

City of Proctor

100 Plonk Drive- Proctor, MN 55810- (218) 624-3641

Permit For Decks

BUILDING PERMITS

Building permits are required for decks with the following exception. Freestanding decks (decks not connected to a structure), regardless of size, will not require permits if they are not more than 30 inches above adjacent grade. However, they would still require a zoning permit. Freestanding decks and decks that are not structurally attached to the dwelling do not require footings that extend below the frost depth. Building permits are not required for patios made of concrete or pavers on grade. Building permits can be obtained from the Building Safety Division by filling out an application and submitting your building plans. Building permits are typically processed within 5 business days of receiving a complete set of plans.

PLANS

The Building Safety Division has a handout illustrating what needs to be included on deck plans.

THINK YOU MIGHT ENCLOSE YOUR DECK IN THE FUTURE?

Deck plans are approved on the assumption that the deck will be used only as a deck for the life of the structure. Because footing sizes, setbacks, structural supports, and a host of other deck components are different for enclosed porches than for decks, it is important that you indicate on your plans the desire to convert the deck at a future date. You should then design your deck to carry future loads and meet setbacks and other rules.

MATERIALS

Fasteners

Nails and other hardware must be hot-dipped zinc-coated (galvanized), stainless steel or equal to these. Screws should be either hot-dipped galvanized or electroplated with a polymer coating.

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Residential Decks

These instructions are for one-floor uncovered decks serving the first or second level of a one or two family dwelling.

Checklist

All plans must be drawn to scale in black or blue ink with scale noted on plan.

Do not use pencil.

Clearly designate proposed work and all existing conditions.

Provide complete structural information.

Provide Two copies of each sheet.

Submit the Deck Application Form fully and accurately completed.

- Site Plan**
Indicating:
 - Legal Description and north arrow
 - All existing structures
 - Dimensions of the lot
 - Distance from proposed deck to property lines

- Deck Elevation View**
Indicating:
 - Dimensions
 - Joists, beams, columns
 - Ledger
 - Concrete pier, footing
 - Height above grade
 - All connections

- Deck Plan View**
Indicating:
 - Dimensions
 - Joist, beam, column size and spacing
 - Concrete pier diameter, footing size and spacing
 - Wood species and grade
 - Guardrail location, height and baluster spacing

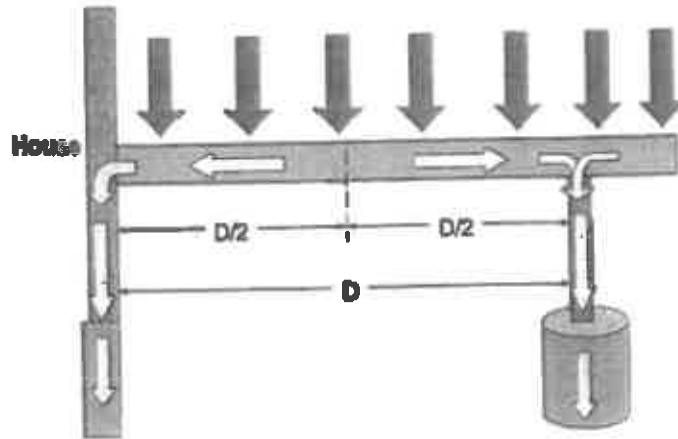
Permits will not be issued without a complete application.

DECK FOOTING SIZES (1500 psf soils)							
Max. Area of Deck Supported in Sq Ft	Footing Diameter Required in Inches	Max. Area of Deck Supported in Sq Ft	Footing Diameter Required in Inches	Max. Area of Deck Supported in Sq Ft	Footing Diameter Required in Inches	Max. Area of Deck Supported in Sq Ft	Footing Diameter Required in Inches
10	8	23	12	41	16	65	20
13	9	27	13	47	17	72	21
16	10	32	14	53	18	79	22
19	11	36	15	59	19	86	23

