



Building Guide – Decks

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Last Updated: February 7th, 2024

General Information:



Does zoning apply?

All buildings including decks must comply with the [Town's Zoning Regulations](#). Many zoning provisions affect your property, such as overall lot coverage, setbacks, building height and type of zoning. During the preliminary planning stage of your project, it is imperative that you determine what Zoning requirements apply to your property.

The Zoning By-law regulates the use, size, location, and types of buildings permitted on a parcel of land.

For additional information please contact: zoning@springwater.ca

Can I use precast deck blocks?

Yes, they can be used in some cases; however, decks using this type of construction cannot be attached to a permanent structure, such as a house.

Does my lumber need to be treated?

All lumber must be a species of wood that is resistant to decay (e.g., Cedar), treated with a preservative to prevent decay or pressure treated.

Deck joist?

The minimum dimensional lumber for deck joist material is 2 x 8 (38 x 184mm) when a guard is required for the deck.

When do I need a guard?

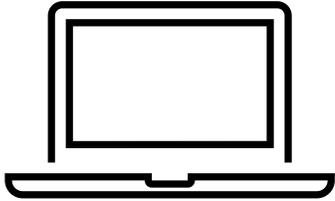
A Guard is required at any point where the distance between the top of the decking and the grade is greater than 600 mm (23 5/8 inches).

- a) If the difference between grade and the top of deck boards is **less than 1800 mm (5'-11")**, the minimum guard height is 900 mm (35 7/16").

General Information Continued:

- b. If the difference between grade and the top of deck boards is **greater than 1800 mm (5'-11")**, the minimum guard height is 1070 mm (42").
- c. Maximum distance between pickets is 100 mm (3-7/8").
- d. The Building Code **does not permit** any guards/support members that may facilitate climbing. For example, some lattice designs can easily permit climbing and so may not be used. The “rule of thumb” is that no cross member or attachment that shall facilitate climbing can be used between 6” (150 cm) and 36” (900 mm) from the top of the deck boards.
- e. Not all composite decking or guard systems have been approved for use in Ontario. If you are thinking of using this type of material for your project, call the Building Services Department **before** making your purchase. For materials that have been approved, you will still need to provide the applicable manufacturer’s installation manual **and** engineering testing report. Building Material Evaluation Commission (BMEC) approval may be required for the product.
- f. The Building Code states a guard must be strong enough to resist certain specified loads. For examples of how to construct a wood guard with these loads, please review Supplementary Standard SB-7 of the Ontario Building Code.

Online Submissions:



All permit applications are to be submitted online via our [Web Portal](#). Before you begin, please ensure that all required documents are complete and signed (as applicable). Scan each document separately and give it a recognizable file name and save it to your computer.

For further assistance please see our **Digital Permit Submission Guide**.

Permit Issuance:



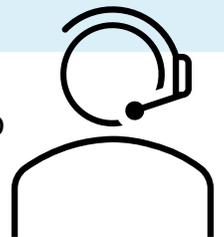
Once the permit has been completely reviewed by all internal and external agencies the applicant will be contacted via email and informed of any action required for the permit to be issued. **Permit fees are payable upon issuance.**

Building permit fees are determined by an established cost per square foot, and/or by established flat fees as detailed in the Township of Springwater

[Fees and Charges By-law.](#)

Scheduling Inspections:

After the permit has been issued, it is the responsibility of the applicant to schedule inspections throughout the completion of the work. The required inspection(s) will be outlined on the Permit Card provided at time of issuance.



Please note although every attempt has been made to provide accurate information throughout this guide, it is subject to change without notice and is provided **as a guide only**. It is not intended to be used instead of the current Municipal By-laws or the current Building Code.

Permit Submission Checklist:

1. Completed Building Permit Application:

- Application for a Permit to Construct or Demolish & Schedule 1



2. Required Supporting Documents:

- Site Plan; showing the location and dimensions of the proposed structure on the site plan and the setbacks to the lot lines. The site plan must also show all existing buildings with dimensions. If the lot is serviced by an on-site sewage system, the location of the septic must be identified on the plan. A Septic Use Permit may be requested online.
- Letter of Authorization (if other than the property owner)
- Permit Drawings showing all materials & dimensions including:
- materials to be used,
 - sizes
 - spacing
 - Construction attachment details (approved hardware used etc.)
 - Footing layout (e.g., frost walls, sonotubes, deck blocks, helical piles etc.)
 - Floor framing plan (joist / beam size, direction, spacing on center, attachment, support locations / spacing – **all to be fully and accurately dimensioned**)
 - Roof framing plan (as applicable)
 - Cross section(s) Drawing
 - Stair(s) section plan (as applicable)

Permit Submission Continued:

- Elevation(s) drawing - dimensioned – heights above grade
- Guard construction details
 - provide proprietary product specifications for **all engineered products used** including composite decking.

3. Applicable Law:

- Applicable law approval. Please check using the following links to determine if they apply to your property:

[Conservation Authority Approval](#)

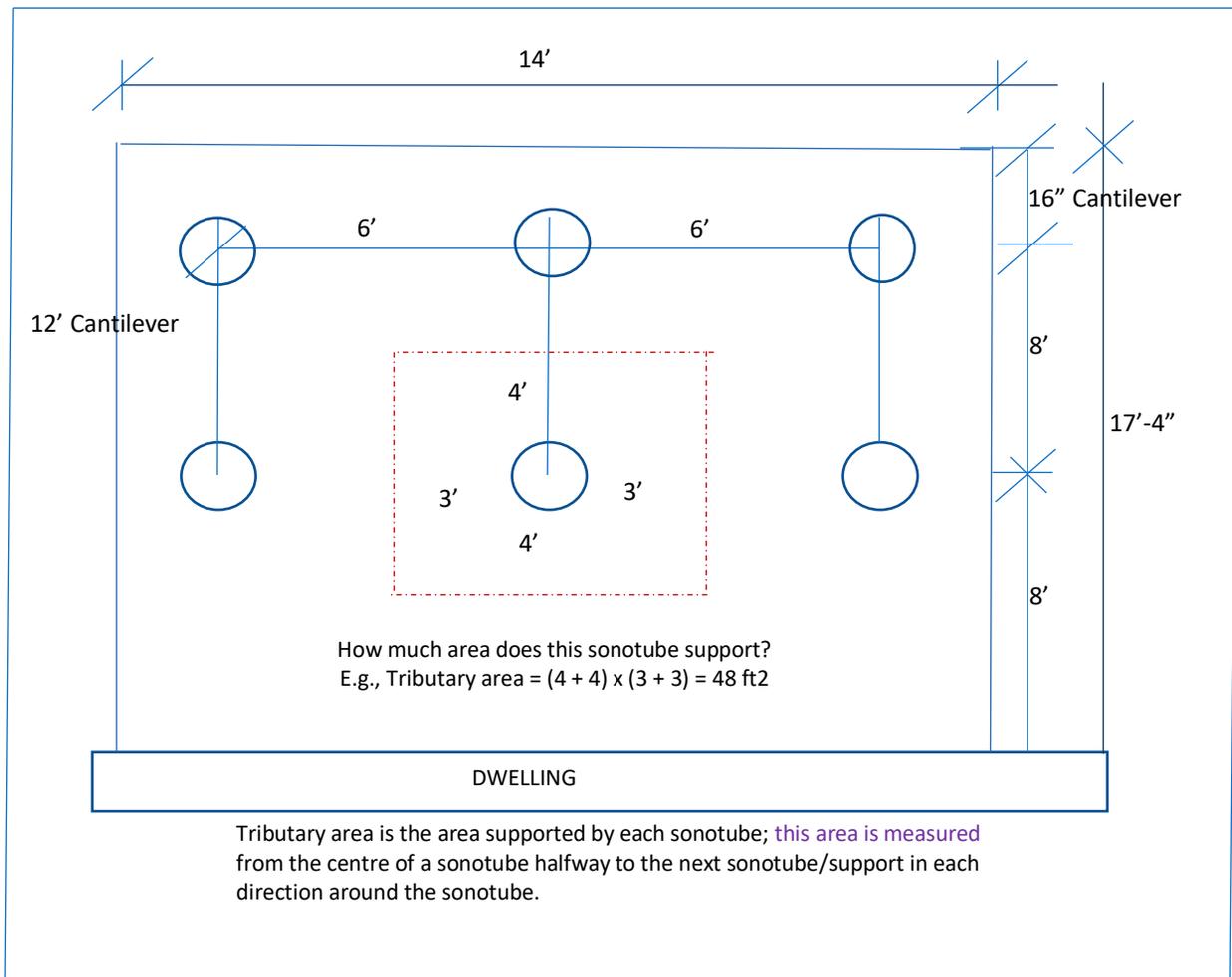
[Ministry of Transportation Approval](#)

