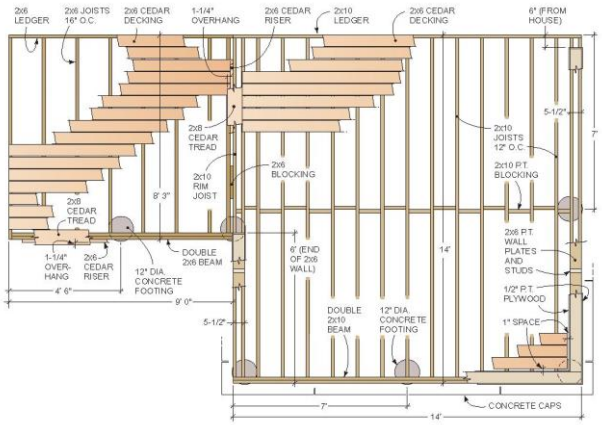
DECK PLANS

Stillwater
Building Inspection

651-430-8823
www.ci.stillwater.mn.us



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 Stillwater 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 unacceptable 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 Stillwater 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: _____

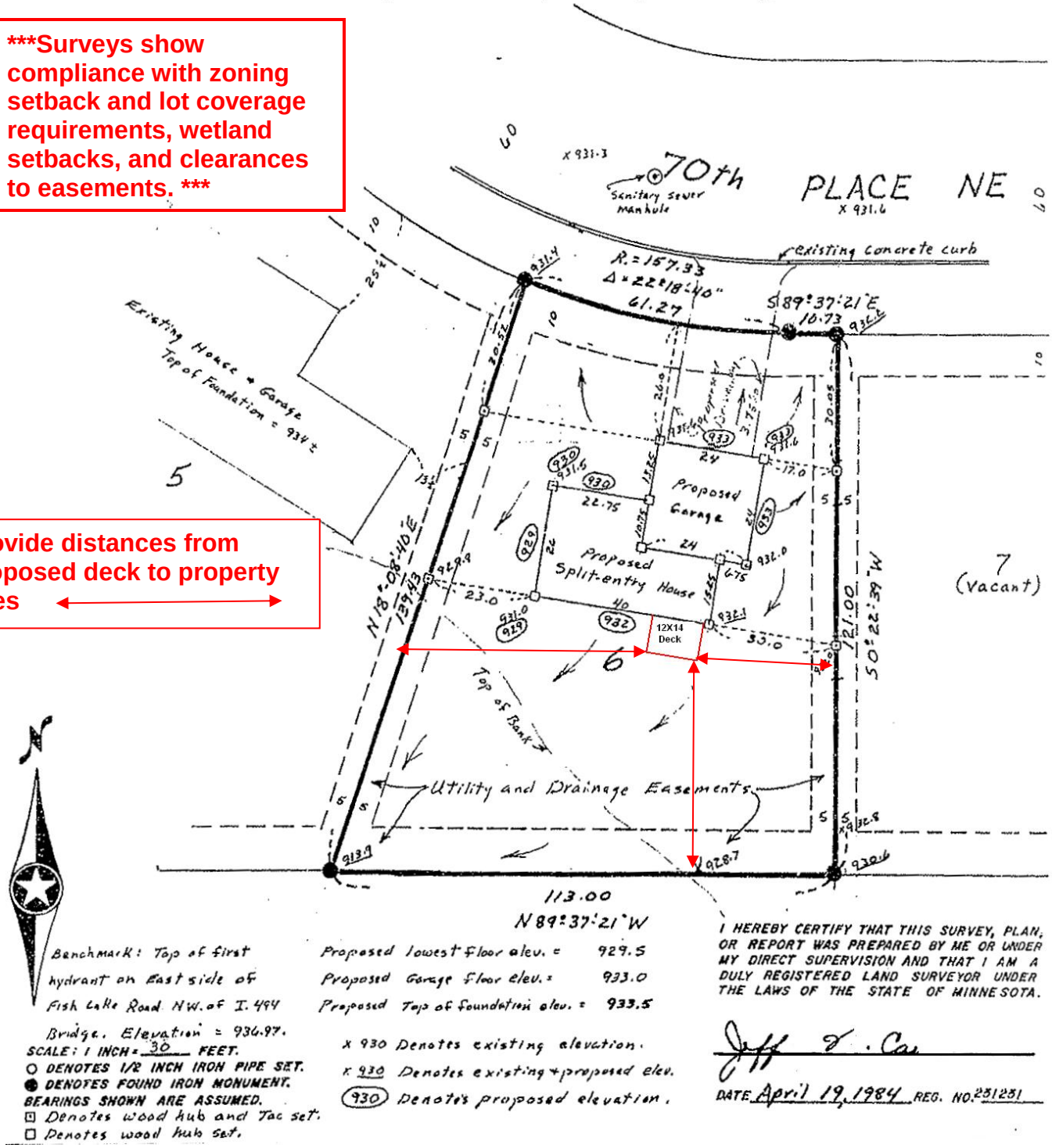
ASSOCIATES
SURVEYORS, INC.

