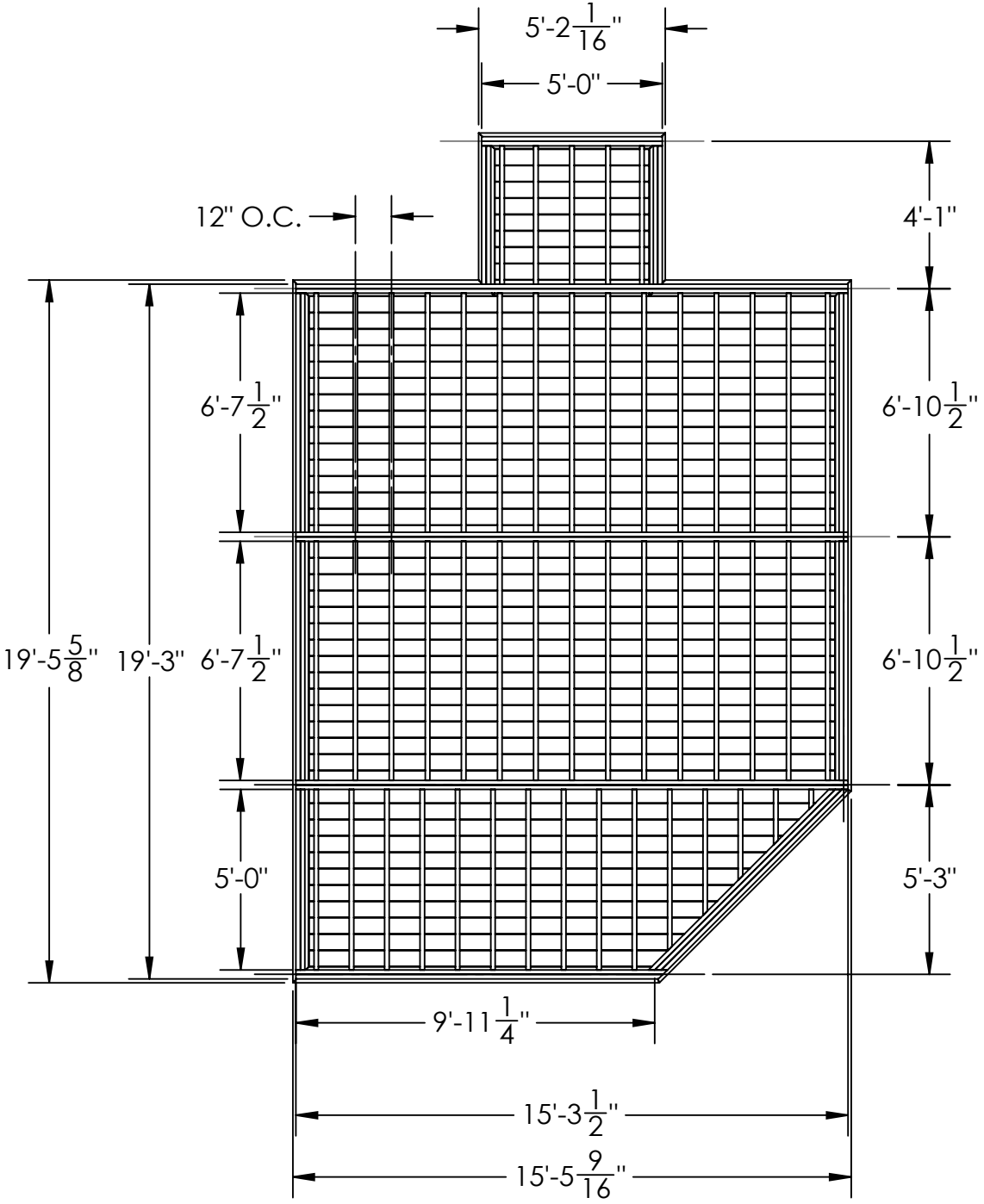

Design load: 40psf live, 10psf dead.