[County Of Simcoe Approval](#)

Structural Details and Diagrams:

The following diagrams and charts have been included to help you with the sizing your Sonotubes, deck beams and deck joists.

Determine the area to be supported by each Sonotube (for attached decks)



Footing design criteria:

Assumes a minimum allowable soil bearing pressure (SLS) = 75 kPa (minimum).

The tributary area of each sonotube can be dramatically increased simply by flaring out the base of a sonotube. This distributes the load it will be supporting (from beams, joists, and deck boards etc.) over a larger base.

BUILDING GUIDE – DECKS

Select area to be supported (e.g., 48), then select corresponding minimum diameter base (e.g., 18) Note: if the area for your project is greater than any of the numbers below, move up to the next “area supported”

Area supported per sonotube (in ft2)	Minimum base diameter (in inches)
18	10
26	12
35	14
46	16
58	18
71	20
102	24
138	28
226	36

Diagram 2

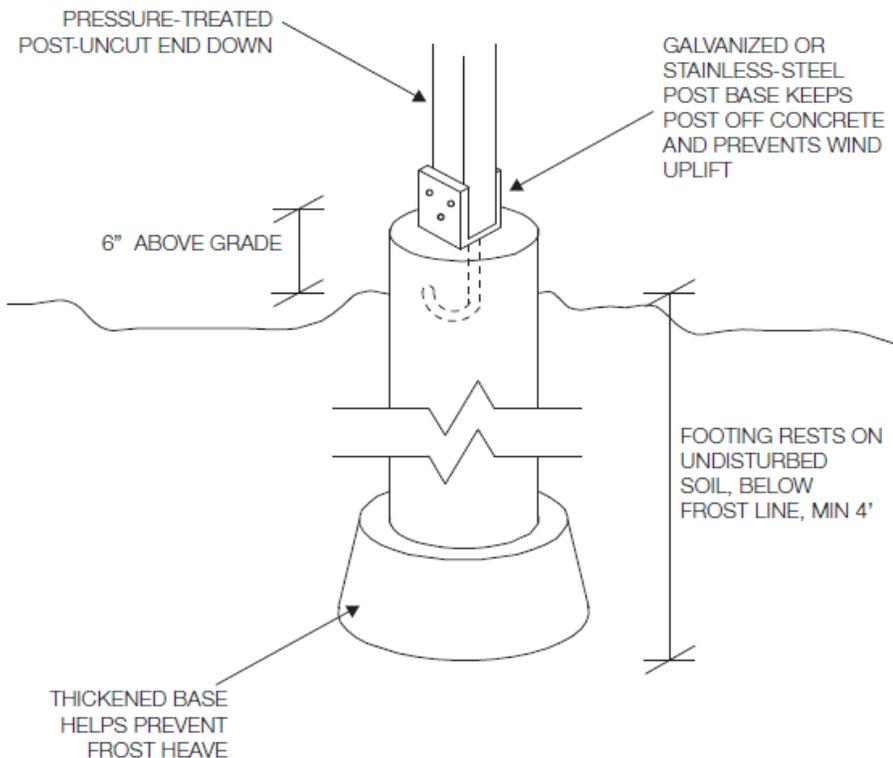


Diagram 3: Performed forms



BUILDING GUIDE – DECKS

For attached and detached decks, the following diagrams and charts have been included to help you with the sizing of your deck beams and joists.

DECK JOIST SPAN (FT.-IN.) SPECIES: S-P-F (NO.1/NO. 2)				
JOIST SPACING				
Joist Size	12" o/c (306 mm)	16" o/c (406mm)	24" o/c (610mm)	Maximum Cantilever
2 x 8	12'-6"	11'-9"	10'-8"	16"
2 x 10	14'-6"	13'-8"	12'-10"	24"
2 x 12	16'-5"	15'-5"	14'-6"	24"

(B) BEAM SPAN TABLE						
Based on support length of joist span (A) plus cantilever*						
Members and Ply's						
	2" x 8"		2" x 10"		2" x 12"	
Ply	Max Span	Ply	Max Span	Ply	Max Span	Cantilever*
2	5'-10"	2	7'-2"	2	8'-4"	Maximum cantilever on any beam is 12" (306mm) beyond bearing post for all.
3	8'-7"	3	10'-6"	3	12'-2"	
4	9'-8"	4	12'-2"	4	14'-2"	

(RESIDENTIAL ONLY)