CERTIFICATE OF SURVEY FOR: K Builders

DESCRIBED AS: Lot 6, Block 1, WIND 4th ADDITION, according to the recorded plat thereof, Hennepin County, Minnesota.

*****Surveys show compliance with zoning setback and lot coverage requirements, wetland setbacks, and clearances to easements. *****

Provide distances from proposed deck to property lines



Benchmark: Top of first hydrant on East side of Fish Lake Road NW. of I. 494 Bridge. Elevation = 936.97.

SCALE: 1 INCH = 30 FEET.

○ DENOTES 1/2 INCH IRON PIPE SET.

● DENOTES FOUND IRON MONUMENT.

BEARINGS SHOWN ARE ASSUMED.

⊡ Denotes wood hub and Tac set.

□ Denotes wood hub set.

Proposed lowest floor elev. = 929.5

Proposed Garage floor elev. = 933.0

Proposed Top of foundation elev. = 933.5

x 930 Denotes existing elevation.

x 930 Denotes existing + proposed elev.

(930) Denotes proposed elevation.

I HEREBY CERTIFY THAT THIS SURVEY, PLAN, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.

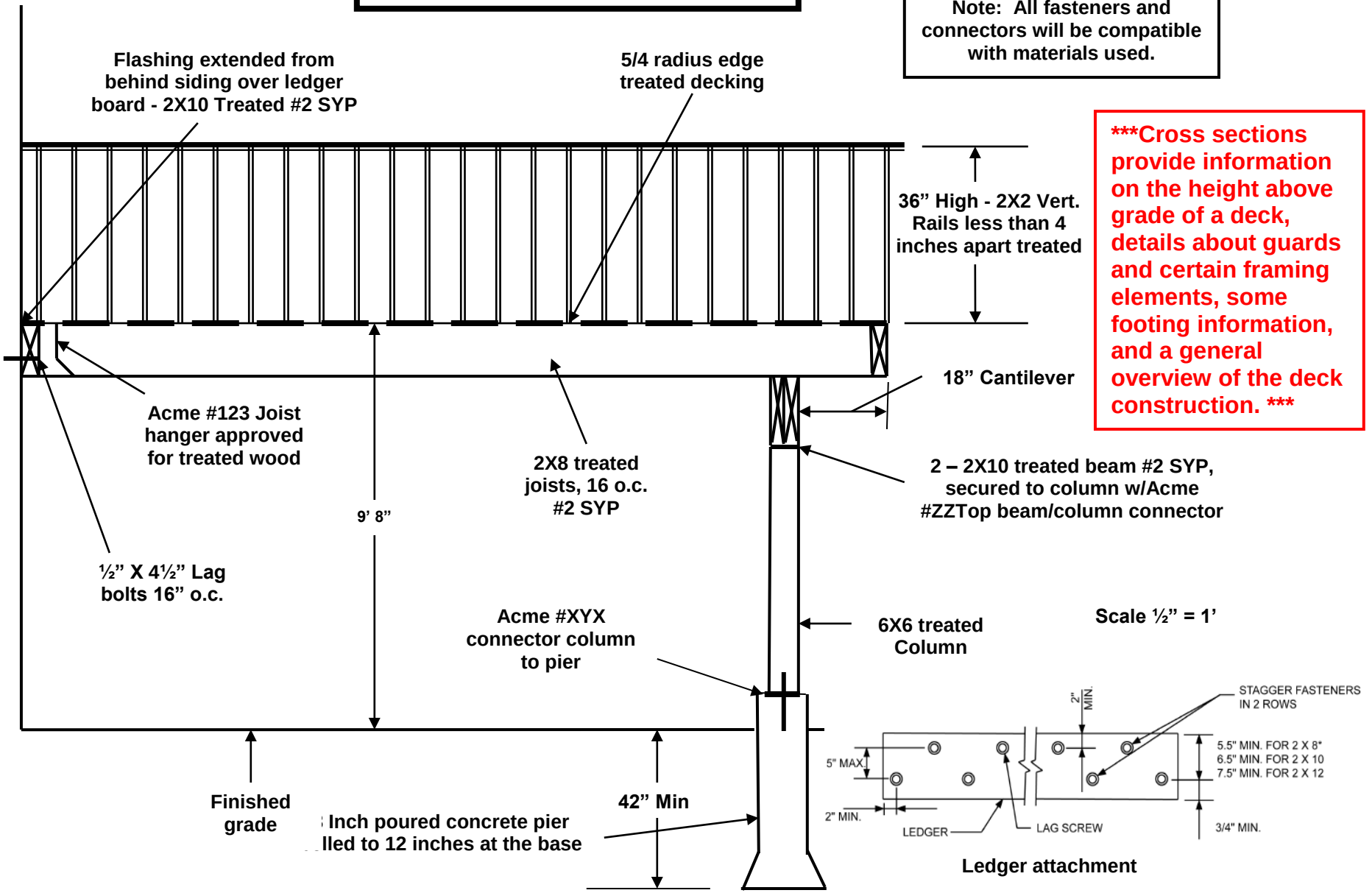
Jeff T. Cai

DATE April 19, 1984 REG. NO. 21231

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.

TYPICAL DECK CROSS SECTION

Note: All fasteners and connectors will be compatible with materials used.



Ledger attachment

***Cross sections provide information on the height above grade of a deck, details about guards and certain framing elements, some footing information, and a general overview of the deck construction. ***

