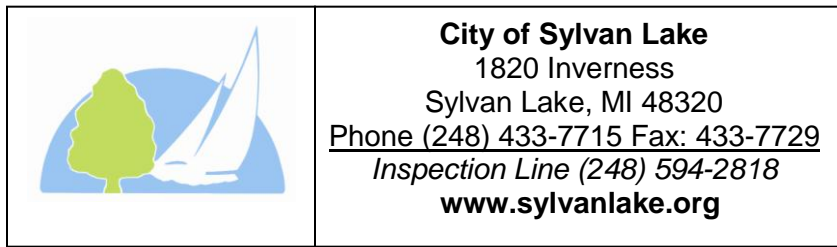
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### GRADING PLANS

- Grading plans shall be submitted in triplicate to the Building Dept. for review.
- Plans shall be prepared neatly and accurately on a minimum 24" X 36" or 18" X 24" sheet.
- Plans shall be prepared, signed, sealed and dated by a civil engineer or land surveyor registered in Michigan. Plans shall be dated current to the year prepared for building permit submittal, not to exceed one (1) year.
- Legal description of the property including a statement affirming the property has been surveyed and boundary corners of the property have been marked by placing permanent points at each corner of the property.
- North point compass.
- Drawn to scale not less than 1" = 20'.
- Exact dimensions of the property including bearings and distances as described in the legal description.
- Proper relation of the subject property with all abutting property lines.
- Street names and property address. (Lot # is insufficient).
- Location of the existing and proposed buildings shall be clearly shown and shall include tie dimensions to the front side and rear property lines.
- Outline footprint of all existing on-site features, (i.e. accessory structures, buildings, driveways, fences, retaining walls etc.) Existing developed sites proposed for demolition may be required to be cleared of all existing features. Intent of each feature shall be identified and clearly noted, "To be demolished and removed from site" or "To remain on site without change." Each feature will be reviewed for ordinance conformity. Zoning Board of Appeals approval may be required to retain existing on-site features.
- Setback dimensions for building envelope as per Sylvan Lake Code Section 78-296.

**Please note revisions to construction documents shall be clouded, dated and resubmitted in full sets**

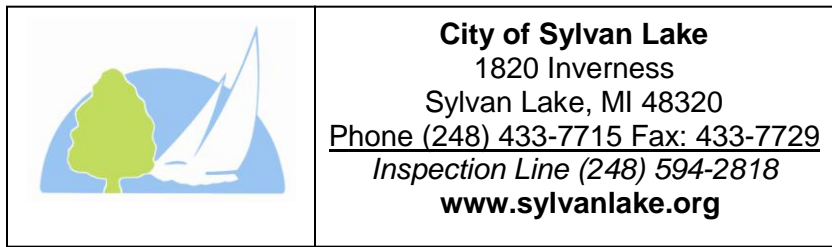
**RW = Retaining Wall      NS = Not shown      ZBA = Zoning Board of Appeals      NI = Not Indicated**



## RESIDENTIAL ADDITION AND ALTERATION PLAN REVIEW CHECKLIST

### ELEVATIONS

- Grading plan shall clearly identify extent of all proposed grade changes in relation to the existing established grade elevations and adjacent properties.
- Proposed grade cut to allow for a forced walk-out basement, shall be properly designed and detailed to control its surface runoff by means of an independent drainage system separate from the building foundation drainage system. Independent mechanical sump pump or gravity system shall discharge into an approved location.
- Forced walkouts and/or daylight basements proposed for development will be reviewed individually to determine feasibility. Total cubic yards of soil proposed for cut and/or fill shall be shown on the proposed grading plan with section detail identifying top and bottom elevations and slope.
- Location of retaining walls with top and bottom elevations. Provide section detail of the proposed wall construction identifying material type and dimensions drawn to scale.
- Elevations shall be based on U.S.G.S. datum. Benchmark locations for the work shall be indicated on the plan with its proper elevation.
- Existing grade elevations shall be shown as 50 foot on center pegged elevations across the entire property and not less than 50 feet outside the perimeter of the property lines.
- Proposed grade elevations shall be shown as 2 foot on center contour lines across the entire property. The proposed shall overlay the existing elevations.
- Proposed brick ledge elevations (PBL) shall be shown around the entire foundation perimeter footprint and at points of building corners.
- Existing brick ledge elevations (EBL) shall be shown at corners of each existing principle building on adjacent properties to the site of proposed development.
- Proposed finished floor elevations shall be identified (finished first floor, finished basement floor and finished garage floor).
- Existing finish floor elevations of the existing principal building on site proposed to be demolished shall be shown.
- Existing finish first floor elevations of each principle buildings on adjacent properties to the site proposed for development.
- Proposed foundation perimeter foot print dimensions properly corresponding with the proposed building foundation plan