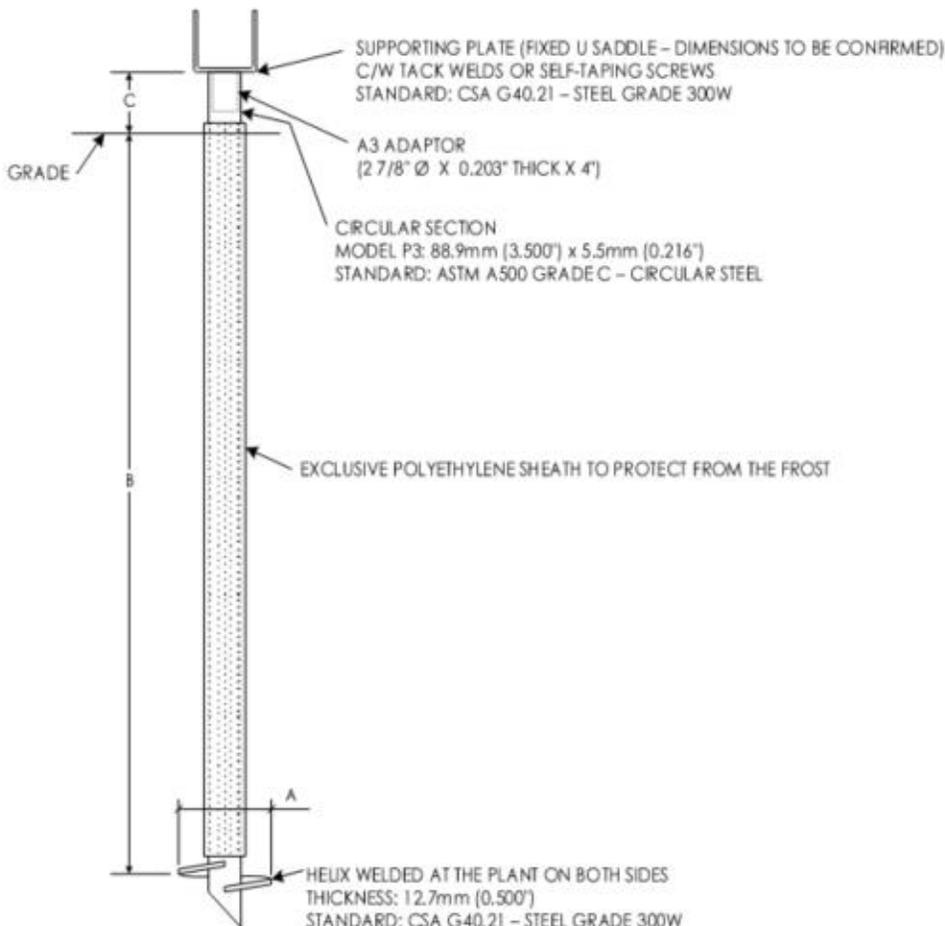
Disclaimers:

1. This information is based on standard minimum loading rates.
2. Charts are based on Tables A1, A8, and A15 from Part 9 of the 2012 Building Code.
3. Based on uniform loading condition with no point loads.
4. Individual designers are responsible for review of all loading conditions prior to selections.

BUILDING GUIDE – DECKS

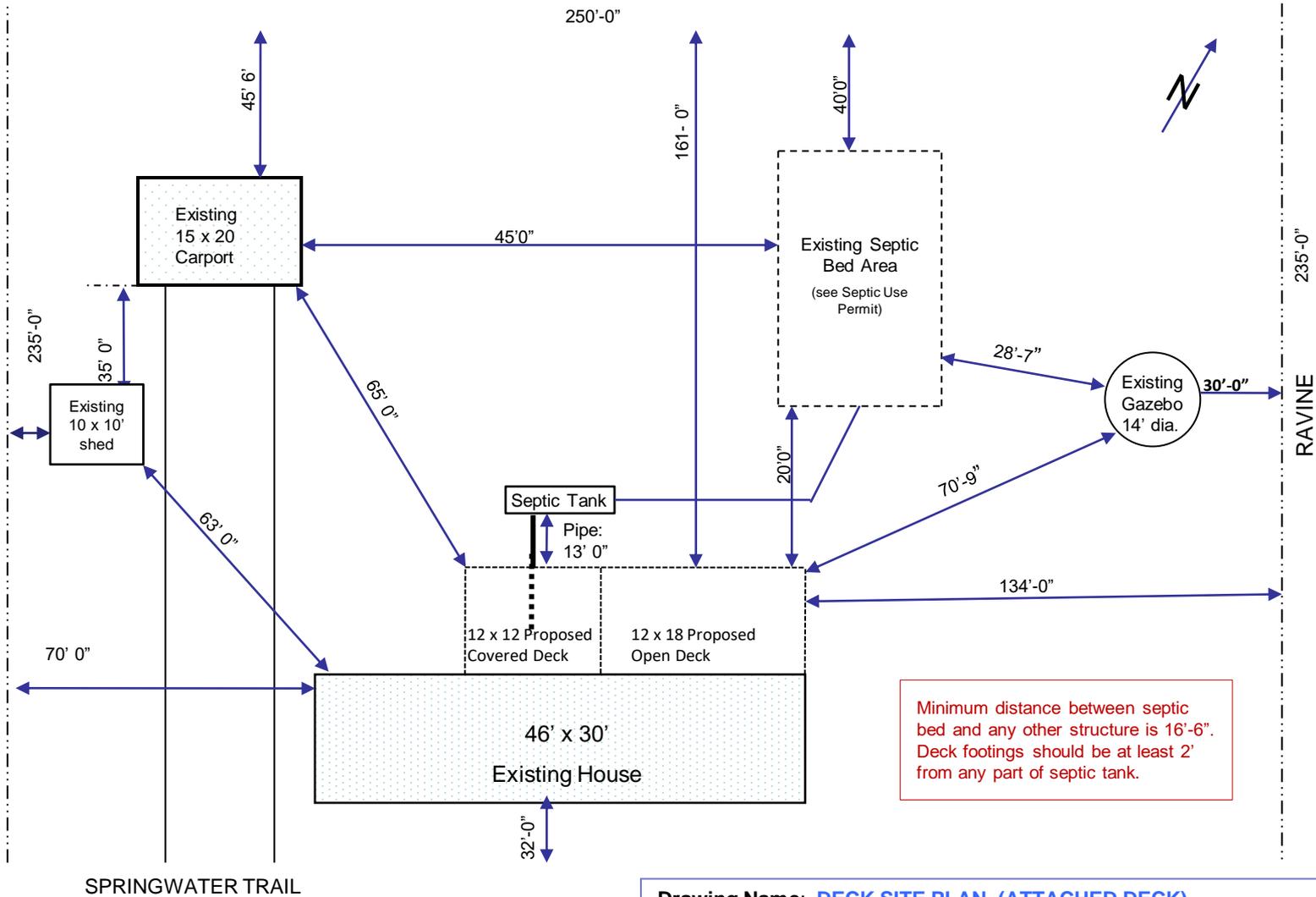
5. When selecting “joist spacing”, some restrictions may occur based on the proposed type of decking material.
6. If utilizing a proprietary decking material, please refer to the manufacturer’s approval for limitations.
7. Install solid blocking when floor joist span exceeds 6’-10” (2082 mm). Blocking must be of the same material and size as the floor joist and located not more than 6’-10” (2082 mm) from each support and other rows of blocking.
8. Note that limitation in joist spacing applies when using 5/4” (32 mm) deck products.
9. Deck joists and beam material are based on use of No. 1 and No. 2 spruce, pine or fir.

Diagram 4: Helical pier



Alternate footing in the form of Helical Piers. In all cases a registered professional engineer skilled in such design and licensed to practice under the appropriate provincial or territorial legislation must determine the number and spacing of the auger-installed steel piles required to carry all the loads. A signed and sealed certificate attesting to the conformity of the installation and the allowable loads for the piles must be provided by the engineer to the authority for every project.