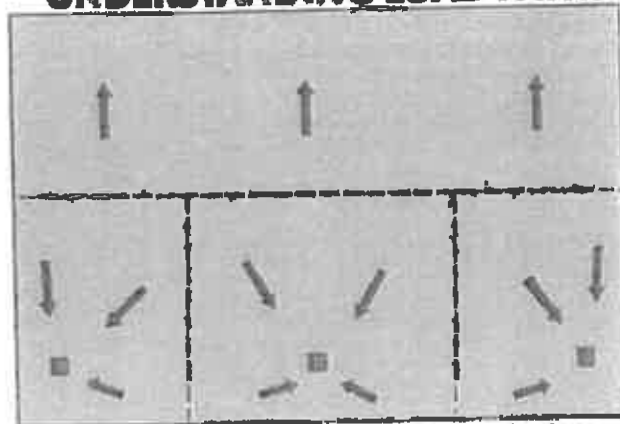
JOIST SPANS (Wet Service)						
<small>(Source AF&PA: rev. 8-17-10)</small>						
JOIST SIZE	SOUTHERN PINE			WESTERN CEDAR/PONDEROSA PINE		
	12" oc	16" oc	24" oc	12" oc	16" oc	24" oc
2X6	10'4"	8'5"	7'10"	8'10"	6'0"	7'0"
2X8	13'8"	12'5"	10'2"	11'8"	10'7"	8'6"
2X10	17'5"	15'10"	13'5"	14'11"	13'0"	10'7"
2X12	21'2"	18'10"	15'5"	17'5"	15'1"	12'4"

BEAM SPANS (Wet Service)								
<small>(Center of one column to center of next)</small>								
<small>(Source AF&PA: rev. 8-17-10)</small>								
Species	Beam Size	Joist Spans						
		6'	8'	10'	12'	14'	16'	18'
Southern Pine	2-2X6	7'1"	6'2"	5'6"	5'0"	4'8"	4'4"	4'1"
	2-2X8	9'2"	7'11"	7'1"	6'6"	6'0"	5'7"	5'3"
	2-2X10	11'10"	10'3"	9'2"	8'5"	7'9"	7'3"	6'10"
	2-2X12	13'11"	12'0"	10'9"	9'10"	8'1"	8'6"	8'0"
	3-2X6	8'7"	7'8"	6'11"	6'3"	5'10"	5'5"	5'2"
	3-2X8	11'4"	9'11"	8'11"	8'1"	7'6"	7'0"	6'7"
	3-2X10	14'5"	12'10"	11'6"	10'6"	9'9"	9'1"	8'7"
3-2X12	17'8"	15'1"	13'6"	12'6"	11'5"	10'8"	10'1"	

UNDERSTANDING LOAD PATHS



UNDERSTANDING LOAD PATHS



Loads are assumed to be uniform across the floor

DECK FRAMING

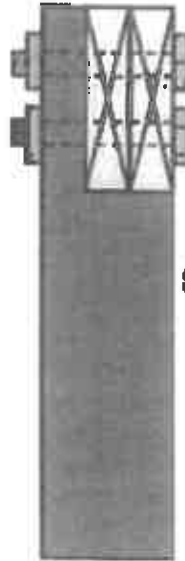
Ledger Board

- ★ The ledger board attaches to the house frame or foundation. *Make sure the ledger is securely attached to the dwelling (R507.2). Install metal flashing at top, and caulk sides and bottom.*

