This handout is intended only as a guide and is based in part on the 2015 Minnesota Residential Code, Maple Grove City ordinances, and good building practice. While every attempt has been made to insure the correctness of this handout, no guarantees are made to its accuracy or completeness. Responsibility for compliance with applicable codes and ordinances falls on the owner or contractor. For specific questions regarding code requirements, refer to the applicable codes or contact your local Building Department.

The following are examples of information that should be included on plans submitted for building permits for residential decks. They are examples only and should not be construed as being code compliant for every application. It is the responsibility of the homeowner or person preparing the plans to show in detail how they will build their deck. Some designs may require more detail than others.

Your deck plans should replicate exactly how you will build your deck. We will review your plans before we issue the building permit to identify code violations before you start work. The more detailed your plans, the more likely you avoid corrections in the field.

When you receive your permit, you will also be given one set of plans stamped “Approved”. Once your plans are approved, you should not change your design without approval by the Maple Grove Building Department. You should read through the approved plans to determine if the plan reviewer noted any corrections to your plan. If you have any questions regarding any of the corrections, you should contact us before proceeding.

Plans created at home centers are seldom acceptable for plan review. These computer designs do not allow homeowners to duplicate conditions at their home. Applications submitted with these types of plans will be returned to the applicant.

The City of Maple Grove has a detailed handout on deck construction and it is recommended that you obtain a copy of the handout for further direction.
CHECKLIST FOR DECK PLANS

Site Plan
☐ Street address and/or legal description shown
☐ North arrow shown
☐ Plan drawn to useable scale and scale used shown
☐ Size of existing buildings shown
☐ All lot dimensions and pin locations shown
☐ Location and size of proposed deck shown
☐ Distance to all lot lines from existing buildings and proposed deck

Construction Plans
☐ Plans drawn to useable scale
☐ Scale indicated on plan
☐ Plan neat and legible

Elevation (This could be illustrated on section drawings)
☐ Show side and front view of deck in relation to grade and dwelling
☐ Include railing height and design

Framing Plan
☐ Floor joist size and spacing including species and grade
☐ Orientation of floor joists
☐ Cantilever of joists
☐ Bearing points for all joists
☐ Size and location of all beams including species and grade
☐ Cantilever of beams
☐ Size and location of ledger board including species and grade
☐ Size and location of all columns including species and grade
☐ Track all floor loads thru beams to columns to footings
☐ Location of stairs
☐ Changes in elevation of deck floors or landings
☐ Unusual framing issues such as cantilevers of the dwelling floor

Ledger Details
☐ Framing method and orientation of existing dwelling floor framing.
☐ Method of meeting lateral load connection requirements
☐ Spacing, location, and type of bolts or lags used to attach ledger.

Footings (This information may be included on section or framing plans)
☐ Footing depth and design
☐ Footing width at base consistent with load for each footing location.

Section(s)
☐ Section view(s) from bottom of footing to top of guard to show railing details; floor framing orientation; joist/beam orientation and bearing; column locations; connections; footing design, size, and depth; and height of deck floor above grade.

Details
☐ Flashing at the ledger
☐ Joist bearing/hangers
☐ Ledger connection (Caution for dwelling floor cantilevers)
☐ Fasteners/connectors consistent with lumber and decking used
☐ Column/beam connection
☐ Column/footing connection
☐ Type of decking and orientation (Caution for 5/4 or composite decking for spans more than 16” o.c. or installed diagonally
☐ Research report required for decking other than wood
☐ Stair stringer connection
☐ Lateral bracing

Stairs
☐ Width of stairs
☐ Rise/run w/tolerance shown
☐ Number and size of stringers
☐ Open riser design
☐ Type and size of tread consistent with stringer spacing (Caution for decking use)
☐ Connection method for treads to stringers
☐ Handrails shown for stairs with 4 or more risers
☐ Handrail height shown on plan
☐ Handrail profile detailed
☐ Landing at bottom of stair
☐ Show any doors or windows adjacent stairs and landings.

Guards
☐ Guard height and opening dimensions
☐ Guard design/materials
☐ Guard attachment

Date: ____________________________

Job Address: ______________________

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WARNING: THIS IS AN ILLUSTRATION ONLY. IT IS INTENDED TO SHOW SOME OF THE INFORMATION THAT SHOULD BE INCLUDED ON YOUR DECK PLANS. IT IS NOT INTENDED TO SHOW COMPLIANCE WITH ANY CODES THAT MAY APPLY. CHANGES IN THE HEIGHT AND SIZE OF A DECK WILL CAUSE VARIATIONS IN CODE REQUIREMENTS.