Township of Springwater – **SAMPLE DRAWING – SITE PLAN**

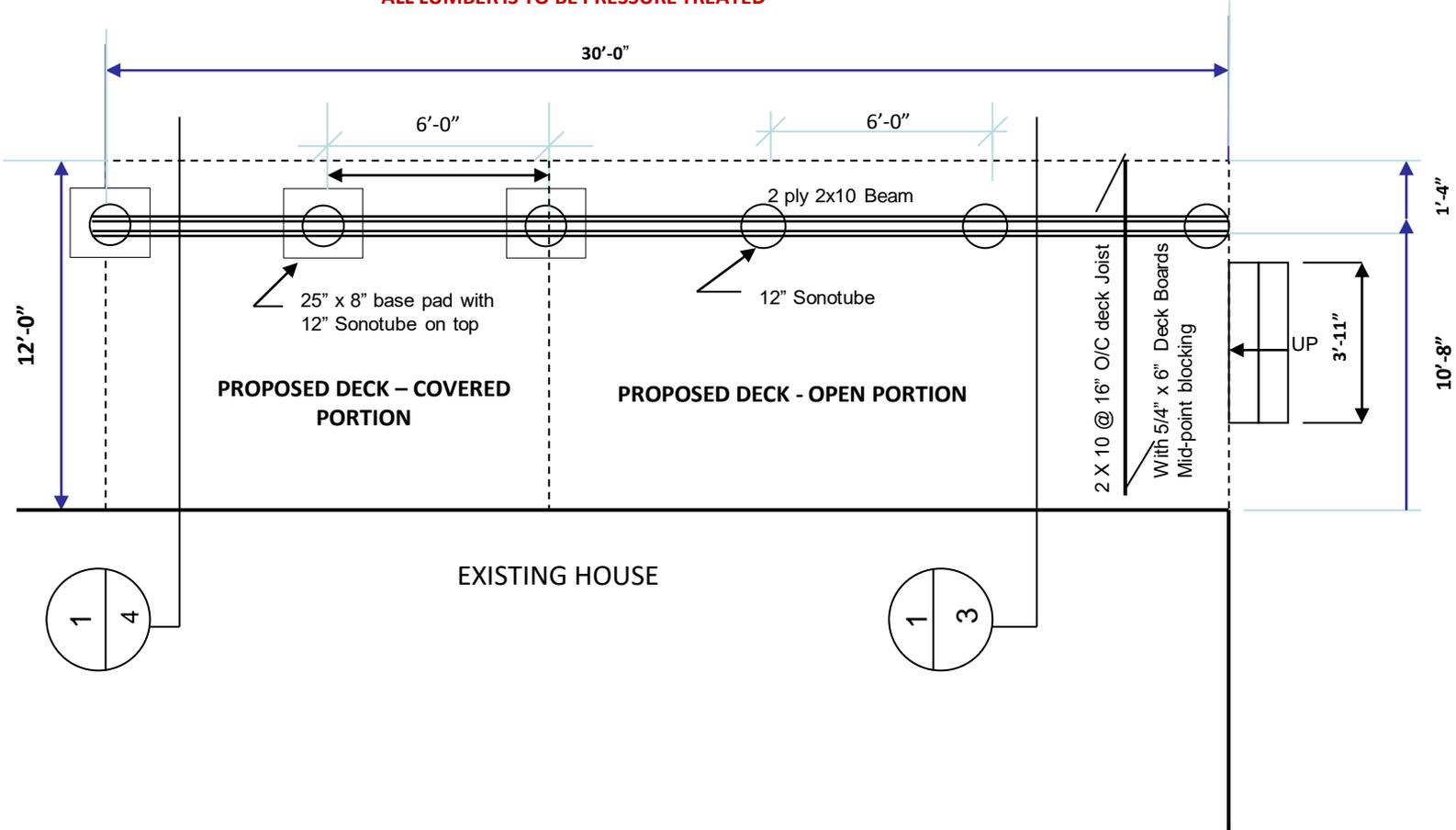


SPRINGWATER TRAIL

Drawing Name: DECK SITE PLAN (ATTACHED DECK)
Location: 71 Springwater Road
Designer: Name & BCIN **Firm BCIN:** Company Name and BCIN
Date Designed: March 31, XXXX **Scale:** NOT TO SCALE

Township of Springwater – SAMPLE DRAWING – ATTACHED DECK

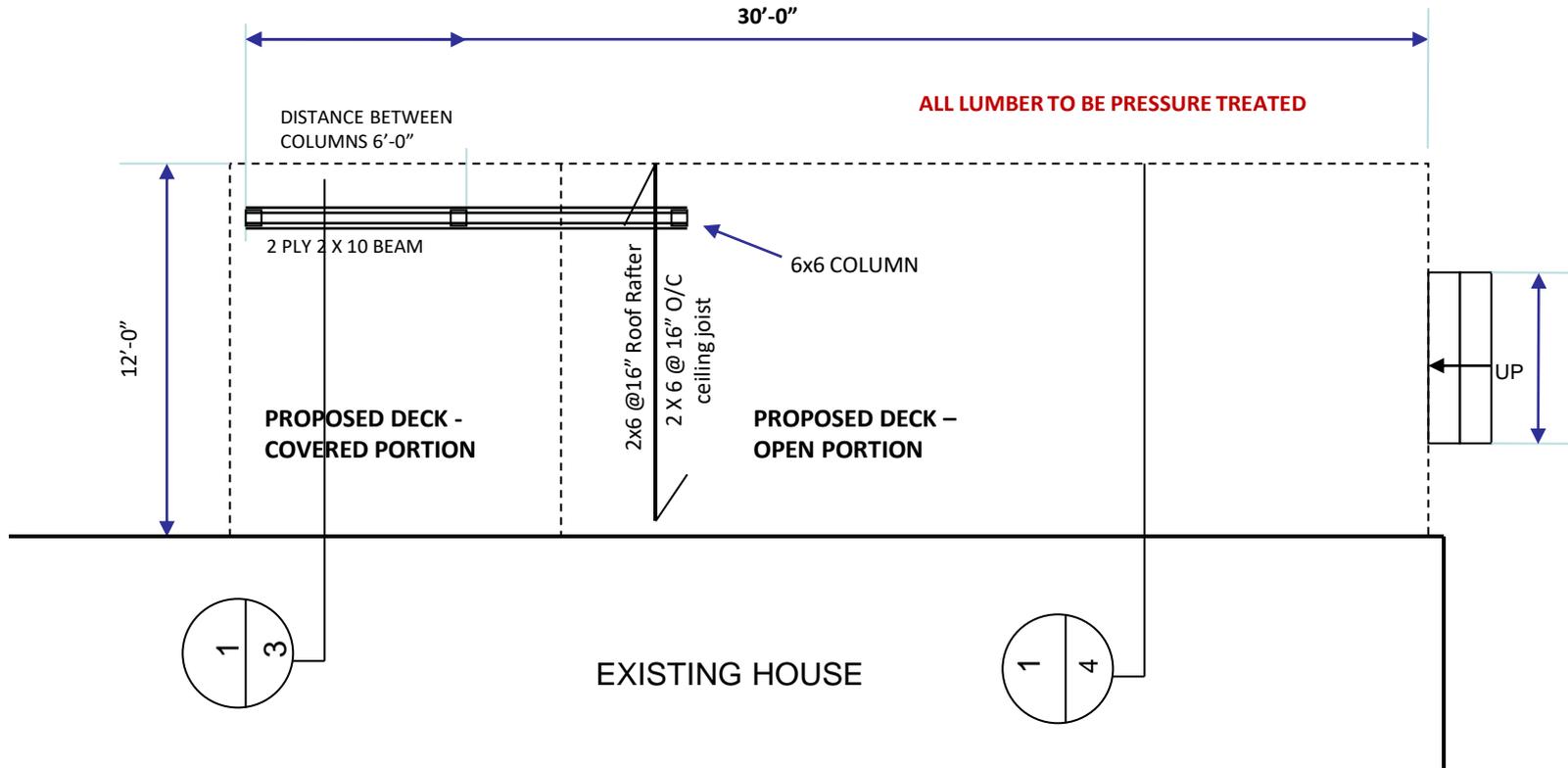
ALL LUMBER IS TO BE PRESSURE TREATED



Designer name
 Designer address
 Designer contact information

Drawing Name: DECK FLOOR FRAMING PLAN (ATTACHED DECK)
Location: 71 Springwater Road
Designer: Name & BCIN **Company:** Name and BCIN
Date Designed: March 31, XXXX **Scale:** NOT TO SCALE