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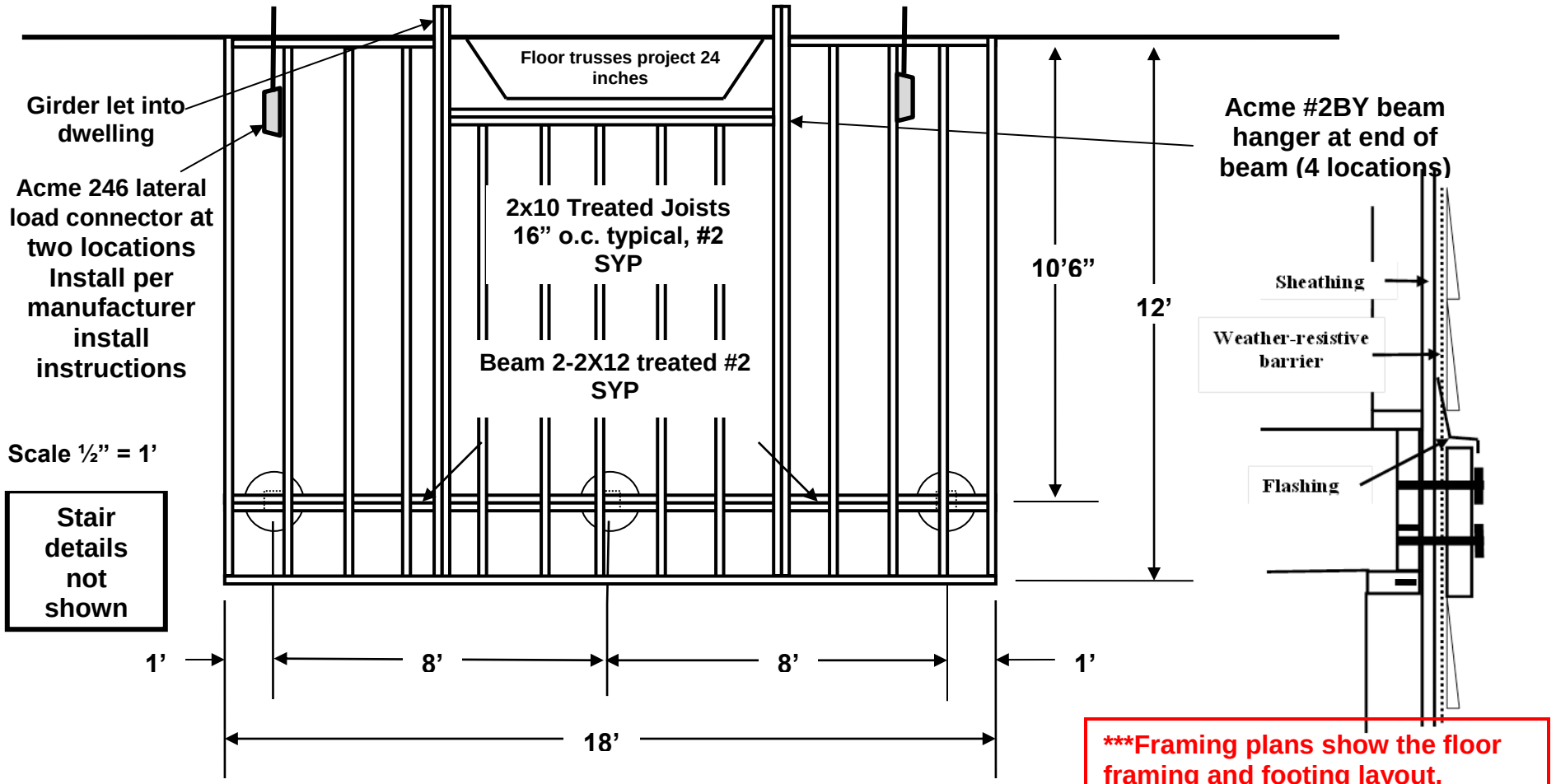
TYPICAL DECK FLOOR FRAMING PLAN, BEAM LOCATION, AND FOOTING LAYOUT



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.

***Framing plans show the floor framing and footing layout, enable checks on spans and sizing of beams and joists, validation of footing sizes, and the ledger design. ***