1. All framing to be 2x10 PT SYP #2 or better, with two-ply built-up beams. Beam nailing schedule on beam build-up detail page.

2. Beams to be secured directly to elevated post bases (Simpson Strong-Tie EPB44PHDG) epoxied in piers; beams sitting 2" from pier. 1/2" marine plywood shim to fill post footprint.

3. All hardware and fasteners to be hot-dipped galvanized or stainless steel. All cut ends to be treated with copper-based ground-contact suitable wood preservative.

4. All joists and beams to be covered on top with Vycor Deck Protector joist tape or similar.

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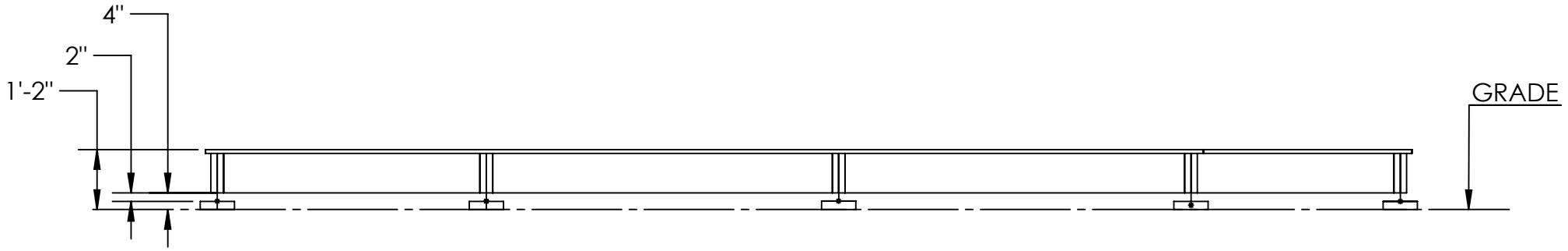
20x16 backyard deck
(freestanding)

Side Projection



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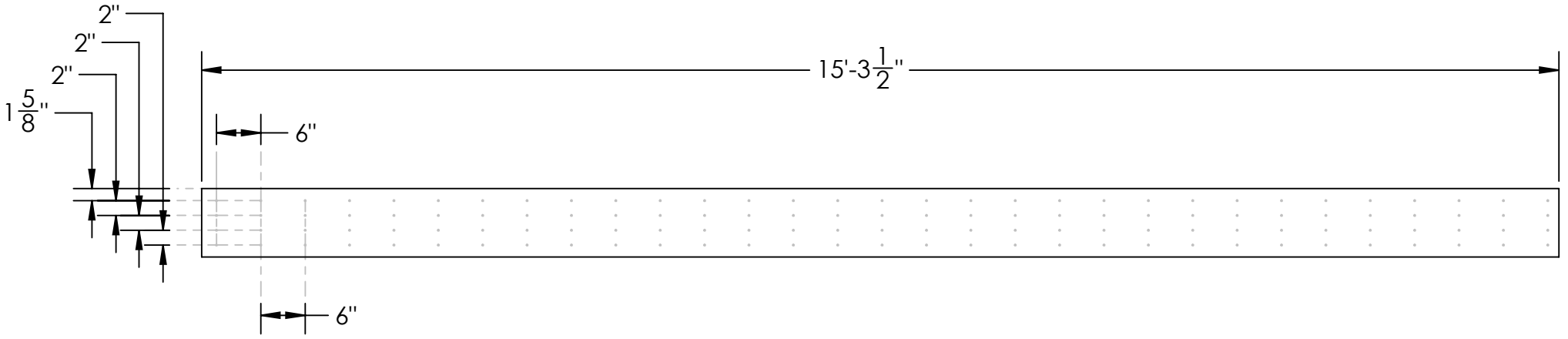
Beam Nailing Schedule/Build Up



1. Four 10d common nails per row, across the width.
2. Within row, nails spaced 2" from each other.
3. Within row, nails spaced 1 5/8" from edge of member.
4. First and last vertical row within 2" of end of beam.
5. Each row spaced 12" O.C. per side.
6. Nailed from both sides with 6" offset.
7. Effective spacing of 6" O.C. down length of beam.
8. Bead of premium outdoor constructive adhesive applied in zig-zag pattern between both plys. (Loctite PL400 Subfloor/Deck Adhesive or similar.)