Township of Springwater – SAMPLE DRAWING – ATTACHED DECK

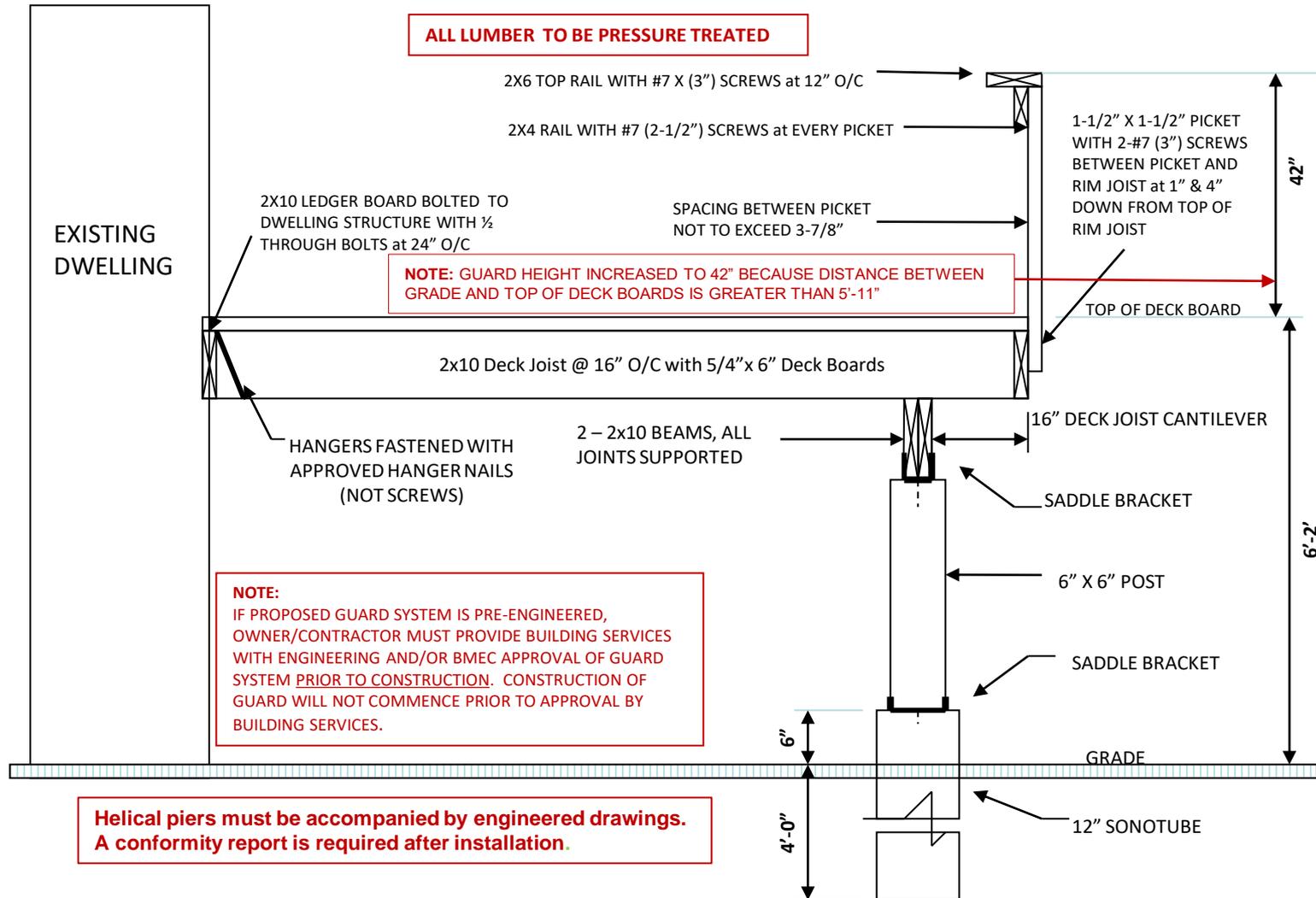


Designer name
 Designer address
 Designer contact information

Page 2 of 5

Drawing Name: COVERED DECK ROOF FRAMING PLAN (ATTACHED)
Location: 1000 Springwater Rd. **Site 12**
Designer: Name & BCIN **Firm BCIN:** Company Name and BCIN
Date Designed: March 31, XXXX **Scale:** NOT TO SCALE

