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## Building Guides

### How to Use this Guide

Provide a digital set of plans on a USB/flashdrive or a PDF attachment emailed to [building.inspection@longmontcolorado.gov](mailto:building.inspection@longmontcolorado.gov) and complete the following:

- 1 **Complete this Building Guide** by filling in the blanks on page 7, and indicating which construction details will be used.
- 2 **Provide an ILC** (Improvement Location Certificate), Site/Plot Plan showing dimensions of your project or addition and its relationship to existing buildings or structures on the property and the distance to existing property lines drawn to scale. See page 10.
- 3 **Provide framing plans .**
- 4 **Fill out a building permit application.**  
The majority of permit applications are processed with little delay. The submitted documents will help determine if the project is in compliance with building safety codes, zoning ordinances and other applicable laws.



Based on graphics and information developed by the Colorado Chapter of the International Code Council.

# Single Family Residential Uncovered Decks

## General Permit Information

A building permit is required anytime there is an addition, alteration, repair or demolition to the main structure or accessory structure on a lot or parcel.

The issuance of permits and subsequent inspections of the work performed ensures that all construction in the city is safe and in compliance with the City of Longmont Land Development and adopted International Residential Code (IRC). The primary purpose of these codes is to ensure a safe and healthy environment for the citizens of Longmont.

Permits are reviewed and issued at the Building Inspection Division office located at the Development Services Center. The office is open from 8:00 AM to 5:00 PM Monday - Friday. Call (303) 651-8332 for information.

As a homeowner you can act as your own contractor and work on the property where you reside without a contractor's license. You may subcontract parts of a project. Anyone you hire, however, must be insured and licensed with the City of Longmont. In addition, you are responsible for obtaining inspections and written approvals on the permit. *Exception: electricians and plumbers are also licensed with the state must obtain permits for all work they do and can be added to a home owner or contractor permit.*

**CAUTION:** If you do work, or have any work done without obtaining a permit, you could be incurring liability in the event of a fire or accident related to the work. In some circumstances, your insurance could be invalidated.

### Please Note:

- ⇒ **NOISE:** The Longmont Municipal Code prohibits making unreasonable noise which would cause a person of ordinary sensitivities significant annoyance and irritation.
- ⇒ **CONSTRUCTION DEBRIS & TRASH:** The Longmont Municipal Code requires debris and trash be contained on the job site.
- ⇒ **BEFORE DIGGING:** ALWAYS call the Utility Information Center at 811 or 1-800-922-1987 to locate underground utility lines. Allow 3 working days for the lines to be located and marked.

# Single Family Residential Uncovered Decks

## SCHEDULING INSPECTIONS

Requests for inspection may be made by voicemail at (303) 774-4595 or online at:

<https://aca.ci.longmont.co.us/CitizenAccess/longmont.aspx>

You will need your permit number or you can search online by address. Inspections scheduled before or by 4 p.m. can be done on the following business day, it is wise to anticipate when they need to be made to prevent delays.

*No inspection will be made on subcontracted work done by an unlicensed subcontractor.*

**Your site address and permit card must be posted on-site throughout the project.**

A good rule of thumb is that you should not proceed to cover up any work that has not been inspected. You SHOULD NOT schedule any concrete or other major work for the same day as the inspection to avoid costly problems.

Please have all animals including dogs under control and not in the areas to be inspected. Even a normally friendly dog can become a nuisance to inspectors. Inspections will not be made if there are animals running loose and a re-inspection fee may be assessed if this occurs.

The final inspection is the last step in the inspection process and is your certification that the work has been satisfactorily completed according to the building code.

## FOOTING INSPECTIONS

- ⇒ Job site address posted during entire construction process on site.
- ⇒ Inspection Record Card in plain sight, on site.
- ⇒ Approved plans and site plan on site.
- ⇒ Lot lines clearly marked with string lines or otherwise.
- ⇒ Footing/Foundation forms and reinforcement in place.
- ⇒ Erosion control in place.

## FRAMING INSPECTIONS CONT.

- ⇒ Joist, beam and ledger connections must be correct and acceptable fasteners used.
- ⇒ Structure must be the same size and in the same location as indicated on the approved plot plans.

## FINAL INSPECTION

- ⇒ Inspection Record Card posted
- ⇒ All framing work complete.
- ⇒ Final grading complete.