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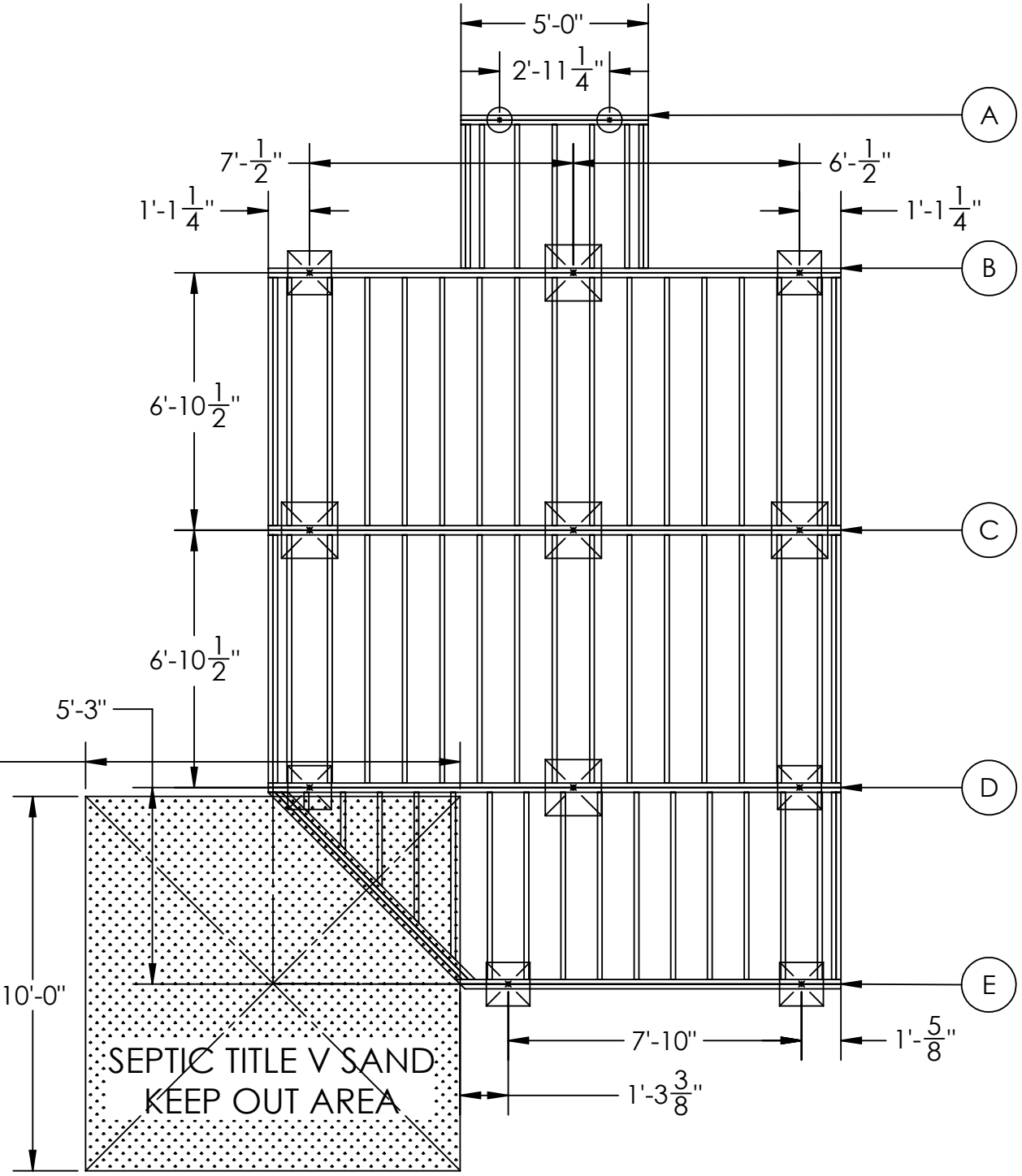