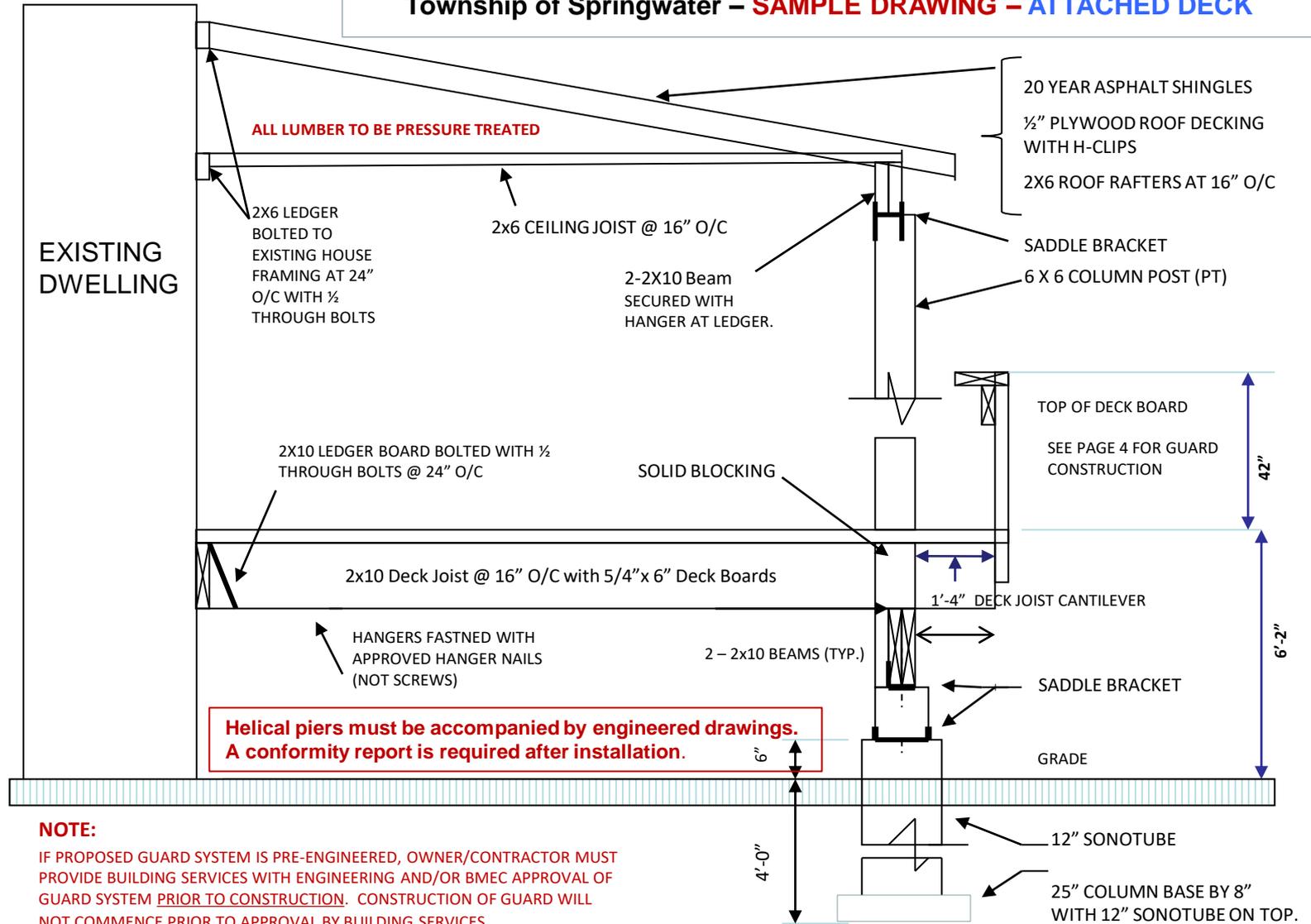
Township of Springwater – SAMPLE DRAWING – ATTACHED DECK



Designer name
 Designer address
 Designer contact information

Drawing Name: DECK CROSS SECTION PLAN (DETACHED DECK)
Location: 71 Springwater Rd.
Designer: Name & BCIN **Firm BCIN:** Company Name and BCIN
Date Designed: March 31, XXXX **Scale:** NOT TO SCALE

Township of Springwater – SAMPLE DRAWING – ATTACHED DECK



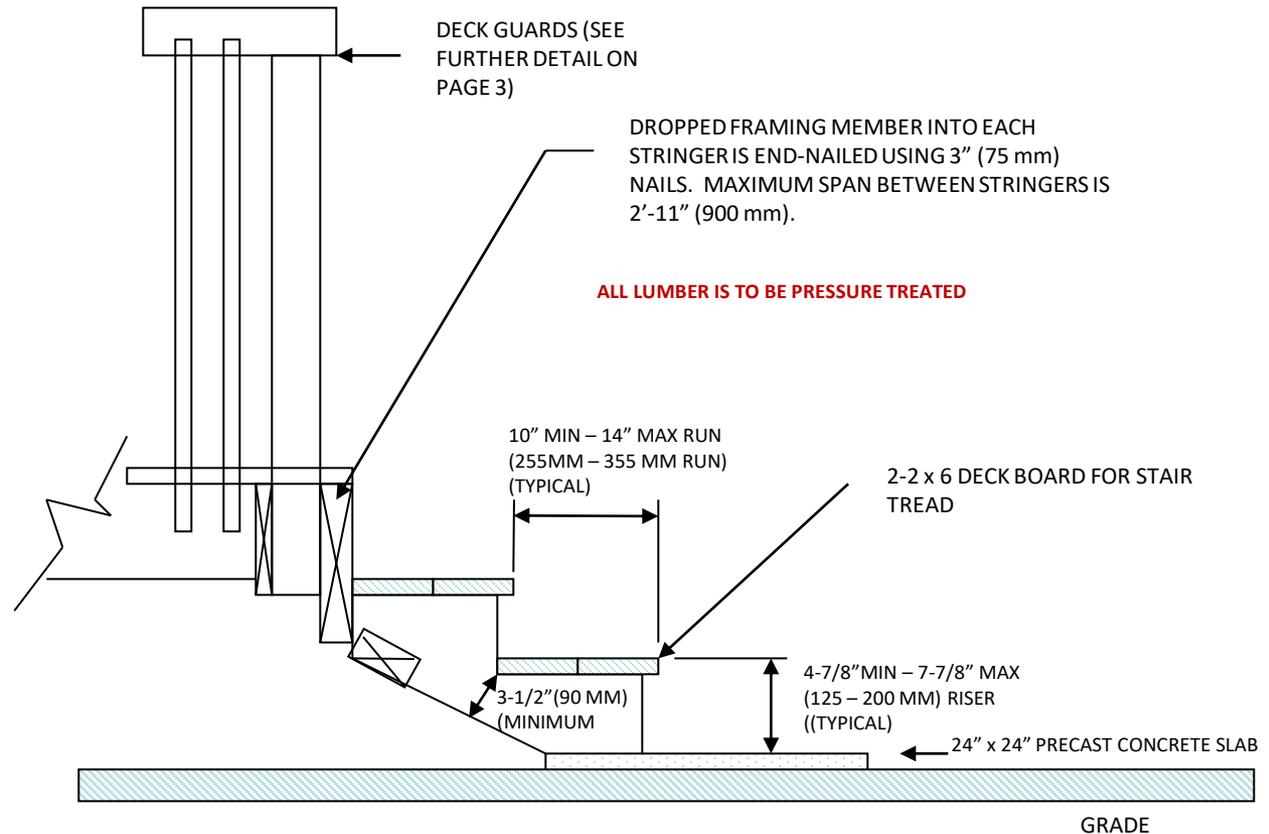
NOTE:

IF PROPOSED GUARD SYSTEM IS PRE-ENGINEERED, OWNER/CONTRACTOR MUST PROVIDE BUILDING SERVICES WITH ENGINEERING AND/OR BMCC APPROVAL OF GUARD SYSTEM PRIOR TO CONSTRUCTION. CONSTRUCTION OF GUARD WILL NOT COMMENCE PRIOR TO APPROVAL BY BUILDING SERVICES.