## FRAMING INSPECTIONS

- ⇒ Framing members are per the approved plans

Note: A separate framing inspection may be necessary for a grade level deck when the structural framing and supports cannot be viewed from above or below.

# Single Family Residential Uncovered Decks

## General Information

### SETBACKS

Planned Unit Development (PUD): the setbacks are specified on the Plat Map for the development.

RESIDENTIAL ZONE SETBACK REQUIREMENTS			
Zones	R-SF	R-MN	R-MF
Front yard	20'	20'	20'
Rear yard	20'	15'	10'
Side yard	5'	5'	5'

Other Structures: 5 feet away from sheds, detached garages, etc.

**Note:** Decks may encroach into a required rear and/or side yard provided such deck is uncovered, no more than 24 inches above grade, and is designed to accommodate lot drainage.

### WOOD SPECIES

Redwood is unsuitable for Structural Members (i.e. beams, joists and ledger boards, etc.) Redwood may be used for posts, decking, handrails and trim. Pressure treated or approved wood of natural resistance to decay must be used when wood joists are less than 18" or wood beams are less than 12" above exposed earth.

### FOOTINGS/CAISSONS

The minimum depth is 30" below grade level; minimum diameter is 8". Footings/Caissons which support large loads or are constructed on soils with low bearing capacities, may be required to be larger. **Call for caisson inspection before pouring caissons.**

### POSTS

Posts are attached to the caissons below and the beams above with suitable anchors and brackets. Posts are required to be a minimum of 4"X4" nominal dimension. Redwood may be used if it is relatively free of knots and splits; otherwise pressure treated lumber may be required.

*(Continued on page 5)*

# Single Family Residential Uncovered Decks

## General Information, cont.

### LEDGER BOARD

The minimum ledger size shall be the same size as the joists. Ledger boards are attached to the house with lag bolts that are at least 3/8" in diameter and long enough to go through the ledger board, siding, and they shall also penetrate fully into the rim joist or other backing inside the wall. **UNLESS PRE-APPROVED, THE DECK SHALL NOT BEAR ON ANY PART OF A HOUSE CANTILEVER** (check with plan review staff)

### SWAY/CROSS BRACING

These are placed diagonally between the posts and beams and may be required for decks built high enough to cause swaying.

### BEAMS AND JOISTS

Beams and joist sizes are determined by a 40 psf live load, and a 10 psf dead load, in combination with span lengths, and floor area supported. Because there are many combinations of span and floor area, this pamphlet will not attempt to address all of these. The minimum sizes will be verified with the aid of a computer program by the Building Inspection office upon review of your project. TJI's, LVL's and other laminated materials not specifically manufactured and tested for exterior applications are not suitable and may not be used.

**BEAMS.** Beams are attached to posts below with suitable metal ties. Beams may cantilever out from posts 1'-0" maximum. Beams may be either one solid piece of lumber, or more commonly two boards of equal size may be attached together forming one solid member and spliced above post.

**JOISTS.** Joists may be attached on top of the Ledger Board or to the side with joist hangers. They may be attached on top of the beams with solid blocking between them. Another method of attachment is with joist hangers in order to be "flush" on top with the top of beam, in this case it is required that the beam be either one solid piece or two or more boards securely fastened together to form one solid member and spliced above post.

### NAILS/SCREWS

Galvanized nails must be used to secure joist hangers, post anchors or framing anchors to framing members. Non corrosive screws may be used **only** to secure decking to joists.

### DECKING

Redwood, Pressure Treated wood and plastic/resin composites are recommended for deck flooring materials to prevent decay. Boards are placed with a gap in between for water to drain out. 2"X6" nominal placed a maximum of 24" on center may be used for decking, or 5/4"X6" nominal placed a maximum of 16" on center.

### GUARDRAIL

Required if the finished floor of the deck is greater than 30" above grade. The minimum guardrail height is 36" above finished floor and built to withstand a 200 pound force applied in any direction. The minimum distance between balusters is less than 4" measured either horizontally or vertically.

*(Continued on page 6)*

# Single Family Residential Uncovered Decks

## General Information, cont.

### CAISSONS OR PIERS

The minimum size is 8 inch diameter by 30 inches deep. That size may vary due to different loading or soil conditions. Please verify size with plan review staff prior to digging.