METHODS OF ATTACHING BEAM TO COLUMN

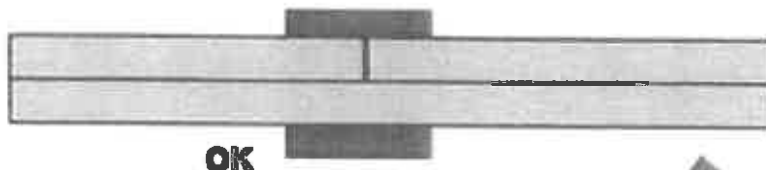


**BEAM
SECURED
WITH
POST
CAP**

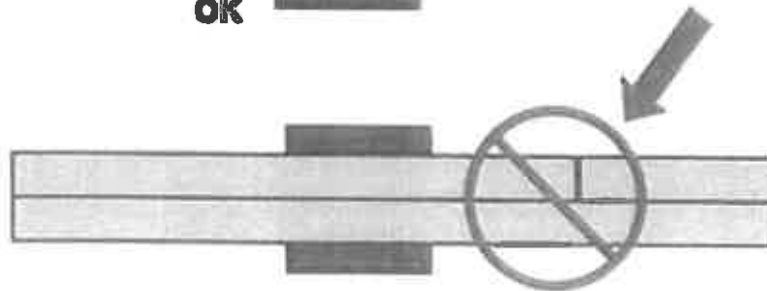


**BEAM
SECURED WITH
BOLTS TO
NOTCHED
COLUMN**

BEAM SPLICES



OK



Columns

SPECIES	SIZE	MAXIMUM POST HEIGHT IN FEET													
		SQUARE FEET OF DECK SUPPORTED													
		36	48	60	72	84	96	108	120	132	144	156	165	180	192
SOUTHERN PINE	4X4	10	10	10	9	9	8	8	7	7	6	6	6	6	6
	4X6	14	14	13	12	11	10	10	9	9	8	8	8	7	7
	6X6	17	17	17	17	17	17	17	17	16	16	15	14	13	13
REDWOOD CEDAR	4X4	10	10	9	8	7	7	6	6	5	4				
	4X6	14	13	12	11	10	9	8	8	7	7	6	6	5	
	6X6	17	17	17	17	17	16	13	7						

		MAXIMUM POST HEIGHT IN FEET													
SPECIES	SIZE	SQUARE FEET OF DECK SUPPORTED													
		36	48	60	72	84	96	108	120	132	144	156	165	180	192
SOUTHERN PINE	4X4	10	10	10	9	9	8	8	7	7	6	6	6	6	6
	4X6	14	14	13	12	11	10	10	9	9	8	8	8	7	7
	6X6	17	17	17	17	17	17	17	17	16	16	15	14	13	13
REDWOOD CEDAR	4X4	10	10	9	8	7	7	6	6	5	4				
	4X6	14	13	12	11	10	9	8	8	7	7	7	6	6	5
	6X6	17	17	17	17	17	16	13	7						

*****COMPOSITE DECKING AND RAILINGS NOT COVERED IN THIS HANDOUT!!!!!!!**

STAIRS

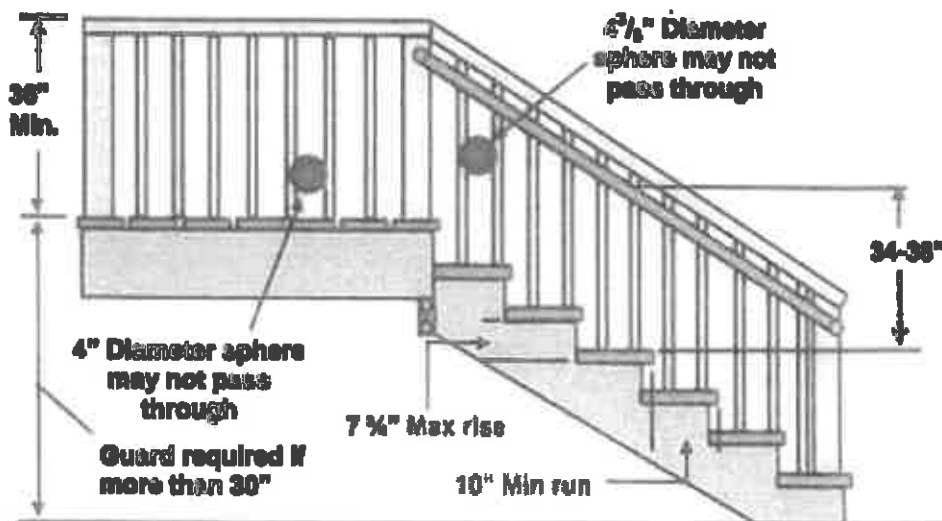
Stairs must have a maximum rise of $7\frac{1}{4}$ inches and a minimum run of 10 inches. The run is measured from the nosing of one tread to the nosing of the next. The greatest riser height within any flight of stairs shall not exceed the smallest by more than $\frac{1}{4}$ inch. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than $\frac{1}{4}$ inch.