Designer name
 Designer address
 Designer contact information

Drawing Name: COVERED DECK CROSS SECTION PLAN (ATTACHED)
Location: 71 Springwater Rd.
Designer: Name & BCIN **Firm:** BCIN Company Name and BCIN
Date Designed: March 31, XXXX **Scale:** NOT TO SCALE

Township of Springwater – **SAMPLE DRAWING** – **ATTACHED DECK**



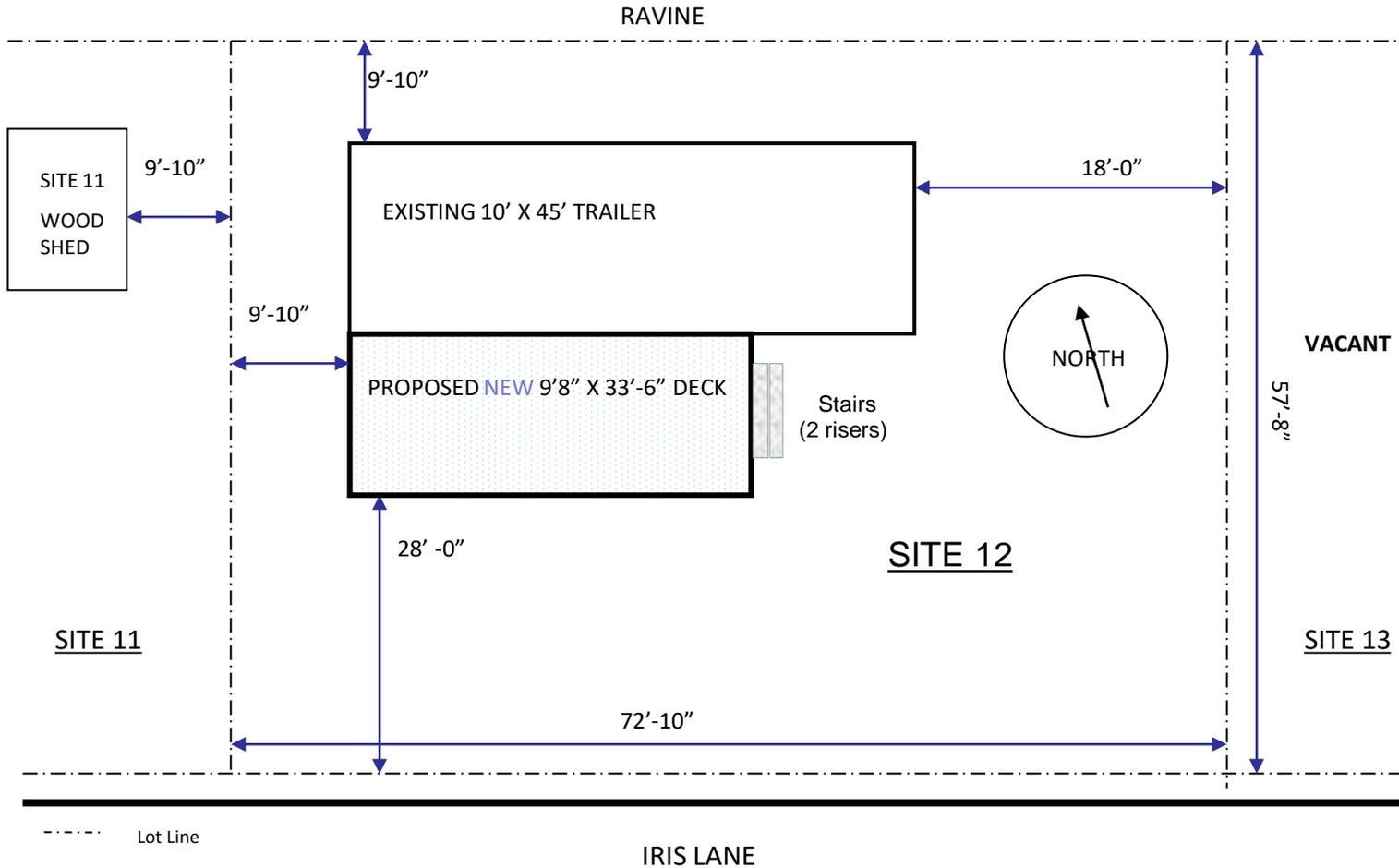
NOTES:

- 1: Stringer minimum over all depth, not less then 9-1/4" (235 mm)..
2. Risers and Treads shall have uniform dimensions in any flight.
3. Stingers required every 2'11" (900 mm) width.

Designer name
 Designer address
 Designer contact information

Drawing Name: STAIR SECTION (ATTACHED DECK)
Location: 71 Springwater Rd.
Designer: Name & BCIN **Company:** Name and BCIN
Date Designed: March 31, XXXX **Scale:** **NOT TO SCALE**

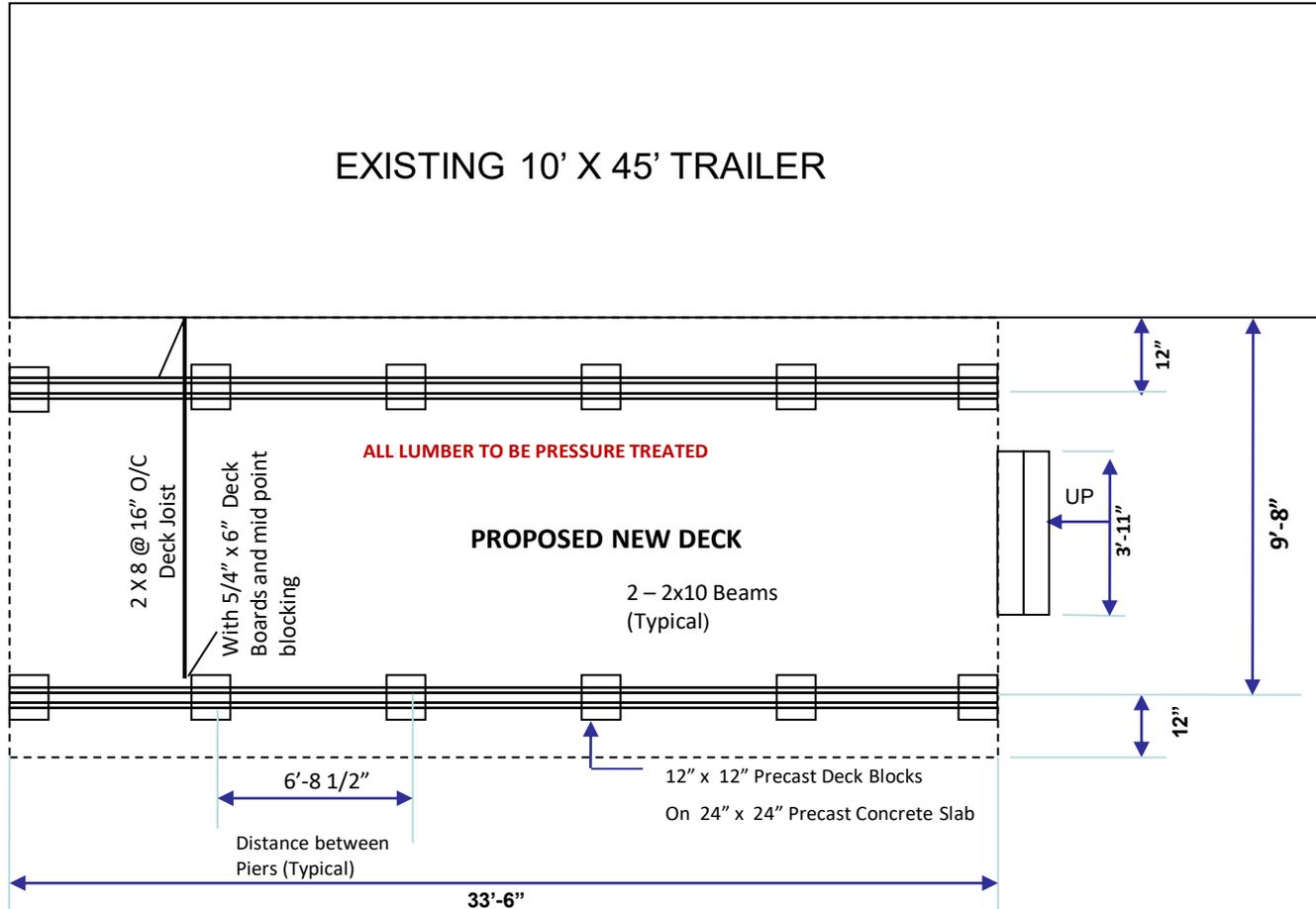
Township of Springwater – **SAMPLE SITE PLAN – DETACHED DECK**