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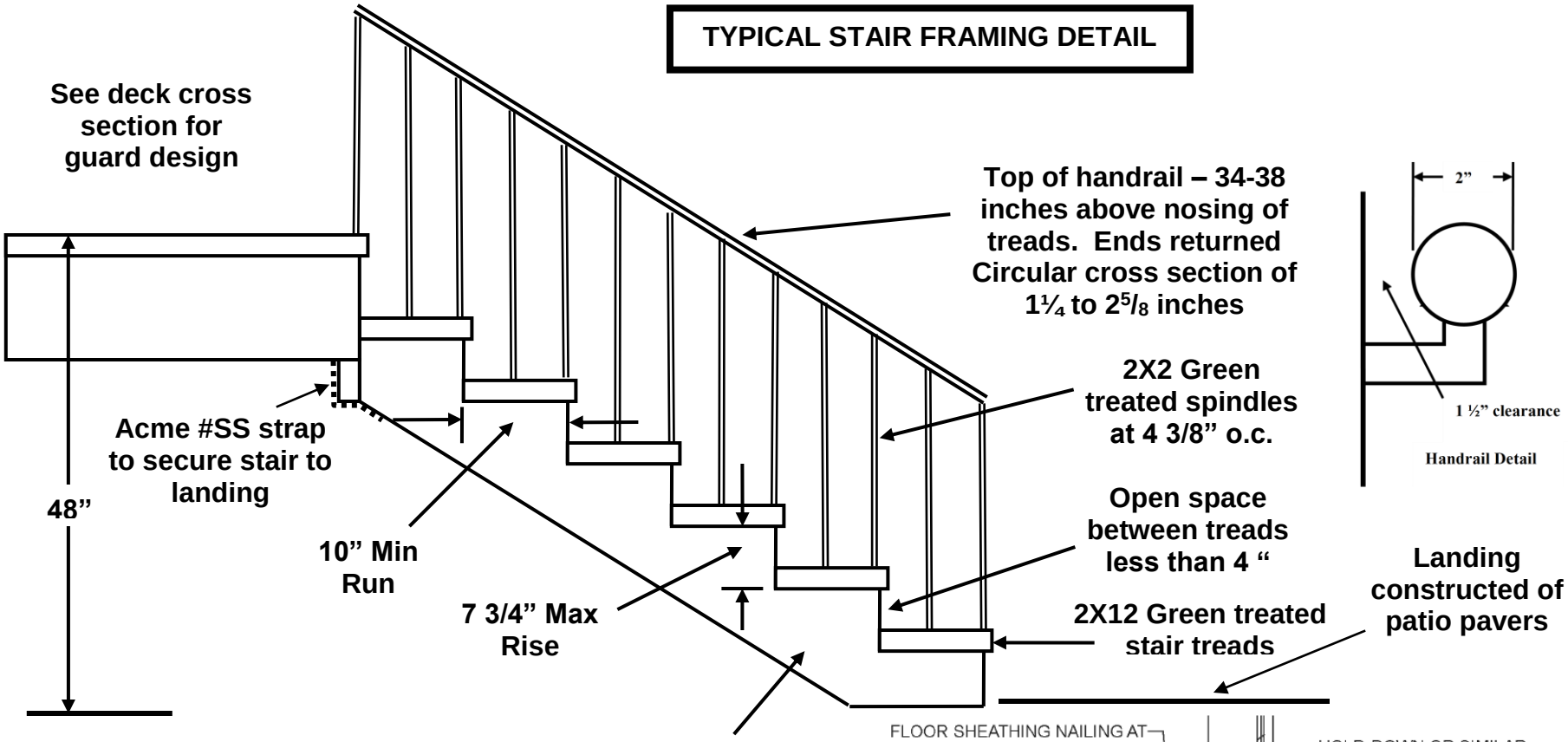
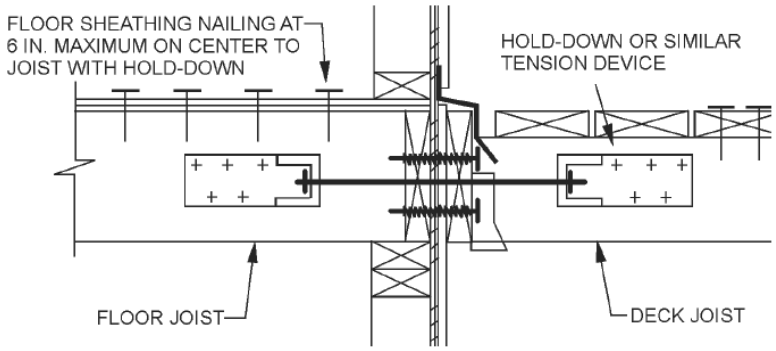
TYPICAL STAIR FRAMING DETAIL





***Stair framing details show rise/run compliance, guard and handrail compliance, connections, materials used, and general stair design. ***