Open risers are permitted provided that a 4" diameter sphere will not pass between the treads.

Stairs must be a minimum of 36 inches wide above the handrail and 31½ inches below the handrail. **Handrails must be provided on at least one side when there are four or more risers.** The top of handrails must be between 34 and 38 inches above the nosing of the treads. The gripping portion of a handrail must have a circular cross section of 1½ inch to 2 inches. Handrails must have returns on each end or terminate in a newel post. Other handrail shapes having an equivalent gripping shape may be used with prior approval of the Building Safety Division.

Handrails must be continuous for the entire length of the stairs and may not be interrupted by newel posts except at landings.

Hand rails and guards must be designed to support a 200 lb load applied in any direction at any point along the top of the guard or rail. The bottoms of the stringers should rest on a sound foundation such as a gravel bed, a concrete pad, pavers, or similar.



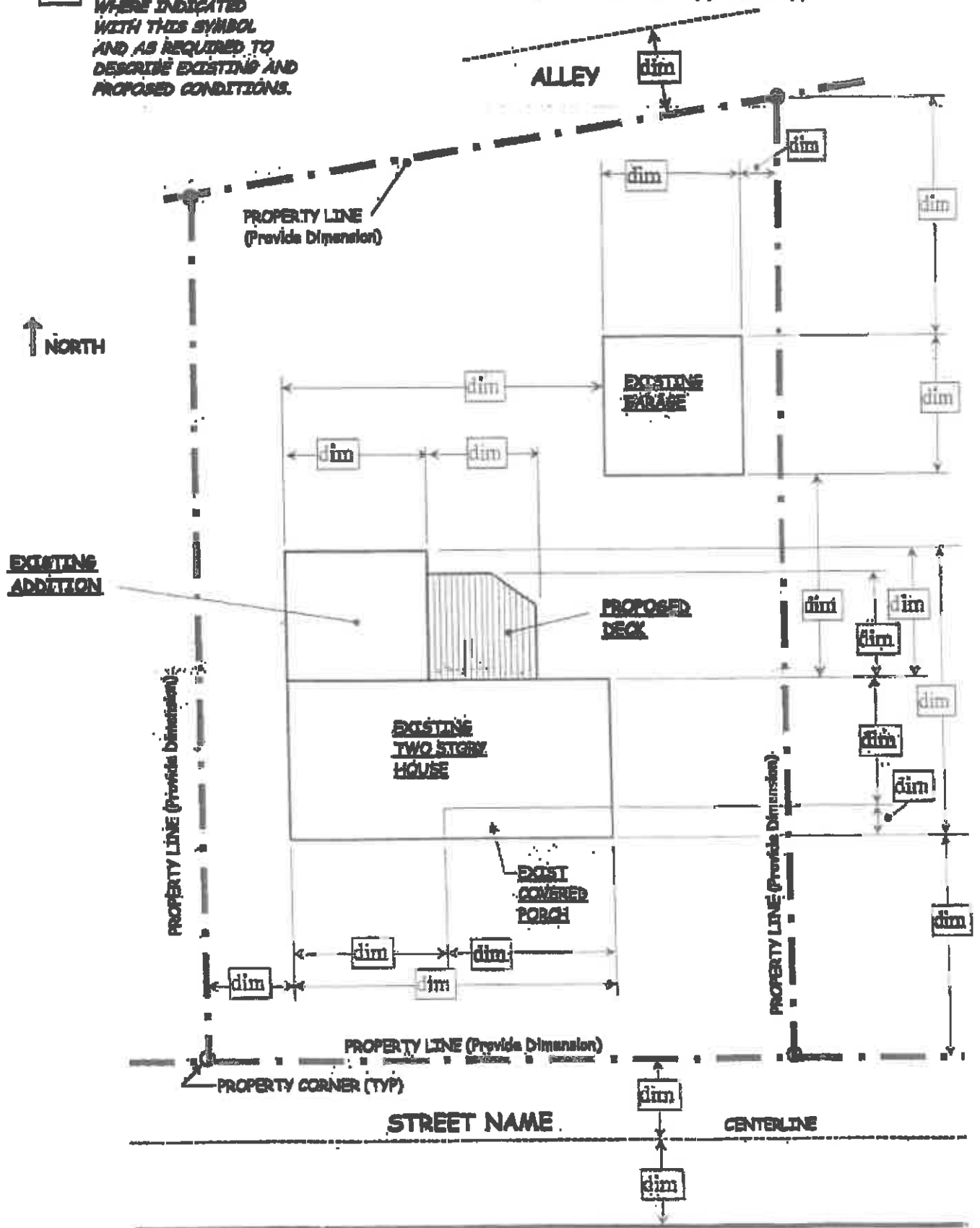
SAMPLE SITE PLAN

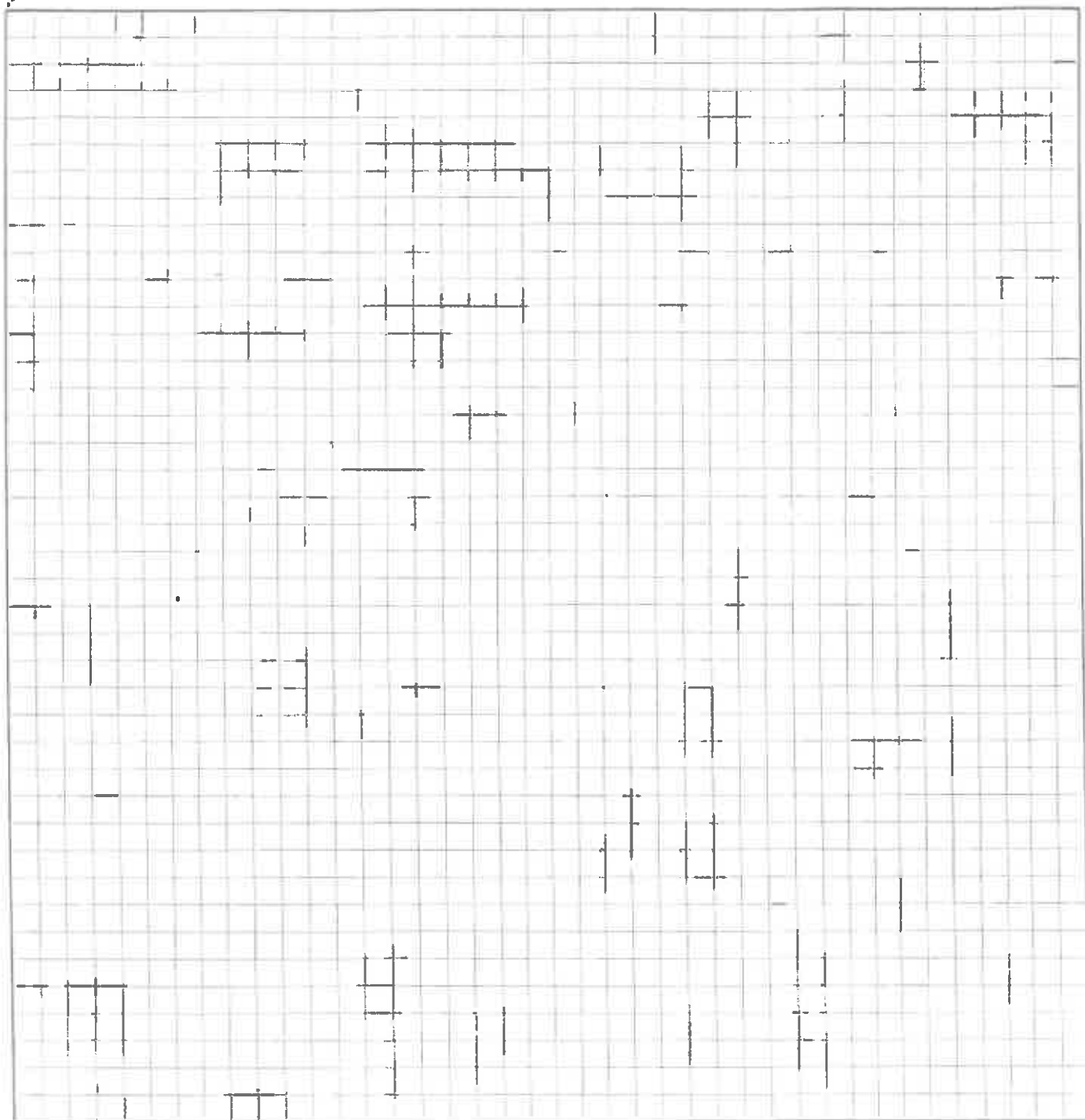
Do not use this sheet-create your own drawing.