Designer name
 Designer address
 Designer contact information

Drawing Name: **DECK SITE PLAN (DETACHED DECK)**
Location: 1000 Springwater Rd. **Site 12**
Designer: Name & BCIN **Firm BCIN:** Company Name and BCIN
Date Designed: March 10, XXXX **Scale:** NOT TO SCALE

Township of Springwater – **SAMPLE DRAWING – DETACHED DECK**



Designer name
 Designer address
 Designer contact information

Drawing Name: DECK FLOOR PLAN (DETACHED DECK)
Location: 1000 Springwater Rd. Site 12
Designer: Name & BCIN **Firm BCIN:** Company Name and BCIN
Date Designed: March 10, XXXX **Scale:** NOT TO SCALE

Township of Springwater – SAMPLE DRAWING – DETACHED DECK

ALL LUMBER TO BE PRESSURE TREATED

NOTE:

OWNER/CONTRACTOR TO PROVIDE BUILDING SERVICES WITH ENGINEERING/BMEC APPROVAL OF GUARD SYSTEM IF PRE-ENGINEERED SYSTEM IS BEING PROPOSED, **PRIOR TO CONSTRUCTION**. CONSTRUCTION OF GUARD WILL NOT COMMENCE PRIOR TO APPROVAL BY BUILDING SERVICES.

2X6 TOP RAIL WITH #7 X (3") SCREWS @ 12" O/C

2X4 RAIL WITH #7 (2-1/2") SCREWS @ EVERY PICKET

SPACING BETWEEN PICKETS NOT TO EXCEED 3-7/8"

1-1/2" X 1-1/2" PICKET WITH 2-#7 (3") SCREWS BETWEEN PICKET AND RIM JOIST

2x8 Deck Joist @ 16" O/C with 5/4"x6" Deck Boards

12" Deck Joist Overhang

2 – 2x10 Beams (Typ.)

12" x 12" Precast Deck Blocks on 24" x 24" Precast Concrete Pad (Typ)

Top of Deck Board

12" Deck Joist Overhang

GRADE

2'-11"

2'-2"

EXISTING TRAILER

Designer name
Designer address
Designer contact information

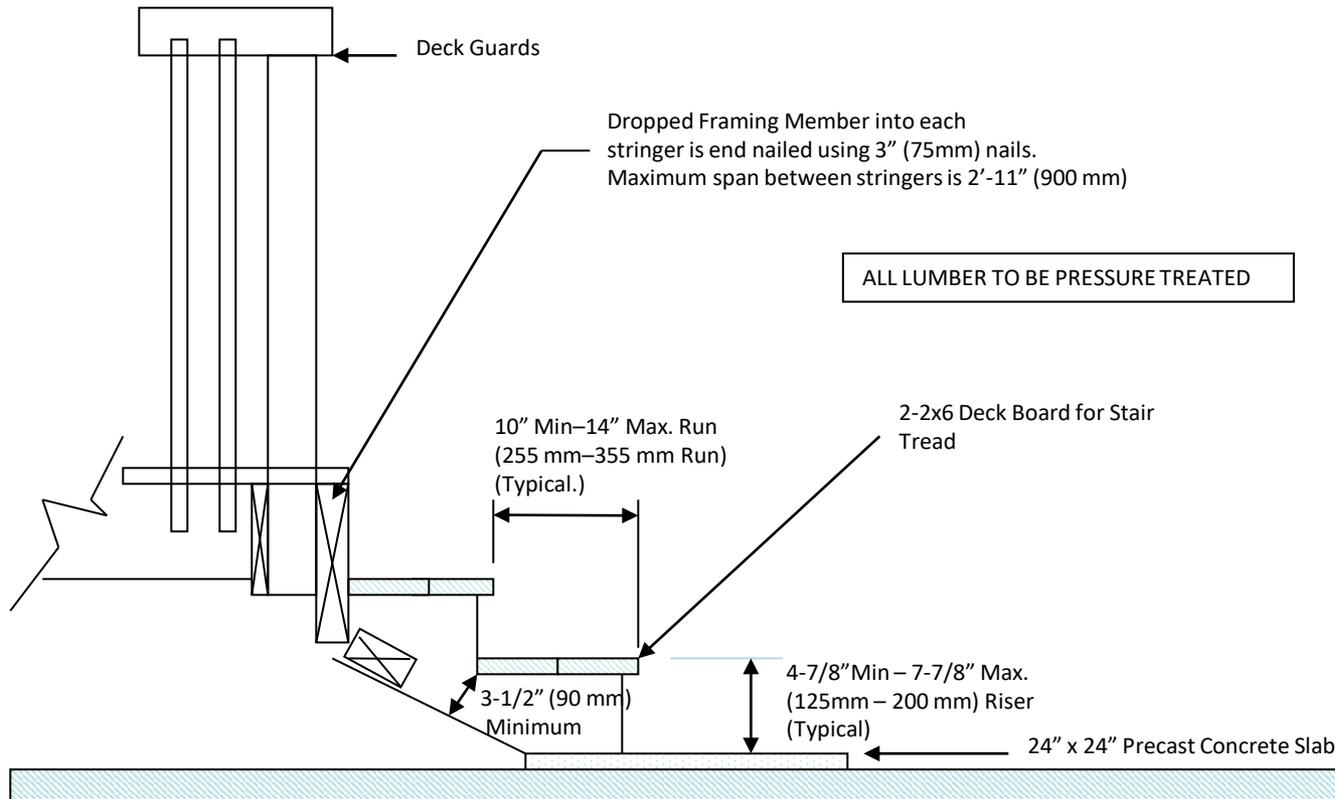
Drawing Name: DECK CROSS SECTION PLAN (DETACHED DECK)

Location: 1000 Springwater Rd. Site 12

Designer: Name & BCIN **Firm BCIN:** Company Name and BCIN

Date Designed: March 10, XXXX **Scale:** NOT TO SCALE

Township of Springwater – **SAMPLE DRAWING – DETACHED DECK**



NOTE:

1. Stringer minimum over all depth, not less than 9-1/4" (235 mm)
2. Risers and treads shall have uniform dimensions in any flight.
3. Stringers required every 2'11" (900 mm) width.

Designer name
 Designer address
 Designer contact information

Drawing Name: **DECK STAIR SECTION PLAN (DETACHED DECK)**
Location: 1000 Springwater Rd. **Site 12**
Designer: Name & BCIN **Firm BCIN:** Company Name and BCIN
Date Designed: March 31, XXXX **Scale:** NOT TO SCALE