### STAIRS

The maximum step rise is 7 3/4", and the minimum step run is 10". The rise and run measurements may not vary by more than 3/8" for the length of the complete stairway. Handrails are required for stairs having 4 or more risers, serving a single family residence. The handrail must be between 34" and 38" above the nosing of the stair treads.

### BASEMENT WINDOWS

The proposed deck should not adversely affect natural light from entering these windows. If these windows are necessary for emergency egress (i.e. bedroom windows), a path not less than 36" in height must be provided under decks to a yard or court. If this is a condition you plan to encounter with your deck project, please discuss the proposed construction with plan review staff.

### ELECTRIC METER

Electric meter must remain at 5'6" above grade including finished floor of deck.

Proper height of an overhead electric service drop must be maintained:

A minimum of 10' at the service entrance to buildings, or above grade or any surface accessible by pedestrians.

A minimum of 3' above roofs with slopes greater than 3" in 12".

A minimum of 15' over driveways.

The meter may need to be moved in some instances.

### Structural and Layout Plan View

1. Overall deck dimensions
2. Dimensions and depth below grade of footings, piers or caissons.
3. Beam size, span and bearing locations (include cantilevers).
4. Post anchor size and spacing between posts.
5. Existing window locations adjacent to deck
6. Crawl space access or vents and basement window locations if covered by this deck.

### Framing and Architectural Plan

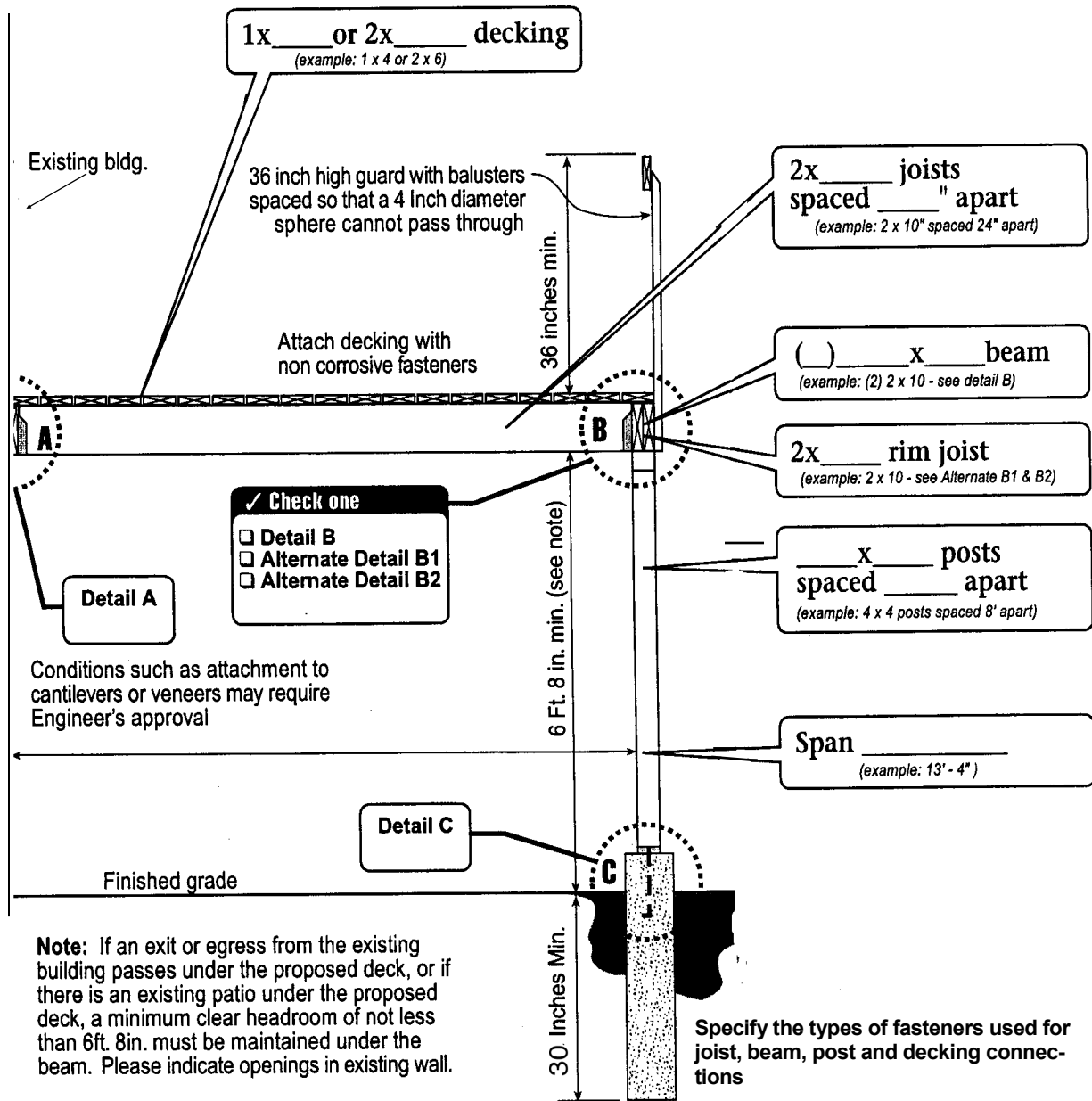
1. Grade and species of all wood framing members.
2. Size, span and spacing of joists, beams and posts (include cantilevers).
3. Size and species of all materials.
4. Any bracing details.
5. Finish grade with slope shown.
6. Show all dimensions.
7. Location and size of stairs, guard rails and window wells.
8. If applicable to this project, show:
  - A. Plumbing fixtures (hot tub).
  - B. Electrical plan including lights, switches, outlets and emergency shutoff location.