SCALE: 1" = _____ FEET

dim PROVIDE DIMENSIONS WHERE INDICATED WITH THIS SYMBOL AND AS REQUIRED TO DESCRIBE EXISTING AND PROPOSED CONDITIONS.

NOTE: IMPORTANT DIMENSIONS INCLUDE: THE DIMENSIONS OF THE DECK. THE DISTANCE FROM THE DECK TO OTHER STRUCTURES. THE DISTANCE FROM THE DECK TO THE LOT LINES. THE DISTANCE FROM THE DECK TO THE CENTERLINE OF THE STREET(S) AND ALLEY(S).





North Arrow Required
Scale: 1" = _____ Feet

SITE PLAN

Do Not Use Pencil

Site Address

Owner's Name

This Site Plan is an accurate and complete representation of the footprint(s) of all existing and proposed structure(s) and their location(s) on the subject property.

Applicant Signature

Date

Legal Description (Required)

City of Proctor

100 Plank Drive • Proctor, MN 55810 • (218) 624-3641

Deck Elevation

This is a sample of a typical deck elevation. Your plan may differ from the assembly shown.

Draw Your Own Elevation Representing Your Project. Provide dimensions and information as indicated.

Decking Material

Jolst Size / Spacing

Jolst Species / Grade

Jolst Hangers

Jolst / Beam Connection

Ledger Size / Species

eam Size / Species / Grade

Beam Cantilever

Beam / Column Connection

Beam / Column Diag. Bracing

Column Size / Species / Grade

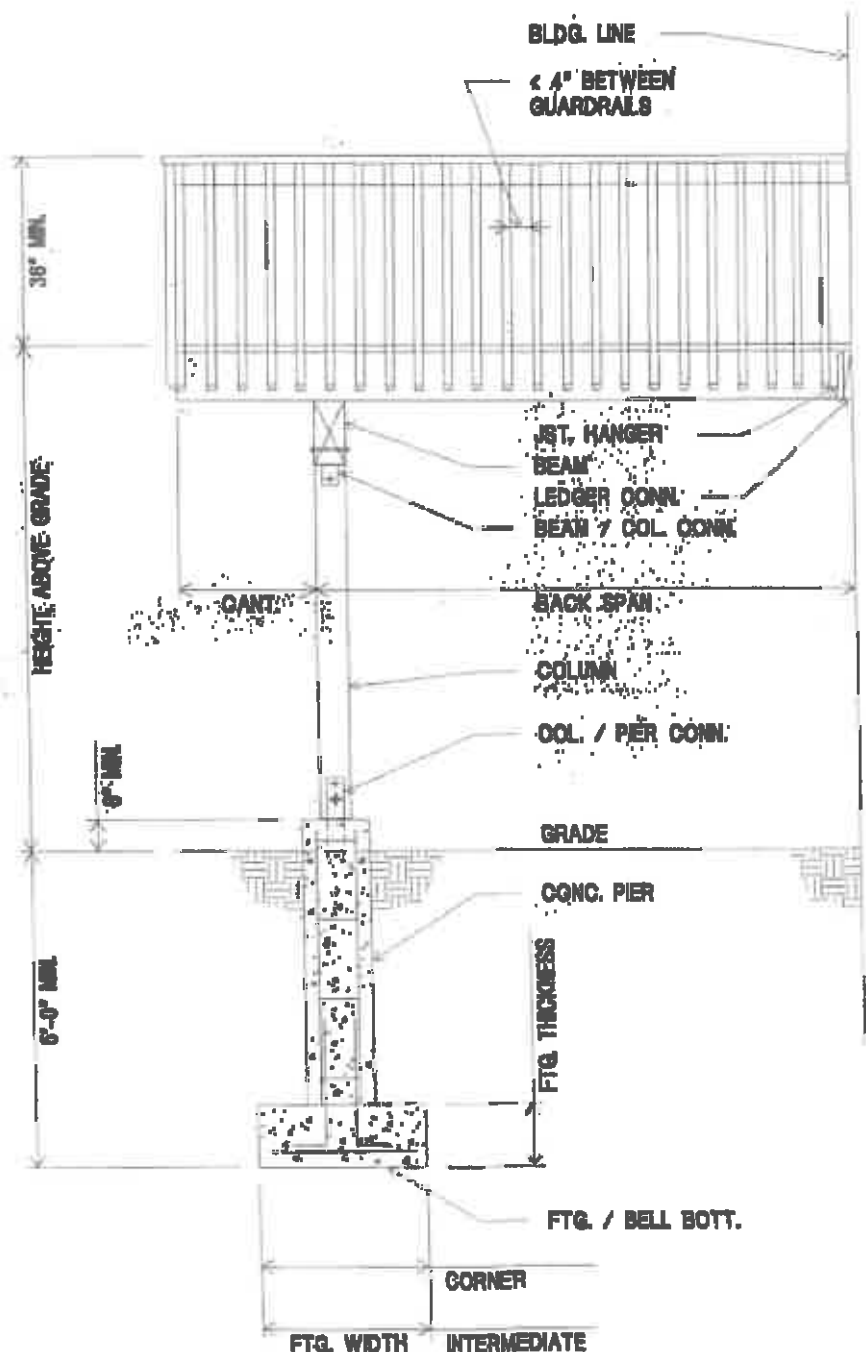
Column / Pier Connection

Concrete Pier Dia.

Concrete Pier Reinf. / Dowels

Corner Footing Reinf.

Intermediate Footing Reinf.