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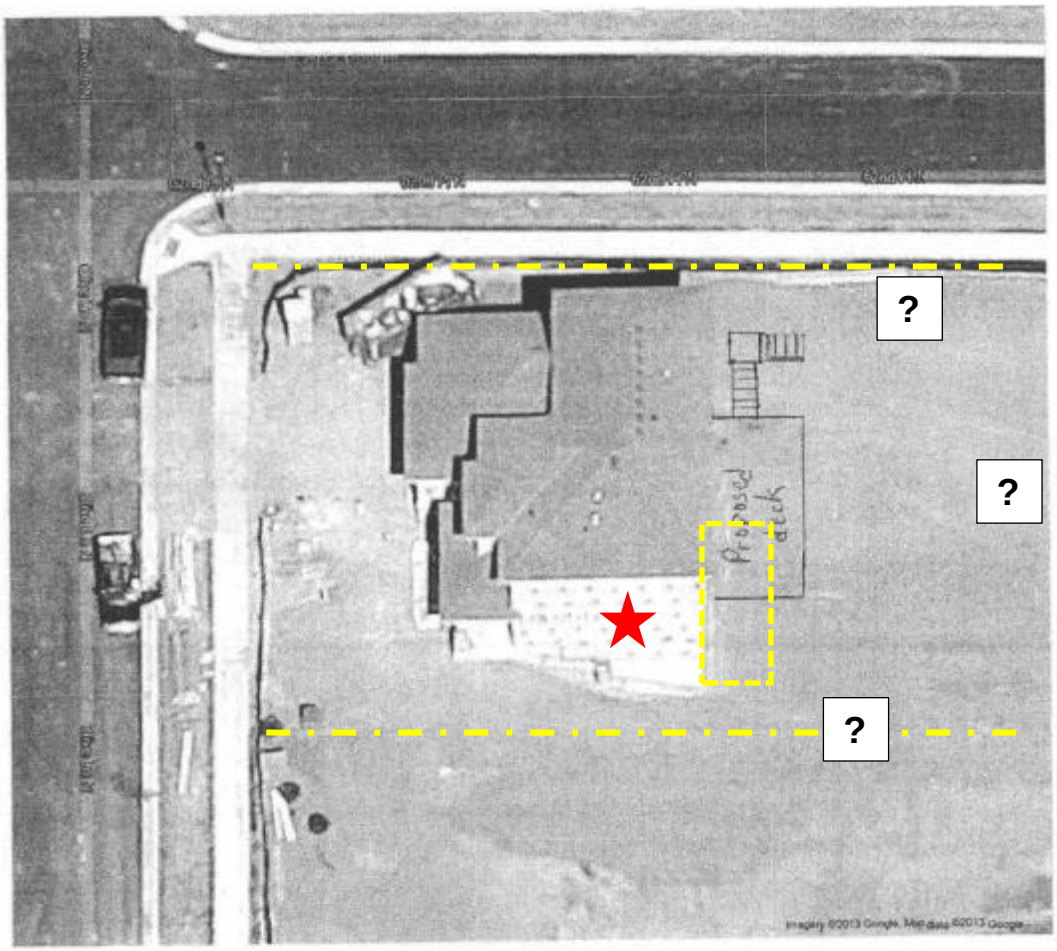
DOES THIS PLAN LOOK ACCEPTABLE?

THIS IS NOT A SITE PLAN!