# Single Family Residential Uncovered Decks

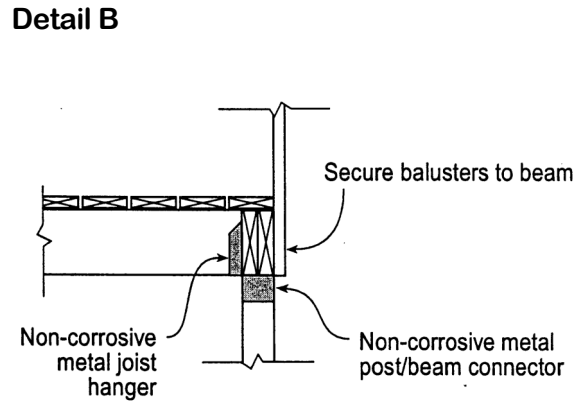
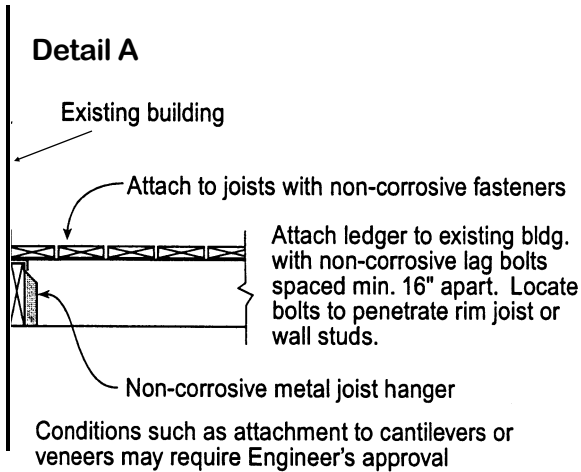
Address: \_\_\_\_\_

## Directions

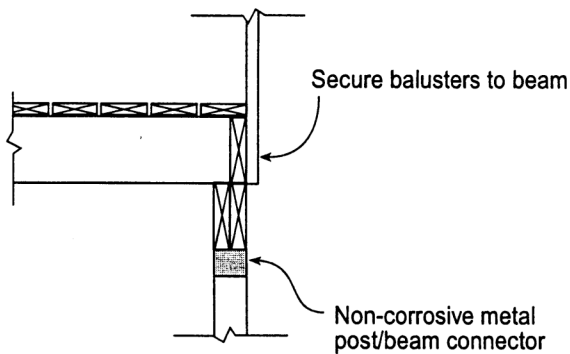
- 1 Fill in the blanks with dimensions and materials which will be used to build the structure. Please print legibly.
- 2 Indicate in the check box which detail from page 8 will be used.