Pier/Footing Schedule

All piers 8" diameter, extending 2" from grade. All footings 6" thick, buried 12" deep on top of 4" of compacted gravel.

From left to right, footing sizes as follows:

Beam A: 8" round, 8" round
Beam B: 14" square, 18" square, 14" square
Beam C: 18" square, 18" square, 18" square
Beam D: 14" square, 18" square, 14" square
Beam E: 14" square, 14" square

Bearing capacity for various footing sizes on *General Calculations* page.

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General Calculations

Concrete Piers (assumes 1500psf soil)

10" circular footing/pier
- 0.35 sq. ft. bearing area
- ~85lbs dead load at 14" height
- bearing capacity of ~733lbs after concrete dead load

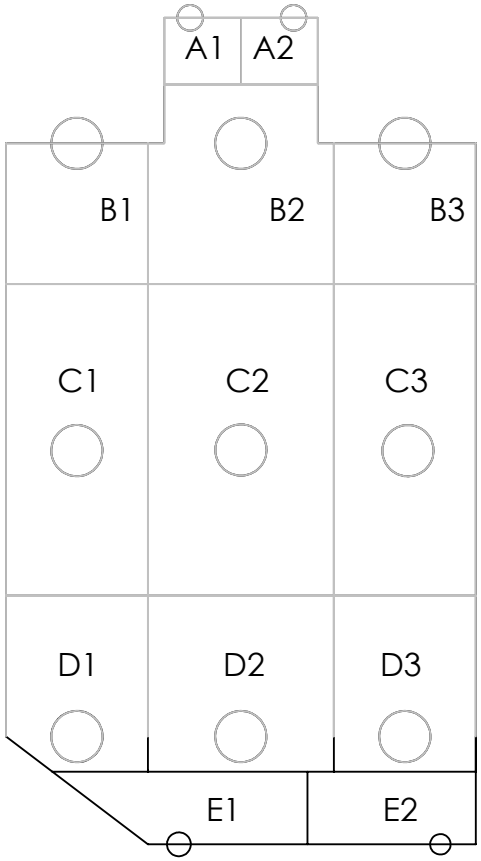
14" square footing w/ 10" circular pier
- 1.36 sq. ft. bearing area
- ~139lbs dead load at 14" height
- bearing capacity of ~1902lbs after concrete dead load

18" square footing w/ 10" circular pier
- 2.25 sq. ft. bearing area
- ~200lbs dead load at 14" height
- bearing capacity of ~3175lbs after concrete dead load

Tributary Areas and Loads (based on design load)

Calculated dead load(deck only): ~7psf
Footing capacity safety margin: 20%

A1: 5.5 sq. ft, 225lbs load (10")
A2: 5.5 sq. ft., 225lbs load (10")
B1: 20 sq. ft., 1000lbs load (14")
B2: 29 sq. ft., 1450lbs load (18")
B3: 18 sq. ft., 900lbs load (14")
C1: 39 sq. ft., 1950lbs load (18")
C2: 45 sq. ft., 2250lbs load (18")
C3: 36 sq. ft., 1800lbs load (18")
D1: 26 sq. ft., 1300lbs load (14")
D2: 40 sq. ft., 2000lbs load (18")
D3: 32 sq. ft., 1600lbs load (14")
E1: 15 sq. ft., 750lbs load (14")
E2: 13 sq. ft., 650lbs load (14")



(Drawing/placements not to scale)