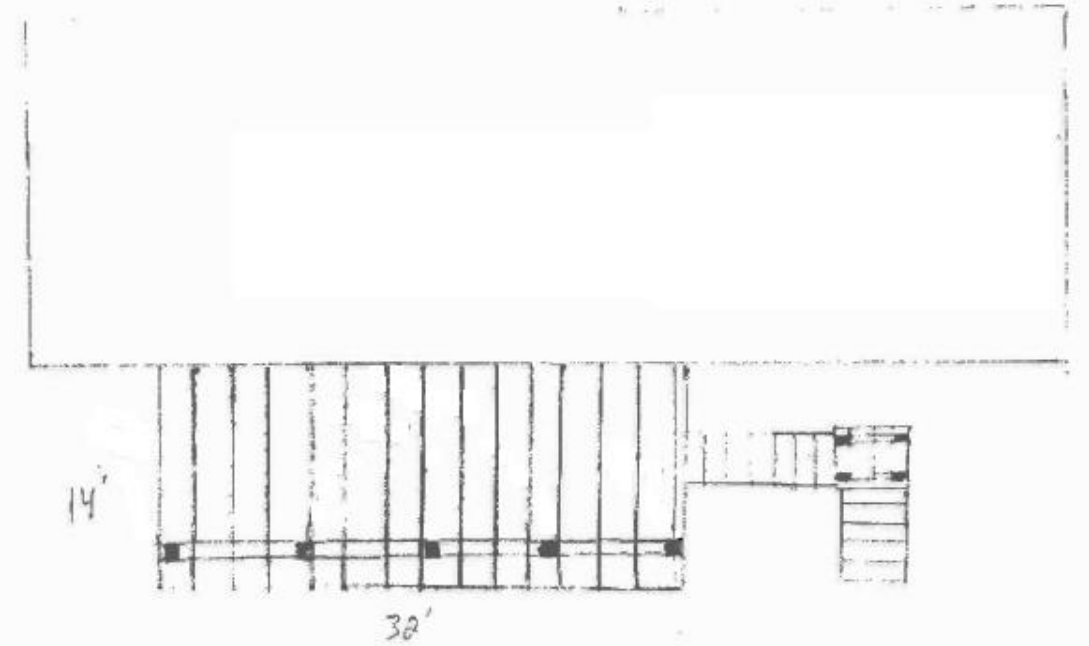


- NO LOT LINES ARE SHOWN
- THE DASHED YELLOW LINES HAVE BEEN ADDED FOR INFORMATIONAL PURPOSES AND ARE THE APPROXIMATE LOCATION OF THE SIDE LOT LINES.
- NO DIMENSIONS ARE SHOWN (LOT, EXISTING BUILDINGS, PROPOSED DECK)
- HOW FAR DO YOU THINK THIS DECK IS FROM LOT LINES?
- ★ THE PHOTO IS AN OBLIQUE VIEW 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 <u>NOT</u> LOOK LIKE THESE!

DOES THIS PLAN LOOK ACCEPTABLE?

THIS IS NOT A FLOOR PLAN!

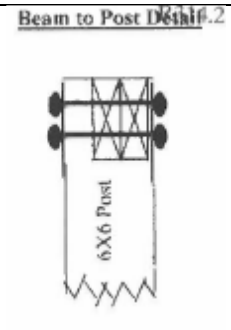


- **THIS IS A SKETCH AND NOT A FLOOR PLAN**