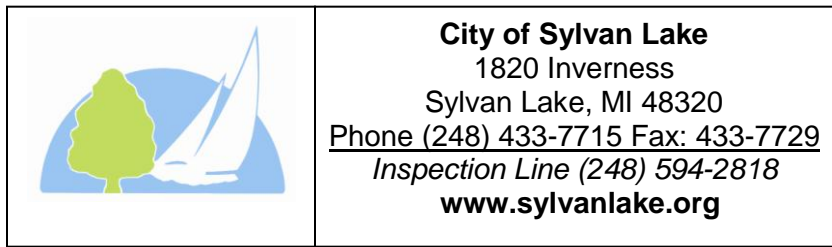
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### DRAINAGE

- In no way shall surface runoff be directed so as to adversely impact adjacent properties with a flooding condition. The grading plan should continue as far as a storm sewer outlet or other natural outlet point of discharge to assure proper control of surface runoff. Surface runoff shall be diverted to a storm sewer or other approved point of collection so as not to create a flooding condition.
- Swales, ditches, drainage easements, catch basins, pipes and/or other points to which surface runoff is to be directed and controlled. Centerline elevations, drainage direction arrows, pipe sizes with invert elevations shall be clearly identified.
- Lots shall be graded so as to direct surface runoff away from foundation walls. The grade away from foundation walls shall fall a minimum of 6 inches within the first 10 feet. Where lot lines, wall, slopes or other physical barriers prohibit 6 inches of fall within 10 feet, drains or swales shall be provided to ensure drainage away from the structure.
- Driveway perimeter edge elevations shall show proper control of surface runoff protecting the building foundation and the adjacent properties from flooding. Driveways that are proposed to extend to a property line edge shall be designed so as to control runoff by means of a minimum 6 inch high curb with gutter, a driveway centerline swale or catch basin structured designed with a minimum 2 foot sump and pipe to direct runoff into an approved discharge location.
- Sump pump and roof gutter downspout discharge locations. Maintain a minimum distance of 3 feet away from the building foundation and 20 feet away from a property line. Discharge shall be directed into an approved location (i.e. swale, pipe ditch line and/or storm sewer if available).

### UTILITIES

- Location and sizes of all existing and/or proposed utilities underground and overhead including manholes, hydrants, water, sewer, storm, electric, gas, etc.
- Location and size of water and sewer line connections into building foundation.
- Location and sizes of existing and/or proposed septic system and/or well.
- Location and widths of all existing and/or proposed rights-of-way and/or easements and all abutting streets and alleys.
- For single-family residential districts, ground-mounted mechanical or electrical equipment shall be permitted in the required side and rear yard setbacks if necessary and must be screened from with landscaping so they are not visible from the street. The units must be setback at least 3 ½ feet from the side lot line and at least 20 feet from the rear lot line. However, any unit must be at least ten feet from the living area of adjacent residential homes at all times (excluding garages). This requirement pertains to new installations only. An existing unit may be replaced in the same location if necessary even if it does not meet the requirements of the Code. See Sylvan Lake Code section 78-610(e).



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### NATURAL FEATURES

- This includes all existing natural features such as watercourses, rivers, lakes or streams, high waters edge elevation, wetland edge and flood plain base elevation. All natural features shall be protected, identify on the site plan and denoting in the "Area of No Disturbance" including installation of a silt fence and establishment of a minimum 25-foot buffer zone. Flood plain base elevation and wetland edges shall be flagged on site for site inspection.
- Waterfront properties proposed for development shall be prepared by and bear the signature and seal of the registered professional. Dimensions shall be taken from the closest point between the water's edge and the furthest projection of the principle building. All dimensions and calculations shall be shown. The lowest floor, including basement, must be elevated to at least one foot above the base flood level. If the lowest floor does not meet the base elevation requirements, the construction must meet the waterproofing requirements outlined in Sylvan Lake Code section 78-827(a)(2)b.

### SOIL EROSION

- Silt fence location installation details and timing sequence of re-establishment of permanent vegetation.
- Temporary gravel driveways shall be a minimum 16' X 40' area of crushed concrete; location must be indicated on site plan. Access to the building site shall be large enough to accommodate for all construction traffic. Site access shall be maintained throughout all construction phases.
- You must obtain and supply the Bloomfield Township Building Division with an Oakland County Soil Erosion Permit and show silt fence location around the entire perimeter of proposed areas of soil disturbance.

**A SITE INSPECTION IS REQUIRED BEFORE YOUR PERMIT CAN BE ISSUED  
APPROVED PLANS MUST BE ON SITE FOR REVIEW AT ALL INSPECTIONS**

Abbreviation summary:

RW: Retaining Wall      NS: Not Shown      ZBA: Zoning Board of Appeals      NI: Not Indicated