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20x16 backyard deck
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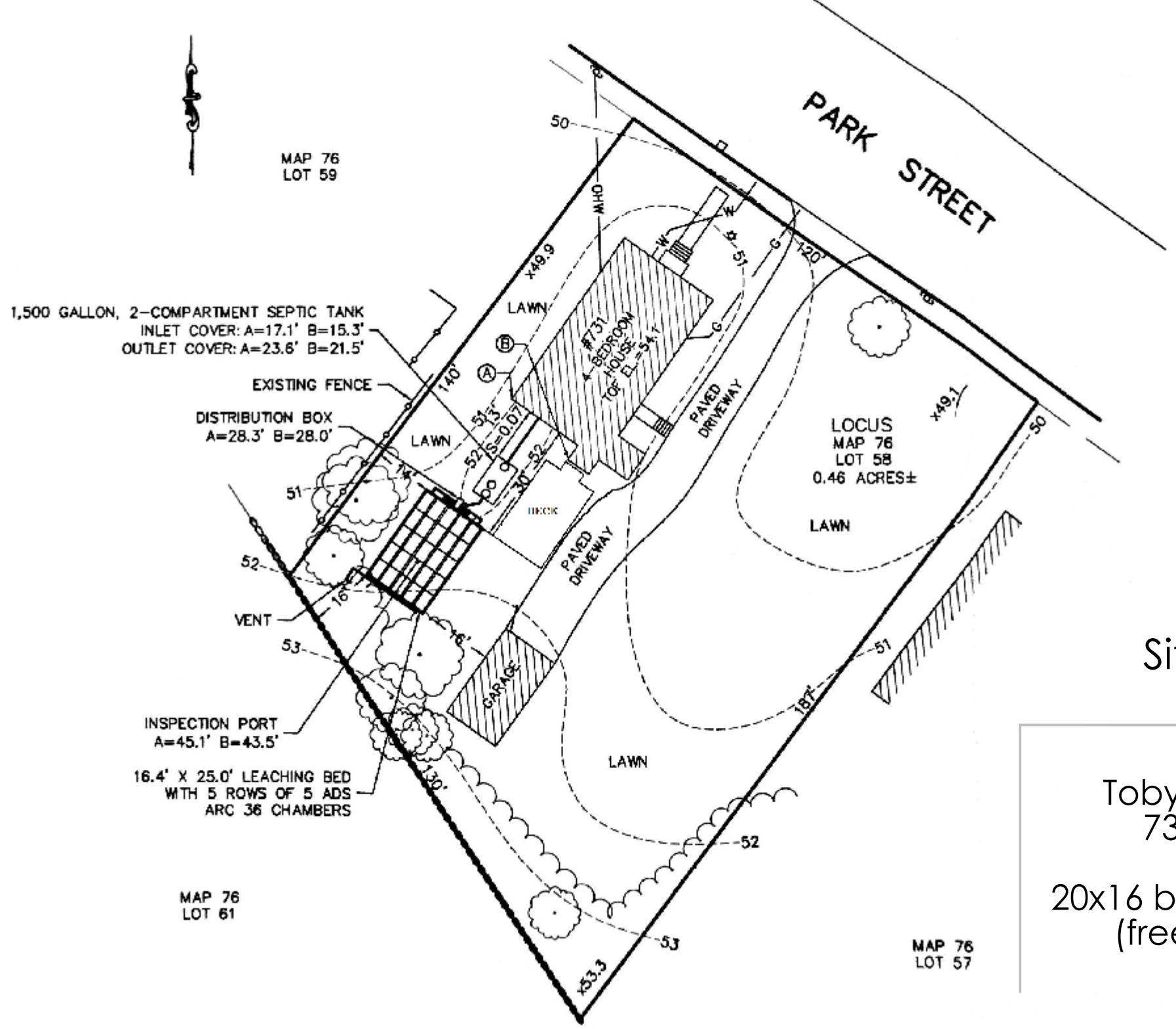

Site Plan

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