- **THE PLAN SHOWS THE DECK SOME DISTANCE FROM THE LEFT LINE OF THE DWELLING. IT WAS ACTUALLY BUILT TO THE DWELLING LINE.**
- **THE PLAN DOES NOT APPEAR TO SHOW THE BEAMS CANTILEVERED AT THE ENDS. IT WAS ACTUALLY BUILT WITH CANTILEVERS OF ABOUT ONE FOOT.**
- **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 ADJOINIING GLAZED OPENINGS PROVIDED**
- **NO HEIGHT ABOVE GRADE PROVIDED**
- **HOW CAN FOOTING SIZES BE DETERMINED FROM THIS SKETCH?**

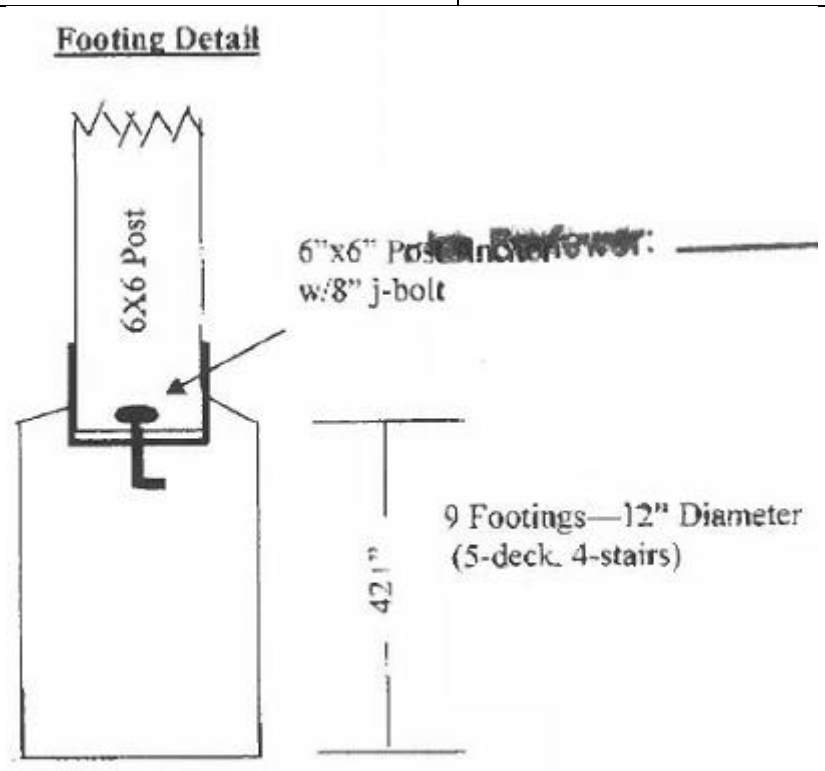
YOUR PLANS SHOULD <u>NOT</u> LOOK LIKE THESE!