***Surveys show compliance with zoning setback and lot coverage requirements, wetland setbacks, and clearances to easements.***
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Note about House cantilevers: Occasionally home designs include a cantilever of the floor system at the patio door. Decks may not be attached to the cantilevered joists unless the house floor framing is engineered for the deck loads.

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TYPICAL STAIR FRAMING DETAIL
CITY OF MAPLE GROVE

See deck cross section for guard design

Top of handrail – 34-38 inches above nosing of treads. Ends returned Circular cross section of 1¼ to 2 5/8 inches

2X2 Green treated spindles at 4 3/8” o.c.

Open space between treads less than 4 “

2X12 Green treated stair treads

Landing constructed of patio pavers

Acme #SS strap to secure stair to landing

10” Min Run

7 3/4” Max Rise

3 – 2X12 Green treated stair jacks, #2 SYP

Scale ½” = 1’

***Stair framing details show rise/run compliance, guard and handrail compliance, connections, materials used, and general stair design. ***
DOES THIS PLAN LOOK PROFESSIONAL?

THIS IS NOT A SITE PLAN!

- NO LOT LINES ARE SHOWN
- THE DASHED YELLOW LINES HAVE BEEN ADDED FOR INFORMATIONAL PURPOSES AND ARE THE APPROXIMATE LOCATION OF THE SIDE LOT LINES.
- NO DIMENSIONS ARE SHOWN (LOT, EXISTING BUILDINGS, PROPOSED DECK)
- HOW FAR DO YOU THINK THIS DECK IS FROM LOT LINES?
- ★ THE PHOTO IS AN OBLIQUE VIEW OF THE DWELLING. THIS IS ACTUALLY THE SIDE OF THE HOME.
- IT APPEARS THAT THE DECK MAY BE SOME DISTANCE FROM LOT LINE WHEN IN FACT IT WAS BUILT TO THE EDGE OF THE DWELLING (ABOUT 8 FEET FROM THE LOT LINE).
- BECAUSE THE PHOTO IS AN OBLIQUE VIEW, IT IS IMPOSSIBLE TO DETERMINE THE APPROXIMATE LOCATION OF THE PROPOSED DECK FROM THE PHOTO.
- THE YELLOW DASHED RECTANGLE IS A CLOSER ESTIMATE OF THE LOCATION OF THE DECK.

YOUR PLANS SHOULD NOT LOOK LIKE THESE!
DOES THIS PLAN LOOK PROFESSIONAL?

This is not a floor plan!

- This is a sketch and not a floor plan
- The plan shows the deck some distance from the left line of the dwelling. It was actually built to the dwelling line.
- The plan does not appear to show the beams cantilevered at the ends. It was actually built with cantilevers of about one foot.
- Notes elsewhere indicate joist spacing of 16” O.C. This plan shows something in excess of 24” O.C.
- No dimensions regarding cantilever
- No dimensions regarding column locations
- No attachment details for stairs
- No information regarding landing
- No information regarding distance from stairs and landing to dwelling provided
- No information regarding ledger material or method of attachment
- No information regarding siding and sheathing on dwelling
- No information regarding flashing
- No elevation provided
- No information on adjoining glazed openings provided
- No height above grade provided
- How can footing sizes be determined from this sketch?

Your plans should **not** look like these!
DOES THIS PLAN LOOK PROFESSIONAL?

- Cantilever intent not clear
- Hanger material not consistent with wood treatment
- No specs on ledger
- No specs on flashing
- Specs on ledgerlocks not provided
- Location of ledgerlocks not provided
- No information on floor framing of dwelling to which ledger attached
- No specs on railing
- No installation instructions for railing
- No specs for stair stringer material

- Method of connecting beam to column not specified or identified
- Height of column not indicated

- Is the post really inserted into the footing?
- What is the method used to anchor the post to the footing?
- How was the size of the footings determined?
- Where is grade?

YOUR PLANS SHOULD NOT LOOK LIKE THESE!
Does this plan look professional?

- If the risers are at the 7 ¾” maximum, the run scales to 24”
- What is “strapping”?
- How will the “hand rail” connect to the “rail”?
- At what elevation will the “hand rail” be?
- What is the total rise of the stairs?
- Will open risers be used?
- How will the stringers be attached to the deck?
- Will the bottom riser actually be 50% higher than the other risers?
- How much space will occur in the triangular area between tread, riser, and bottom of rail?
- How will the rail be secured to the stairs?
- Are rails proposed for both sides of the stairs and for both flights?

Your plans should **not** look like these!