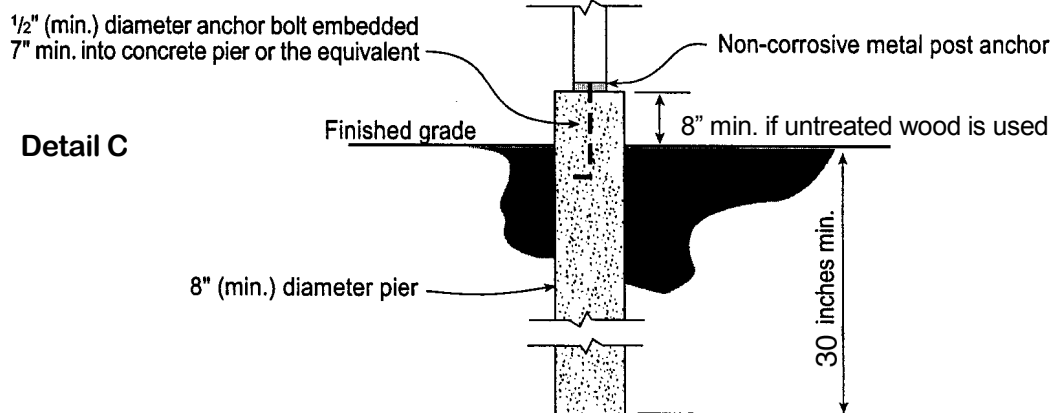
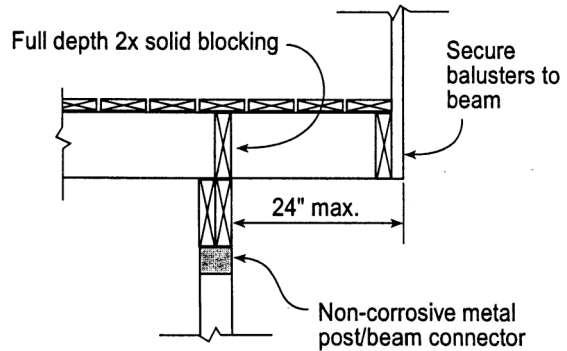
# Single Family Residential Uncovered Decks