DOES THIS PLAN LOOK ACCEPTABLE?

- **CANTILEVER INTENT NOT CLEAR**
- **HANGER MATERIAL NOT CONSISTENT WITH WOOD TREATMENT**
- **NO SPECS ON LEDGER**
- **NO SPECS ON FLASHING**
- **SPECS ON LEDGERLOKS 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?**

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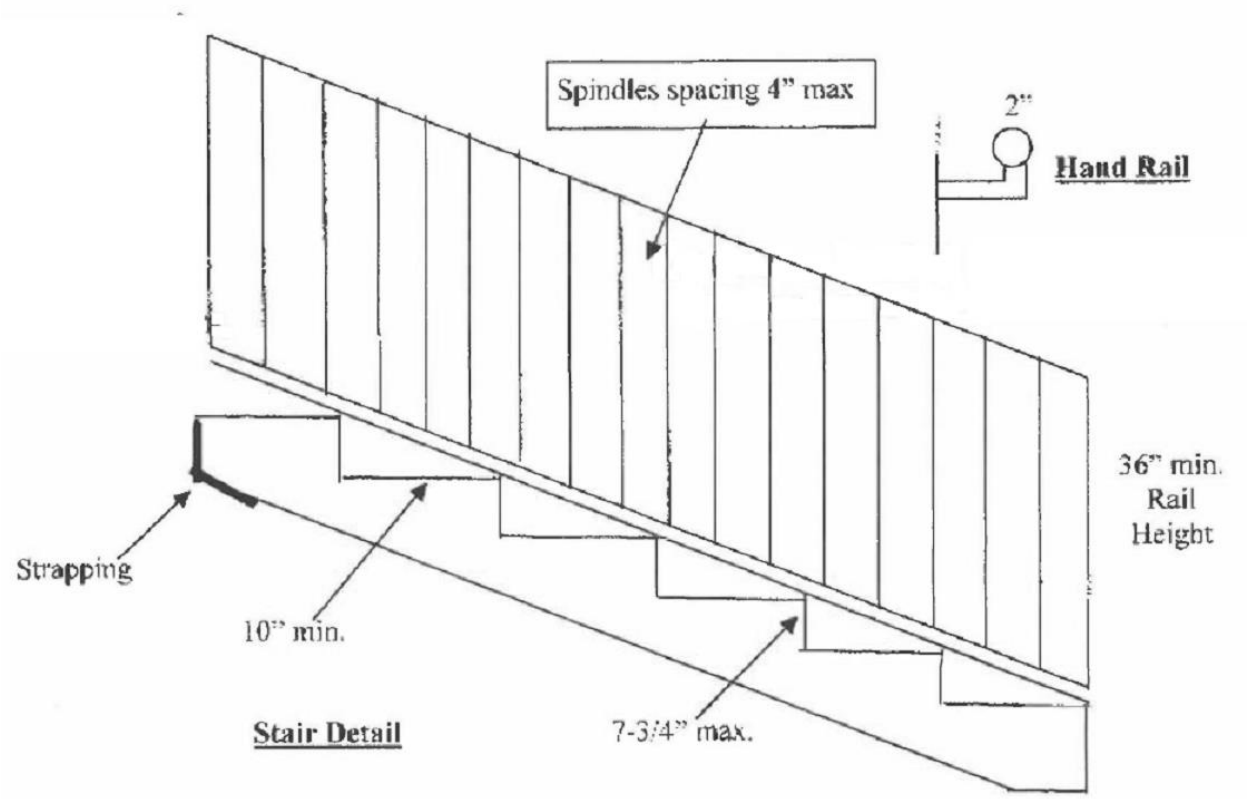
DOES THIS PLAN LOOK ACCEPTABLE?



- **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?**

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