

# SS - Structural Layout

## Tips:

- About reading the program and drawing it accurately, reading comprehension. No extra credit for designed solutions.
- The vignette on the exam should be similar to the practice exam.
- Practice and become proficient and efficient with the software, and the behaviors of the objects.
- Sketch lines are not graded

## Site Zoning

### Tips:

- Column and Joist solutions are simpler than bearing wall and line
- Draw the right elements on the right level
- Columns support beams > beams support joists > joists support decking
- Maximum span for beams = 40'-0"
- Maximum span for joists = 30'-0"

### Steps:

1. Turn on all layers to get an understanding of the space you are framing out. Observe dimension to gain an idea of spans, and identify areas with specialty conditions
2. Start on the lower floor first insert columns at corners, add additional columns as necessary based on advisable limits.
3. Draw continuous beams connecting the columns, this should be done in the "long" direction
4. Draw joists, typically in the short direction, verify spacing against program requirements
5. Draw decking perpendicular to the joists
6. Draw any additional beams supporting upper walls
7. Repeat for second level area, ensuring that all columns carry through to the first floor.
8. Verify design with program, and double check alignment and accuracy

Disclaimer: These steps have been assembled using best practices for the vignette section. They are not endorsed by NCARB, or do they guarantee a passing score. Use is at your own discretion.