Project

Description

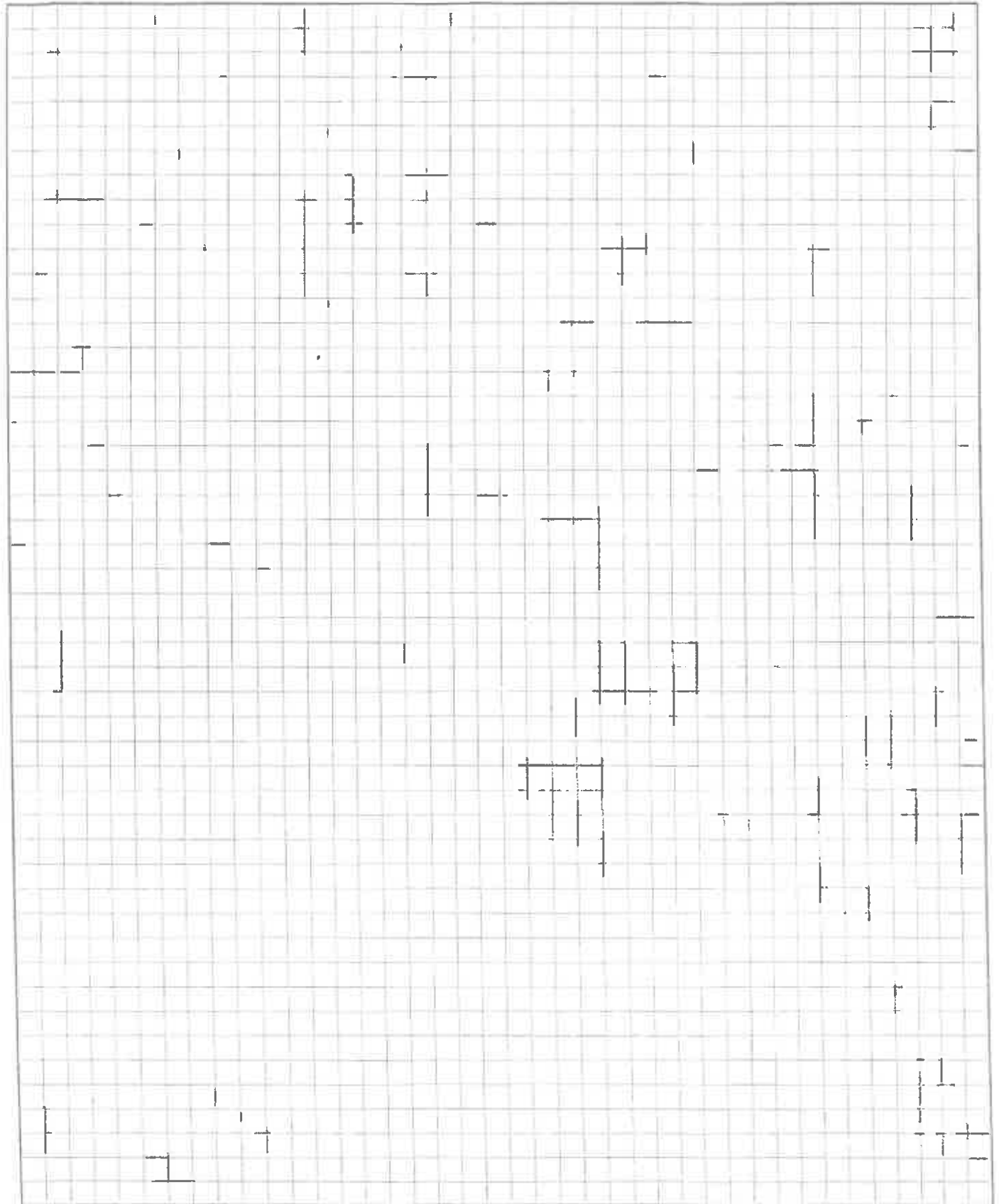
Drawn By

Deck Elevation

Phone No.

Scale

Date



2x10 LEDGER, TREATED SYP, NO. 2
 DENSE, ATTACHED TO EXIST. RM
 W/ 2" x 1/2" DIA. LAG BOLTS
 AT 8" O.C., STRINGER

EXIST. IRND. WALL

USP. #30210-2TZ JST. HANGER
 AT DOUBLE JSTs, TYP.

USP. #30210-1TZ JST. HANGER, TYP.

(2) - TREATED 2x10 AT
 DECK EDGE

TREATED 2x10 AT 6" O.C., TYP.

TREATED 2x10 BLOCKING
 BETWEEN JSTs. AT CENTER
 SPAN

12" DIA. CONC. PIER

2'-0" x 2'-0" x 1'-0"
 PAD FOOTING

5-1/4" x 5-1/4" TREATED
 PARALLEL COLUMN

2x10 TREATED RM

5-1/4" x 4-7/8" TREATED
 PARALLEL BEAM



SAMPLE DECK PLAN

3/8" = 1'-0"



Project

Description

Drawn By

Deck Plan

Phone No.

Scale

Date