**Alternate Detail B1**



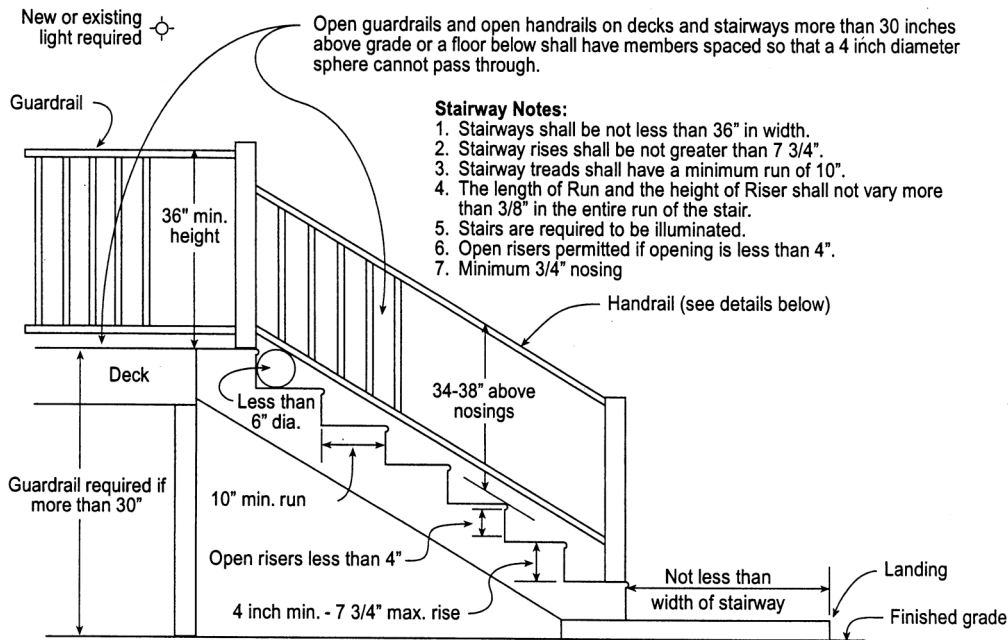
**Alternate Detail B2**





# Single Family Residential Uncovered Decks

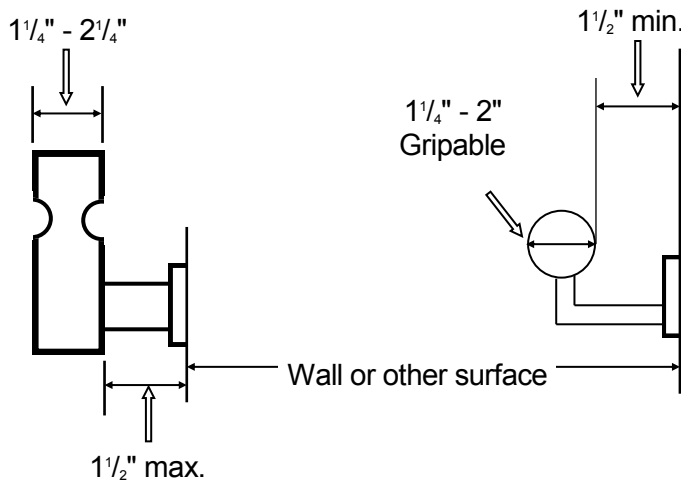
## Stair and Handrail Specifications



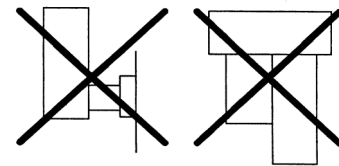
## Handrail Notes:

- 1 Handrails shall be continuous on at least one side of stairs with 4 or more risers.
- 2 Handrails shall be placed not less than 34 inches nor more than 38 inches above stair nosings.
- 3 The handgrip portion of handrails shall be not less than 1-1/4 inches nor more than 2 inches in circular cross section.
- 4 Handrails shall be placed not less than 1-1/2 inches from any wall or other surface.
- 5 Handrails to be returned to wall, post or safety terminal per IRC.

## Acceptable Handrail Details



## Unacceptable Handrails

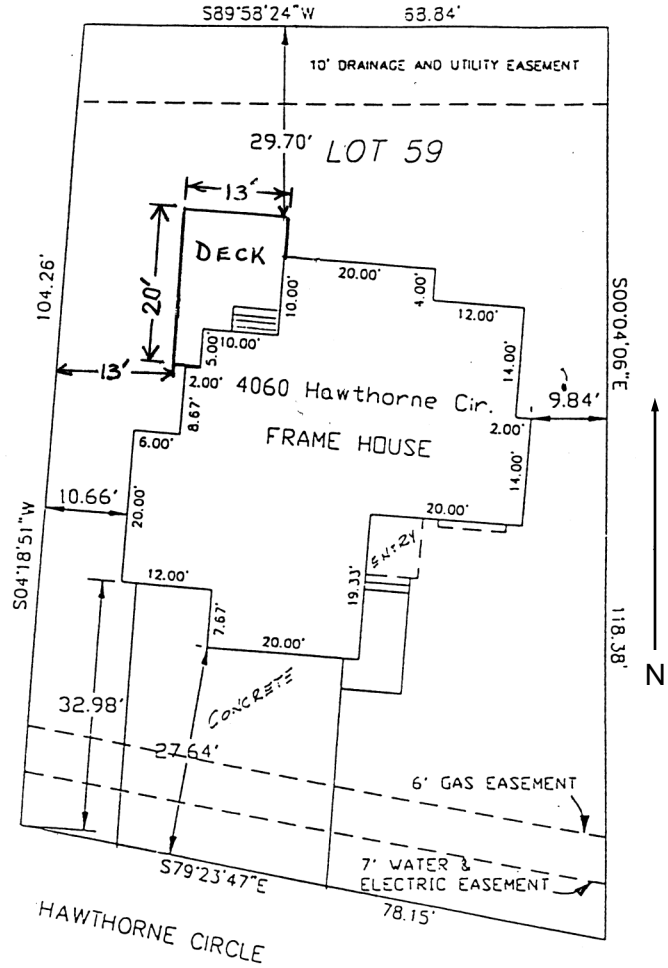


# Single Family Residential Uncovered Decks

## Plot Plan Requirements

1. North Arrow.
2. Property Address.
3. Lot dimensions.
4. Easements and adjoining street name(s).
5. Parking and sidewalk locations.
6. Location of proposed and existing structures including house, detached garages, sheds and the Deck drawn in. Show dimensions and distances to property lines and each structure.
7. Location of utility lines inclusive of water, sewer, electric and gas lines if affected by project.
8. Drainage pattern if affected by project.

## Sample Plot Plan



Property \_\_\_\_\_  
 Legal Description: Lot xx,  
 Meadowview